2016

Community Health Needs Assessment

Jane Phillips Medical Center

Washington County, Oklahoma

JANE PHILLIPS MEDICAL CENTER

PREPARED BY
Jane Phillips Medical Center
St. John Health System

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EXECUTIVE SUMMARY

Meeting the healthcare needs of the community lies at the heart of the St. John mission. St. John Health System is dedicated to improving the health of the communities we serve, especially those most vulnerable among us. In order to ensure our efforts will impact the health of our communities, St. John Health System recognizes the importance of following a systematic approach to understanding community needs and to develop strategic plans for addressing identified needs. Accordingly, St. John Health System conducts community health needs assessments of the communities we serve every three years. This assessment of community health needs and assets identifies the significant health needs and provides reference for the organization's response to those needs. This response is otherwise known as an implementation strategy or community health improvement plan. Together, community health assessments and implementation strategies work to align organizational initiatives, programs, and activities to improve the health of the communities we serve.

The importance of assessing community health needs and developing an implementation strategy to address prioritized needs was reinforced by the passage of the Patient Protection and Affordable Care Act (Affordable Care Act, ACA) in 2010. The ACA requires not-for-profit 501(c) (3) healthcare organizations to satisfy certain requirements in order to remain tax-exempt. In order to comply with federal tax-exemption requirements, a tax-exempt hospital facility must conduct a community health needs assessment every three years and adopt an implementation strategy to meet the community health needs identified through the assessment.

Community health needs assessments are powerful tools possessing the potential to be catalysts for immense community change. Community health needs assessments help to identify the most pressing needs and assets of our communities, build relationships with community partners, and direct resources where they are most needed. Through collaboration with community partners, this community-driven process has the potential to enhance program effectiveness, leverage limited resources, and strengthen communities.

St. John Health's System's six northeastern Oklahoma member hospitals (St. John Medical Center, St. John Broken Arrow, St. John Owasso, Jane Phillips Medical Center, Jane Phillips Medical Center, and Jane Phillips Nowata Health Center) conducted the first set of community health needs assessments during the 2013 fiscal year. Over the past three years the health system and its member hospitals have worked to address a set of prioritized health needs based on actions outlined in the implementation strategy plans.

The recurring process of updating assessments and implementation strategies reflects changes in the health of the communities we serve over time and helps to ensure ongoing improvement efforts are based on the needs of our communities. An updated set of community health needs assessments were conducted by St. John Health System's six northeastern Oklahoma hospitals during the 2016 fiscal year. Each hospital also developed an implementation strategy in response to priority health needs identified in their community health needs assessment to be addressed during the 2017-2019 fiscal years. The first set of community health needs assessments and implementation strategies provided a baseline and historical perspective related to some of the same elements assessed in 2016.

The findings of each hospital's 2016 community health needs assessment have been compiled in written summary reports. This publication provides a comprehensive analysis of the health needs and assets of the community served by one of St. John Health System's member hospitals, Jane Phillips

Medical Center. For the purposes of this assessment, Jane Phillips Medical Center's community is defined as Washington County, Oklahoma.

OBJECTIVES

The objectives of Jane Phillips Medical Center's community health needs assessment are to:

- Increase the understanding of the health needs and assets of our community;
- Build capacity through partnership development and collaboration;
- Align and integrate population health and community health improvement goals with other strategic priorities of Jane Phillips Medical Center and St. John Health System;
- Strengthen the role of the hospital and health system as we work to address community health needs;
- Ensure our efforts will impact the health of the communities we serve, especially those among us who are most vulnerable; and
- Fulfill Internal Revenue Service regulations related to 501(c) (3) non-profit hospital status for federal tax-exemption.

DEFINING THE COMMUNITY SERVED

The definition of the community served by the hospital provided the foundation on which our assessment and subsequent implementation strategy decisions were made. In defining the community served by Jane Phillips Medical Center, the following was taken into consideration:

- General geographic area
- Geopolitical definitions
- Primary and regional service areas
- Patient population
- Areas and populations served by the hospital's community benefit programs
- Opportunity areas- geographic areas encompassing at-risk, vulnerable, and/or underserved populations
- Availability of health information and data

For the purposes of this assessment, the community served by Jane Phillips Medical Center includes all of Washington County, Oklahoma. Jane Phillips Medical Center is based out of the city of Bartlesville. Accordingly, the city serves as Jane Phillip's Medical Center's primary area of focus within the Washington County community. An effort was made to focus on the community health needs and assets specific to this region as well as Washington County as a whole. Community health improvement efforts as a result of this assessment will primarily center on the city of Bartlesville. Our efforts will also extend to other cities and towns within Washington County based on lessons learned through our work with the Bartlesville community.

WASHINGTON COUNTY-OKLAHOMA

Washington County's population is similar to the statewide population. Along with the rest of the state and nation, the population is going through a major demographic shift, both in terms of age and race/ethnicity. Older age groups have captured a greater relative share of the population over the past

several decades, while the share represented by children has declined. Tulsa County's overall population is becoming increasingly diverse racially, but the trend is most evident among children.

In 2015, Oklahoma ranked 45th in the nation in health according to the United Health Foundation's *America's Health Rankings* (2016).[13] The following information demonstrates the identified health strengths, challenges, trends, and achievements experienced by the state:

Strengths:

- High immunization coverage among children
- High influenza and pneumonia vaccination rates among seniors
- Small disparity in health status by education level
- Though rates are still high, some recent improvement in infant mortality rate
- A number of statewide and local initiatives working to improve health outcomes

Challenges:

- High prevalence of obesity
- High rate of cardiovascular deaths
- Limited availability of primary care physicians
- Insufficient number of psychiatrists
- Limited medical and behavioral health care access results in significant health impacts
- High rate of suicide deaths
- High rates binge drinking and alcohol related motor vehicle deaths
- Low rates of fruit and vegetable consumption
- High rates of preventable hospitalizations
- High rates of infant mortality and no or late first trimester prenatal care
- Poor dental care access and health in some areas
- High prevalence of current smoking

In addition, the following indicators have experienced considerable changes:

- From 2014-2015, disparity in health status by education level decreased 22% from 32.1% to 25.1%
- From 2014-2015, smoking decreased 11% from 23.7% to 21.1% of adults.
- Oklahoma had a nearly 50 percent increase in death due to unintentional injuries from 2000 to 2012
- In the past 5 years, preventable hospitalizations decreased 29% from 88.7 to 62.6 per 1,000 Medicare beneficiaries.
- In the past 20 years, low birth weight increased 21% from 6.7% to 8.1% of live births.
- In the past 10 years, children in poverty increased 77% from 14.1% to 25.0% of children
- Oklahoma's mortality rate dropped 5% percent over the past 20 years while the U.S. mortality rate dropped 20 %[13]
- The uninsured rate in Oklahoma decreased by 5% since 2013 prior to the open enrollment period (the 2016 uninsured rate in the state is 15%)

Oklahoma continues to rank near the bottom in multiple key health status indicators. Many of these outcomes are related to conditions that Oklahomans must live with every day. Poverty, lack of insurance, limited access to primary care, and inadequate prenatal care, along with risky health behaviors associated

with these determinants, such as low fruit/vegetable consumption, low physical activity, and a high prevalence of smoking contributes to the poor health status of our citizens. Diabetes, hypertension, obesity, physical activity and nutrition, and tobacco use are risk factors associated with heart disease and cancer, the leading causes of death in Oklahoma. Perhaps the most disturbing revelation about the state's health is that Oklahoma continues to be significantly behind the nation in terms of decreases in mortality rate.

Greater socioeconomic need and health impacts are found among certain populations and geographic areas. Disparities in educational attainment are also found across Oklahoma. These areas and populations with high socioeconomic need are also the most affected by health problems, as evidenced by significantly worse health outcome measures, higher hospitalization rates, and myriad health challenges. While Oklahoma has relatively good health insurance coverage, some lower resourced Oklahomans remain uninsured. Oklahoma residents with a disability are also more likely to live in poverty than the general population, which puts them at further disadvantage to accessing needed care and services.

Access to health care is challenging in many counties due to shortages of primary and specialty care. Access challenges also exist for those with no or limited insurance, cultural differences, or complicated needs. Federally designated underserved areas and populations cover nearly the entirety of Oklahoma. Unmet behavioral health, chronic disease management needs, health education and literacy needs, economic development, and healthy behavior supports are recurring themes supported by secondary data review and community input. Addressing the medical and mental health shortage areas and increasing individual and population level access to medical and community care are important needs in Oklahoma.

Similar to the state, Washington County ranks poorly in multiple key health status indicators. According to the *2016 County Health Rankings* Washington County ranked 17th out of 77 counties in Oklahoma in regard to health outcomes. This ranking is based on two types of measures: how long people live (length of life) and how healthy people feel while alive (quality of life).[7] In the Oklahoma State Department of Health's 2014 *State of the State's Health Report*, ranked Washington County as 12th (best) in the state for age-adjusted total mortality, with the leading causes of death of heart disease, cancer, stroke, chronic lower respiratory disease, and unintentional injury. Other indicators to note are as follows:

- Washington County had the 2nd best rate in the state for deaths attributed to diabetes in 2014 and the rate of deaths due to diabetes declined by 49% from 2013-2014
- In 2014, Washington County ranked 11th in the state for infant mortality and the infant mortality rate dropped 29% from 2013-2014
- The percentage of babies born at a low birth weight decreased by 7% from 2013-2014
- In 2014, approximately 1 in 5 adults reported 4+ days of poor physical health (21%) and 4+ days of poor mental health (20%) in the previous month.

According to the *2016 County Health Rankings*, Washington County ranked 8th out of 77 counties in regard to health factors.[7] This ranking is based on four types of measures: social and economic factors, clinical care, health behaviors, and physical environment. The following indicators are of significance to note:

Clinical Care:

- In 2014, Washington County had the lowest (best) rate of preventable hospitalizations in the state

- The rate of uninsured adults dropped by 22% from 2013-2014
- The uninsured rate for the total population in Washington County decreased 5% from 2013-2015

Health Behaviors and Risk Factors:

- In 2014, approximately, 1 in 6 adults reported 3+ days of limited activity in the past month (15%).
- Washington County ranked high in minimal fruit consumption (48.6%) and vegetable consumption (24.8%) in 2014
- In 2012, 29.4% of Washington County residents were obese and 44.8% were overweight

Socioeconomic Factors:

- In 2014, 1 in 6 people (15%) in Washington County lived in poverty
- The overall unemployment rate in 2016 was 4.3% for the population 16 and older
- In 2010-2014, the percent of the population 25 and older with no high school diploma was 10.12% and the percent of the population 25 and older with an associate's degree or higher was 34.04%

Physical Environment:

- Washington County ranked 14th out of 77 counties in Oklahoma for physical environment (air and water quality, housing conditions, and transportation) in 2015[7]

The continuing impact of social determinants of health, health disparities, and health inequity is evident in our community's health outcomes and well-being. There is undoubtedly much work to do to improve the health of our county and state. However, it is equally important to look at our strengths and achievements.

IDENTIFYING COMMUNITY HEALTH NEEDS: METHODOLOGY

This community health needs assessment is a systematic, data-driven approach to determining the health status, behaviors, and needs of residents in Washington County. Community health needs and assets for Washington County were determined using a combination of secondary and primary data (community input). Data contained in this assessment were obtained through multiple sources and methods designed to gather both qualitative and quantitative information. Data collection methods and sources used in this assessment include the following:

- Comprehensive review of secondary data sources
- Survey of Washington County residents
- Community input survey of Washington County Wellness Initiative workgroup members
- Input from community leaders and representatives
- Input from the public health workforce and local coalitions/partnerships
- Input from the health's system's Community Health Needs Assessment (CHNA) Advisory Group and leadership

Our Approach

Central to our efforts to improve the health of individuals and communities is our focus on promoting health and wellbeing of all persons, and a commitment to health equity and eliminating barriers to good health. Our assessment took into account the following:

- A multitude of factors or health determinants influence the health of our community;
- A commitment to assess and address the four determinants of health: clinical care, health behaviors, physical environment, and socioeconomic factors;
- Addressing health disparities, health equity, and social determinants of health through community building and improvement initiatives is an important component of improving the health of the community;
- Our health and well-being are products of not only the health care we receive, but also the places where we live, learn, work, and play;
- Zip codes can mean more to health than genetic codes;
- A focus on identifying geographic areas of greatest need helps to better understand at-risk and vulnerable populations;
- The importance of incorporating information on the health and well-being of priority populations, or those most in need;
- Working together has a greater impact than working alone; and
- Engaging the community and joining forces with community stakeholders allows all involved to share in the experience of understanding community health needs and to work collaboratively with the communities we serve.

Priority Populations

Priority populations focused upon in this assessment included those most vulnerable among us. This includes, but was not limited to: persons living in poverty, children, pregnant women, older adults, uninsured and underinsured individuals, members of ethnic or minority groups, members of medically underserved populations, and otherwise vulnerable or at-risk populations.

Community Engagement & Collaboration

St. John Health System and Jane Phillips Medical Center, engaged the Washington County Health Department, the Washington County Wellness Initiative (WCWI), and a multitude of other community organizations to conduct this assessment of Washington County. The health system and Jane Phillips Medical Center worked closely with Washington County Health Department, the Washington County Wellness Initiative (WCWI), and these partners to conduct this assessment.

Central to this community assessment is a survey by the Washington County Wellness Initiative (WCWI) to obtain direct input from community members. The survey is referred to by the Washington County Wellness Initiative (WCWI) and community stakeholders as the *2015 Washington County Community Assessment.* A number of community stakeholders and local organizations were also engaged in our hospital community input meetings at Jane Phillips Medical Center on April 19, 2016. Workgroup members from the Washington County Wellness Initiative were also engaged to complete a community input survey in May 2016.

Secondary Data

The most current secondary data was reviewed for the purpose of providing a comprehensive overview of the community. A variety of non-governmental and governmental data sources were used including a broad set of indicators from local, state, and federal agencies. Indicators are measurements that summarize the state of health and quality of life in the community. County, state, and national level public health surveillance was an especially important source of secondary data. The Community Commons' (www.communitycommons.org) *Community Health Needs Assessment* served as the main secondary data source for this assessment. A number of data sources, information, and figures were also provided courtesy of several local, state, and national organizations.

In addition to general indicators of health status, this assessment includes indicators covering many of the social determinants of health. Measures that reflect the health and well-being of priority populations, or those most in need, were also included. Other data considerations included trends over time, county and state level rankings, benchmark comparisons at the state and national level, organizational needs and priorities, and disparities by age, gender, and race/ethnicity. Additionally, the Department of Health and Human Service's *Healthy People 2020* initiative goals were utilized as indicators for areas for improvement or success.

Primary Data – Community Input

Community input provides information and insights about the health and well-being of the community that cannot be obtained through secondary data alone. This assessment employed several methods of community input to yield the desired results. For the purposes of this assessment, community input was obtained through the following methods:

- Survey of 1,009 Washington County residents
- A hospital community input meeting with16 community members, leaders, and representatives
- A survey of 30 Washington County Wellness Initiative workgroup members
- Input from the public health workforce and local coalitions/partnerships
- Input from the health's system's Community Health Needs Assessment (CHNA) Advisory Group and leadership

Community input was solicited from diverse set of community stakeholders such as community members, community organizations, and the public health workforce. A variety of sources ensured that as many different perspectives as possible were represented while satisfying the broad interests of the community. Sources of community input for this assessment were as follows:

- Washington County residents who participated in the Washington County Wellness Initiative *2015 Washington County Community Assessment* survey
- Community leaders and representatives
- Local public health workforce and coalitions/partnerships
- Members and representatives of medically underserved, low-income, minority, at-risk, and otherwise vulnerable populations
- Washington County Wellness Initiative workgroup members
- Health system CHNA Advisory Group and leadership

Community stakeholders who provided community input represented a variety of community sectors including: community members, healthcare providers and services, non-profit agencies, community-based organizations, private businesses, education and academia, community developers, faith communities and faith-based organizations, government representatives, safety net service providers, economic and workforce development, the public health workforce, and other interest groups working with at-risk and vulnerable populations. This assessment especially focused on community input from those with special knowledge or expertise in public health as well as members and representatives of medically underserved, low income, minority, or otherwise vulnerable populations. Each offered critical strengths and insights on the health needs and assets of the community.

SIGNIFICANT COMMUNITY HEALTH NEEDS

Primary and secondary data were evaluated and synthesized to identify significant community health needs in Washington County. These needs span the following topic areas and are often inter-related:

- Diet, nutrition, and physical activity
- Weight and obesity
- Mental health and mental health disorders
- Chronic disease management
- Health education and literacy
- Access to health services, care coordination, and affordability
- Tobacco use
- Substance abuse
- Economic and social environment
- Children's health
- Child neglect/abuse
- Prevention and safety
- Aging problems and care
- Veteran's care
- Available public transportation
- Prevention and safety
- Health behaviors

PRIORITZATION PROCESS & PRIORITY HEALTH NEEDS

St. John Health System and Jane Phillips Medical Center called together hospital decision makers, community residents, community partners, and community leaders and representatives to prioritize the significant community health needs of Washington County considering several criteria: magnitude/severity of health; opportunity to intervene at a prevention level; circle of influence/ability to impact change; support from the community; and capacity to address underserved populations as well as populations deemed vulnerable. The following community health needs were selected as the top four priorities:

- ❖ Wellness and Chronic Disease Prevention

- Affordability and Access to Care
- Behavioral Health (mental health and substance abuse)
- Health Education and Literacy

CONCLUSION

This report describes the findings of a comprehensive health needs assessment for the residents of Washington County, Oklahoma. The prioritization of the identified significant health needs will guide the community health improvement efforts of Jane Phillips Medical Center and St. John Health System. From this process, Jane Phillips Medical Center and St. John Health System will outline how they will address the top four prioritized health needs in our fiscal year 2017-2019 implementation strategy.

INTRODUCTION

St. John Health System is deeply committed to its local communities. Since 1926, St. John Health System has been an integral part of every community it serves—providing nationally recognized healthcare services and giving back through care for persons living in poverty, education of medical care professionals, medical research, and many other services that help make our communities better places to live.

True to this commitment and central to our Catholic driven-mission, is St. John Health System's dedication to improving the health of the communities we serve, especially the most vulnerable among us. The health system has a long tradition of working to improve community health through community benefit activities. In order to ensure our efforts will impact the health of the communities we serve, St. John Health System recognizes it is essential to follow a systematic approach to understanding community needs and to develop strategic plans for addressing identified needs. Accordingly, St. John Health System conducts community health needs assessments of the communities we serve every three years.

According to the Catholic Health Association of the United States (2015), a community health needs assessment is "a systematic process involving the community to identify and analyze community health needs and assets in order to prioritize, plan, and act upon unmet community health needs."[1] The health needs of members of medically-underserved, low-income, minority, and otherwise vulnerable populations are a central focus of the assessment. The findings from the assessment are made widely available to the public in the form of a written summary report.

The community health needs assessment also serves as a guide for the development of an implementation strategy for each our hospitals. The implementation strategy is a three year hospital plan for addressing a prioritized set of identified health needs. This written summary plan is also known as the hospital's community benefit plan and serves to help hospital and health system leadership understand as well as communicate the goals, objectives, and approaches we will undertake to address community needs. [1] Additionally the plan aids community members and partners in understanding the hospital and health system's role in supporting the improvement of health and well-being in our communities. Together, St. John Health System's community health needs assessments and implementation strategies ensure alignment with our mission and the communities we serve.

St. John Health's System's six northeastern Oklahoma member hospitals (Jane Phillips Medical Center, St. John Broken Arrow, St. John Owasso, Jane Phillips Medical Center, St. John Medical Center, and Jane Phillips Nowata Health Center) conducted the first set of community health needs assessments and developed subsequent implementation strategies during the 2013 fiscal year. Over the past three years the health system and its member hospitals have worked to address a set of prioritized health needs based on actions outlined in the implementation strategy plans.

The recurring process of updating assessments and implementation strategies reflects changes in the health of the communities we serve over time and helps to ensure ongoing improvement efforts are based on the needs of our communities. An updated set of community health needs assessments were conducted by St. John Health System's six northeastern Oklahoma hospitals during the 2016 fiscal year.

[1] Catholic Health Association of the United States. 2015. *Assessing and Addressing Community Health Needs: 2015 Edition II*. St. Louis: Catholic Health Association of the United States.

Each hospital also developed an implementation strategy in response to priority health needs identified in their community health needs assessment to be addressed during the 2017-2019 fiscal years. The first set of community health needs assessments and implementation strategies provided a baseline and historical perspective related to some of the same elements assessed in 2016.

The findings of each hospital's 2016 community health needs assessment have been compiled in written summary reports. This publication provides a comprehensive analysis of the health needs and assets of the community served by one of St. John Health System's member hospitals, **Jane Phillips Medical Center**. For the purposes of this assessment, Jane Phillips Medical Center's community is defined as Washington County, Oklahoma.

**Note: The health system's seventh member hospital, Sedan City Hospital serving Chautauqua County and the Lower 8 Region of Southeastern Kansas conducted its first community health needs assessment during the 2014 fiscal year. This assessment was completed in partnership with the Chautauqua County Health Department, the Lower 8 of Southeast Kansas Public Health Preparedness Region, and the Kansas Health Institute. An updated community health needs assessment and implementation strategy will be completed by the hospital in the 2017 fiscal year.*

PURPOSE

The health of a community is determined by the physical, mental, environmental, spiritual, social well-being, and subjective quality of life of its residents. This updated 2016 community health needs assessment provides a basis for understanding the factors that contribute to the health of the Washington County community. Additionally, this assessment informs several types of planning within the community, hospital, and health system. These plans include: community-based plans which outline community-wide health improvement initiatives and programs; the hospital's implementation strategy for addressing the health needs of the community, and the health's system's operational and strategic plans which set the performance goals for the organization. Ultimately, the assessment and subsequent plans support the improvement of the community's health and well-being and ensure alignment with the needs of the community.

Community health needs assessments help to identify the most pressing needs and assets of our communities, build relationships with community partners, and direct resources where they are most needed. Through collaboration with community partners, this community-driven process has the potential to enhance program effectiveness, leverage limited resources, and strengthen communities. The process serves as the foundation for identifying those in greatest need, recognizing existing assets and resources, developing strategic plans, and mobilizing hospital and community partners to work together to promote the health and well-being of the community. Community health needs assessments are essential to community development and community health improvement efforts. These powerful tools have the potential to be catalysts for immense community change.

The concept of the community health needs assessment is not new. In fact, these assessments have been widely-used in the public health field for decades. However, community health needs assessments have received heightened attention among healthcare providers and organizations in recent years with the passage of the Patient Protection and Affordable Care Act (Affordable Care Act, ACA) in 2010. The importance of assessing community health needs and developing an implementation strategy to address prioritized needs was reinforced by the ACA. This law added new requirements for non-profit, 501(c) (3) healthcare organizations related to their community benefit processes and tax exemption. Under ACA, section 501(r) was added to the Internal Revenue Service Code and requires not-for-profit 501(c) (3)

healthcare organizations to satisfy certain requirements in order to remain tax-exempt. In order to comply with federal tax-exemption requirements, a tax-exempt hospital facility must:

- Conduct a community health needs assessment every three years
- Adopt an implementation strategy to meet the community health needs identified through the assessment
- Report how it is addressing the needs identified in the community health needs assessment and a description of needs that are not being addressed with the reasons why such needs are not being addressed[2]

The community health needs assessment must be informed by input from the populations we aim to serve, or those who are most in need. These populations include persons living in poverty and members of populations deemed disparate or otherwise vulnerable. Additionally, the hospital facility must continually involve the community in the process and ensure the community health needs assessment is widely available to the public.[2]

When focused on legal compliance and reporting guidelines, it is easy to lose sight of the significance and value of the community health needs assessment process. However, it is essential for healthcare organizations to embrace this process. The rapidly changing landscape of health care further underscores the importance of assessing and addressing community health needs. Accordingly, the alignment of population health and community health improvement initiatives with other strategic healthcare priorities is becoming more common among health care organizations in recent years. The opportunity to examine the health of the community with a population health lens as well as to address the disparities in health experienced by those we serve is immensely important. It is a critical step in our efforts to transform the quality of care we provide to our patients, reduce high costs, and improve poor health outcomes. This process, especially the focus on community engagement, has the potential to result in meaningful actions that transform organizations and produce measurable health improvement in the communities we serve.

OBJECTIVES

The objectives of Jane Phillips Medical Center's community health needs assessment are to:

- Increase the understanding of the health needs and assets of our community;
- Build capacity through partnership development and collaboration;
- Align and integrate population health and community health improvement goals with other strategic priorities of Jane Phillips Medical Center and St. John Health System;
- Strengthen the role of the hospital and health system as we work to address community health needs;
- Ensure our efforts will impact the health of the communities we serve, especially those among us who are most vulnerable; and
- Fulfill Internal Revenue Service regulations related to 501(c) (3) non-profit hospital status for federal tax-exemption.

[2] Internal Revenue Service (2012) New Requirements for 501(c) (3) Hospitals Under the Affordable Care Act. Retrieved from: http://www.irs.gov/Charities-&-Non-Profits/Charitable-Organizations/New-Requirements-for-501(c)(3)-Hospitals-Under-the-Affordable-Care-Act

OUR HEALTH SYSTEM

ASCENSION

Ascension is a faith-based healthcare organization dedicated to transformation through innovation across the continuum of care. As the largest non-profit health system in the U.S. and the world's largest Catholic health system, Ascension is committed to delivering compassionate, personalized care to all, with special attention to persons living in poverty and those most vulnerable. In fiscal year 2015, Ascension provided nearly $2 billion in care of persons living in poverty and other community benefit programs. Approximately 160,000 associates and 36,000 aligned providers serve in 2,000 sites of care – including 137 hospitals and more than 30 senior living facilities – in 24 states and the District of Columbia.

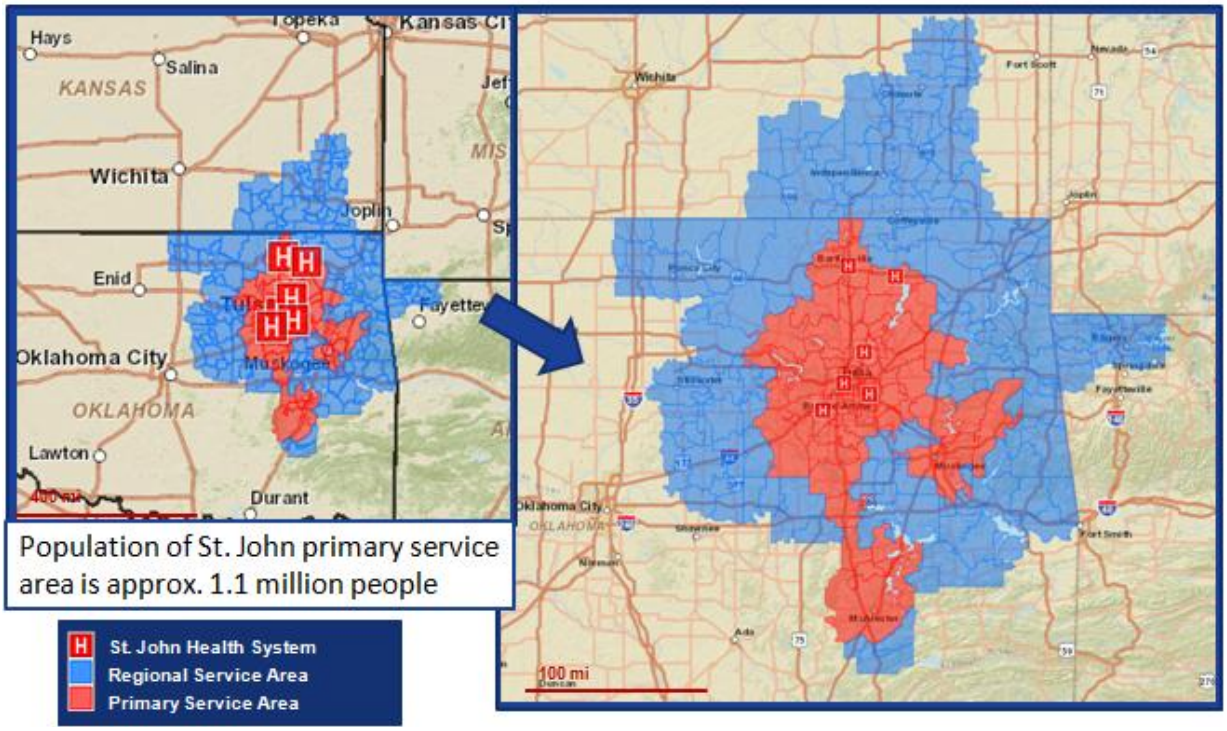
ST. JOHN HEALTH SYSTEM

Established in 1926 with the opening of St. John's Hospital (now St. John Medical Center) in Tulsa, Oklahoma, St. John Health System is a fully-integrated healthcare delivery system encompassing seven hospitals in northeastern Oklahoma and southern Kansas. 2016 marks the 90th anniversary of the founding of St. John in Tulsa by our legacy sponsors, the Sisters of the Sorrowful Mother. Now as part of Ascension Health, St. John Health System has access to additional resources to help us continue to transform the quality of care we provide to our patients.

St. John Health System is organized as a tax-exempt integrated healthcare delivery system. Our mission is to continue the healing ministry of Jesus Christ by providing medical excellence and compassionate care to all those we serve, especially persons living in poverty or who are otherwise deemed vulnerable. Ascension and St. John Health System together are focused on delivering health care that is safe, health care that works and health care that leaves no one behind. We are working to transform health care delivery in the nation to provide high-quality, cost-effective care that is safe and which emphasizes wellness and prevention as well as episodic care.

St. John Health System serves as an important safety net provider of a broad continuum of healthcare services to the citizens of northeastern Oklahoma and the surrounding region. The health system's service area contains 260 ZIP codes in 32 counties in Oklahoma, Kansas, and Arkansas. The health system's primary service area is approximately 1.1 million people (Figure 1). The six main hospitals owned by St. John Health System are located in northeastern Oklahoma and together possess approximately 800 beds in service. Each of these six hospitals operates a full-service, 24-hour, 365-day emergency room providing both urgent and emergency care to all individuals, regardless of their ability to pay.

Figure 1: St. John Health System Service Area



St. John Health System also has an array of partner and subsidiary healthcare facilities. In all, the health system serves more than 3,500 patients every day.

St. John Hospitals:

- St. John Medical Center
- St. John Owasso
- St. John Broken Arrow
- Jane Phillips Medical Center
- Jane Phillips Medical Center
- Jane Phillips Nowata Hospital
- Sedan City Hospital

Other St. John Facilities:

- St. John Clinic
- St. John Villas senior living centers
- St. John Urgent Care centers
- Regional Medical Laboratory (RML)
- A variety of outpatient treatment centers

St. John Health System owns and operates St. John Clinic which operates as a multi-specialty physician clinic. A team of more than more than 500 physicians and mid-level providers are employed by St. John

Clinic. Additionally, St. John Clinic serves patients in over 95 clinic locations, including urgent care clinics, throughout northeastern Oklahoma and southeastern Kansas.

St. John Health System also owns Regional Medical Lab Inc. (RML), a nationally-renowned commercial reference laboratory that provides testing services for thousands of physicians and hospitals within a four-state region. As one of the region's largest reference laboratories, RML performs more than nine million procedures each year. RML provides onsite inpatient laboratory services for St. John Medical Center in Tulsa, Oklahoma as well as outpatient laboratory services for other hospitals, clinics and physician offices in the Tulsa metropolitan area, northeastern Oklahoma, southern and western Oklahoma and southeastern Kansas. The primary RML facility is located in Tulsa, Oklahoma and several satellite locations are spread throughout Tulsa, northeastern and central Oklahoma and southeastern Kansas.

CommunityCare Managed Health Care Plans of Oklahoma, one of the area's largest health insurers, is fifty percent owned by St. John Health System. CommunityCare offers many health care insurance options for individuals and families, including the region's highest rated Medicare Advantage plan for those who are age 65 or older.

St. John Health System and Tulsa Cancer Institute joined forces in 2016 to introduce Oklahoma Cancer Specialists and Research Institute (OCSRI). Together, we are Oklahoma's first and only certified member of MD Anderson Cancer Network®, a program of MD Anderson Cancer Center. MD Anderson consistently ranks No. 1 in cancer care in the annual "Best Hospitals" survey published by U.S. News & World Report.

St. John Health System touches the lives of thousands of patients every day:

- More than 60,000 annual hospital admissions, including 19,000 "observation" patients
- More than 35,000 annual surgeries performed in St. John hospitals. St. John also is a minority owner in two ambulatory surgery centers that perform more than 28,000 annual outpatient surgeries
- More than 3,600 annual births at St. John hospitals
- More than 160,000 annual patient visits to St. John hospital emergency departments
- More than 60,000 annual urgent care visits to St. John urgent care clinics
- Nearly 500,000 annual patient visits to St. John Clinic physician offices
- RML performs more than 9 million annual laboratory tests

Our Mission, Vision and Values guide everything we do at St. John and Ascension. They are foundational to our work to transform healthcare and express our priorities when providing care and services, particularly to those most in need. As the health system develops initiatives to address needs within the communities we serve, we strive to ensure that our Mission, Vision, and Values are maintained and promoted.

Mission

Rooted in the loving ministry of Jesus as healer, we commit ourselves to serving all persons with special attention to those who are poor and vulnerable. Our Catholic health ministry is dedicated to spiritually-centered, holistic care which sustains and improves the health of individuals and communities. We are advocates for a compassionate and just society through our actions and our words.

Vision

We envision a strong, vibrant Catholic health ministry in the United States that leads healthcare's transformation. We will ensure service that is committed to health and well-being for our communities while meeting the needs of individuals throughout their lives. We will expand the role of laity, in both leadership and sponsorship, to ensure a Catholic health ministry in the future.

Values

- Service of the poor: Generosity of spirit, especially for persons most in need
- Reverence: Respect and compassion for the dignity and diversity of life
- Integrity: Inspiring trust through personal leadership
- Wisdom: Integrating excellence and stewardship
- Creativity: Courageous innovation
- Dedication: Affirming the hope and joy of our ministry

JANE PHILLIPS MEDICAL CENTER

Jane Phillips Medical Center in Bartlesville, Oklahoma, is a nonprofit healthcare organization and acute care hospital offering a full range of services to northeastern Oklahoma and southern Kansas. After becoming affiliated with St. John Health System in 1996, Jane Phillips Medical Center became fully sponsored by St. John System in 2002. A board of directors governs the hospital and ensures that medical services are available to the residents of Bartlesville and surrounding areas.

Offering both inpatient and outpatient services, Jane Phillips' innovative treatments and preventive healthcare measures range from cardiac rehabilitation, cancer treatments, and heart and vascular services to labor and delivery, pulmonary, surgical and wellness care. As part of Jane Phillips Medical Center, the hospital is licensed for 137 beds and operates a 24-hour Emergency Department. People of all ages and races, men and women receive precision care at Jane Phillips every day, regardless of the way they are able to pay.

Jane Phillips Medical Center touches the lives of thousands of patients every day:

- More than 6,600 annual hospital admissions, including "observation" patients.
- More than 5,000 annual surgeries performed.
- More than 650 annual births.
- More than 34,000 annual patient visits to Jane Phillips Medical Center emergency department.
- More than 67,000 annual "other" patient visits for diagnostic testing and treatment.

Jane Phillips Medical Center Accomplishments and Awards:

- ACTION Registry-Get With The Guidelines Platinum Performance Achievement Award from the National Cardiovascular Data Registry (2015)
- Jane Phillips Medical Center/St. John Clinic BlueStem Cardiology earn Gold Quality Achievement Award from the American Heart Association (2014)
- Mission: Lifeline® Receiving Center-Silver Recognition Award from the American Heart Association (2014)
- Named a certified member of MD Anderson Cancer Network® (2014)

COMMUNITY SERVED

The definition of the community served by the hospital provided the foundation on which our assessment and subsequent implementation strategy decisions were made. In defining the community served by Jane Phillips Medical Center, the following was taken into consideration:

- General geographic area
- Geopolitical definitions
- Primary and regional service areas
- Patient population
- Areas and populations served by the hospital's community benefit programs
- Opportunity areas- geographic areas encompassing at-risk, vulnerable, and/or underserved populations
- Availability of health information and data

Jane Phillips Medical Center serves the entire northeastern Oklahoma region, as well as parts Kansas and Arkansas. The primary service area is Washington County and the surrounding counties. Although, Jane Phillips Medical Center serves patients who live throughout the northeastern Oklahoma region and beyond, the community served for purposes of this community health needs assessment is defined as Washington County, Oklahoma. The decision to focus on the geopolitical definition of Washington County was largely influenced by the fact that a significant number of patients utilizing Jane Phillips Medical Center's services reside in Washington County. In fact, an estimated 52.2% of inpatient and outpatient visits originated in Washington County in the 2015 fiscal year (Table 1). Additionally, over 50 percent of Jane Phillips Medical Center's discharges originated in Washington County. Within Washington County the top six ZIP codes of patient origin in the 2015 fiscal year were 74006, 74029, 74022, 74051, 74061, and 74005 (Table 2).

Table 1: Top 15 Counties of Patient Origin- Inpatient and Outpatient Volumes in FY 2015

County	Total Number of Visits	Percent of Total Visits
Washington County	55,462	52.2%
Osage County	28,494	26.8%
Nowata County	7,766	7.3%
Montgomery County	7,258	6.8%
Tulsa County	1,715	1.6%
Chautauqua County	1,578	1.5%
Rogers County	490	0.5%
Elk County	279	0.3%
Kay County	210	0.2%
Labette County	202	0.2%
Craig County	189	0.2%

Wilson County	187	0.2%
Delaware County	176	0.2%
Wagoner County	138	0.1%
Harris County	128	0.1%

**Inpatient and outpatient volumes include emergency room visits.*

Table 2: Top 6 Washington County Zip Codes of Patient Origin- Inpatient and Outpatient Volumes in FY 2015

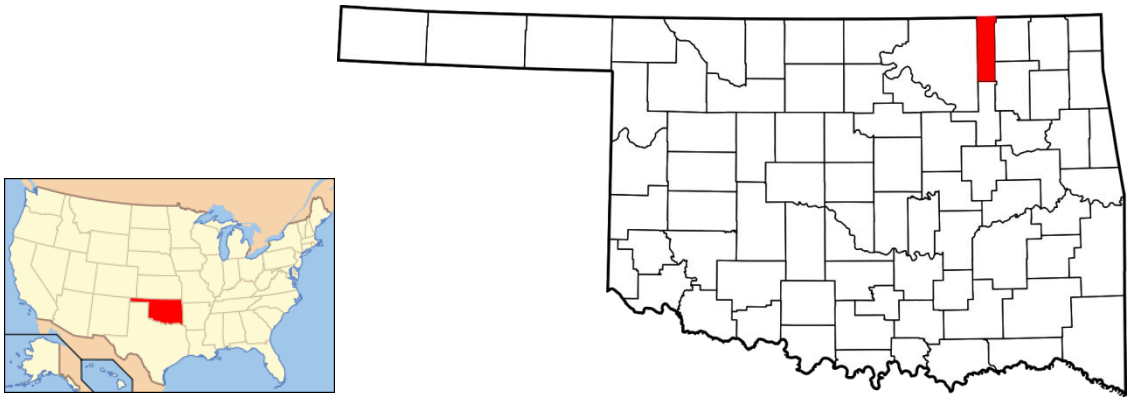
Zip Code	City	Total Number of Visits
74006	Bartlesville	38,552
74029	Dewey	8,973
74022	Copan	2,626
74051	Ochelata	2,189
74061	Ramona	1,750
74005	Bartlesville	1,345

**Inpatient and outpatient volumes include emergency room visits.*

In addition to the fact that a large number of patients served by the hospital reside in Washington County, most public data is available at the county level. Additional factors influencing the definition of the community were the areas and populations served by the hospital's community benefit programs as well as the geographic areas for populations deemed at-risk or vulnerable. A number of the hospital's community benefit programs serve residents in Bartlesville and Washington County.

For the purposes of this assessment, the community served by Jane Phillips Medical Center includes all of Washington County, Oklahoma (Figure 2). Jane Phillips Medical Center is based out of the city of Bartlesville and the bulk of the community's population is concentrated in and around the city. Accordingly, the city of Bartlesville serves as Jane Phillip's Medical Center's primary area of focus within the Washington County community. An effort was made to focus on the community health needs and assets specific to this region as well as Washington County as a whole. Community health improvement efforts as a result of this assessment will primarily center on the city of Bartlesville. Our efforts will also extend to other cities and towns within Washington County based on lessons learned through our work with the Bartlesville community.

Figure 2: Washington County, Oklahoma Map



WASHINGTON COUNTY

Washington County is a county located in the U.S. state of Oklahoma. Its county seat and largest city is Bartlesville. Founded at statehood, in 1907, it was named after President George Washington. Before statehood, the area was part of lands owned by the Osage Nation and later the Cherokee Nation in Indian Territory.[3] Several oil companies set up headquarters in the county over the years, most notably Phillips Petroleum in Bartlesville.

Washington County is located in northeastern Oklahoma and is the smallest county, by square miles, in the state. Counties adjacent to Washington County include: Montgomery (Kansas), Nowata, Rogers, Tulsa, Osage, and Chautauqua (Kansas). The cities and towns officially recognized in Washington County are: Bartlesville, Copan, Dewey, Ochelata, Ramona, and Vera. Approximately 12% of the population lives below the poverty line. A total of 51,564 people live in Washington County (415.45) square mile area defined for this assessment according to the U.S. Census Bureau American Community Survey 2010-14 5-year estimates. [14]

City of Bartlesville

Jane Phillips Medical Center is located in the city of Bartlesville, Oklahoma in Washington County. The City of Bartlesville is located in northeast Oklahoma and is approximately one hour north of Tulsa, Oklahoma. Bartlesville is accessible by interstate 75 as well as US-60.

An estimated 36,498 individuals live in Bartlesville according to the 2010 U.S. Census. Approximately 14 percent of the population lives below the poverty level. [14]

[3] Oklahoma Historical Society. (2016). *Encyclopedia: Washington County*. Retrieved from: http://www.okhistory.org/publications/enc/entry.php?entry=WA034

COMMUNITY HEALTH NEEDS ASSESSMENT PROCESS: METHODOLOGY

Community health needs and assets for Washington County were determined using a combination of secondary and primary data (community input). Secondary data is existing data that has already been collected and published by another party.[1] Secondary data about the health status of the U.S. population at the state and county level is routinely collected by governmental and non-governmental agencies through surveys and surveillance systems. In contrast, primary data is new data and is collected or observed directly through firsthand experience. Common methods of primary data are surveys, interviews, and direct observation. Community input is a type of primary data collection. Many methods can be used to gather community input, including key informant interviews, focus groups, listening circles, community meetings and forums, and surveys. [1]

Including multiple data sources and stakeholder views is especially important when assessing the level of consensus that exists regarding priority community health needs. If alternative data sources including support similar conclusions, then confidence is increased regarding the most problematic health needs in a community. Data contained in this assessment were obtained through multiple sources and methods designed to gather both qualitative and quantitative information. Qualitative data is descriptive information and quantitative data is numeric information. Data collection methods and sources used in this assessment include the following:

- Comprehensive review of secondary data sources
- Survey of Washington County residents
- Survey of Washington County Wellness Initiative workgroup members
- Input from community leaders and representatives
- Input from the public health workforce and local coalitions/partnerships
- Input from the health's system's Community Health Needs Assessment (CHNA) Advisory Group and leadership

A comprehensive review of secondary data sources served as the foundation for assessing the community. Recognizing its vital importance in understanding the health needs and assets of the community, this assessment primarily focused on gathering and summarizing community input. Accordingly, input from community members, community leaders and representatives, local coalitions/partnerships, and the health's system's Community Health Needs Assessment (CHNA) Advisory Group and leadership was obtained to expand upon information gleaned from the secondary data review. A concerted effort was made to obtain community input from persons who represent the broad interests of the community, including those with special knowledge and expertise of public health issues and populations deemed vulnerable.

Detailed descriptions of our approach, the secondary data and community input used in this assessment, and the methods of collecting and analyzing this information are included in the sections that follow.

OUR APPROACH

In order to effectively identify and address the health needs of a community, it is essential to have an understanding of health and the conditions that contribute to health and well-being. According to the World Health Organization, health is defined as a "state of complete physical, mental, and social well being, and not merely the absence of disease or infirmity."[4] A person's state of health is a result of a number of interwoven and contributing factors and levels of influence. Accordingly, our goal was to follow a more holistic approach to assessment and community health improvement. This assessment takes into account a multitude of factors influencing the health of our community.

The Social-Ecological Model (SEM) of Health

The social-ecological model (SEM) of health is a public health framework used to describe the multilevel systems of influence that explain the complex interaction between individuals and the social context in which they live and work (Figure 3). The SEM provides a framework to help understand the various factors and behaviors that affect health and wellness. Health and well-being is shaped not only by behavior choices of individuals, but also by complex factors that influence those choices within the social environment through reciprocal causation.[5] [6] With this model, we can closely examine a specific health issue in a particular setting or context. For example, the model can help identify factors that contribute to heart disease in specific populations. With this knowledge, effective heart disease interventions can be developed for a specific population with the greatest impact in mind.

Human behavior is difficult to change and is nearly impossible to modify without understanding the environment in which one lives. In order to increase behavior that supports health and wellness, efforts need to focus on behavior choices and the multitude of factors that influence those choices. The SEM helps identify factors that influence behavior by considering the complex interplay between five hierarchical levels of influence: 1) individual or intrapersonal, 2) interpersonal, 3) institutional or organizational, 4) community, and 5) societal/ public policy factors (Figure 3). The model demonstrates how the changes and interactions between these five levels over the course of one's life affect health and wellness. Through utilizing the SEM, the likelihood of developing sustainable interventions with the broadest impact on health and wellness is increased.

[4] World Health Organization. (1948). *Preamble to the Constitution of the World Health Organization*. Adopted by the International Health Conference, N.Y. 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

[5] Hanson, D., Hanson, J., Vardon, P., McFarlane K., Lloyd, J., Muller, R., et al. (2005). The injury iceberg. An ecological approach to planning sustainable community safety interventions. *Health Promotion of Australia, 16*(1), 5-10.

[6] McLeroy, K.R., Bibeau, D., Steckler, A. & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly, 15*(4), 351-377.

Figure 3: Social Ecological Model of Health

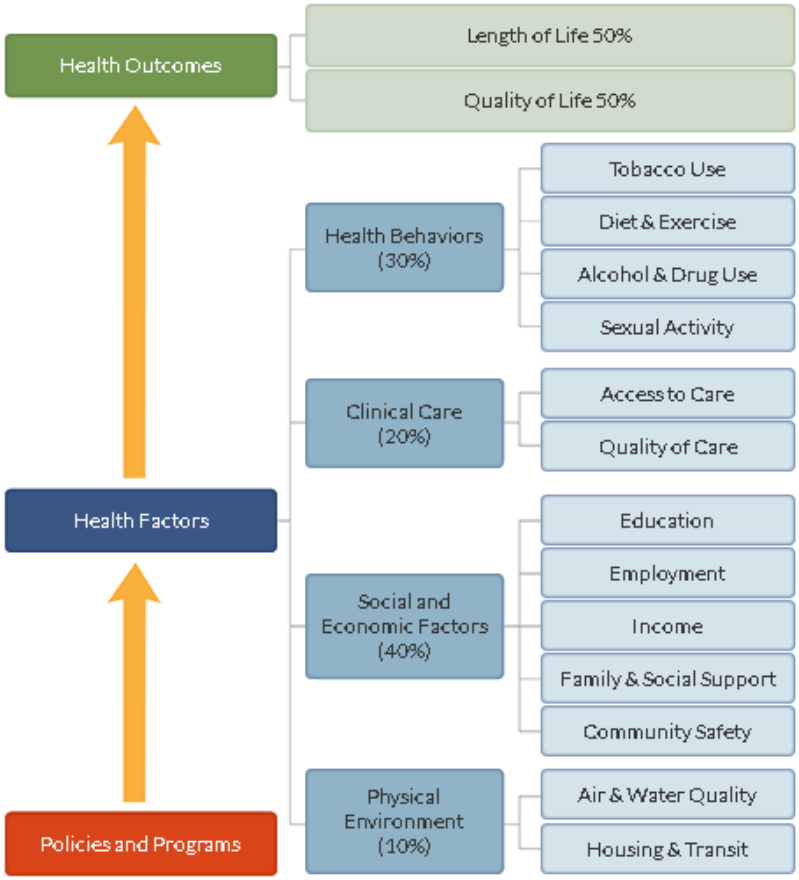
Source Adapted From: Hanson, D., Hanson, J., Vardon, P., McFarlane K., Lloyd, J., Muller, R., et al. (2005). The injury iceberg. An ecological approach to planning sustainable community safety interventions. *Health Promotion of Australia, 16*(1), 5-10. McLeroy, K.R., Bibeau, D., Steckler, A. & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly, 15*(4), 351-377.

Determinants of Health

Health is a complex and multi-dimensional concept. The Centers for Disease for Disease Control and Prevention describes health as "influenced by the health care we receive, our own choices, and our communities."[7] In order to better understand the factors that contribute to the health of our community, this assessment utilizes a population health model developed by the University of Wisconsin Population Health Institute known as the *County Health Rankings Model* (Figure 4).

[7] Centers for Disease Control and Prevention. (2015). *Community Health Improvement Navigator*. Retrieved from: http://www.cdc.gov/chinav/.

Figure 4: University of Wisconsin Population Health Institute's County Health Ranking's Model



Source: Courtesy of University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps.* Retrieved from: www.countyhealthrankings.org.

Health outcomes signify a community's overall health. Two types of health outcomes are typically assessed: length of life (how long people live) and quality of life (how healthy people feel while alive)[8]. Health factors contribute to health and are otherwise known as determinants of health. There are five commonly recognized determinants of health[9]:

1. Biology and genetics
2. Clinical care
3. Health behaviors
4. Physical Environment
5. Social and Economic factors

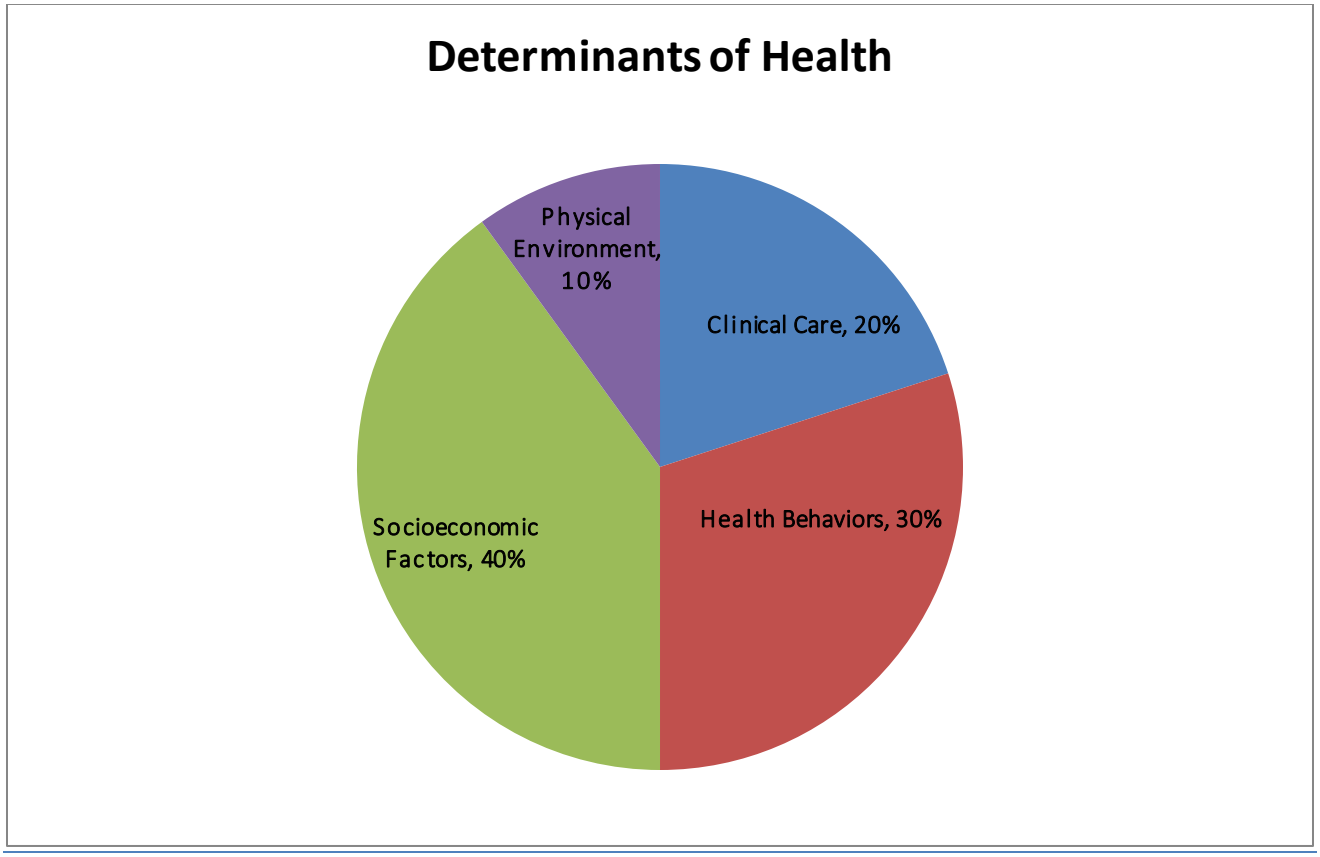
This assessment focuses on four of the five aforementioned determinants of health: clinical care, health behaviors, physical environment, and socioeconomic factors. Each of these determinants of health is in turn, based on several measures (Figure 4).[7] Some determinants of health are more modifiable than

[8] University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps.* Retrieved from: www.countyhealthrankings.org.

[9] Centers for Disease Control and Prevention. (2014). *NCHHSTP Social Determinants of Health: Definitions*. Retrieved from: http://www.cdc.gov/nchhstp/socialdeterminants/definitions.html.

others. It is important to note that clinical care alone is not enough to improve community health as it only accounts for 20% of the factors that influence health.[6] Together clinical care and health behaviors account for only 50% of the intervenable factors that contribute to health. Socioeconomic factors and the physical environment account for the remaining 50% of impactable health determinants (Figure 5)[6]. Therefore, in order to have a greater impact on the health of the community, it is important to focus on all four determinants of health for assessment and intervention.

Figure 5: Determinants of Health



Source: University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps*. Retrieved from: www.countyhealthrankings.org.

Health Disparities

As aforementioned, this community health needs assessment process included the broad community as well as populations deemed underserved, at-risk, or otherwise vulnerable. In an effort to highlight the health needs of these populations, this assessment examines health disparities in the community served. Health disparities are defined by *Healthy People 2020* as "a particular type of health difference that is closely linked with social, economic, and environmental disadvantage."[10]

[10] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2010). *The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020. Phase I report: Recommendations for the framework and format of Healthy People 2020. Section IV: Advisory Committee findings and recommendations*. Retrieved from: http://www.healthypeople.gov/sites/default/files/PhaseI_0.pdf.

Certain disadvantaged populations are at greater risk of experiencing of health disparities. *Health People 2020* asserts, "health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their: racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion."[7] For example in Washington County, black/African-American, Hispanic/Latino families, and older adults are more likely to live in poverty and experience poorer health outcomes than their white neighbors.

Health Inequities and Health Equity

Health inequities are closely linked to health disparities and are also closely examined in this assessment. Health inequities are "differences in health that are avoidable, unfair, and unjust".[11] Health inequities are closely associated with social, economic, and environmental conditions. In contrast, health equity is focused on the elimination of health and healthcare disparities. *Healthy People 2020* defines health equity as the "attainment of the highest level of health for all people."[9] In short, health equity pertains to efforts to ensure that all people have full and equal access to opportunities that enable them to lead healthy lives.

Social Determinants of Health

When examining health disparities health inequities, it is important to consider the social determinants of health. *Healthy People 2020* describes social determinants of health as the "conditions in the places where people live, learn, work, and play" that affect a wide range of health risks and outcomes.[12] These conditions include the social, economic, and physical factors and resources contributing to a range of environments and settings and are often responsible for health disparities and inequities. According to *Healthy People 2020*, there are five generally recognized categorical types of social determinants of health[12]:

1. Economic Stability
    - Access to economic and job opportunities
    - Poverty
    - Food security
    - Housing stability
2. Education
    - Access to higher education opportunities
    - High school graduation
    - Early childhood education and development
    - Language
    - Literacy
3. Social and Community Context
    - Social cohesion and support
    - Availability of community-based resources and resources to meet daily living needs

[11] U.S. Department of Health and Human Services, Office of Minority Health. National Partnership for Action to End Health Disparities. (2010). *The National Plan for Action*. Retrieved from: http://www.minorityhealth.hhs.gov/npa/templates/browse.aspx?&lvl=2&lvlid=34.

[12] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2016).*Healthy People 2020: Social Determinants of Health*. Retrieved from: https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health.

- Discrimination
- Incarceration

4. Health and Health Care
    - Access to healthcare services (e.g. primary and specialty care)
    - Health literacy
5. Neighborhood and Built Environment
    - Environmental conditions (e.g. exposure to toxins and other physical hazards, green spaces, physical barriers, aesthetics of environment)
    - Access to sidewalks and bike lanes
    - Safe and affordable housing
    - Access to healthy foods
    - Public safety (e.g. crime and violence)

Addressing health disparities, health equity, and social determinants of health through community building and improvement initiatives is an important component of improving the health of the community. Therefore, indicators of health related health disparities, health equity, and social determinants of health are a central focus of this assessment and our health system's community health improvement efforts. Central to our efforts to improve the health of individuals and communities is our focus on promoting health and wellbeing of all persons, and a commitment to health equity and eliminating barriers to good health.

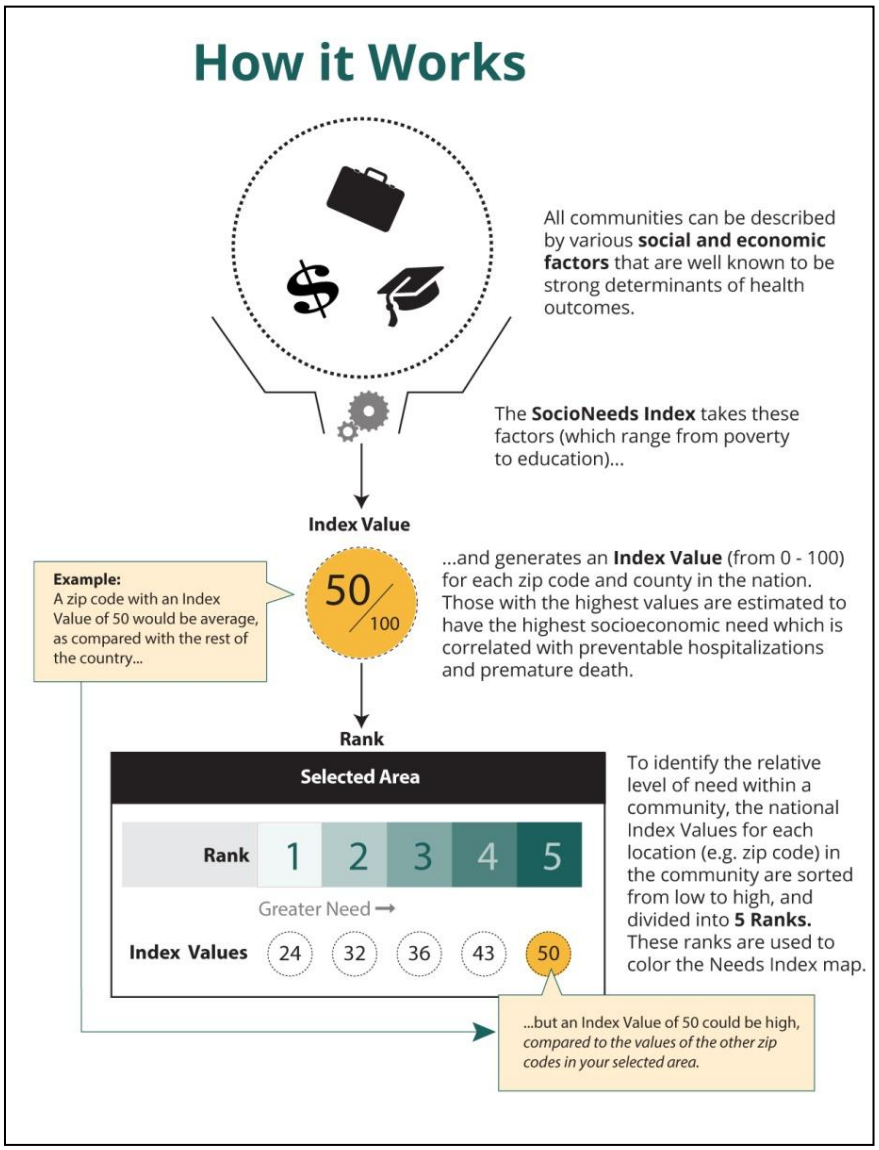
IDENTIFYING GEOGRAPHIC AREAS OF GREATEST NEED

Our health and well-being are products of not only the health care we receive, but also the places where we live, learn, work, and play.[6] As a result, our zip code can be more important than our genetic code. Identifying areas of greatest need was an important component of this assessment as it helped us to better understand and assist populations deemed at-risk or otherwise vulnerable. This allows us to ensure our efforts include programs to address vulnerable populations, as such programs and populations have the potential for greatest gains. [6]

One tool used to identify geographic areas of greatest need was the *SocioNeeds Index ®* developed by the Healthy Communities Institute (now Xerox Community Health Solutions) (Figure 6). This tool is available on the Ascension Community Health Improvement Platform available to all Ascension health ministries. The Index is used to help determine which areas of the community served are in most need of services and interventions. The Index summarizes multiple socioeconomic indicators, ranging from poverty to education, which may impact health or access to care. All ZIP codes in the United States are given an Index value from 0 (low need) to 100 (high need). Within the community served, ZIP codes are ranked based on their Index value. These ranks are used to identify the relative level of need within the community.[13]

[13] Xerox Community Health Solutions. (2016). *Healthy Communities Institute SocioNeeds Index ®*. Retrieved from: http://ascension.thehcn.net/.

Figure 6: The HCI *SocioNeeds Index®*



Source: Courtesy of Xerox Community Health Solutions. (2016). *Healthy Communities Institute SocioNeeds Index ®.* Retrieved from: http://ascension.thehcn.net/.

PRIORITY POPULATIONS

Although this assessment aims to include information on all populations in the geographic area, a special effort was made to incorporate information on the health and well-being of priority populations, or those most in need. Priority populations focused upon in this assessment, include, but were not limited to: persons living in poverty, children, pregnant women, older adults, uninsured and underinsured individuals, members of ethnic or minority groups, members of medically underserved populations, and otherwise vulnerable or at-risk populations. This focus ensures alignment with our mission and that subsequent implementation strategies specifically meet the needs of the most vulnerable.

COMMUNITY ENGAGEMENT AND COLLABORATION

The process of conducting community health needs assessments and developing implementation strategies, serves as an ideal opportunity for the health system to initiate and strengthen mutually-beneficial relationships within the community we serve. Recognizing this opportunity and the fact that we cannot do this work alone, we engaged, partnered, and collaborated with a diverse set of community stakeholders in this process. These stakeholders represented a variety of community sectors including: community members, nonprofit and community-based organizations, safety net providers, local schools and educational institutions, local government officials and agencies, churches and faith-based organizations, healthcare providers, private businesses, community developers, law enforcement, community health centers, healthcare consumer advocates, and the public health workforce. It is important to note that each sector in the community, including community members, has a unique role. Each sector brings critical strengths and insights to our collaboration.

Working together has a greater impact than working alone. Engaging the community and joining forces with community stakeholders allows all involved to share in the experience of understanding community health needs and to work collaboratively with the communities we serve. Working in partnership with a diverse set of community stakeholders ensures we are well-positioned to help improve health outcomes among vulnerable and disparate populations. This work will ultimately allow us to address the social determinants of health to measurably improve the health outcomes of the entire community. Furthermore, it is our hope that our engagement of the community will serve to empower community-driven solutions for community health improvement.

St. John Health System and Jane Phillips Medical Center, engaged the Washington County Health Department, the Washington County Wellness Initiative (WCWI), and a multitude of other community organizations throughout this community health needs assessment. The health system and hospital worked closely with these partners to conduct this assessment. Throughout the assessment process, St. John Health System and Jane Phillips Medical Center worked to initiate and strengthen our relationships with these community partners and will continue to do so to promote effective and community-driven community health improvement initiatives within Washington County. We are proud of the steps take to move us forward in our mutual work to improve the health and well-being of the community.

The Washington County Health Department serves Washington County as well as the adjacent Rogers, Osage, and Nowata counties. The Washington County Wellness Initiative is a 501(c) (3) Non-Profit Corporation incorporated in the State of Oklahoma. It is certified through the Public Health Improvement Organization (PHIO) as a County Health Improvement Organization (CHIO). The organization is dedicated to supporting the numerous organizations, coalitions, initiatives, and projects providing services to the residents of Washington County with the goal of improving the health of the community.[14]

Central to this community assessment are a surveys conducted by the Washington County Wellness Initiative to obtain direct input from community members and workgroup members. The survey with community members is referred to by the Washington County Wellness Initiative and community stakeholders as the *2015 Washington County Community Assessment*. A number of community stakeholders and local organizations were also engaged in our hospital community input meetings at Jane Phillips Medical Center on April 19, 2016.

[14] Washington County Wellness Initiative. (2016). *About*. Retrieved from: http://www.wcwiok.org/.

INFORMATION GAPS

Although it is quite comprehensive, this assessment cannot measure all possible aspects of health and also cannot represent every possible population with Creek County. These gaps might in some ways limit the ability to assess all of the community's health needs.

For example, certain population groups such as the transient population, institutionalized people or those who only speak a language other than English or Spanish may not be adequately represented in the secondary data and community input. Other population groups such as lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups might not be identifiable or might not be represented in numbers sufficient for independent analysis.

In addition, the following challenges resulted in limitations for assessing the health needs of the community:

- Irregular intervals of time in which indicators are measured
- Changes in standards used for measuring indicators
- True service area encompasses several partial counties, but most health data is not a available at that level
- Some sources of valuable data are completed with grand funds or budgeted under a prior administration and not repeated, so that comparisons cannot be made
- Inconsistencies in reported data
- Limitation in representation from all sectors of the community
- Not all health process and outcome measures available through secondary health data were reviewed due to the broad focus of the assessment

Despite the data limitations, we can be reasonably confident of the overarching themes represented through our assessment data. This is based on the fact that data collection included multiple methods, both qualitative and quantitative, and engaged the hospital as well as participants from the community.

SECONDARY DATA: COMMUNITY OVERVIEW

In identifying the health needs and assets of Washington County, a review of publically available secondary data was conducted.

SECONDARY DATA METHODOLGY AND SOURCES

The most current secondary data was reviewed for the purpose of providing a comprehensive overview of the community. A variety of non-governmental and governmental data sources were used including a broad set of indicators from local, state, and federal agencies. Indicators are measurements that summarize the state of health and quality of life in the community. County, state, and national level public health surveillance was an especially important source of secondary data. Most of this data was available online. In general data was available for 2013 or 2014. However, data sources ranged from 2005-2016 depending on availability. Specific data source citations are included throughout the report.

In addition to general indicators of health status, this assessment includes indicators covering many of the social determinants of health. Measures that reflect the health and well-being of priority populations, or those most in need, were also included. Data comparisons were made at the ZIP code, census tract, region, county, state, and national levels to allow for evaluation of geographic disparities. Other data considerations included trends over time, county and state level rankings, benchmark comparisons at the state and national level, organizational needs and priorities, and disparities by age, gender, and race/ethnicity. Additionally, the Department of Health and Human Service's *Healthy People 2020* initiative goals were utilized as indicators for areas for improvement or success.

The Community Commons' (www.communitycommons.org) *Community Health Needs Assessment* served as the main secondary data source for this assessment. This toolkit is a free web-based platform designed to assist hospitals and organizations seeking to better understand the needs and assets of their communities. The platform automatically generates reports on a multitude of indicators of health status and social determinants of health based on the most currently available secondary data sources. A large portion of the Community Commons report on Washington County was incorporated into this assessment's review and presentation of secondary data.

A number of data sources, information, and figures were also provided courtesy of the 211 Oklahoma Helpline, Community Service Council of Tulsa, Enroll America, Metropolitan Human Services Commission, Oklahoma State Department of Health, the University of Wisconsin Population Health Institute's *County Health Rankings & Roadmaps*, and Xerox Community Health Solutions (formerly Healthy Communities Institute). Hospital data was also an important source of information included in this assessment.

Recommendations of Ascension Health, the Catholic Health Association of the United States, Centers for Disease Control and Prevention, Oklahoma State Department of Health, United Health Foundation, American Hospital Association's Association for Community Health Improvement, and University of Wisconsin Population Health Institute were considered in determining which health indicators to review. Additional considerations were the indicators reviewed and reported in the partnering entities assessments as well as the availability of secondary data.

The review covered the following health indicator topics:

1. Demographics
2. Health Outcomes
    A. Health Status
        - Health Outcomes Ranking
        - Mortality-Causes of Death
        - Life Expectancy
        - Hospital Utilization
        - Chronic Disease
        - Behavioral Health
        - Maternal and Child Health
        - Infectious Diseases
        - Dental Health
3. Health Factors
        - Health Factors Ranking
    B. Social and Economic Factors
        - Socioeconomic Status

- Social Environment

C. Geographic Areas of Highest Need
D. Clinical Care
   - Access to Care
   - Quality of Care
E. Health Behaviors and Risk Factors
   - Diet and Physical Activity
   - Weight Status
   - Hypertension
   - Dental Care
   - Teen Births
   - Tobacco Use
   - Substance Use
F. Physical Environment
   - Air and Water Quality
   - Housing and Transit
   - Food Access
   - Access to Physical Activity Opportunities

Oklahoma continues to rank near the bottom in multiple key health status indicators. Many of these outcomes are related to conditions that Oklahomans must live with every day. Poverty, lack of insurance, limited access to primary care, and inadequate prenatal care, along with risky health behaviors associated with these determinants, such as low fruit/vegetable consumption, low physical activity, and a high prevalence of smoking contributes to the poor health status of our citizens. In 2015, Oklahoma ranked 45th in the nation in health according to the United Health Foundation's *America's Health Rankings* (2016).[15]

Similar to the state, Washington County ranks poorly in multiple key health status indicators. A comprehensive overview of the secondary health data follows. Unless otherwise noted, the source of information is the Community Commons' Washington County *Community Health Needs Assessment*.

DEMOGRAPHICS

Population

Total Population

Definition

The total population is presented simply as the number of individuals living in Washington County and the population density per square mile, according to the 2010-2014 5-year population estimates by the American Community Survey.

Why Is This Indicator Important?

[15] United Health Foundation. (2016). *America's Health Rankings: Oklahoma*. Retrieved from: http://www.americashealthrankings.org/OK

The numeric size of the population is used as the basis for deriving many of the rates for the community health indicators presented later in this report, such as geographic area specific rates and gender, age, and racial/ethnic specific rates.

How Are We Doing?

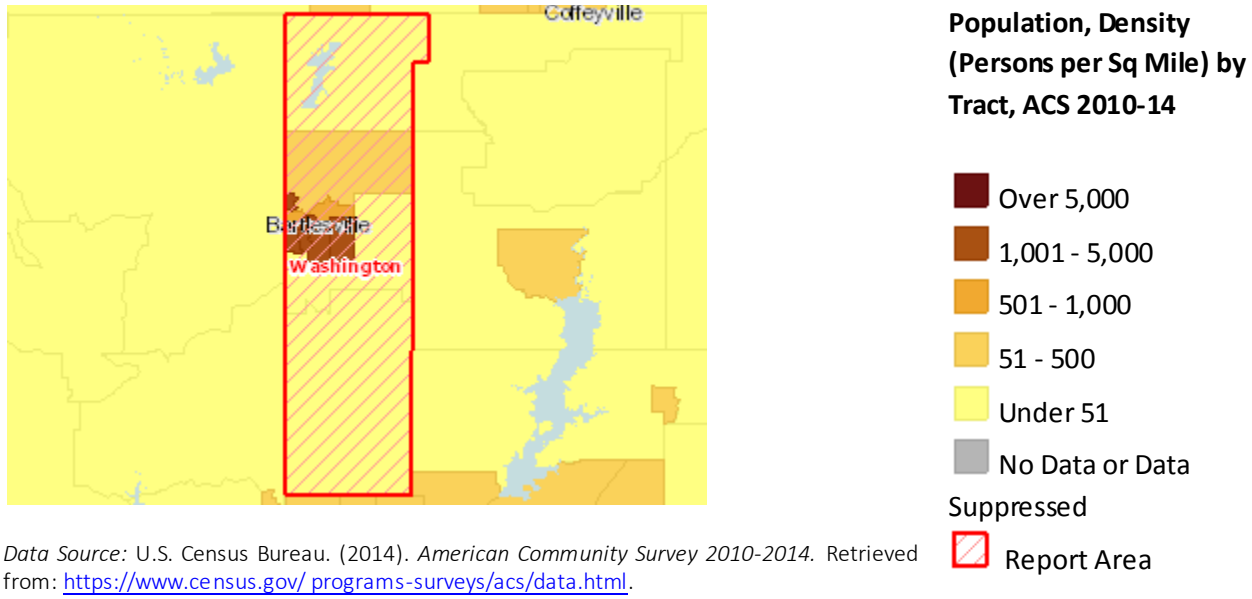
A total of 51,564 people live in the 415.45 square mile report area defined for this assessment according to the U.S. Census Bureau American Community Survey 2010-14 5-year estimates. The population density for this area, estimated at 124.12 persons per square mile, is greater than the national average population density of 88.93 persons per square mile (Table 3 and Figure 7). [16]

Table 3: Population Density per Square Mile, Washington County 2010-2014

Report Area	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
Washington County, OK	51,564	415.45	124.12
Oklahoma	3,818,851	68,596.05	55.67
United States	314,107,083	3,531,932.26	88.93

Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/ programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Figure 7: Population Density (Persons per Square Mile) by Tract, ACS 2010-2014

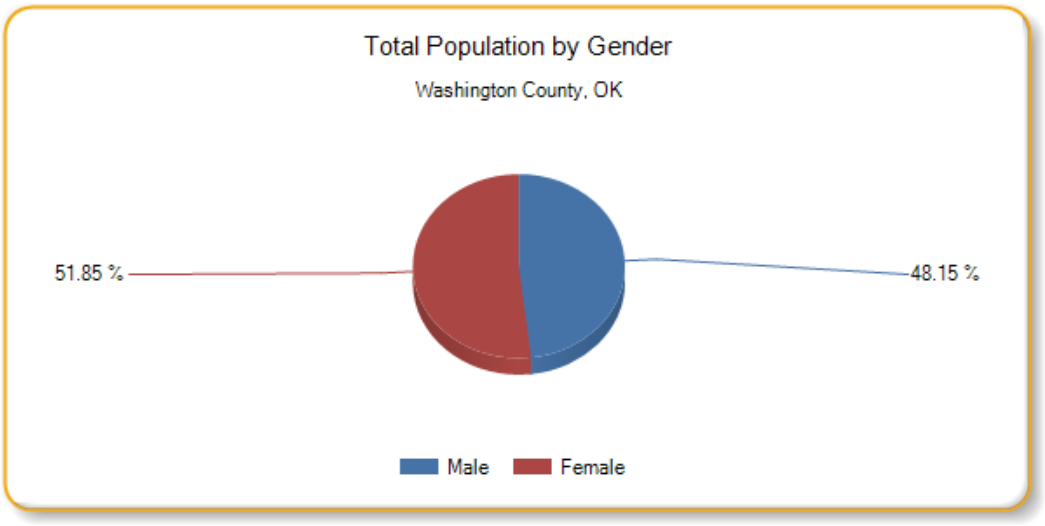


Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/ programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

[16] U.S. Census Bureau. (2014). *American Community Survey 2010-2014 5-Year Estimates*. Retrieved from: https://www.census.gov/ programs-surveys/acs/data.html.

Overall, the female population (51.9 percent) slightly exceeded the male population (48.2 percent) (Figure 8). Percentages of the population age 65 (18%) and older and 5-17 (17.1%) were the highest (Figure 9).The median age of the population was 40.1 years old which was higher than in the Oklahoma (36.2) and the U.S. (37.4)[14]

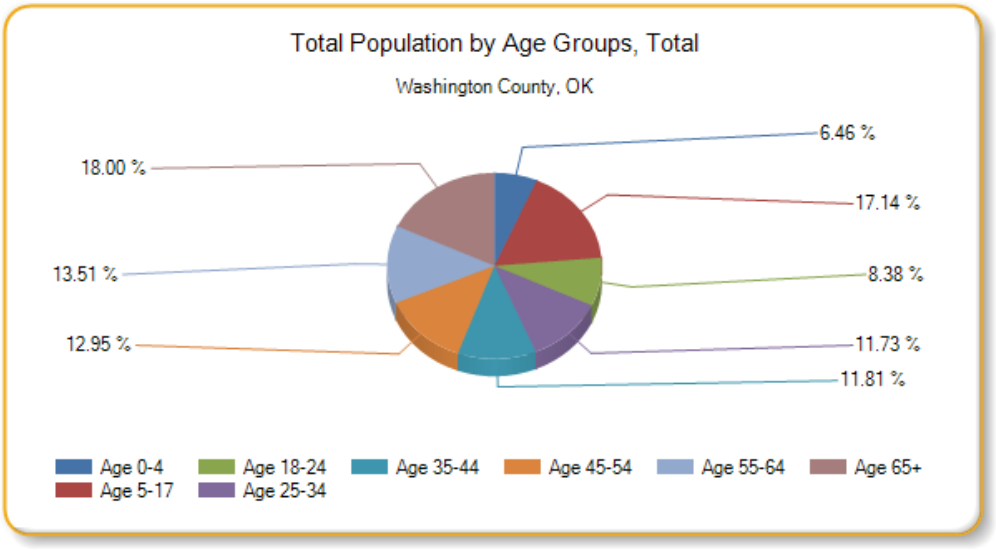
Figure 8: Total Population by Gender, Washington County 2010-2014



Report Area	Male	Female	Percent Male	Percent Female
Washington County, OK	24,829	26,735	48.15%	51.85%
Oklahoma	1,891,526	1,927,325	49.53%	50.47%
United States	154,515,152	159,591,920	49.19%	50.81%

Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/ programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Figure 9: Total Population by Age Groups, Washington County, 2010-1014

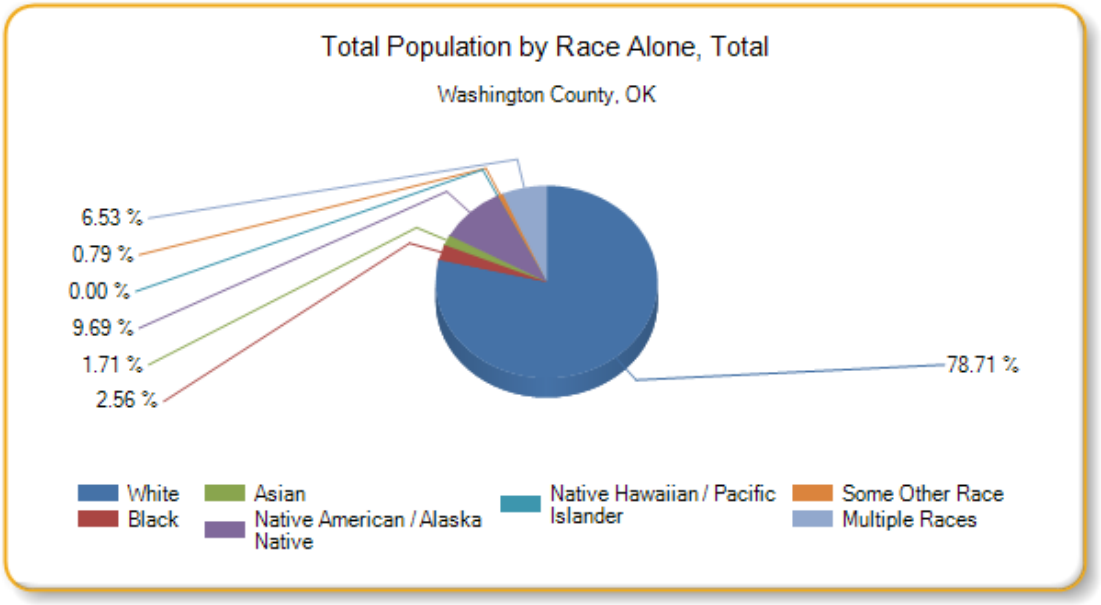


Report Area	Age 0-4	Age 5-17	Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65
Washington County, OK	6.46%	17.14%	8.38%	11.73%	11.81%	12.95%	13.51%	18%
Oklahoma	6.94%	17.71%	10.17%	13.63%	12.23%	13.26%	12.07%	13.99%
United States	6.36%	17.13%	9.96%	13.47%	12.96%	14.09%	12.29%	13.75%

Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Whites comprised 78.7percent of the population and Native American/Alaska Natives made up the largest minority race at 9.7 percent (Figure 10). Hispanics comprised 5.4 percent of the population, although that is likely an underestimation because of potential undercounting of undocumented Hispanic immigrants (Figure 11).[14] It should be noted that race and ethnicity are separate concepts. Individuals of Hispanic origin are those who indicate that their country of origin is Mexico, Puerto Rico, Cuba, Central or South America, or some other Hispanic origin, and can be of any race. Non-Hispanic refers to all people whose ethnicity is not Hispanic.

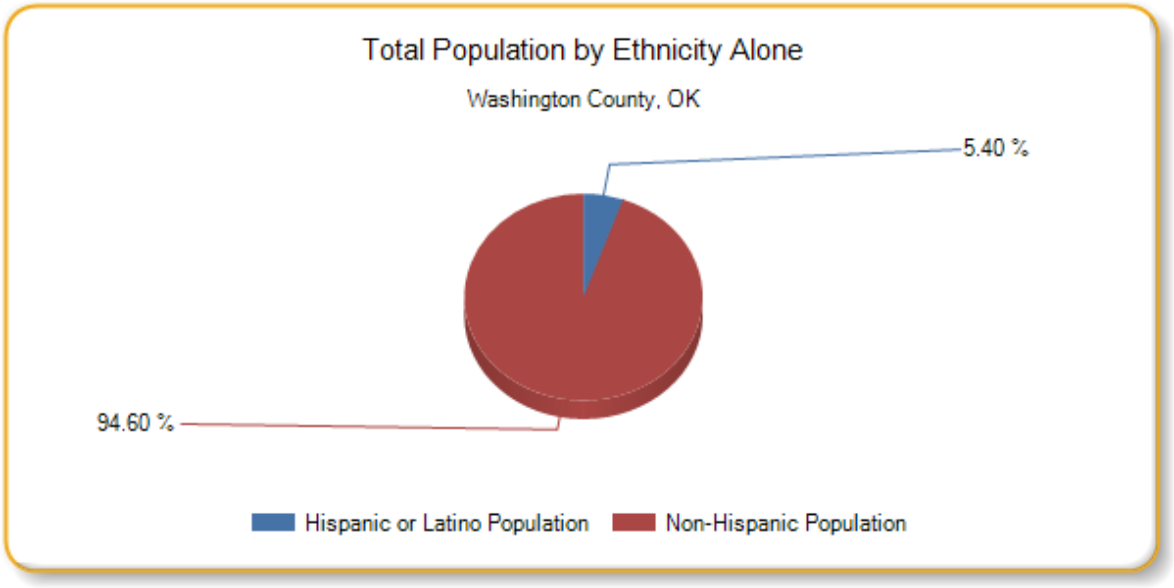
Figure 10: Total Population by Race, Washington County 2013



Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
Washington County, OK	78.71%	2.56%	1.71%	9.69%	0%	0.79%	6.53%
Oklahoma	73.3%	7.25%	1.87%	7.18%	0.11%	2.53%	7.75%
United States	73.81%	12.6%	5%	0.82%	0.17%	4.7%	2.91%

Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Figure 11: Total Population by Ethnicity Alone, Washington County 2010-2014



Report Area	Total Population	Hispanic or Latino Population	Percent Population Hispanic or Latino	Non-Hispanic Population	Percent Population Non-Hispanic
Washington County, OK	51,564	2,784	5.4%	48,780	94.6%
Oklahoma	3,818,851	357,916	9.37%	3,460,935	90.63%
United States	314,107,072	53,070,096	16.9%	261,036,992	83.1%

Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Population Change

Definition

This demographic indicator is presented as the percentage change in the population within the county from the 2010 U.S. Census.

Why Is This Indicator Important?

Trends in general population growth and decline help target specific locations and/or demographic groups where public health efforts should be focused in order to ensure adequate access to community-based programs.

How Are We Doing?

According to the United States Census Bureau Decennial Census, between 2000 and 2010 the population grew by 1,980 persons, a change of 4.04 percent (Table 4 and Figure 12). [17]

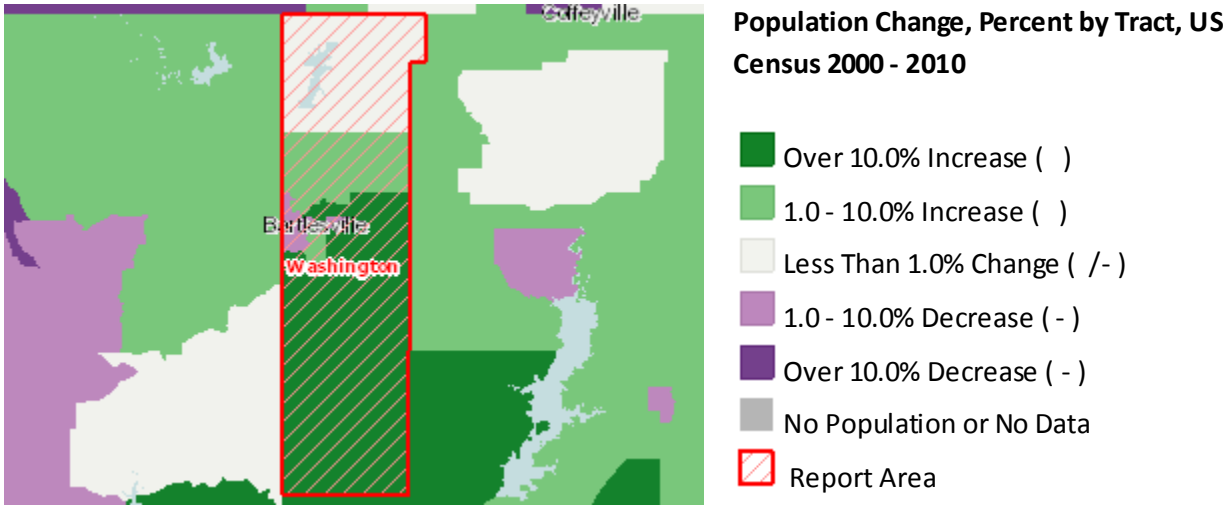
[17] U.S. Census Bureau. (2010). *2010 Census*. Retrieved from: https://www.census.gov/2010census/.

Table 4: Percent Population Change, Washington County 2000-2010

Report Area	Total Population, 2000 Census	Total Population, 2010 Census	Total Population Change, 2000-2010	Percent Population Change, 2000-2010
Washington County, OK	48,996	50,976	1,980	4.04%
Oklahoma	3,450,653	3,751,351	300,698	8.71%
United States	280,405,781	307,745,539	27,339,758	9.75%

Data Source: U.S. Census Bureau. (2010). *Decennial Census. 2000 - 2010.* Retrieved from: https://www.census.gov/.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

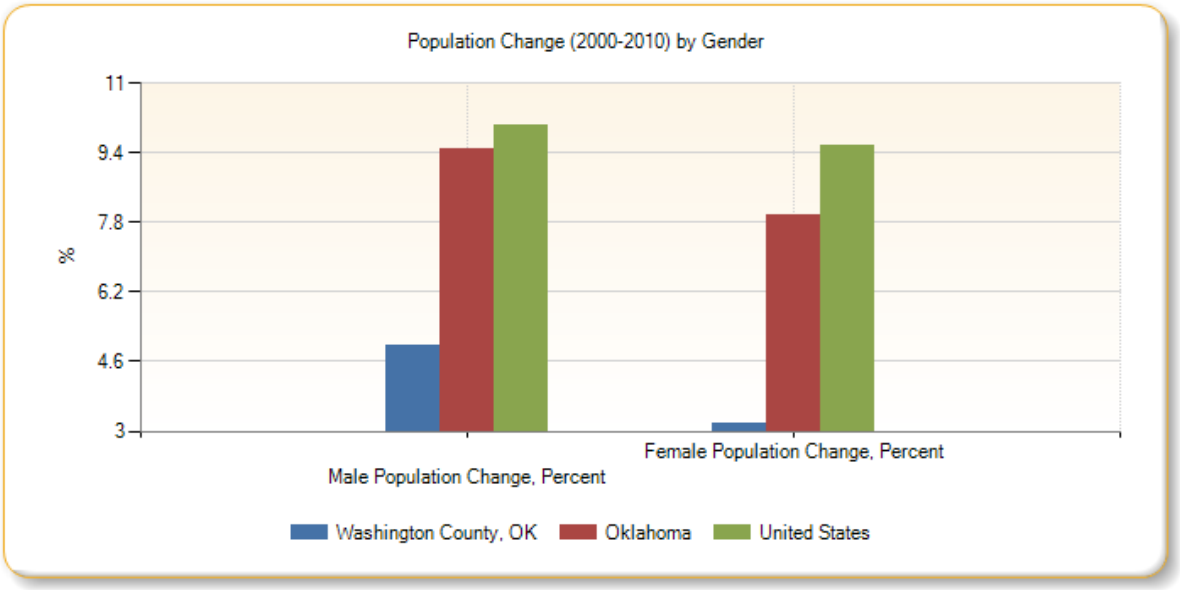
Figure 12: Population Change, Percent by Tract, US Census 2000-2010



Data Source: U.S. Census Bureau. (2010). *Decennial Census. 2000 - 2010.*
Retrieved from: https://www.census.gov/.
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016

The male population in Washington County had the largest increase in population between 2000 and 2010 (4.97%) as compared to the female population (3.19%) (Figure 13). [15] This increase was similarly reflected in Oklahoma and the U.S.

Figure 13: Population Change (2000-2010) by Gender, Washington County



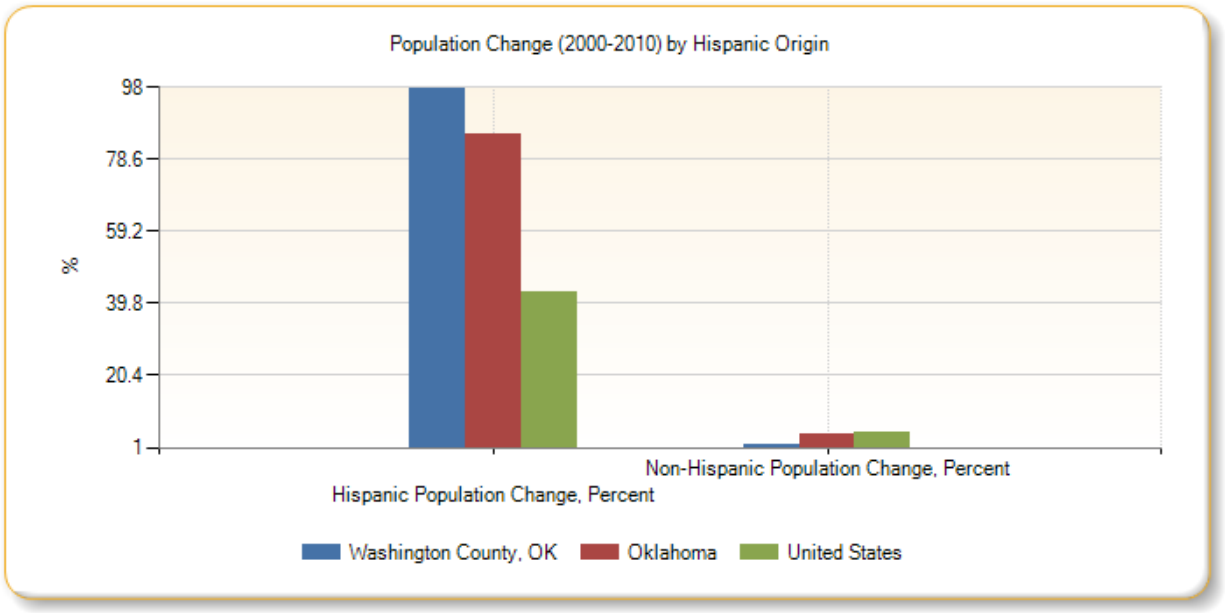
Report Area	Male Population Change, Total	Male Population Change, Percent	Female Population Change, Total	Female Population Change, Percent
Washington County, OK	1,167	4.97%	813	3.19%
Oklahoma	161,081	9.5%	139,615	7.96%
United States	13,738,020	10.02%	13,601,733	9.55%

Data Source: U.S. Census Bureau. (2010). *Decennial Census. 2000 - 2010.* Retrieved from: https://www.census.gov/.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Increasing Hispanic Population:

Based on U.S. Census data, the Hispanic populations in Washington County, the state, and the nation, have been increasing since 2000. According to the 2014 American Community Survey 5-year estimates, the Hispanic population numbered **2,784** in Washington County. In 2013, Hispanics comprised 5.4 percent of the Washington County population, which was lower than the state value of 9.4 percent and the U.S. percentage of 16.9 percent (Figure 11). [14] The percent change in the Hispanic population was 97.7 percent which was slightly higher than in Oklahoma (85.2%) and significantly higher than in the U.S. (42.9%) (Figure 14).[15] However, due to the potential undercounting of undocumented Hispanic immigrants, the number was likely much higher. There are many barriers which can lead to health disparities inequalities in health care and preventive services among this group.

Figure 14: Population Change (2000-2010) by Hispanic Origin

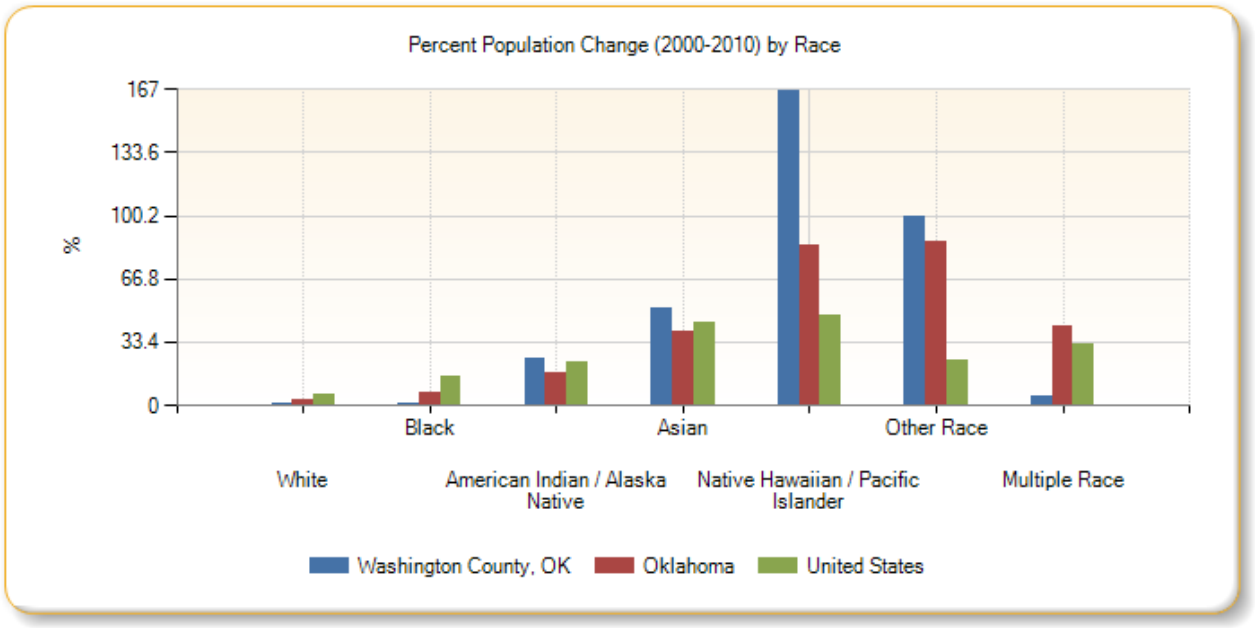


Report Area	Hispanic Population Change, Total	Hispanic Population Change, Percent	Non-Hispanic Population Change, Total	Non-Hispanic Population Change, Percent
Washington County, OK	1,263	97.68%	717	1.5%
Oklahoma	152,703	85.16%	147,992	4.52%
United States	15,152,943	42.93%	12,099,099	4.92%

Data Source: U.S. Census Bureau. (2010). *Decennial Census. 2000 - 2010.* Retrieved from: https://www.census.gov/.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

All racial and ethnic populations increased from 2000 to 2010. The most striking growth occurred in the population of 'other' race, which was estimated to have a 100.2 percent increase from 2000-2010 (Figure 15). [15]

Figure 15: Percent Population Change (2000-2010) by Race



Report Area	White	Black	American Indian / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Other Race	Multiple Race
Washington County, OK	0.4%	0.82%	24.51%	51.78%	166.67%	100.22%	4.51%
Oklahoma	2.98%	6.39%	17.73%	39.15%	84.19%	86.26%	41.89%
United States	5.8%	15.43%	22.56%	43.72%	47.37%	24.2%	32.61%

Data Source: U.S. Census Bureau. (2010). *Decennial Census. 2000 - 2010.* Retrieved from: https://www.census.gov/.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Increasing Immigrant Population:

According to the American Community Survey of the U.S. Census Bureau, in 2013 Oklahoma was home to 218,432 immigrants, accounting for 5.7% of the state's total population (up from 2.1% in 1990, and 3.8% in 2000). Just over one-third of Oklahoma's immigrant population (76,300 people) in 2013 were considered naturalized U.S. citizens, making them eligible to vote. These New Americans -immigrants or the native-born children of immigrants - accounted for 2.6% of all Oklahoma's registered voters. [18] [19]

Population in Limited English Households/ Population with Limited English Proficiency

[18] Community Service Council, Census Information Center of Eastern Oklahoma. (2016). *Data Blast: April 2016 (41).* Retrieved from www.csc.org.
[19] U.S. Census Bureau. (2013). *American Community Survey 2009-2013 5-Year Estimates*. Retrieved from: https://www.census.gov/ programs-surveys/acs/data.html.

Definition

This section includes two indicators. The first indicator reports the percentage of the population aged 5 and older living in Limited English speaking households. A "Limited English speaking household" is one in which no member 14 years old and over (1) speaks only English at home or (2) speaks a language other than English at home and speaks English "Very well."

The second indicator reports the percentage of the population aged 5 and older who speak a language other than English at home and speak English less than "very well."

Why Is This Indicator Important?

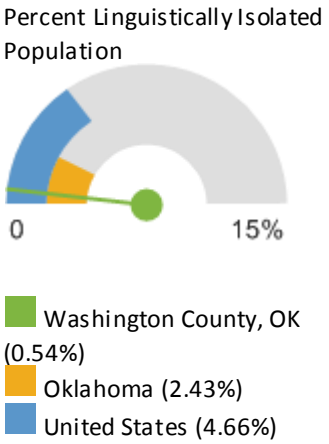
These indicators are significant as they identify households and populations that may need English-language assistance. These indicators are relevant because an inability to speak English well creates barriers to healthcare access, provider communications, and health literacy/education.

How Are We Doing?

In 2010-2014, the percent of the population in Washington County that was linguistically isolated was .54 percent which was lower than in Oklahoma overall (2.43%) and in the U.S. overall (4.66%) (Figure 16 and Figure 17). [14] The percent of the population 5 years old and older in Washington County with limited English proficiency was 1.48% which was lower than in Oklahoma overall (3.97%) and in the U.S. overall (8.6%) (Figure 18 and Figure 19).[14]

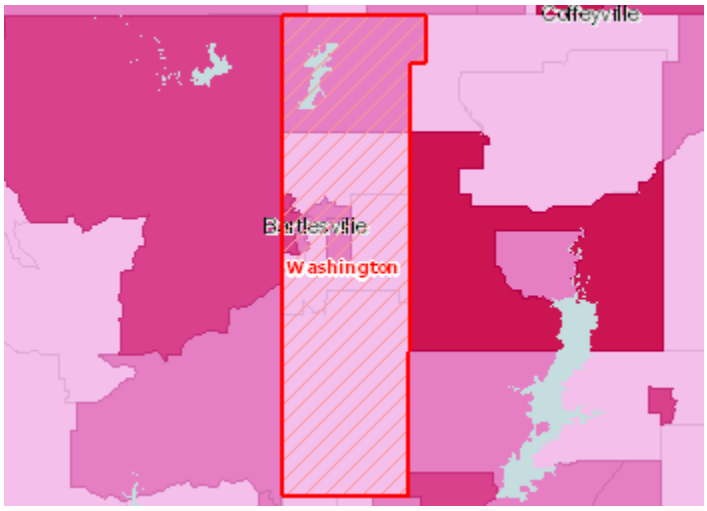
Figure 16: Percent Linguistically Isolated Population by Locality, 2010-2014

Report Area	Total Population Age 5	Linguistically Isolated Population	Percent Linguistically Isolated Population
Washington County, OK	48,234	262	0.54%
Oklahoma	3,553,984	86,214	2.43%
United States	294,133,376	13,692,809	4.66%



Data Source: U.S. Census Bureau. (2013). *American Community Survey 2010-2014*. Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Figure 17: Population Linguistically Isolated Households, Percent by Tract, ACS 2010-2014



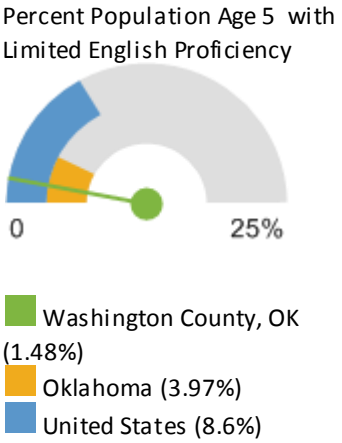
Population in Linguistically Isolated Households, Percent by Tract, ACS 2010-14

- Over 3.0%
- 1.1 - 3.0%
- 0.1 - 1.1%
- No Population in Linguistically Isolated Households
- No Data or Data Suppressed
- Report Area

Data Source: Same as above.
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016

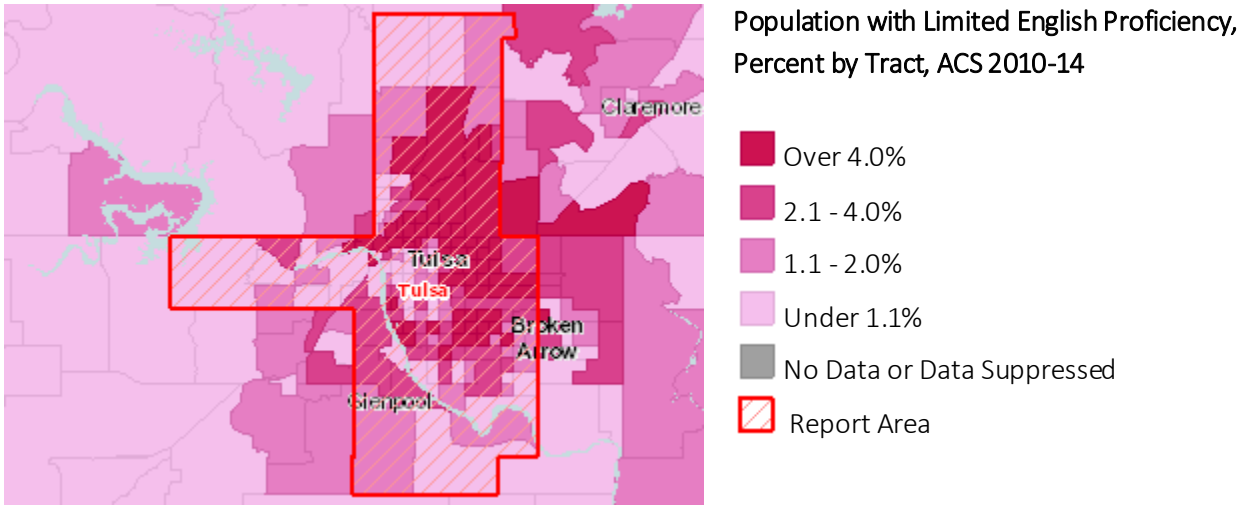
Figure 18: Percent Population Age 5+ with Limited English Proficiency by Locality. 2010-2014

Report Area	Population Age 5	Population Age 5 with Limited English Proficiency	Percent Population Age 5 with Limited English Proficiency
Washington County, OK	48,234	712	1.48%
Oklahoma	3,553,984	141,231	3.97%
United States	294,133,388	25,305,204	8.6%



Data Source: U.S. Census Bureau. (2013). *American Community Survey 2010-2014*. Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

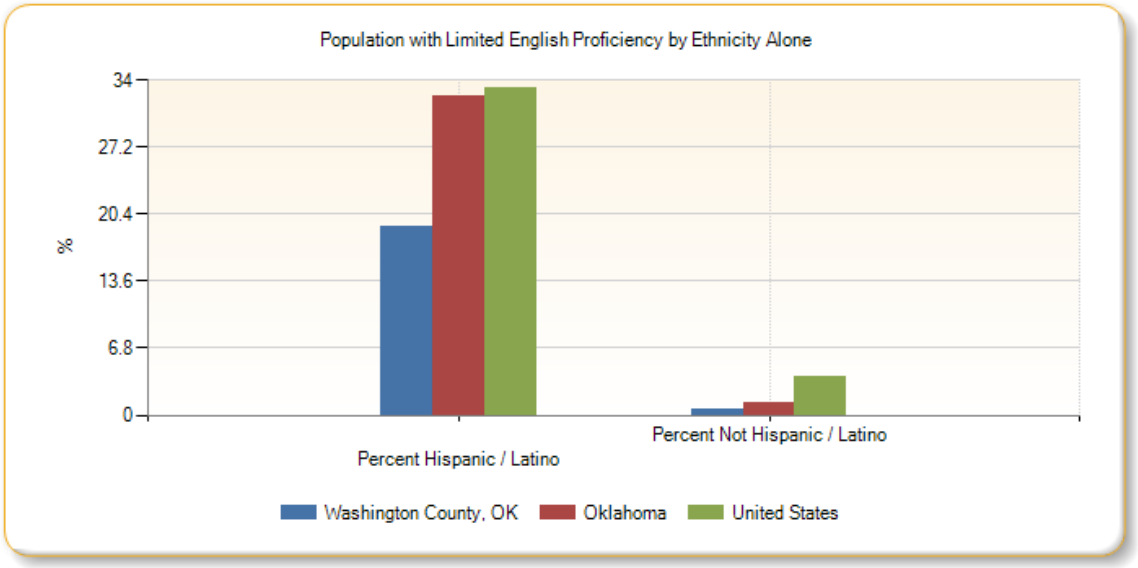
Figure 19: Population with Limited English Proficiency by Tract, ACS, 2010-2014



Data Source: Same as above.
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016

In 2010-2014. The percent of the population in Washington County with limited English proficiency by Hispanic ethnicity alone was 19.14% which was significantly lower than in Oklahoma (32.39%) and in the U.S. (33.12%) (Figure 20).[14] Whites were the race with the highest percentage of limited English proficiency (55.06%) followed by some other race (21.77%) and Asian (21.77%) (Figure 21). [14]

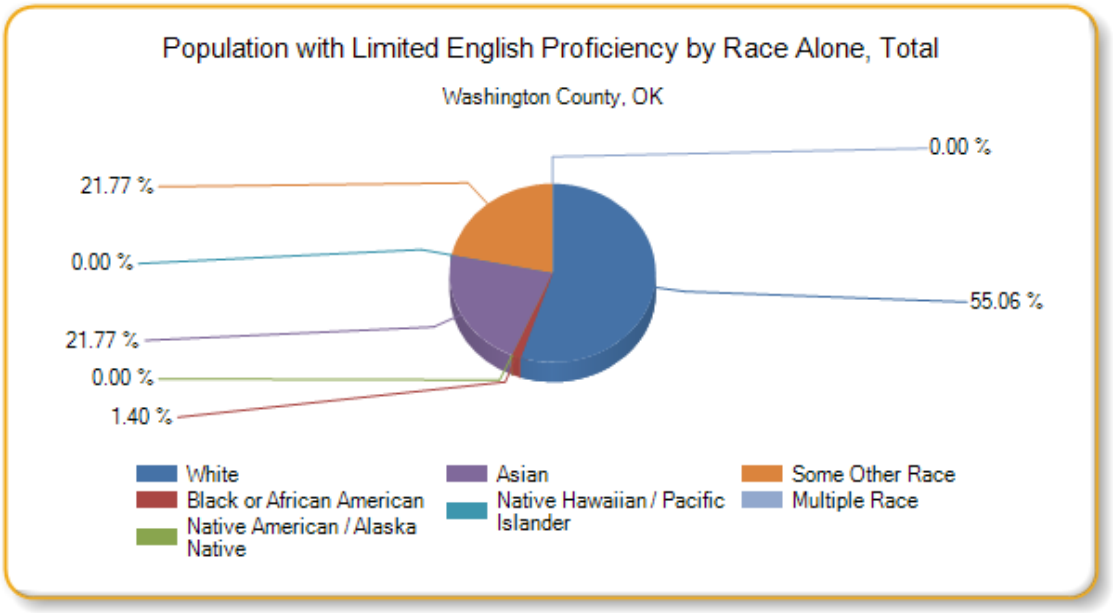
Figure 20: Population with Limited English Proficiency by Ethnicity Alone by Locality, 2010-2014



Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Washington County, OK	470	242	19.14%	0.53%
Oklahoma	101,164	40,067	32.39%	1.24%
United States	15,881,488	9,423,716	33.12%	3.83%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

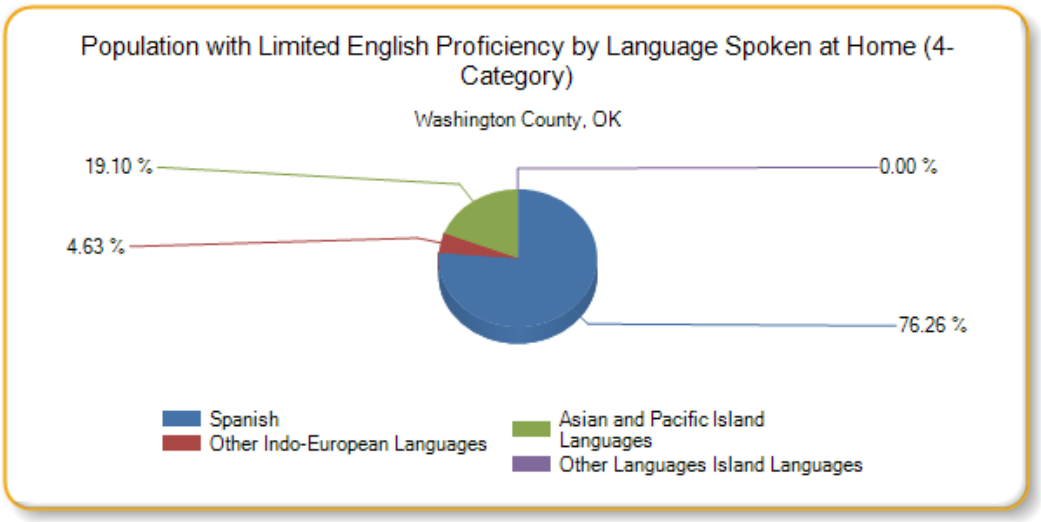
Figure 21: Population with Limited English Proficiency by Race Alone, Total, Washington County



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

In 2010-2014, the language spoken at home in Washington County with the highest percentage of the population with limited English proficiency was Spanish (76.26%). Asian and Pacific Island languages made up the second highest percentage (19.10%) (Figure 22). [14]

Figure 22: Population with Limited English Proficiency by Language Spoken at Home (4-Category)



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Families with Children

Definition

This indicator reports the percentage of households with families with children under the age of 18 in the county. As defined by the U.S. Census Bureau, a family household is any housing unit in which the householder is living with one or more individuals related to him or her by birth, marriage, or adoption. A non-family household is any household occupied by the householder alone, or by the householder and one or more unrelated individuals.[15]

Why Is This Indicator Important?

This indicator is significant as it identifies households with children. Adequate resources, healthy and safe environments, and positive intellectual and emotional development of children are key to eventual transition into healthy and productive adulthood. Unfortunately, these are not guaranteed and many children do not have the opportunity to benefit from such conditions.[20]

How Are We Doing?

According to the most recent the American Community Survey estimates, 32.4 percent of all occupied households in the report area are family households with one or more child (ren) under the age of 18 (Table 5 and Figure 22).[14]

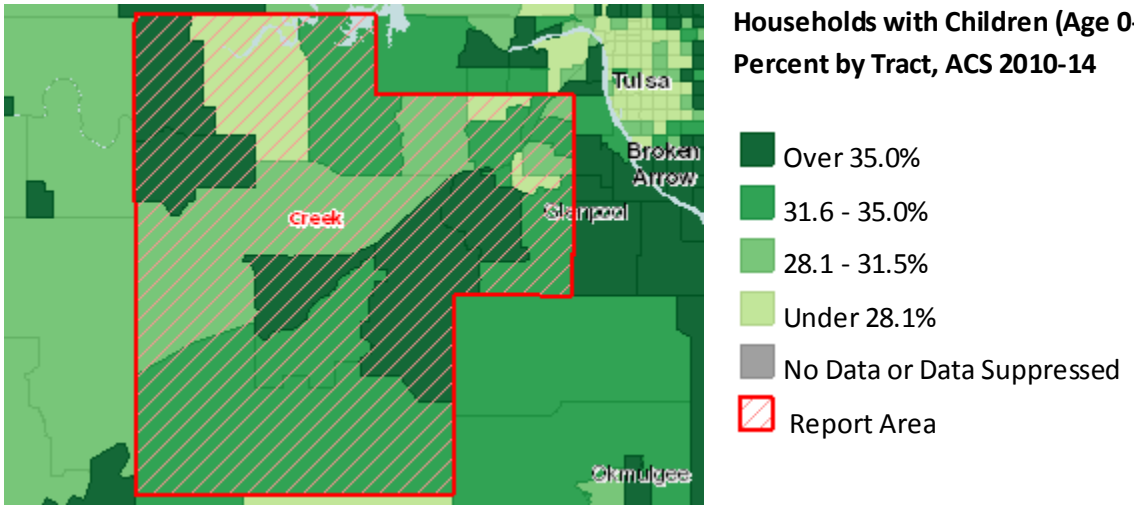
[20] Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2015). *Community Profile: Creek County 2015*. Retrieved from: www.csctulsa.org.

Table 5: Families with Children (Under Age 18), Percent of Total Households, Washington County 2010-2014

Report Area	Total Households	Total Family Households	Families with Children (Under Age 18)	Families with Children (Under Age 18), Percent of Total Households
Washington County, OK	26,232	18,753	8,506	32.43%
Oklahoma	1,450,117	964,329	473,383	32.64%
United States	116,211,088	76,958,064	37,554,348	32.32%

Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

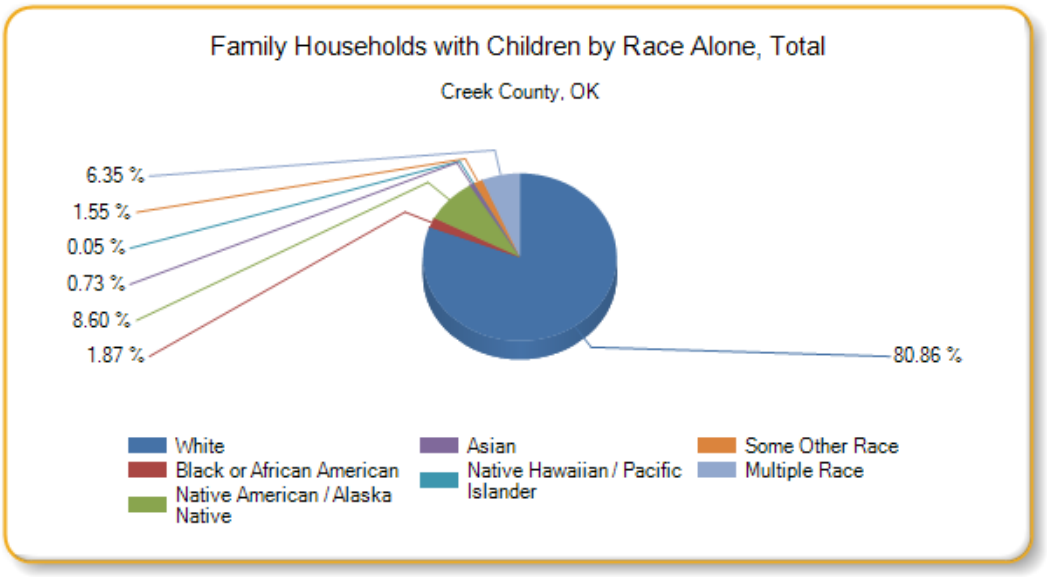
Figure 23: Households with Children (Age 0-17), Percent by Tract, ACS 2010-2014



Data Source: Same as above.
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016

The populations of white (80.86%) and Native American/Alaskan Native (8.60%) had the highest percentages of families with children in 2010-2014 (Figure 23).[14]

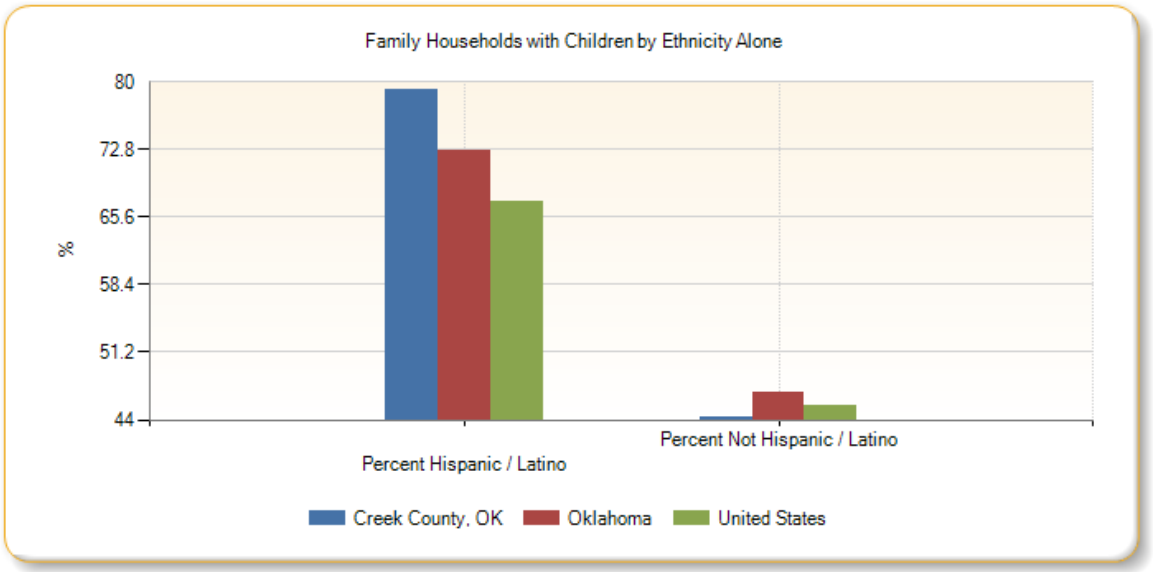
Figure 24: Family Households with Children by Race Alone, Percent



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

An estimated 79.1 percent of the households with children under age 18 were Hispanic. This was higher than in Oklahoma (72.7%) and in the U.S. (67.2%) (Figure 24).[14]

Figure 25: Family Households with Children by Ethnicity Alone



Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Washington County, OK	368	8,090	79.14%	44.24%
Oklahoma	51,140	419,926	72.7%	46.97%
United States	7,289,959	30,122,004	67.18%	45.57%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Family Type

Definition

This section includes two indicators on family type. The first indicator, female headed household, is defined as a household headed by a female with related children less than 18 years of age, with no husband present. It is presented as a percentage of all households with related children less than 18 years of age, based on *2013 American Community Survey* 5-year estimates. The second indicator reports on children in non-traditional settings, is reports the number of children living grandparents, other relatives, non relatives, and those living in institutions based on the *2010 U.S. Census*. Institutions are supervised facilities, such as correctional facilities, nursing facilities, psychiatric hospitals, group homes for juveniles, and residential treatment center for juveniles. Information included in this section was prepared by and provided courtesy of the Community Service Council. This information was sourced from the Community Service Council's (supported by the Metropolitan Human Services Commission in Tulsa) *Community Profile: Washington County 2015*.

Why Is This Indicator Important?

Family structure is widely known to be associated with children's chances of growing up in poverty, struggling or succeeding academically, and more. Relatively less attention is paid to children's health outcomes—but these, too, are related to family structure.

Households headed by single women are more likely to be impoverished, which impacts the physical, mental, and educational outcomes of the children raised in these homes. Children living with grandparents similarly face an increased risk for poor health outcomes. Parents with limited economic resources face many obstacles to healthy living and opportunities for learning. The effects of living in a single-parent household and grandchildren being raised by grandparents go beyond the children; the mothers and grandparents are also affected. Single mothers and grandparents raising grandchildren often report higher levels of psychological distress, lower levels of perceived social support, and poorer eating habits, all of which affect their ability to parent.[21] [22]

How Are We Doing?

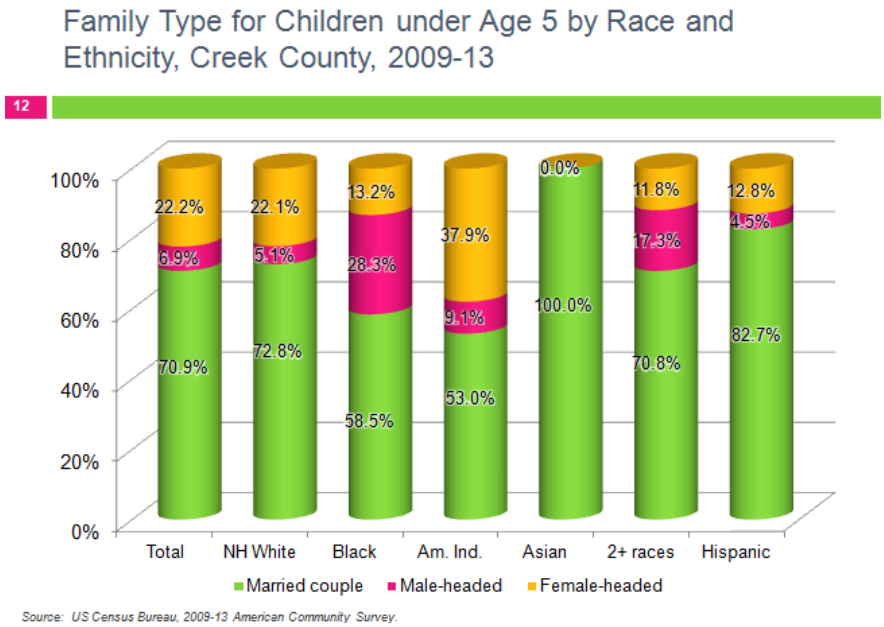
[21] The Henry J. Kaiser Family Foundation. (2013). *Social Determinants. Putting Women's Health Care Disparities on The Map: Examining Racial and Ethnic Disparities at the State Level.* Retrieved from: http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7886socialdeterminants.pdf.
[22] Bramlett, M. & Blumberg, S. (2007). Family Structure and Children's Physical and Mental Health. *Health Affairs, 26*(2). Retrieved from: http://content.healthaffairs.org/content/26/2/549.full.

According to the *2013 American Community Survey* estimates, female headed families are most common among American Indians (37.9%) and Whites (22.1%) in Washington County. The percent of female-headed families among Blacks and Hispanics were much lower at 13.2 percent and 12.8 percent respectively. Due to small sample sizes, data for black and Asian family types were reported with large margins of error and therefore should be interpreted with caution.[17] [18]

Since 2000, children are increasingly living with grandparents, other relatives and non-relatives. Oklahoma ranks 4th in grandparents raising grandchildren. One of the major reasons is our high rate of incarceration of women; we have ranked #1 in the incarceration of women for all but one of the past 10 years when we were outpaced by Texas.[18]

Many of the children living with non-relatives are in foster care homes. Oklahoma is tied for the 44th state in rate of children 0-17 in the foster care system with a rate of 8/1,000; the national average is 5/1000. Children in the foster care system tend to face some tough challenges. Forty to 50 percent of children in foster care will not finish high school; 60 percent will become homeless, go to jail or die within one year of leaving the foster care system at 18. Girls in foster care are 600 percent more likely than the general population to become pregnant before age 21. Foster care is more likely to be on public assistance as adults. The number of children in foster care is commonly used as an indicator for the future prison population. Eighty percent of the prison population were once foster children.[18] [23]

Figure 26: Family Type for Children for Children under Age 5 by Race and Ethnicity, Washington County 2009-2013

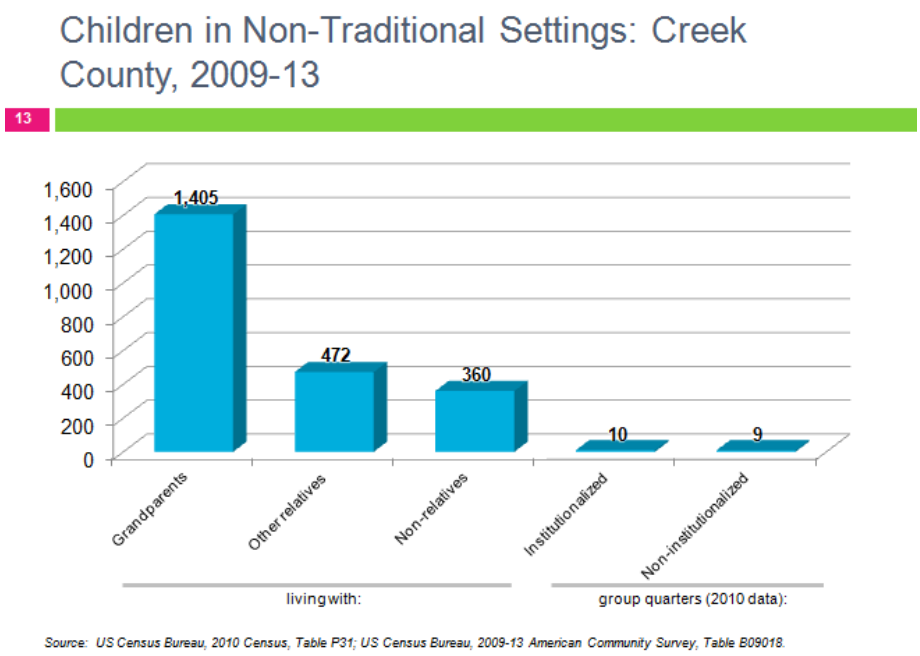


Data Source: U.S. Census Bureau. (2013). *American Community Survey 2009-2013 5-Year Estimates.* Retrieved from: https://www.census.gov/ programs-surveys/acs/data.html.

Source: Courtesy of the Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2014). *Community Profile: Washington County 2015.* Retrieved from: www.csctulsa.org.

Figure 27: Children in Non-Traditional Settings: Washington County, 2009-2013

[23] U.S. Census Bureau. (2010). *2010 Census*. Retrieved from: https://www.census.gov/2010census/.



Source: US Census Bureau, 2010 Census, Table P31; US Census Bureau, 2009-13 American Community Survey, Table B09018.

Data Source: U.S. Census Bureau. (2013). *American Community Survey 2009-2013 5-Year Estimates.* Retrieved from: https://www.census.gov/ programs-surveys/acs/data.html.
U.S. Census Bureau. (2010). *2010 Census*. Retrieved from: https://www.census.gov/2010census/.
Source: Courtesy of the Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2014). *Community Profile: Washington County 2015*. Retrieved from: www.csctulsa.org.

HEALTH OUTCOMES

Examining a community's health outcomes allows linkages between social determinants of health and outcomes to be assessed. By comparing, for example, the prevalence of certain chronic diseases to indicators in other categories (e.g., poor diet and exercise) with outcomes (e.g., high rates of obesity and diabetes), various causal relationship may emerge, allowing a better understanding of how certain community health needs may be addressed.

Health Status

Health Outcomes Ranking

Definition

This indicator demonstrates overall rankings in health outcomes for counties throughout the state. The healthiest county in the state is ranked #1. The ranks are based on two types of measures: how long people live (length of life) and how healthy people feel while alive (quality of life). The distribution of health outcomes is based on an equal weighting of length and quality of life. This information is based on the 2016 County Health Rankings & Roadmaps courtesy of the University of Wisconsin Population Health Institute.

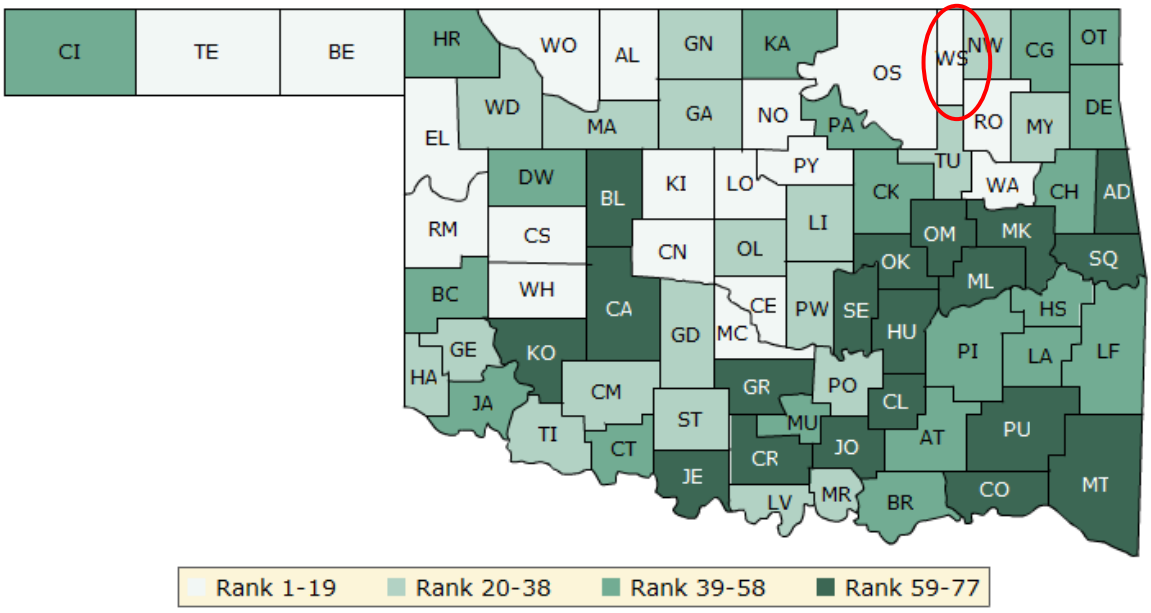
Why Is This Indicator Important?

The overall rankings in health outcomes represent how healthy counties are within the state.

How Are We Doing?

The map below, demonstrates the distribution of health outcomes in Oklahoma (Figure 28). Lighter shades indicate better performance in the respective summary rankings. In 2016, Washington County ranked 17th out of 77 counties in Oklahoma in regard to health outcomes (Figure 28 and Table 6).[7] According to the Oklahoma State Health Department's *2014 State of the State's Health* report, one in four Washington County adults reported four or more days of poor physical health (25%) and nearly one in four reported four or more days of poor mental health (24%) in the previous month.[27]

Figure 28: 2016 Oklahoma Health Outcomes Map



Source: Courtesy of University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps*. Retrieved from: www.countyhealthrankings.org.

Table 6: 2016 Oklahoma Health Outcomes Table

County	Rank	County	Rank	County	Rank	County	Rank
Adair	76	Delaware	53	Lincoln	35	Pittsburg	54
Alfalfa	15	Dewey	43	Logan	6	Pontotoc	38
Atoka	46	Ellis	7	Love	25	Pottawatomie	37
Beaver	11	Garfield	22	Major	23	Pushmataha	65
Beckham	44	Garvin	68	Marshall	36	Roger Mills	5
Blaine	62	Grady	30	Mayes	33	Rogers	4
Bryan	47	Grant	29	McClain	13	Seminole	71
Caddo	70	Greer	27	McCurtain	66	Sequoyah	61
Canadian	3	Harmon	26	McIntosh	74	Stephens	34
Carter	67	Harper	45	Murray	56	Texas	9
Cherokee	58	Haskell	55	Muskogee	63	Tillman	31
Choctaw	75	Hughes	69	Noble	14	Tulsa	20
Cimarron	39	Jackson	48	Nowata	32	Wagoner	8
Cleveland	2	Jefferson	77	Okfuskee	72	Washington	17
Coal	60	Johnston	73	Oklahoma	28	Washita	16
Comanche	24	Kay	42	Okmulgee	59	Woods	10
Cotton	40	Kingfisher	1	Osage	19	Woodward	21
Craig	50	Kiowa	64	Ottawa	57		
Creek	49	Latimer	41	Pawnee	52		
Custer	18	Le Flore	51	Payne	12		

Source: Courtesy of University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps.* Retrieved from: www.countyhealthrankings.org.

Mortality

Total Mortality

Definition

This indicator reports the total mortality rate presented as the number of deaths per 100,000 population (based on U.S. 2000 standard population) in 2010-2014. The rates were age-adjusted to account for differences in age distribution.

Why Is This Indicator Important?

Mortality rates are important in the measurement of disease and health as it relates to public health planning. Analyzing trends in mortality in specific demographic groups over a period of time can reflect changes in health and highlight areas that need to be targeted through public health services and interventions.[24]

[24] Australian Institute of Health and Welfare. (2016). *Why are Mortality Data Important?* Retrieved from: http://www.aihw.gov.au/why-are-mortality-data-important/.

How Are We Doing?

Oklahoma had the 4th highest death rate from all causes in the nation in 2012.[25] [26] The total mortality rate in Oklahoma (897.6 per 100,000 population) was over 20 percent higher than the U.S. total mortality rate (724.6 deaths per 100,000 population) in 2014. [23] [24] While the U.S. mortality rate dropped 20% over the last 20 years, Oklahoma's rate only decreased 5 percent. [23] [24] The total mortality rate per 100,000 population in Washington County in 2014 was 960.7, a rate that was higher than both Oklahoma and the U.S. (Table 7). [23] [24]

Table 7: Total Mortality Rates (Age-Adjusted, Deaths per 100,000 Population) by Locality, 2014

Locality	Rate of Deaths per 100,000 Population
Washington County	938.1
Oklahoma	897.6
U.S.	724.6

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2014. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.
Centers for Disease Control and Prevention, National Center for Health Statistics. (2016). Deaths: Final Data for 2013. *National Vital Statistics Reports (64)*2.

As expected, older adults in Washington County and Oklahoma experience higher death rates per 100,000 population. Death rates per 100,000 population among adults 35-84 were higher in Washington County than Oklahoma overall (Table 8). [24] [27]

Table 8: Total Mortality Rates (Deaths per 100,000 Population) by Age, Oklahoma 2014

Age in Years	Rate of Deaths per 100,000 Population, Oklahoma	Rate of Deaths per 100,000 Population, Washington County
15-24	87.0	79.5
25-34	139.2	122.4
35-44	262.3	355.0
45-54	592.6	701.6
55-64	824.6	1,517.2
65-74	1,228.1	2,702.7
75-84	5,421.5	5,486.9
85+	14,421.7	12,464.0

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2014. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.

[25] Centers for Disease Control and Prevention, National Center for Health Statistics. (2016). Deaths: Final Data for 2013. *National Vital Statistics Reports (64)*2.
[26] Oklahoma State Department of Health (OSDH). (2014). *2014 State of the State's Health*. Retrieved from: https://www.ok.gov/health/pub/boh/state/index.html.
[27] Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2014. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.

In Oklahoma, men had a 34 percent higher death rate than women (Table 9).[28 30] This disparity was similarly evident among Washington County residents.

Table 9: Total Mortality Rates (Age-Adjusted, Deaths per 100,000 Population) by Gender, 2014

Gender	Rate of Deaths per 100,000 Population, Oklahoma	Rate of Deaths per 100,000 Population, Washington County
Male	1,042.2	1,080.1
Female	773.9	811.5

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2014. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.

There are evident disparities in mortality rates among minorities as compared to White Oklahomans and Washington County residents. Hispanic Oklahomans had a death rate that was approximately half that of other racial/ethnic groups in Oklahoma and Washington County (Table 10).[24 25]

Table 10: Total Mortality Rates (Age- Adjusted, Deaths per 100,000 Population) by Race/Ethnicity, 2014

Race/Ethnicity	Rate of Deaths per 100,000 Population, Oklahoma	Rate of Deaths per 100,000 Population, Washington County
White Non-Hispanic	882.2	937.4
Black Non-Hispanic	1,025.0	702.3
American Indian Non-Hispanic	1,018.1	1,100.6
Asian/Pacific Islander	481.2	--
Hispanic	560.5	603.6

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2014. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.

Deaths from All Causes

Definition

The mortality rate from all causes is presented as the number of deaths per 100,000 population (based on U.S. 2000 standard population), in 2014. The rates were age-adjusted to account for differences in age distribution.

Why Is This Indicator Important?

Mortality rates are important in the measurement of disease and health as it relates to public health planning. Analyzing trends in mortality in specific demographic groups over a period of time can reflect changes in health and highlight areas that need to be targeted through public health services and interventions.[22]

How Are We Doing?

According to the Oklahoma State Health Department's *2014 State of the State's Health* report, Washington County ranked 46th in the state for total mortality (age-adjusted).[27] Washington County ranked 5th highest in the rate of deaths due to nephritis.[27] The top five causes of death were heart disease, cancer, chronic lower respiratory disease, accidents, and stroke. These top five causes were the same as the top five in the U.S. overall (Table 7).[28][29][30]

Table 11: Leading Causes of Death, Washington County 2014

LEADING CAUSES OF DEATH (RATE PER 100,000)	
Cause of Death	Rate per 100,000 Population
Heart Disease	248.2
Cancer	207.9
Chronic Lower Respiratory Disease	71.3
Unintentional Injury (Accidents)	60.0
Cerebrovascular Disease (Stroke)	53.9
Diabetes	28.7
Alzheimer's Disease	26.3
Suicides	20.9
Influenza/Pneumonia	17.6
Nephritis (Kidney Disease)	7.4

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2014. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.
Source: Oklahoma State Department of Health (OSDH). (2014). *2014 State of the State's Health*. Retrieved from: https://www.ok.gov/health/pub/boh/state/index.html.

Premature Death

Definition

This indicator reports Years of Potential Life Lost (YPLL) before age 75 per 100,000 population for all causes of death, age-adjusted to the 2000 standard. YPLL measures premature death and is calculated by subtracting the age of death from the 75 year benchmark.

Why Is This Indicator Important?

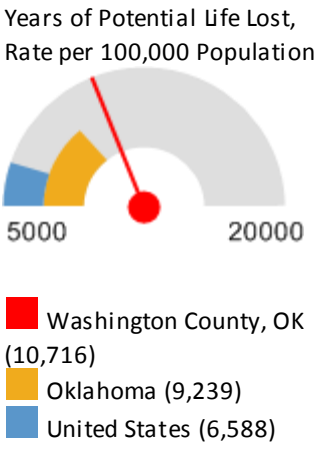
This indicator is relevant because a measure of premature death can provide a unique and comprehensive look at overall health status.

How Are We Doing?

The years of potential life lost per 100,000 population in Washington County was 10,716. This rate was higher than in Oklahoma (9,239) and the U.S. (6,588) (Figure 29 and Figure 30).[7][28]

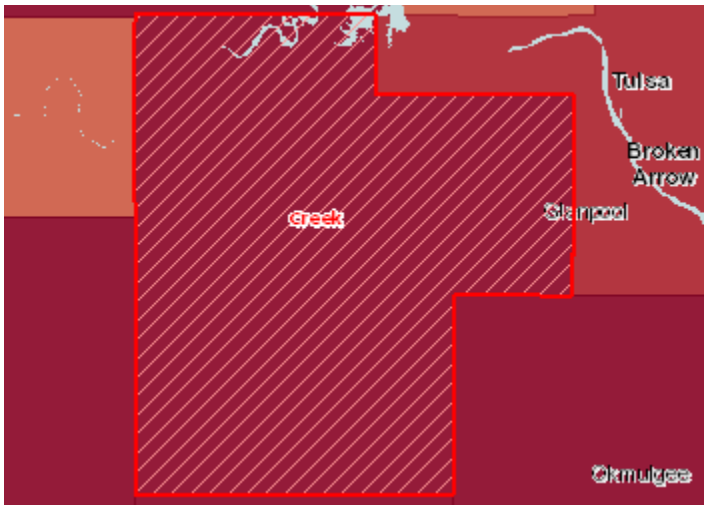
Figure 29: Years of Potential Life Lost, Rate per 100,000 Population

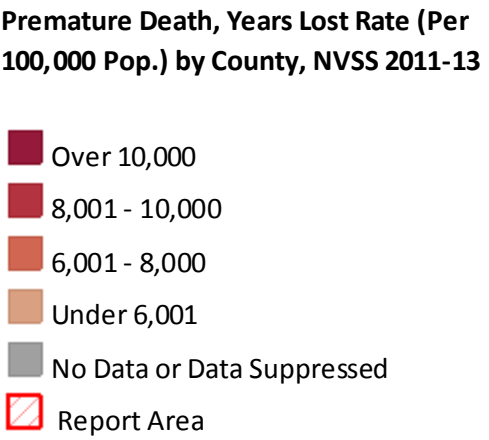
Report Area	Total Population, Census 2010	Total Premature Deaths, 2011-2013 Average	Total Years of Potential Life Lost, 2011-2013 Average	Years of Potential Life Lost, Rate per 100,000 Population
Washington County, OK	69,967	415	7,498	10,716
Oklahoma	3,751,351	18,447	346,370	9,239
United States	312,732,537	1,119,700	20,584,925	6,588



Data Source: University of Wisconsin Population Health Institute, County Health Rankings. Centers for Disease Control and Prevention, National Vital Statistics System. (2016). Retrieved from: CDC WONDER 2011-13.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Figure 30: Premature Death, Years Lost Rate (Per 100,000 Population) by County, NVSS 2011-2013





Data Source: Same as above.
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016

Life Expectancy

Life Expectancy

Definition

Life expectancy is the average additional number of years a person can expect to live at a certain age. The term 'life expectancy' it is generally referring to the average number of years a person may expect to live when they are born.

Why Is This Indicator Important?

Life expectancy trends, along with other health indicators, can help public health officials identify health disparities in the community and measure health improvement outcomes. Health officials can use this information to implement health policies and interventions to target issues that negatively and positively impact health within the community.

How Are We Doing?

The life expectancy at birth for Oklahomans in 2011-2013 was 76 years. [24] This was lower than the United States (77.2 years). [23] [24] The U.S. has seen life expectancy increase by 3.3 years (1990-2010) while Oklahoma has only seen an increase of 0.9 years over that same time. [23] [24] Between 1990 and 2012, the life expectancy for Oklahoma women has essentially stayed the same (increase of 0.1 years) while men have seen an increase of 1.6 years. [24] In 2013, the life expectancy in Washington County was even lower than in Oklahoma and the United States at 74.5 years (Table 12). [24]

In 2013, female life expectancy in Washington County was in the worst 25% of all counties in Oklahoma at 77.5 years, while male life expectancy was in the worst 10% of all counties at 71.4 years. This compares to the national average of 81.2 years for females and 76.5 years for males. Changes in Washington County over the period from 1985 to 2013 were in the worst-performing 10% of all counties in Oklahoma for females and in the worst-performing 10% of all counties for males, with females having a decrease of 0.7 years and males having a decrease of 0.9 years. The national average was an increase of 3.1 years for females and an increase of 5.5 years for males. [23] [24]

Table 12: Life Expectancy by Locality, 2013

Locality	Life Expectancy
Washington County	74.5
Oklahoma	76.0
U.S.	77.2

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2014. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.
Centers for Disease Control and Prevention, National Center for Health Statistics. (2016). Deaths: Final Data for 2013. *National Vital Statistics Reports (64)*2.

Hospital Utilization

Hospital Utilization

Definition

This indicator is an estimate of the use of acute care hospitals by Washington County residents during 2013. An acute care hospital is a short-term hospital (generally less than 30 days) where a patient is treated for a brief but severe episode of illness, for conditions that are the result of disease or trauma, and during recovery from surgery. It is presented as the number of hospital discharges per 1,000 population.

Why Is This Indicator Important?

Hospital inpatient utilization data give an indication of the magnitude and types of illnesses experienced by a population. It also identifies trends in age, gender, and race/ethnicity distributions among those who are admitted to the hospital. Changes in utilization trends may also reflect technological advances and efforts to shift care to outpatient services.

How Are We Doing?

The overall hospital utilization rate for Washington County in 2013 was 142 discharges per 1,000 population. This was higher than the rate in Oklahoma, which was 119.9 discharges per 1,000 population (Table 13). Females accounted for the majority of hospital discharges (57.7 %). By race, whites made up the majority of discharges (86.7 %), followed by American Indians (7.9 percent).[28]

Table 13: Hospital Discharges per 1,000 Population by Locality, 2013

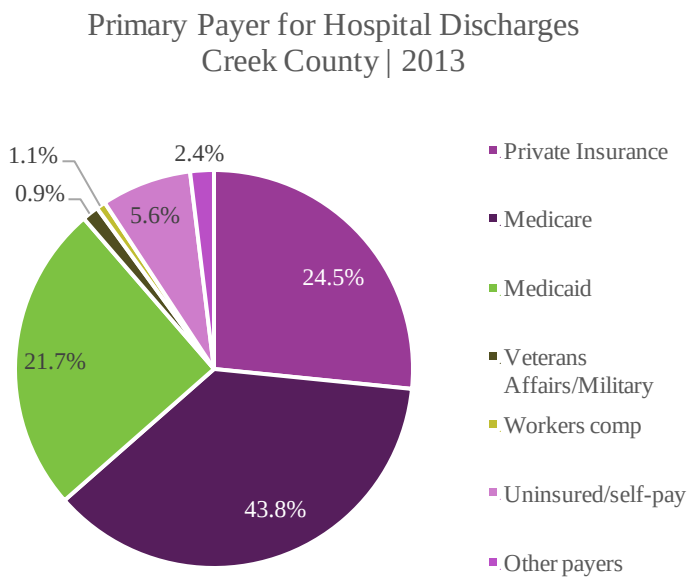
Locality	Life Expectancy
Washington County	142
Oklahoma	119.9

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Oklahoma Inpatient Data 2013. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.

The largest percentage of hospital stays were paid for by Medicare (43.8 %) followed by private insurance (24.5 %) and Medicaid (21.7 %) (Figure 31).[25]

[28] Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Oklahoma Inpatient Data 2013. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.

Figure 31: Primary Payer for Hospital Discharges, Washington County 2013



Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Oklahoma Inpatient Data 2013. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.

Circulatory conditions made up the largest number of all Washington County hospital stays in 2013. This includes heart diseases such as congestive heart failure, heart attack, coronary artery disease, and irregular heartbeat. Respiratory conditions were the second most common reason for inpatient hospitalization in Washington County. This includes asthma, chronic obstructive pulmonary disease (COPD), bronchitis, and other conditions related to the lungs and respiratory system (Table 14).[26]

Table 14: Inpatient Discharges by Medical Diagnosis Code, Washington County 2013

Major Disease Category (MDC)	Number of Discharges
Diseases And Disorders Of The Circulatory System	1,265
Diseases And Disorders Of The Respiratory System	1,184
Diseases And Disorders Of The Musculoskeletal System And Connective Tissue	1,135
Diseases And Disorders Of The Digestive System	928
Pregnancy, Childbirth And The Puerperium	869
Newborns And Other Neonates With Conditions Originating In The Perinatal Period	797
Diseases And Disorders Of The Nervous System	597
Diseases And Disorders Of The Kidney And Urinary Tract	541
Infectious And Parasitic Diseases	424
Mental Diseases And Disorders	391

Diseases And Disorders Of The Skin, Subcutaneous Tissue And Breast	318
Endocrine, Nutritional And Metabolic Diseases And Disorders	295
Diseases And Disorders Of The Hepatobiliary System And Pancreas	284
Factors Influencing Health Status And Other Contacts With Health Services 222	222
Injury, Poisoning And Toxic Effects Of Drugs	174
Diseases And Disorders Of The Female Reproductive System	132
Diseases And Disorders Of The Ear, Nose, Mouth And Throat	112
Diseases And Disorders Of The Blood And Blood-Forming Organs And Immunological Disorders	106
DRGs Associated With All MDCs And Pre-MDC	57
Alcohol/Drug Use And Alcohol/Drug-Induced Organic Mental Disorders	52
Myeloproliferative Diseases And Disorders And Poorly Differentiated Neoplasms	37
Others	36
Diseases And Disorders Of The Male Reproductive System	25
Human Immunodeficiency Virus Infections	24
Diseases And Disorders Of The Eye	12
Burns	--
Multiple Significant Trauma	--

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Oklahoma Inpatient Data 2013. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share.

The top ten inpatient cases by medical diagnosis code (MDC) for Jane Phillips Medical Center discharges in FY 2015 were also reviewed (Table 15). Respiratory conditions were the most common reason for hospitalization at Jane Phillips Medical Center.

Table 15: Top 10 Inpatient Cases by Medical Diagnosis Code for Jane Phillips Medical Center Discharges between 7/1/2014 and 6/30/2015

Medical Diagnosis Code	Total Number of Cases
DISEASES & DISORDERS OF THE RESPIRATORY SYSTEM	208
FACTORS INFLUENCING HLTH STAT & OTHR CONTACTS WITH HLTH SERVCS	95
DISEASES & DISORDERS OF THE MUSCULOSKELETAL SYSTEM & CONN TISSUE	88
DISEASES & DISORDERS OF THE DIGESTIVE SYSTEM	78
DISEASES & DISORDERS OF THE CIRCULATORY SYSTEM	66
DISEASES & DISORDERS OF THE KIDNEY & URINARY TRACT	61

DISEASES & DISORDERS OF THE SKIN, SUBCUTANEOUS TISSUE & BREAST	58
INFECTIOUS & PARASITIC DISEASES, SYSTEMIC OR UNSPECIFIED SITES	52
DISEASES & DISORDERS OF THE NERVOUS SYSTEM	40
DISEASES & DISORDERS OF THE HEPATOBILIARY SYSTEM & PANCREAS	34
GRAND TOTAL	**780**

Chronic Disease

Diabetes

Definition

This indicator is presented as the age-adjusted percentage of adult Washington County residents aged 20 and older who had ever been diagnosed with diabetes in 2012. It is important to note that this includes both type 1 and type 2 diabetes.

Why Is This Indicator Important?

This indicator is relevant because diabetes is a prevalent problem in the U.S.; it may indicate an unhealthy lifestyle and puts individuals at risk for further health issues. Diabetes mellitus (DM) occurs when the body cannot produce or respond appropriately to insulin. Insulin is a hormone that the body needs to absorb and use glucose (sugar) as fuel for the body's cells. Without a properly functioning insulin signaling system, blood glucose levels become elevated and other metabolic abnormalities occur, leading to the development of serious, disabling complications. Effective therapy can prevent or delay diabetic complications. However, almost 25 percent of Americans with DM are undiagnosed, and another 57 million Americans have blood glucose levels that greatly increase their risk of developing DM in the next several years.[29] Few people receive effective preventative care, which makes DM an immense and complex public health challenge.

How Are We Doing?

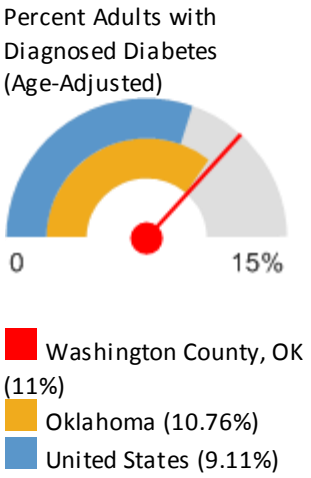
In 2012, 11 percent of Washington County residents reported that they had been diagnosed with diabetes. This was similar to the rate in Oklahoma (10.76%) and was slightly higher than the rate in the U.S. (9.1%) (Figure 32 and Figure 33).[30]

[29] .U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2016). *Healthy People 2020: Diabetes.* Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=8.

[30] Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. (2012).*Statistics and Tracking*. Retrieved from: http://www.cdc.gov/chronicdisease/.

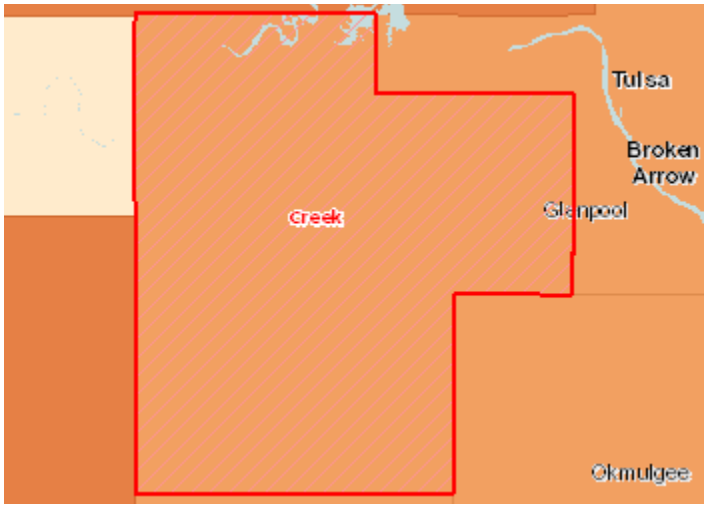
Figure 32: Percent Adults with Diagnosed Diabetes (Age-Adjusted) by Locality, 2012

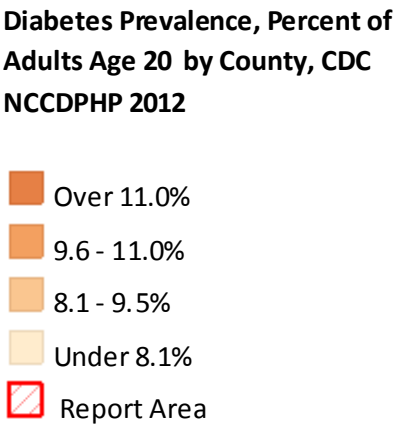
Report Area	Total Population Age 20	Population with Diagnosed Diabetes	Population with Diagnosed Diabetes, Crude Rate	Population with Diagnosed Diabetes, Age-Adjusted Rate
Washington County, OK	51,882	6,589	12.7	11%
Oklahoma	2,773,112	320,796	11.57	10.76%
United States	234,058,710	23,059,940	9.85	9.11%



Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. (2012). *Statistics and Tracking*. Retrieved from: http://www.cdc.gov/chronicdisease/.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Figure 33: Diabetes Prevalence, Percent of Adults Age 20 by County, CDC NCCDPHP 2012

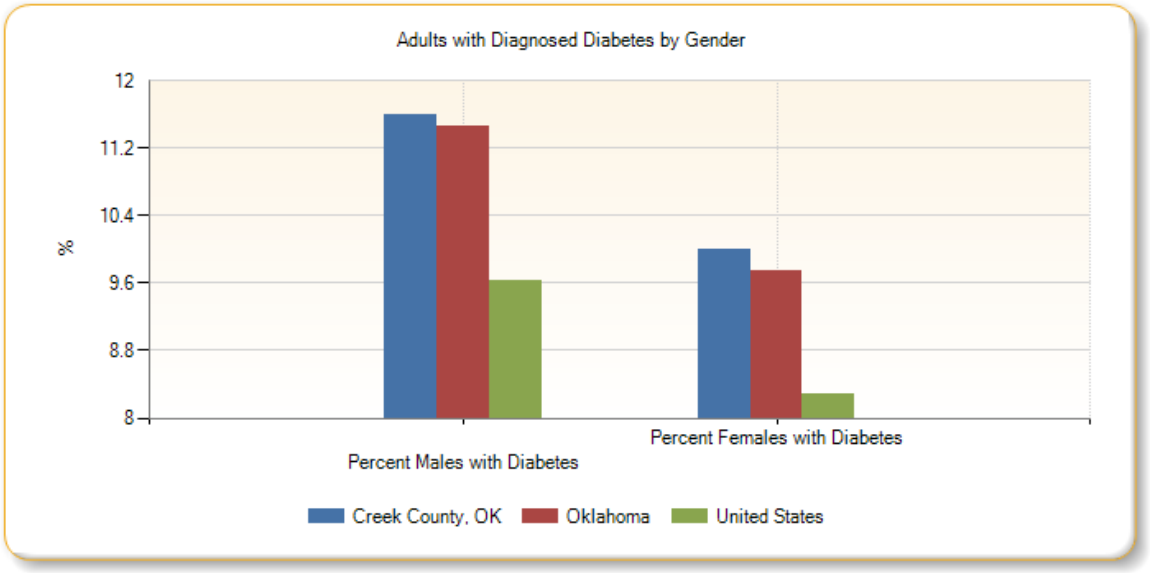




Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Males had a higher prevalence of diabetes than females (13.2 percent compared to 8.7 percent). Also, adults age 55+ had higher rates of diabetes. The prevalence of diabetes doubled from ages 45 – 54 to 55 – 64. With regard to race and ethnicity, black, non-Hispanics had a higher prevalence than other races/ethnicities (Figure 34).[20]

Figure 34: Adults with Diagnosed Diabetes by Gender

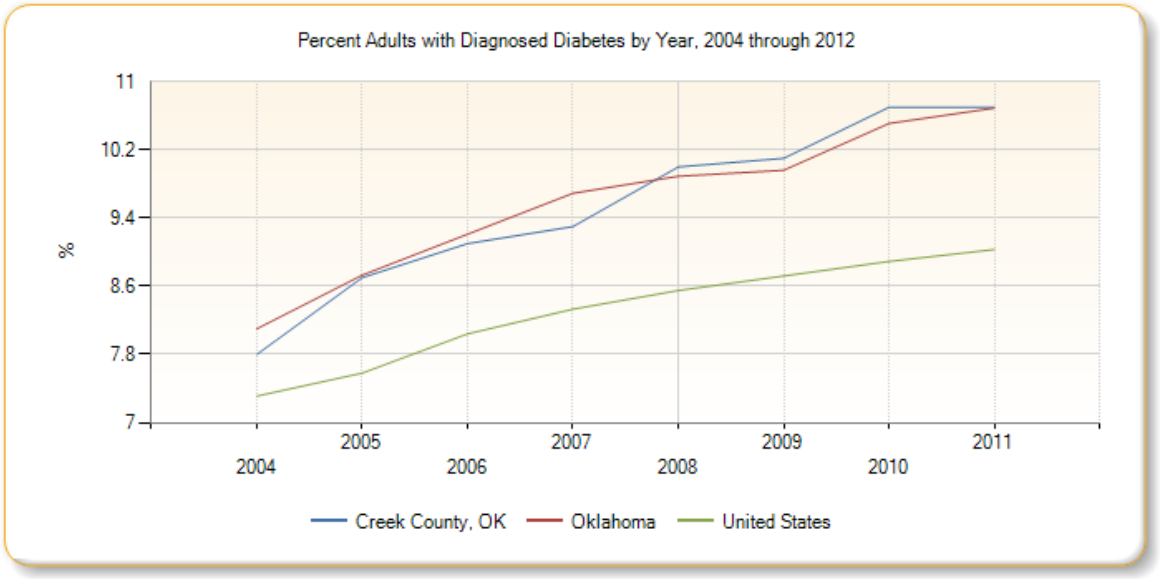


Report Area	Total Males with Diabetes	Percent Males with Diabetes	Total Females with Diabetes	Percent Females with Diabetes
Washington County, OK	3,200	11.6%	3,030	10%
Oklahoma	158,087	11.45%	148,924	9.75%
United States	10,907,085	9.62%	10,574,108	8.28%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

The rate of diabetes in Washington County increased from 2004 – 2012 (Figure 35).[28]

Figure 35: Percent of Adults with Diagnosed Diabetes by Year, 2004-2012



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Cancer

Definition

This indicator is presented as the incidence rate of residents who have been diagnosed with cancer per 100,000 population. This is an annual rate (or average annual rate) based on the time period indicated, 2008-2012. Rates are age-adjusted by 5-year age groups to the 2000 U.S. standard million population. It is important to note that this includes all cancer sites, or types of cancer.

Why Is This Indicator Important?

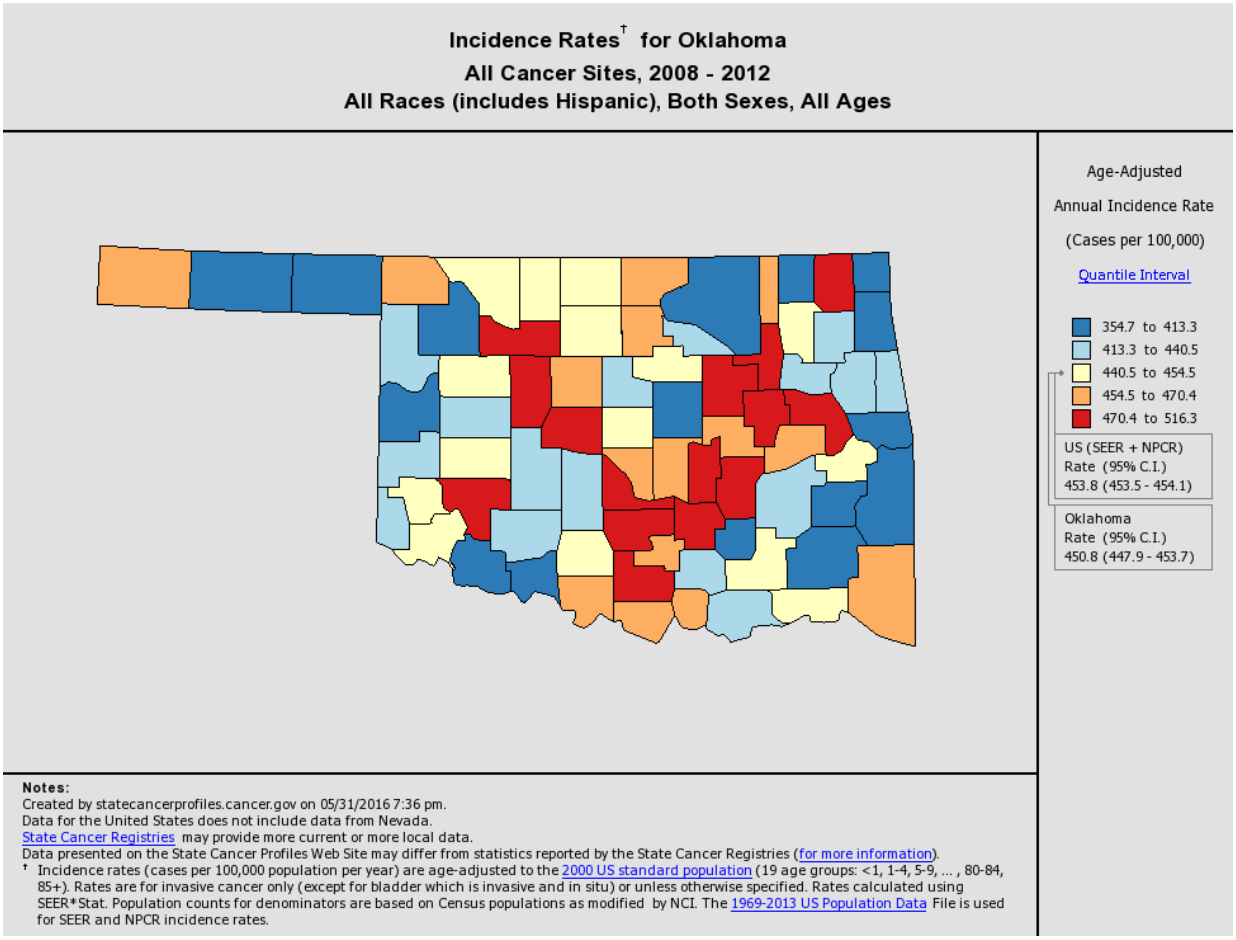
Cancer was the second leading cause of death from 2011 – 2013. Continued advances in cancer research, detection, and treatment have resulted in a decline in both incidence and death rates for all cancers, although it is still one of the leading causes of death in the United States. More than half of all individuals who develop cancer will be alive in five years. Many cancers are preventable by reducing risk factors such as use of tobacco products, physical inactivity and poor nutrition, obesity, and UV light exposure. Other cancers can be prevented by getting vaccinated against human papillomavirus and hepatitis B virus.

How Are We Doing?

The all sites cancer incidence rate in Washington County was 495.5 with a 95% confidence interval from 474.1 to 517.6 and 420 average annual cases over 2008-2012. This rate was higher than the incidence rates in Oklahoma (450.8) and the U.S. (453.8). The Washington County trend is stable (Figure 36).[31] According to the Oklahoma State Health Department's *2014 State of the State's Health* report, the rate of cancer incidence was 17% higher than the national rate. [27]

[31] Centers for Disease Control and National Cancer Institute. (2016). State Cancer Profiles. Retrieved from: http://statecancerprofiles.cancer.gov.

Figure 36: Cancer Incidence Rates for Oklahoma, All Sites, 2008-2012



Source: Courtesy of the Centers for Disease Control and National Cancer Institute. (2016). State Cancer Profiles. Retrieved from: http://statecancerprofiles.cancer.gov.

Heart Disease

Definition

This indicator represents the percentage of adults aged 18 and older have ever been told by a doctor that they have coronary heart disease or angina. Indicator percentages are acquired from analysis of annual survey data from the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) for years 2011-2012.

Why Is This Indicator Important?

Heart disease has been the number one cause of death for Washington County residents, as well as Oklahomans and United States residents, for many years. Risk factors for heart disease include conditions such as high cholesterol, high blood pressure and diabetes, behaviors such as tobacco use, poor diet, physical inactivity, obesity and excessive alcohol use, and genetic factors. Most of these risk factors can be controlled through healthy lifestyle choices, and well as medications when necessary.

How Are We Doing?

In 2011-2012, 4,113, or 8.4 percent of Washington County adults aged 18 and older reported having ever been told by a doctor that they had coronary heart disease or angina. This was lower than percentages of adults with heart disease in Oklahoma (5.1%) and the U.S. (4.4%) (Figure 37 and Figure 38).[32]

Figure 37: Percent of Adults with Heart Disease, 2011-2012

Report Area	Survey Population (Adults Age 18)	Total Adults with Heart Disease	Percent Adults with Heart Disease
Washington County, OK	48,803	4,113	8.4%
Oklahoma	2,825,960	143,494	5.1%
United States	236,406,904	10,407,185	4.4%

Data Source: Centers for Disease Control and Prevention. (2016). *Behavioral Risk Factor Surveillance System.* Additional data analysis by CARES, 2011-12.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

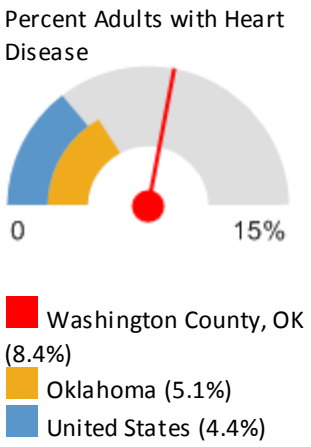
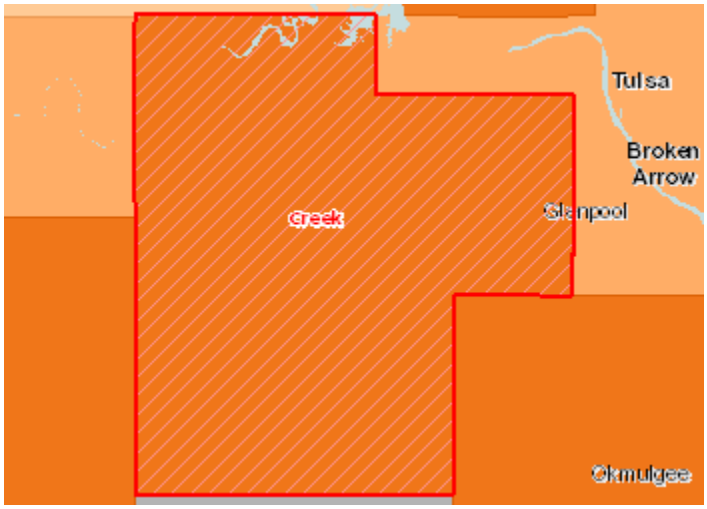
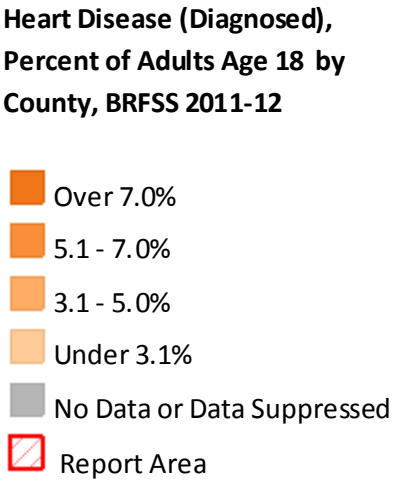


Figure 38: Heart Disease (Diagnosed), Percent of Adults Age 18 by County, BRFSS 2011-2012



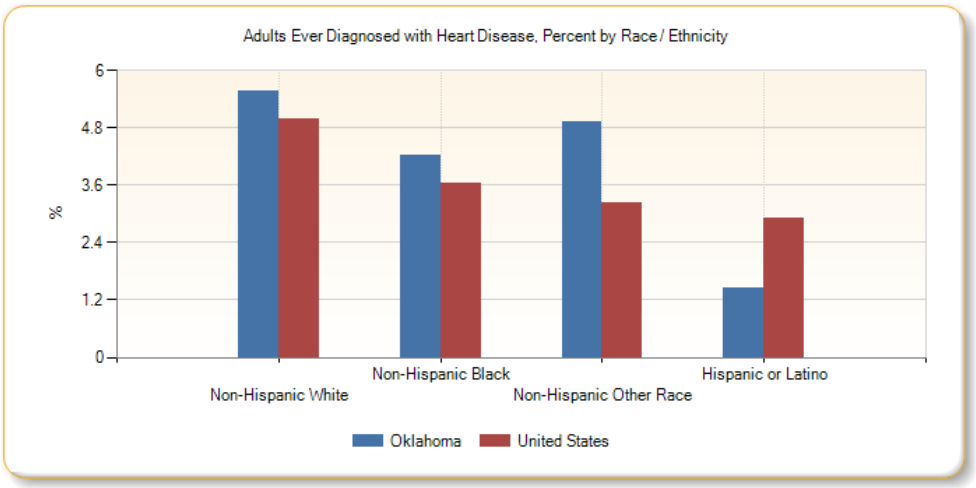


Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

[32] Centers for Disease Control and Prevention. (2016). *Behavioral Risk Factor Surveillance System 2011-2012*.

With regard to race and ethnicity whites had higher percentages of heart disease (5.56%) than blacks (4.22%) and other races (4.92%). Non-Hispanics had higher percentages of heart disease than other races/ethnicities (Figure 39).[30]

Figure 39: Adults Ever Diagnosed with Heart Disease, Percent by Race / Ethnicity



Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Oklahoma	5.56%	4.22%	4.92%	1.44%
United States	4.99%	3.63%	3.23%	2.92%

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Asthma Prevalence

Definition

This indicator represents the percentage of percentage of adults aged 18 and older who self-report that they have ever been told by a doctor, nurse, or other health professional that they had asthma. Indicator percentages are acquired from analysis of annual survey data from the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) for years 2011-2012.

Why Is This Indicator Important?

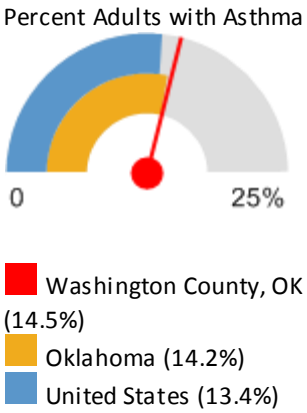
This indicator is relevant because asthma is a prevalent problem in the U.S. that is often exacerbated by poor environmental conditions.

How Are We Doing?

In 2011-2012, 7,142, or 14.5 percent of Washington County adults aged 18 and older reported having ever been told by a doctor that they had asthma. This was lower than percentage of adults with asthma in Oklahoma (14.2%), but was the same as the percentage of adults with asthma in the U.S. (13.4%) (Figure 40 and Figure 41).[30]

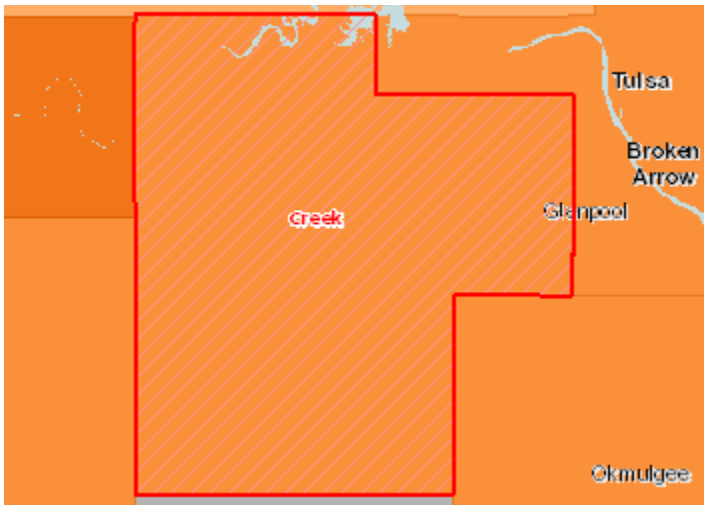
Figure 40: Percent of Adults with Asthma, 2011-2012

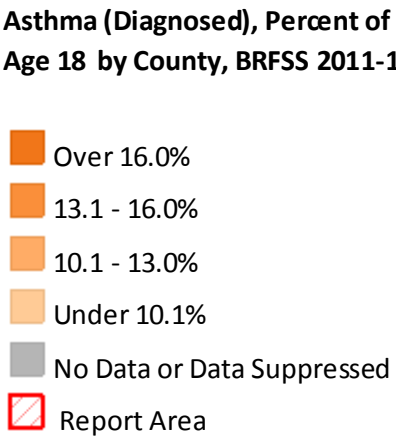
Report Area	Survey Population (Adults Age 18)	Total Adults with Asthma	Percent Adults with Asthma
Washington County, OK	49,133	7,142	14.5%
Oklahoma	2,840,351	403,172	14.2%
United States	237,197,465	31,697,608	13.4%



Data Source: Centers for Disease Control and Prevention. (2016). *Behavioral Risk Factor Surveillance System.* Additional data analysis by CARES, 2011-12.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Figure 41: Percent of Adults Age 18 Diagnosed with Asthma by County, BRFSS, 2011-2012

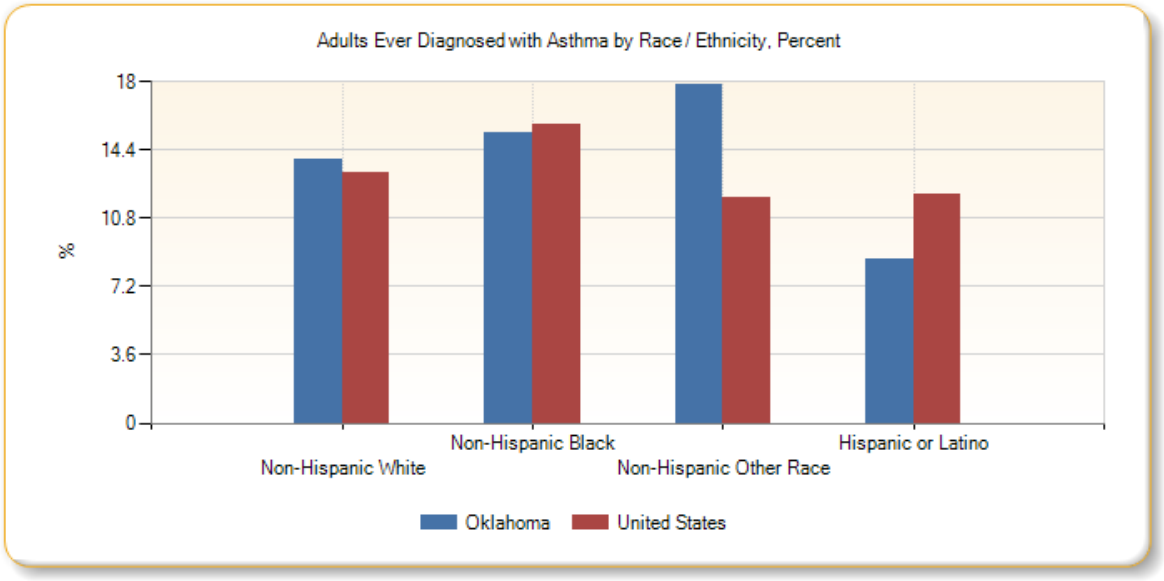




Data Source: Same as above
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016.

With regard to race and ethnicity, non-Hispanic other races had higher percentages of asthma (17.85%) than blacks (15.32%) and whites (13.88%). Hispanics/Latinos had the lowest percentages of asthma than other races/ethnicities (8.66%) (Figure 42).

Figure 42: Adults Ever Diagnosed with Asthma by Race / Ethnicity, Percent



Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Oklahoma	13.88%	15.32%	17.85%	8.66%
United States	13.19%	15.75%	11.9%	12.02%

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Behavioral Health

Mentally Unhealthy Days

Definition

This indicator represents the average number of mentally unhealthy days reported in past 30 days (age-adjusted). This measure is based on survey responses to the question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" The value was reported by the University of Wisconsin Population Health Institute *County Health Rankings & Roadmaps* and is the average number of days a county's adult respondents report that their mental health was not good. The measure is based on single-year 2014 BRFSS data and is age-adjusted to the 2000 U.S. population.[7]

Why Is This Indicator Important?

Overall health depends on both physical and mental well-being. Measuring the number of days when people report that their mental health was not good, i.e., poor mental health days, represents an important facet of health-related quality of life.

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. It is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to

community or society[33]. Mental health disorders are the leading cause of disability in the United States and Canada, accounting for 25 percent of all years of life lost to disability and premature mortality.[34]

How Are We Doing?

Washington County residents reported on average 4.3 mentally unhealthy days in the past 30 days (age-adjusted) in 2014. This number was higher than the average number of mentally unhealthy days reported in Oklahoma overall (4.1 days) and significantly higher than the number of mentally unhealthy days reported among the top U.S. performers, or the counties in the 90th percentile (2.8 days) (Table 17).[7]

Table 16: Age-Adjusted Number of Self-Reported Mentally Unhealthy Days by Locality, 2014

Locality	Number of Self-Reported Mentally Unhealthy Days (Age-Adjusted)
United States	2.8
Oklahoma	4.1
Washington County	4.3

Data Source: University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps.* Retrieved from: www.countyhealthrankings.org.

Adults Reporting Mental Illness in the Past Year

Definition

This indicator represents the percentage of adults reporting any mental illness and serious mental illness in the past year. Any mental illness is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, as assessed by the Mental Health Surveillance Study (MHSS) Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition—Research Version—Axis I Disorders (MHSS-SCID), which is based on the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).[35]

Serious mental illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, as assessed by the Mental Health Surveillance Study (MHSS) Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition—Research Version—Axis I Disorders (MHSS-SCID), which is based on the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). [23] SMI includes individuals with diagnoses resulting in serious functional impairment. The value s were reported by the Kaiser Family Foundation and were based on estimates from the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2013 and 2014.

[33] World Health Organization. (2016). *Mental Health: Strengthening Our Response*. Retrieved from: http://www.who.int/mediacentre/factsheets/fs220/en/.

[34] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2016).*Healthy People 2020: Mental Health and Mental Disorders.* Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=28.

[35] Kaiser Family Foundation. (2016). *State Health Facts*. Retrieved from: http://kff.org/other/state-indicator/.

Why Is This Indicator Important?

Mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

How Are We Doing?

According to the Oklahoma Department of Mental Health and Substance Abuse services, Oklahoma ranks 2nd in the nation in percent of population with mental illness. [36] Furthermore, Oklahoma ranks 50th in the nation (worst) in adults who suffer some form of mental illness. [37]

In 2013-2014, 19 percent of Oklahoma residents reported any mental illness in the past year and 4.3% of Oklahoma residents reported a serious mental illness in the past year. This was slightly higher than the average U.S. reported percentages (18.3% for any mental illness and 4.2% for a serious mental illness within the past year) (Table 18).[33]

Table 17: Adults Reporting Mental Illness by Locality, 2013- 2014

Location	Adults Reporting Any Mental Illness in the Past Year	Adults Reporting Serious Mental Illness in the Past Year
United States	18.3%	4.2%
Oklahoma	19.0%	4.3%

Data Source: Kaiser Family Foundation. (2016). *State Health Facts*. Retrieved from: http://kff.org/other/state-indicator/.

Deaths from Suicide

Definition

The mortality rate from suicide is presented as the number of deaths from suicide per 100,000 population, over the years 2009 – 2013. The rates were age-adjusted to account for differences in age distribution among localities and races/ethnicities.

Why Is This Indicator Important?

This indicator is relevant because suicide is an indicator of poor mental health. Suicide was the eighth leading cause of death in Washington County in 2013. Although the causes of suicide are complex and determined by multiple factors, the goal of suicide prevention is to reduce risk factors and increase factors that promote resilience (protective factors). Risk factors include family history of suicide or child maltreatment, previous suicide attempts, history of mental disorders and substance abuse, and barriers to mental health treatment. Protective factors include effective clinic care for mental, physical, and substance abuse disorders, family and community support, and easy access to a variety of clinical

[36] Oklahoma Department of Mental Health and Substance Abuse Services. (2015).
[37] Mental Health America. (2016). Prevalence Data. Retrieved from: http://www.mentalhealthamerica.net/issues/mental-health-america-prevalence-data#AdultAMI.

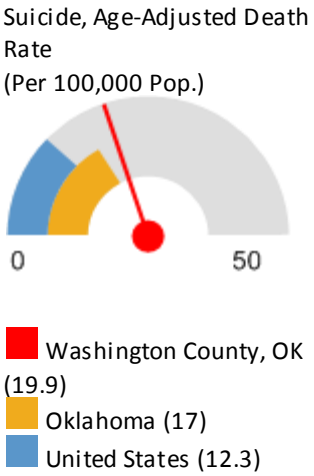
interventions and support for help seeking.[38] Prevention aims to address all levels of influence (individual, relationship, community, and societal).

How Are We Doing?

Oklahoma 13th highest ranking state in the nation for deaths by suicide.[39] From 2007-2011, 14 Washington County residents committed suicide. The 2009-2013 age-adjusted death rate in was 19.9 deaths per 100,000 individuals. This rate was higher than in Oklahoma (17) and the U.S. (12.3). [23] [25] None of these regions met the Healthy People 2020 goal of 10.2 suicide deaths or less per 100,000 population. (Figure 43).[32]

Figure 43: Suicide, Age-Adjusted Death Rate per 100,000 Population by Locality

Report Area	Total Population	Average Annual Deaths, 2007-2011	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Washington County, OK	70,218	14	19.4	19.9
Oklahoma	3,785,164	643	17	17
United States	311,430,373	39,308	12.6	12.3
HP 2020 Target				<= 10.2

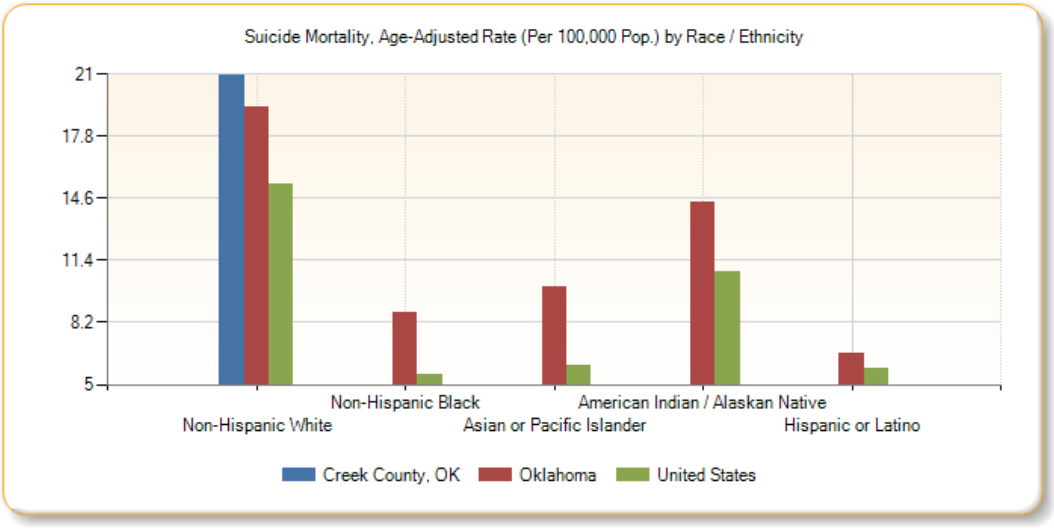


Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics. (2016). Deaths: Final Data for 2013. *National Vital Statistics Reports (64)*2.
U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2016). *Healthy People 2020: Mental Health and Mental Disorders.* Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=28.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

The suicide rate was 20.9 deaths per 100,000 population in non-Hispanic Whites (20.9). This was higher compared to other races and Hispanics in Oklahoma (Figure 44).[23]

[38] Centers for Disease Control and Prevention, Injury Prevention and Control. (2016). *Suicide: Risk and Protective Factors*. Retrieved from: http://www.cdc.gov/violenceprevention/suicide/riskprotectivefactors.html.
[39] Centers for Disease Control and Prevention, Injury Prevention and Control. (2016). *Data and Statistics: Fatal Injury Reports*. Retrieved from: http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html.

Figure 44: Age-Adjusted Suicide Death Rate by Race/Ethnicity, Washington County 2009-2013

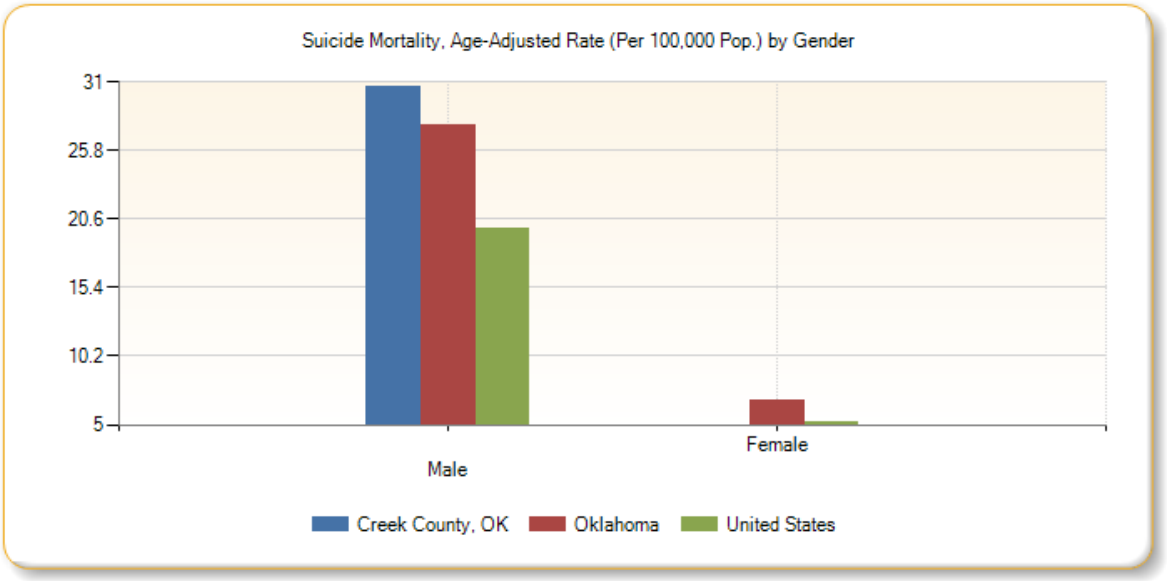


Report Area	Non-Hispanic White	Non-Hispanic Black	Asian or Pacific Islander	American Indian / Alaskan Native	Hispanic or Latino
Washington County, OK	20.9	no data	no data	no data	no data
Oklahoma	19.3	8.7	10	14.4	6.6
United States	15.3	5.5	6	10.8	5.8

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

In 2009-2013, Washington County and Oklahoma males had the highest rate of suicide deaths per 100,000 population (30.6 and 27.7) (Figure 45). The vast majority of male suicides were by gun.[23]

Figure 45: Suicide Mortality, Age-Adjusted Rate (Per 100,000 Pop.) by Gender



Report Area	Male	Female
Washington County, OK	30.6	no data
Oklahoma	27.7	6.8
United States	19.9	5.2

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Teens and Adults Reporting Substance Dependence or Abuse in the Past Year

Definition

This indicator represents the percentage of teens (12-17) and adults (18+) reporting substance abuse dependence or abuse in the past year. Alcohol dependence and abuse and illicit drug dependence and abuse were combined for this measure. Dependence or abuse is based on definitions found in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).[23] The value s were reported by the Kaiser Family Foundation and were based on estimates from the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health (NSDUH), 2013 and 2014.

Why Is This Indicator Important?

When consumed in excess, alcohol is harmful to the health and well-being of those that drink as well as their families, friends, and communities. Prescription drug misuse and illicit drug use also have substantial health, economic, and social consequences.

In 2012, an estimated 23.1 million Americans age 12 and older needed treatment for substance abuse. Substance abuse generally refers to alcohol and both prescription and illegal drug abuse. Disorders related to substance abuse cause some of the highest rates of disability and disease burden in the U.S. This can result in high costs to families, employers, and publicly funded health care systems. Additionally,

chronic diseases such as diabetes and heart disease can be caused by drug and alcohol use. Approximately 50 percent of individuals with a substance abuse condition also have an underlying mental health disorder. Addressing the impact of substance use alone is estimated to cost Americans more than $600 billion each year.[40]

How Are We Doing?

According to the Oklahoma Department of Mental Health and Substance Abuse Services, Oklahoma ranks 2nd highest in the nation with substance abuse disorders.[34] Oklahoma ranks 43rd in the nation in alcohol and drug abuse according to Mental Health America.[35]

In 2013-2014, 2.1 percent of teens and 6.8 percent of adults in Oklahoma reported alcohol dependence or abuse in the past year. Additionally, 3 percent of teens and 2.3 percent of adults in Oklahoma reported illicit drug dependence or abuse in the past year. This was slightly lower than the average U.S. reported percentages (2.8 percent of teens and 6.9 percent of adults reported alcohol dependence or abuse and 3.5 percent of teens and 2.6 percent of adults reported illicit drug dependence or abuse in the past year) (Table 19 and Table 20).[33]

Table 18: Teens and Adults Reporting Alcohol Dependence or Abuse by Locality, 2013 - 2014

Location	Teens Ages 12-17 Reporting Alcohol Dependence or Abuse in the Past Year	Adults Ages 18+ Reporting Alcohol Dependence or Abuse in the Past Year
United States	**2.8%**	**6.9%**
Oklahoma	2.1%	6.8%

Data Source: Kaiser Family Foundation. (2016). *State Health Facts*. Retrieved from: http://kff.org/other/state-indicator/.

Table 19: Teens and Adults Reporting Illicit Drug Dependence or Abuse by Locality, 2013- 2014

Location	Teens Ages 12-17 Reporting Illicit Drug Dependence or Abuse in the Past Year	Adults Ages 18+ Reporting Illicit Drug Dependence or Abuse in the Past Year
United States	**3.5%**	**2.6%**
Oklahoma	3.0%	2.3%

Data Source: Kaiser Family Foundation. (2016). *State Health Facts*. Retrieved from: http://kff.org/other/state-indicator/.

Drug Overdose Deaths

Definition

This indicator represents number of all drug overdose deaths per 100,000 population in 2012-2014. ICD-10 codes used include X40-X44, X60-X64, X85, and Y10-Y14. These codes used cover accidental, intentional, and of undetermined poisoning by and exposure to: 1) nonopioid analgesics, antipyretics and antirheumatics, 2) antiepileptic, sedative-hypnotic, antiparkinsonism and psychotropic drugs, not

[40] Substance Abuse and Mental Health Services Administration. *Prevention of Substance Abuse and Mental Illness*. Retrieved from: http://www.samhsa.gov/prevention.

elsewhere classified, 3) narcotics and psychodysleptics [hallucinogens], not elsewhere classified, 4) other drugs acting on the autonomic nervous system, and 5) other and unspecified drugs, medicaments and biological substances.The value is reported University of Wisconsin Population Health Institute *County Health Rankings & Roadmaps* and is based on estimates from the Compressed Mortality File (CMF), a county-level national mortality and population database spanning the years 1968-2010. Compressed mortality data are updated annually. [7] Additional information was sourced from the Oklahoma State Department of Health and Kaiser Family Foundation.

Why Is This Indicator Important?

The United States is experiencing an epidemic of drug overdose deaths. Since 2002, the rate of drug overdose deaths has increased by 79 percent nationwide, with a 200 percent increase in deaths involving opioids (opioid pain relievers and heroin) since 2000.[7]

How Are We Doing?

Washington County had on an estimated 22 all drug overdose deaths per 100,000 population (47 deaths total) in 2012-2014. This was slightly lower than the all drug overdose death rate per 100,000 population in Oklahoma overall (20) and significantly higher than the all drug overdose deaths rate per 100,000 reported among the top U.S. performers, or the counties in the 90th percentile (8).[7] In 2012, Oklahoma had the 5th highest poisoning death rate in the nation. Four out of five unintentional poisoning deaths in Oklahoma involved at least one prescription drug, with painkillers (opioids) being the most common.[41]

According to the Oklahoma State Department of Health, more than eight out of ten Washington County deaths involved at least one prescription drug in 2007-2012. Furthermore, eight out of ten deaths involved at least one prescription painkiller. In 2007-2012, Washington County males were more likely to die of an unintentional poisoning than females. Washington County adults age 35-54 had the highest rate of unintentional poisoning death. Additionally, Washington County adults age 45-54 were nearly twice as likely to die of an unintentional poisoning compared to teens and young adults age 15-24. One in three Washington County residents who died of an unintentional poisoning had a history of mental health problems and half who died had a history of substance abuse. Approximately three out of four Washington County poisoning deaths occurred at a home or apartment, while one out of five occurred at a hospital. The most common cities of residence of decedents were Sapulpa, Mannford, and Bristow.[39]

In 2014, the age-adjusted opioid overdose death rate per 100,000 population in Oklahoma was 13. This state rate was higher than the rate in the U.S. (9) (Table 21).[42] In 2007-2012, eight out of 10 Washington County deaths involved at least one prescription painkiller (opioid).[39]

[41] Oklahoma State Department of Health. (2012). *Creek County: Unintentional Poisoning Deaths.* Retrieved from: https://www.ok.gov/health2/documents/FS-UP_Creek_County.pdf.

[42] Kaiser Family Foundation analysis of Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. (2016). *Multiple Cause of Death 1999-2014 on CDC WONDER Online Database, 2015.* Retrieved from: http://wonder.cdc.gov/mcd-icd10.html.

Table 20: Drug Overdose Deaths by Locality, 2012-2014

Location	Opioid Overdose Death Rate (Age-Adjusted)	All Drug Overdose Death Rate (Age-Adjusted)
United States	**9.0**	**8.0**
Oklahoma	13.0	20.0
Washington County	--	22.00

Data Source: Kaiser Family Foundation. (2016). *State Health Facts*. Retrieved from: http://kff.org/other/state-indicator/. University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps*. Retrieved from: www.countyhealthrankings.org.

Maternal and Child Health

Infant Mortality Rate

Definition

Infant mortality is defined as the death of a child in the first year of life. [43] The infant mortality rate is presented as the number of infant deaths per 1,000 live births, over the years 2006 – 2010.

Why Is This Indicator Important?

Infant mortality is often used as an indicator to measure the health and well-being of a community because factors affecting the health of an entire population can also influence the mortality rate of infants. There are obvious disparities in infant mortality by age, race, and ethnicity of the mother. Some of the causes of infant mortality are serious birth defects, premature birth, SIDS, maternal complications of pregnancy, and injuries such as suffocation. Many of these factors can be influenced by good preconception and prenatal care for mothers.[25] [44]

How Are We Doing?

Between 2006 and 2010, 40 Washington County infants died before the age of one, which was a rate of 8.8 deaths per 1,000 live births. This rate was higher than the infant mortality rate in Oklahoma (7.8) and the U.S. (6.5). The U.S. overall was the only region to meet the Healthy People 2020 target for infant mortality of 6.0 deaths per 1,000 live births. (Figure 46 and Figure 47).[45]

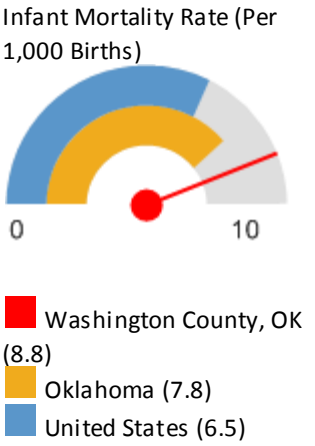
[43] Centers for Disease Control and Prevention (2016). Reproductive Health: Infant Mortality. Retrieved from: http://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm

[44] Kochanek KD, Murphy SL, Xu JQ, Arias E. (2014). Mortality in the United States, 2013. *NCHS Data Brief, no 178*. Hyattsville, MD: National Center for Health Statistics.

[45] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2015). *Healthy People 2020: Maternal and Child Health*. Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=26.

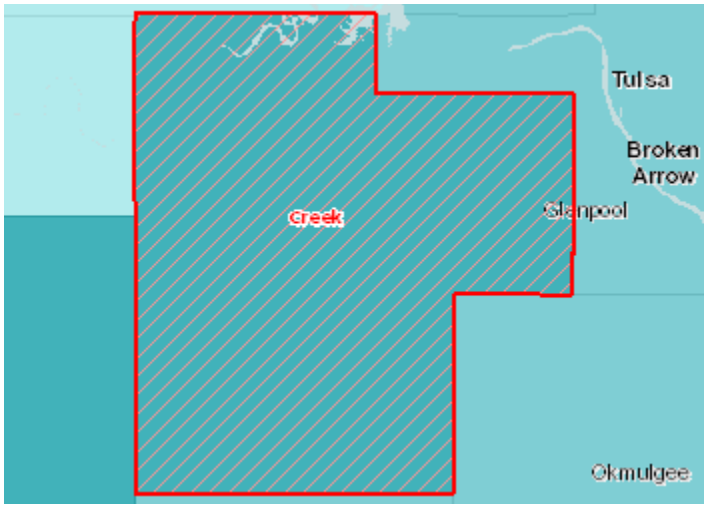
Figure 46: Infant Mortality Rate per 1,000 Births, Washington County 2006-2010

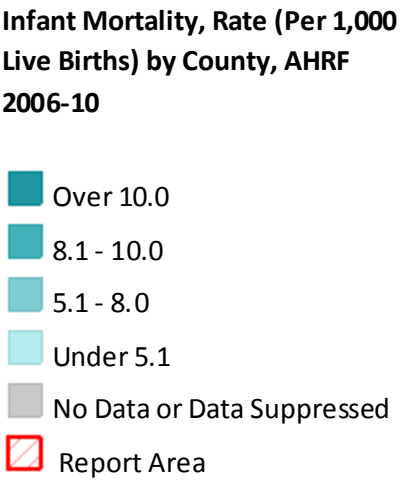
Report Area	Total Births	Total Infant Deaths	Infant Mortality Rate (Per 1,000 Births)
Washington County, OK	4,535	40	8.8
Oklahoma	272,495	2,125	7.8
United States	20,913,535	136,369	6.5
HP 2020 Target			<= 6.0



Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics. (2016). Deaths: Final Data for 2013. *National Vital Statistics Reports (64)*2.
U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2016). *Healthy People 2020: Maternal and Child Health.* Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=28.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Figure 47: Infant Mortality, Rate per 1,000 Live Births by County, AHRF 2006-2010

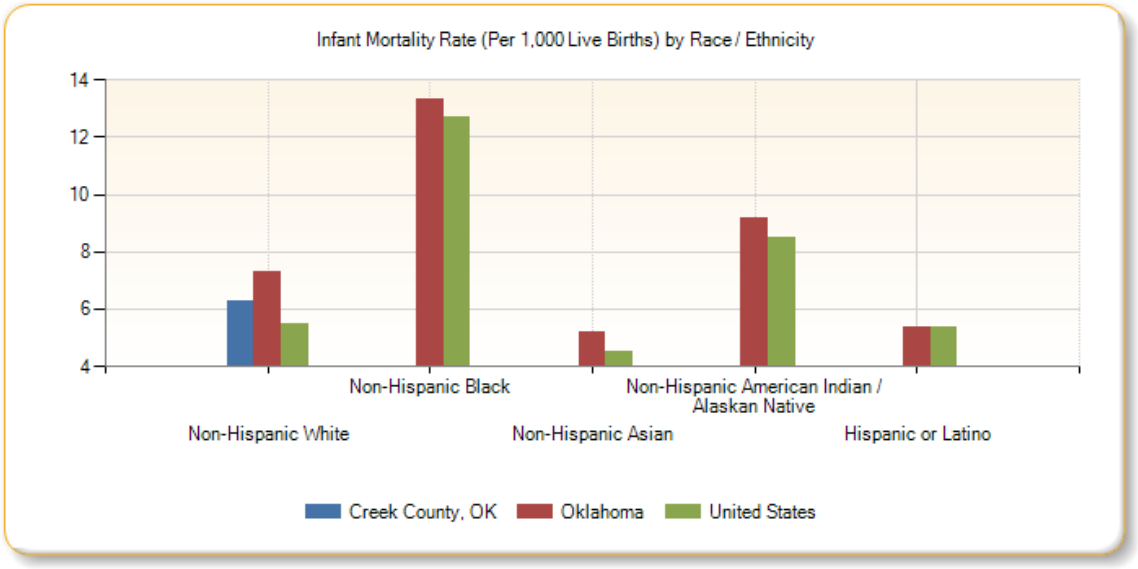




Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Black and American Indian/Alaskan Native infant mortality in Oklahoma and the U.S. was higher than that of whites. The infant mortality rate was higher among non-Hispanics than Hispanics (Figure 48).[23]

Figure 48: Infant Mortality Rate by Locality, 2013



Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Asian	Non-Hispanic American Indian / Alaskan Native	Hispanic or Latino
Washington County, OK	6.3	no data	no data	no data	no data
Oklahoma	7.3	13.3	5.2	9.2	5.4
United States	5.5	12.7	4.5	8.5	5.4

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Low Birth Weight

Definition

Low birth weight is defined as infants who weigh less than 2,500 grams (5 pounds, 8 ounces) at birth.[46] This indicator is expressed as a percentage of all births to Washington County mothers, over the years 2006 – 2012.

Why Is This Indicator Important?

Low birth weight is the single most important factor affecting neonatal mortality and is a significant determinant of post neonatal mortality. Low birth weight infants who survive are at increased risk for health problems ranging from neurodevelopmental disabilities to respiratory disorders. Risk factors include smoking, alcohol use, lack of weight gain, age, low income, low education level, stress, domestic violence or other abuse, being unmarried, previous preterm birth, and exposure to air pollution or

[46]. Centers for Disease Control and Prevention, Pediatric and Pregnancy Nutrition Surveillance System. (2015). *Is Low Birth Weight a Health Problem?* Retrieved from: http://www.cdc.gov/pednss/how_to/interpret_data/case_studies/low_birthweight/what.htm.

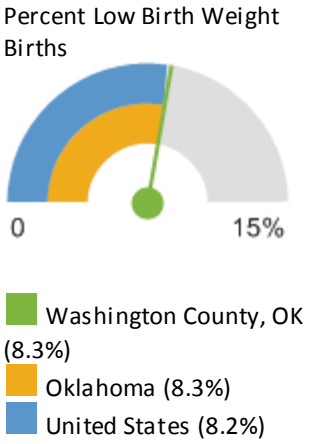
drinking water contaminated by lead. Prevention includes early and regular prenatal care to help identify conditions and behaviors that can result in low birth weight infants.[47]

How Are We Doing?

Overall, 8.3 percent of Washington County infants were born weighing less than 2,500 grams from 2006 – 2010. This was the same as in Oklahoma and slightly higher than the United States (8.3 percent and 8.2 percent, respectively) (Figure 49).[48] None of these regions met the *Healthy People 2020* target of 7.8 percent. [30] (Figure 49).[23] [43]

Figure 49: Low Birth Weight Births by Race/Ethnicity of Mother, Washington County 2011-2013

Report Area	Total Live Births	Low Weight Births (Under 2500g)	Low Weight Births, Percent of Total
Washington County, OK	6,188	514	8.3%
Oklahoma	372,505	30,918	8.3%
United States	29,300,495	2,402,641	8.2%
HP 2020 Target			<= 7.8%

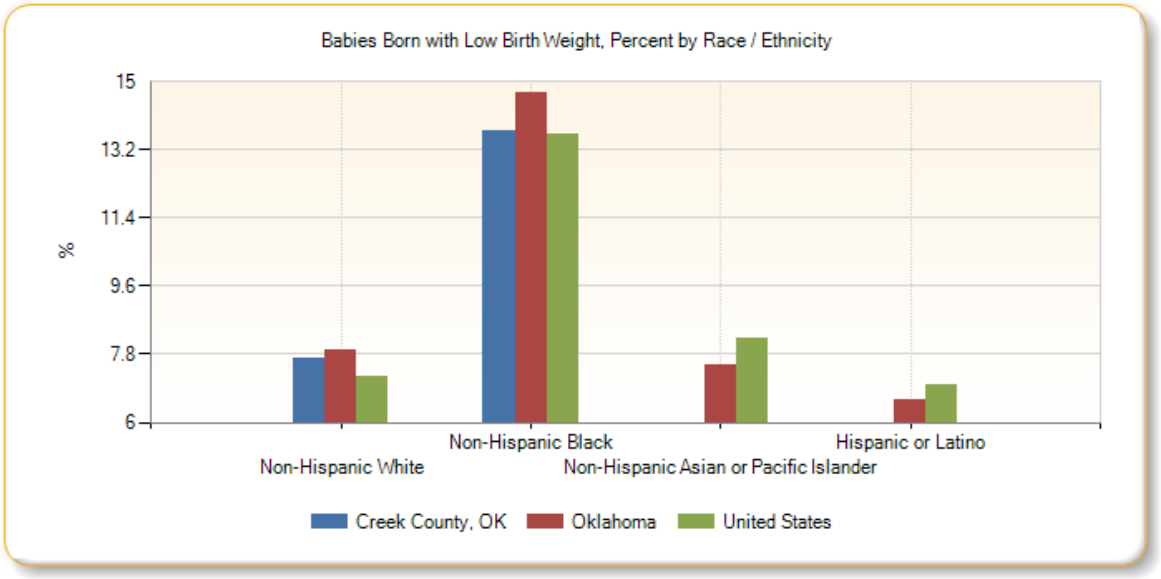


Data Source: Centers for Disease Control and Prevention, National Center for Health Statistics. (2016). Deaths: Final Data for 2013. *National Vital Statistics Reports (64)*2.
U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2016).*Healthy People 2020: Maternal and Child Health.* Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=28.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Racial disparity was evident with black mothers having almost twice the percentage of low birth weight infants as white mothers (13.7 percent compared to 7.7 percent). The percentage of low birth weight infants was higher among non-Hispanic mothers in Oklahoma. (Figure 50).[23]

[47] Centers for Disease Control and Prevention. (2015). *Low Birth Weight and the Environment*. Retrieved from: http://ephtracking.cdc.gov/showRbLBWGrowthRetardationEnv.action.
[48] Martin JA, Hamilton BE, Osterman MJK, et al. (2015). Births: Final Data for 2013. *National Vital Statistics Reports (64)*1. Hyattsville, MD: National Center for Health Statistics.

Figure 50: Low Birth Weight Births, Percent by Race/Ethnicity



Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Asian or Pacific Islander	Hispanic or Latino
Washington County, OK	7.7%	13.7%	no data	no data
Oklahoma	7.9%	14.7%	7.5%	6.6%
United States	7.2%	13.6%	8.2%	7%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Infectious Disease

Chlamydia

Definition

This indicator is presented as the number of newly reported cases of Chlamydia per 100,000 population.

Why Is This Indicator Important?

This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices. Chlamydia is a sexually transmitted disease (STD) caused by the bacterium *Chlamydia trachomatis*. It is the most commonly reported STD in Washington County. It is known as the "silent" disease because it is typically asymptomatic. Only about 30 percent of women experience symptoms and as many as 25 percent of men have no symptoms. If left untreated, however, Chlamydia

can cause serious health conditions, including short and long-term reproductive problems. Chlamydia can be transmitted to infants during birth and can result in eye infections which may lead to blindness.[49]

How Are We Doing?

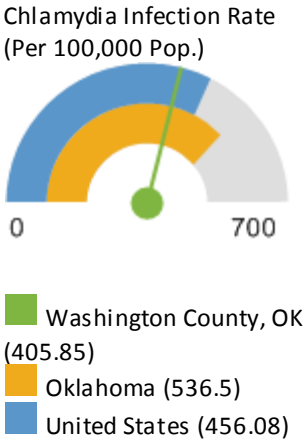
In 2014, there were 286 new cases of Chlamydia reported in Washington County, which is a rate of 405.85 cases per 100,000 population.[50] The Chlamydia incidence rate in Washington County was lower than the rate in Oklahoma (536.5 cases per 100,000 population) and in the United States (456.08 cases per 100,000 population) (Figure 51).[48]

Figure 51: Chlamydia Incidence Rates by Locality, 2014

Report Area	Total Population	Total Chlamydia Infections	Chlamydia Infection Rate (Per 100,000 Pop.)
Washington County, OK	70,470	286	405.85
Oklahoma	3,850,326	20,657	536.5
United States	316,128,839	1,441,789	456.08

Data Source: U.S. Department of Health and Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. (2014).

Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

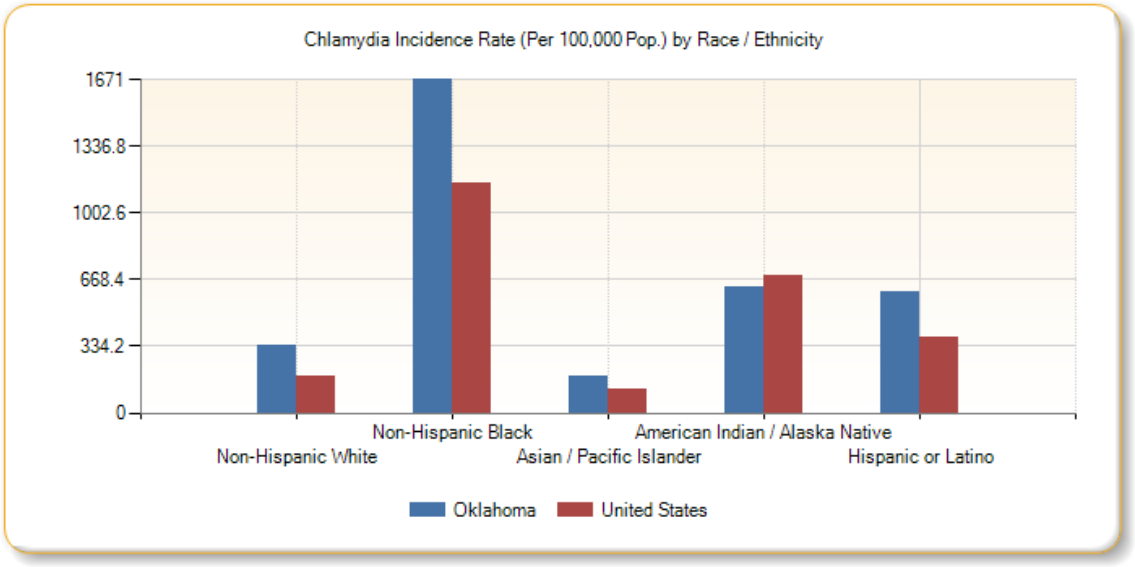


With regard to race/ethnicity, the highest rate of new Chlamydia cases was among Black Oklahoman's (incidence rate of 1, 670.2 per 100,000 population) (Figure 52). The incidence rate of Chlamydia in Washington County has steadily risen in recent years. [48]

[49] Oklahoma State Department of Health. (2013). *Chlamydia Fact Sheet 2013*. Retrieved from: http://www.ok.gov/health2/documents/Chlamydia%20DX%202013.pdf

[50] U.S. Department of Health and Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. (2014).

Figure 52: Chlamydia Cases by Race/Ethnicity, Oklahoma 2014



Report Area	Non-Hispanic White	Non-Hispanic Black	Asian / Pacific Islander	American Indian / Alaska Native	Hispanic or Latino
Oklahoma	334.6	1,670.2	181.8	627.5	603.8
United States	187	1,152.6	115.8	689.1	376.2

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Gonorrhea

Definition

This indicator is presented as the number of newly reported cases of gonorrhea per 100,000 population.

Why Is This Indicator Important?

This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices. Gonorrhea is a sexually transmitted disease (STD) caused by Neisseria gonorrhoeae. It is the second most commonly reported STD in Washington County. Untreated gonorrhea can lead to severe and painful infections, and infertility in both men and women. A pregnant woman risks possible blindness and/or life-threatening infections for her baby.[51]

How Are We Doing?

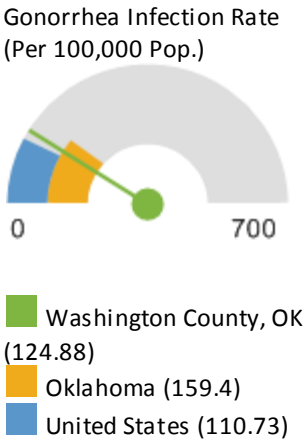
[51] Oklahoma State Department of Health. (2013). *Gonorrhea Fact Sheet 2013*. Retrieved from: http://www.ok.gov/health2/documents/Gonorrhea%20DX%202013.pdf.

In 2014, Washington County reported an incidence rate of 124.9 cases of gonorrhea per 100,000 population (88 total cases). Washington County's gonorrhea incidence rate was lower than Oklahoma (159.4 cases per 100,000 population), but higher than the United States (110.7 cases per 100,000 population) (Figure 53). [48]

Figure 53: Gonorrhea Incidence Rate by Locality, 2014

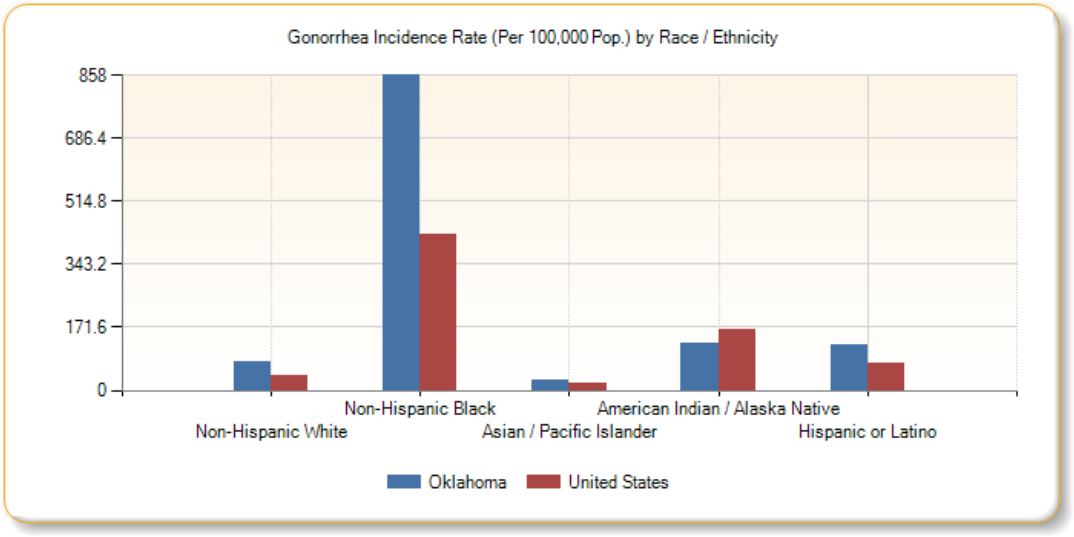
Report Area	Total Population	Total Gonorrhea Infections	Gonorrhea Infection Rate (Per 100,000 Pop.)
Washington County, OK	70,470	88	124.88
Oklahoma	3,850,063	6,137	159.4
United States	316,128,839	350,062	110.73

Data Source: U.S. Department of Health and Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. (2014).
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016



With regard to race/ethnicity, the majority of new gonorrhea cases in Oklahoma were Black (incidence rate of 857.8 per 100,000 population) (Figure 54). The incidence rate of Gonorrhea in Washington County has steadily risen in recent years. [48]

Figure 54: Gonorrhea Cases by Race/Ethnicity, Oklahoma 2014



Report Area	Non-Hispanic White	Non-Hispanic Black	Asian / Pacific Islander	American Indian / Alaska Native	Hispanic or Latino
Oklahoma	78.9	857.9	26	127.3	125
United States	39.8	422.9	19.9	166.4	72.7

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

HIV/AIDS

Definition

This indicator is presented as the prevalence of HIV/AIDS per 100,000 population.

Why Is This Indicator Important?

This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices. HIV is a virus spread through bodily fluids that affects the immune system. As HIV destroys specific cells in the immune system, the body loses the ability to fight off infections and disease, which leads to AIDS. In the United States HIV is mainly spread through having unprotected sex or sharing injection drug equipment with someone who has HIV. HIV can be prevented by limiting the number of sexual partners, never sharing needles, and using condoms correctly and consistently.[52] The CDC estimated that about 1.2 million people were living with HIV at the end of 2011, and about 14 percent did not know they were infected. Certain racial/ethnic groups, such as blacks, American Indians/Alaskan Natives, Asians and Hispanics/Latinos, are disproportionately affected compared to the general population. [53]

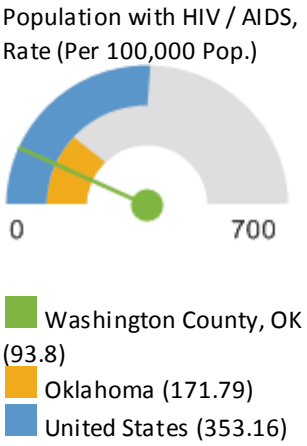
How Are We Doing?

In 2014, there were 55 cases of HIV/AIDS reported in Washington County, which is a rate of 93.8 cases per 100,000 population.[48] The HIV/AIDS prevalence rate in Washington County was lower than the rate in Oklahoma (171.8 cases per 100,000 population) and the U.S. (353.2 cases per 100,000 population) (Figure 55). [48]

[52] Oklahoma State Department of Health. (2013). *Newly Diagnosed HIV/AIDS Fact Sheet 2013*. Retrieved from: http://www.ok.gov/health2/documents/Newly%20Diagnosed%20HIV%202013.pdf
[53] Centers for Disease Control and Prevention. (2016). HIV Basics. Retrieved from: http://www.cdc.gov/hiv/basics/index.html.

Figure 55: Population with HIV/AIDS, Rate per 100,000 by Locality, 2014

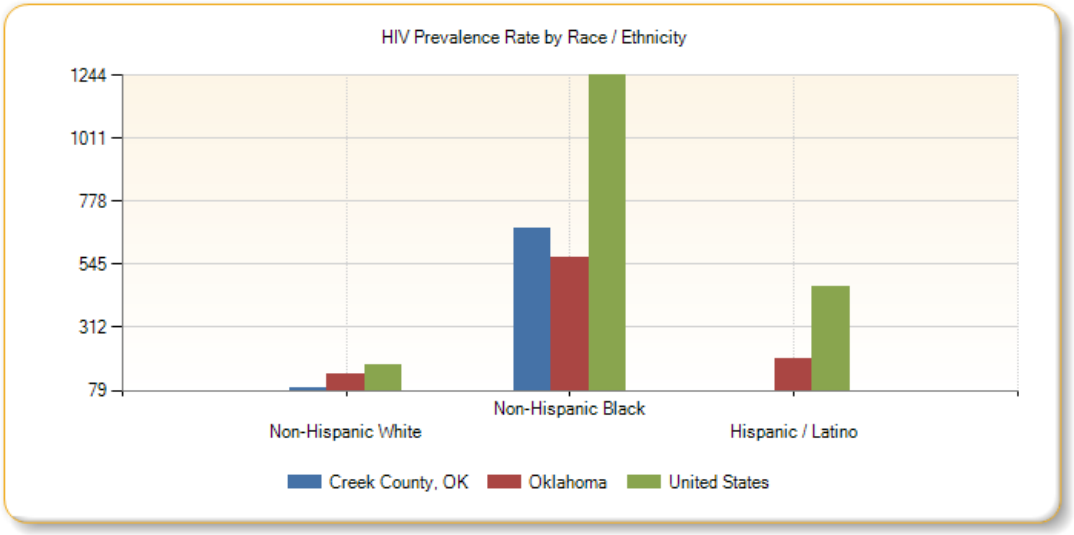
Report Area	Population Age 13	Population with HIV / AIDS	Population with HIV / AIDS, Rate (Per 100,000 Pop.)
Washington County, OK	58,635	55	93.8
Oklahoma	3,162,620	5,433	171.79
United States	263,765,822	931,526	353.16



Data Source: U.S. Department of Health and Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. (2014).
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

With regard to race, the majority of HIV/AIDS cases were Black (677.71 cases per 100,000 population) (Figure 56).[48]

Figure 56: HIV/AIDS Cases by Race/Ethnicity, Washington County 2011-2013



Report Area	Non-Hispanic White	Non-Hispanic Black	Hispanic / Latino
Washington County, OK	79.18	677.71	no data
Oklahoma	136	569.5	192.6
United States	174	1,243.8	462

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Dental Health

Poor Dental Health

Definition

This indicator reports the percentage of adults age 18 and older who self-report that six or more of their permanent teeth have been removed due to tooth decay, gum disease, or infection. Indicator percentages are acquired from analysis of annual survey data from the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) for years 2006-2010.

Why Is This Indicator Important?

This indicator is relevant because it indicates lack of access to dental care and/or social barriers to utilization of dental services.

How Are We Doing?

In 2006-2010, 13,649, or 26.5 percent of Washington County adults aged 18 and older reported having poor dental health. This was higher than the percentage of adults with poor dental health Oklahoma (21.8%) and the percentage of adults with poor dental health in the U.S. (15.7%) (Figure 57 and Figure 58).[30]

Figure 57: Percent Adults with Poor Dental Health, 2006-2010

Report Area	Total Population (Age 18)	Total Adults with Poor Dental Health	Percent Adults with Poor Dental Health
Washington County, OK	51,497	13,649	26.5%
Oklahoma	2,793,624	608,605	21.8%
United States	235,375,690	36,842,620	15.7%

Data Source: Centers for Disease Control and Prevention. (2016). *Behavioral Risk Factor Surveillance System.* Additional data analysis by CARES, 2006-2010.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

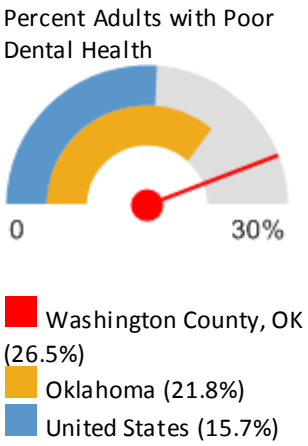
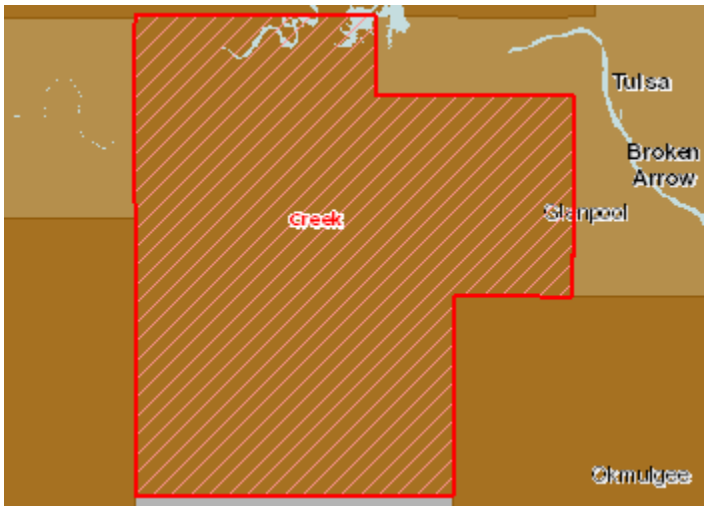


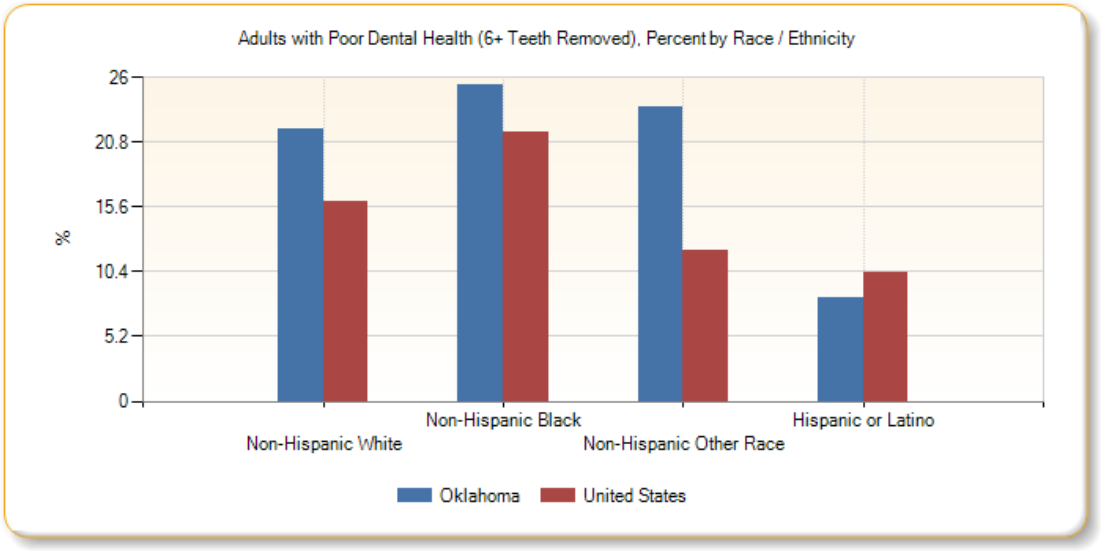
Figure 58: Adults Age 18 without a Dental Exam in the Past 12 Months, Percent by County, BRFSS 2006-2010



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

With regard to race and ethnicity non-Hispanic Blacks had higher percentages of poor dental health (25.44%) than other races (23.66%) and Whites (21.86%) in Oklahoma. Hispanics/Latinos had lower percentages of dental health than other races/ethnicities (8.36%) (Figure 59).[30]

Figure 59: Adults with Poor Dental Health (6 Teeth Removed), Percent by Race/Ethnicity



Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Oklahoma	21.86%	25.44%	23.66%	8.3%
United States	16.04%	21.6%	12.11%	10.31%

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

HEALTH FACTORS

Health factors are based on four types of measures: health behaviors, clinical care, social and economic, and physical environment factors. Health factors contribute to health and are otherwise known as determinants of health.

Health Factors Ranking

Definition

This indicator demonstrates the overall rankings in health factors for counties throughout the state. The ranks are based on weighted scores four types of measures: health behaviors, clinical care, social and economic, and physical environment factors. The healthiest county in the state is ranked #1. This information is based on the 2016 County Health Rankings & Roadmaps courtesy of the University of Wisconsin Population Health Institute.

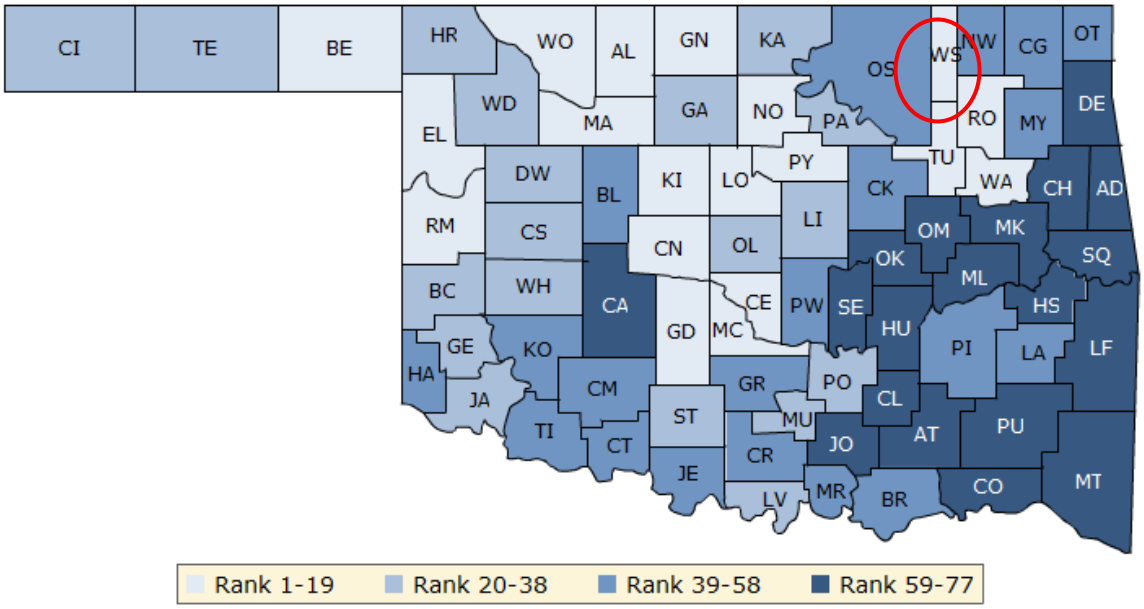
Why Is This Indicator Important?

The overall rankings in health factors represent what influences the health of a county. They are an estimate of the future health of counties as compared to other counties within a state.

How Are We Doing?

The map below, displays Oklahoma's summary rankings for health factors (Figure 61). Lighter shades indicate better performance in the respective summary rankings. In 2016, Washington County ranked 8th out of 77 counties in Oklahoma in regard to health factors (Figure 60 and Table 22). [7]

Figure 60: 2016 Oklahoma Health Factors Map



Source: Courtesy of University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps.* Retrieved from: www.countyhealthrankings.org.

Table 21: 2016 Oklahoma Health Factors Table

County	Rank	County	Rank	County	Rank	County	Rank
Adair	77	Delaware	60	Lincoln	37	Pittsburg	53
Alfalfa	15	Dewey	21	Logan	16	Pontotoc	34
Atoka	75	Ellis	10	Love	27	Pottawatomie	43
Beaver	11	Garfield	20	Major	9	Pushmataha	69
Beckham	25	Garvin	50	Marshall	48	Roger Mills	13
Blaine	40	Grady	19	Mayes	51	Rogers	6
Bryan	54	Grant	3	McClain	5	Seminole	72
Caddo	62	Greer	33	McCurtain	67	Sequoyah	74
Canadian	1	Harmon	57	McIntosh	65	Stephens	28
Carter	46	Harper	22	Murray	35	Texas	36
Cherokee	59	Haskell	63	Muskogee	61	Tillman	52
Choctaw	76	Hughes	73	Noble	12	Tulsa	17
Cimarron	30	Jackson	26	Nowata	41	Wagoner	14
Cleveland	4	Jefferson	58	Okfuskee	66	Washington	8
Coal	68	Johnston	71	Oklahoma	23	Washita	31
Comanche	39	Kay	38	Okmulgee	64	Woods	7
Cotton	45	Kingfisher	2	Osage	49	Woodward	29
Craig	42	Kiowa	47	Ottawa	56		
Creek	44	Latimer	55	Pawnee	32		
Custer	24	Le Flore	70	Payne	18		

Source: Courtesy of University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps.* Retrieved from: www.countyhealthrankings.org.

Data specific to the four health measures (social and economic factors, clinical care, health behaviors and physical environment factors) used to compile the health factors rankings were reviewed and are

presented below. Social and economic factors are the first health factor measure presented, as they are essential to understanding the barriers to health in the community. Furthermore, the availability of socioeconomic data for specific sub-populations and sub-county geographies provides a framework for identifying the populations most vulnerable to the poor health outcomes identified. Geographic areas of highest need are also presented in this section (based on socioeconomic need).

Social and Economic Factors

Socioeconomic Status

Economic and social insecurity often are associated with poor health. Poverty, unemployment, and lack of educational achievement affect access to care and a community's ability to engage in healthy behaviors. Ensuring access to social and economic resources provides a foundation for a healthy community.

Per Capita Household Income

Definition

The per capita income in this report area is the average (mean) income computed for every man, woman, and child in the specified area. This measure is based on 2014 American Community Survey 5-year estimates.

Why Is This Indicator Important?

Income is a common measure of socioeconomic status. Current income provides a direct measure of the quality of food, housing, leisure-time amenities, and health care an individual is able to acquire, as well as reflecting their relative position in society.[54]

How Are We Doing?

The estimated per capita income for Washington County in 2013 was $22,736. (Figure 61 and Figure 62).[14]

[54] Centers for Disease Control and Prevention, National Center for Health Statistics. (2015). *Healthy People 2010*: *General Data Issues*. Retrieved from: http://www.cdc.gov/nchs/data/hpdata2010/hp2010_general_data_issues.pdf.

Figure 61: Per Capita Income, Washington County 2013

Report Area	Total Population	Total Income ($)	Per Capita Income ($)
Washington County, OK	70,607	$1,605,326,080	$22,736
Oklahoma	3,818,851	$94,305,091,584	$24,694
United States	314,107,072	$8,969,237,037,056	$28,554

Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

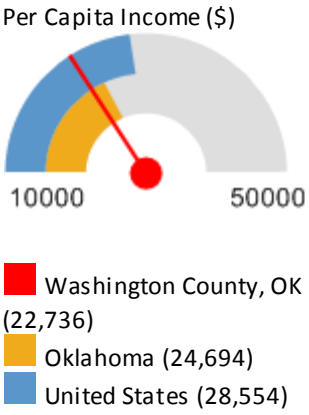
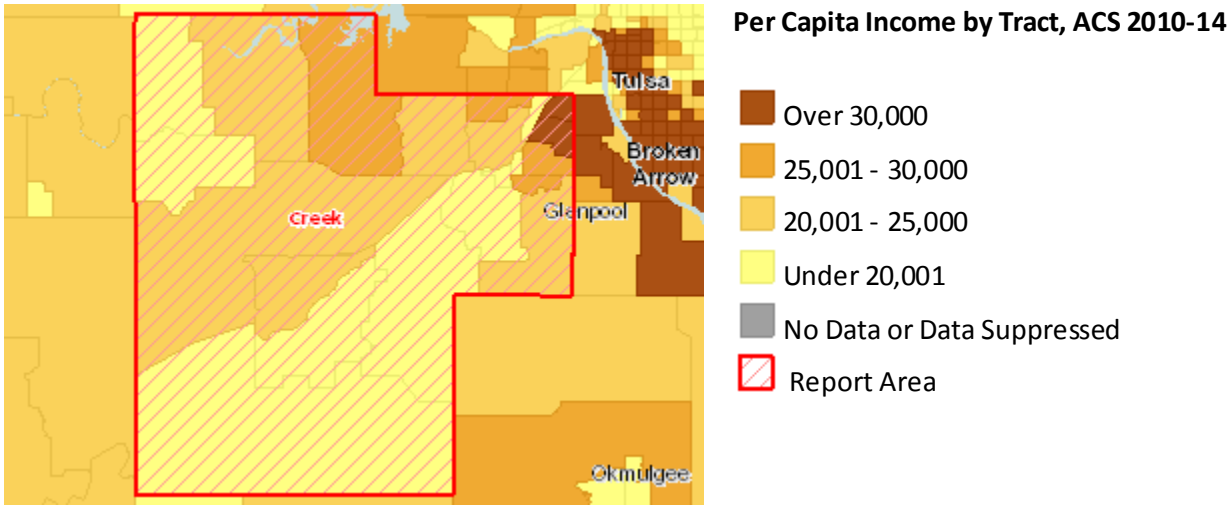


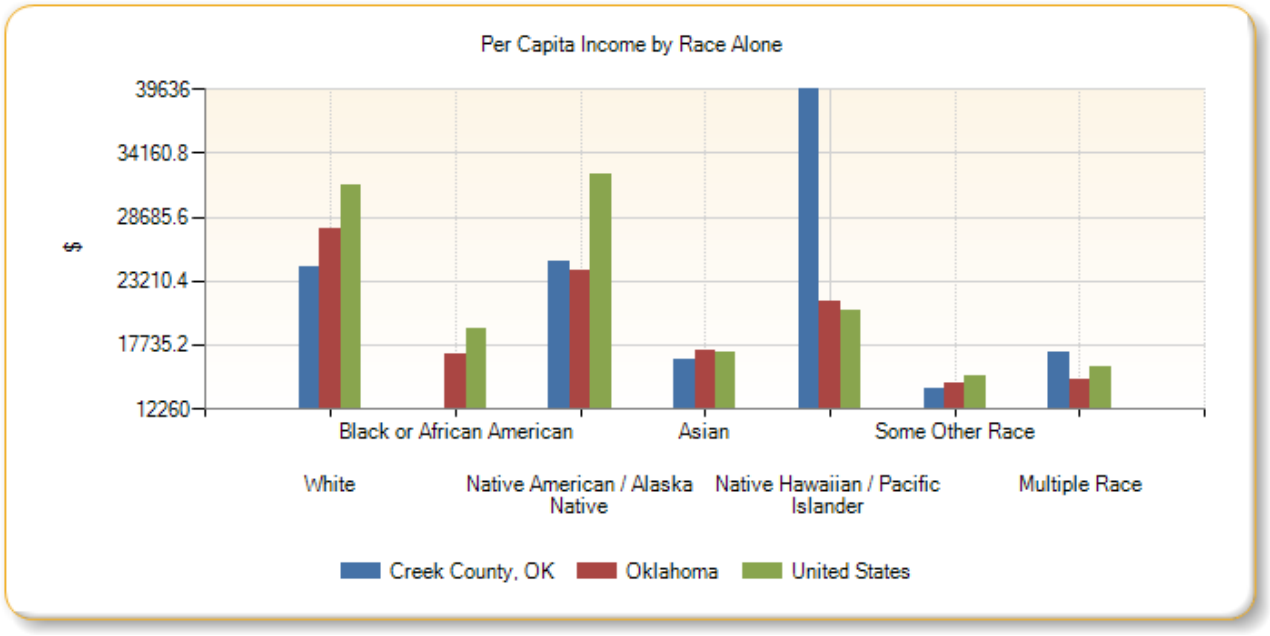
Figure 62: Per Capita Income by Tract, ACS, 2010-2014



Data Source: Same as above
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016.

There was clear racial inequality among per capita incomes, with black and 'some other race' populations having less than half the per capita incomes of whites, Native American/Alaskan Natives, and Native Hawaiian/Pacific Islanders (Figure 63). [14]

Figure 63: Per Capita Income by Race, Washington County

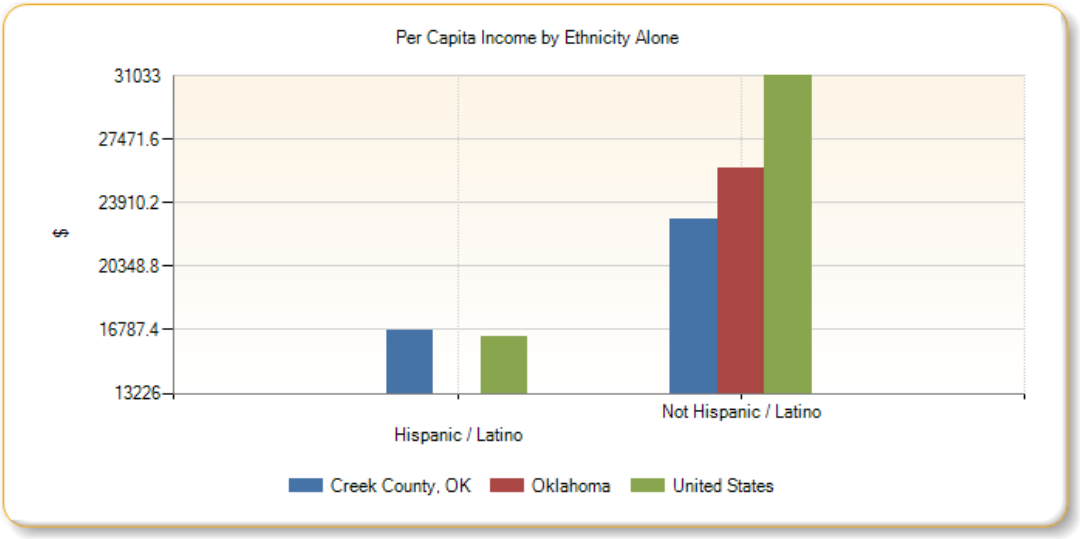


Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Washington County, OK	$24,359	$12,260	$24,821	$16,489	$39,636	$13,926	$17,171
Oklahoma	$27,616	$16,943	$24,148	$17,202	$21,492	$14,452	$14,790
United States	$31,402	$19,113	$32,404	$17,134	$20,638	$15,152	$15,876

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Hispanics had significantly less in terms of per capita income than non-Hispanics (Figure 64). [14]

Figure 64: Per Capita Income by Ethnicity, Washington County



Report Area	Hispanic / Latino	Not Hispanic / Latino
Washington County, OK	$16,741	$22,953
Oklahoma	$13,226	$25,881
United States	$16,367	$31,033

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Washington County had a disparity index score of 28.55 (some disparity) which was lower than Oklahoma and the U.S.

Table 22: Per Capita Income by Race/Ethnicity, Disparity Index

Report Area	Disparity Index Score *(0 = No Disparity; 1 - 40 = Some Disparity; Over 40 = High Disparity)*
Washington County, OK	28.55
Oklahoma	31.89
United States	29.2

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Population below Poverty

Definition

This indicator is the percentage of persons living 100 percent below the federal poverty level and is taken from the 2014 American Community Survey. The Census Bureau determines poverty levels using a

set of income thresholds that vary by family size and composition. In 2014, the Census Bureau designated that the weighted average poverty threshold for a family of four was $23,850.[55]

Why Is This Indicator Important?

Health outcomes are worse for individuals with low incomes than for their more affluent counterparts. Lower-income individuals experience higher rates of chronic illness, disease, and disabilities, and also die younger than those who have higher incomes. Individuals living in poverty are more likely than their affluent counterparts to experience fair or poor health, or suffer from conditions that limit their everyday activities. They also report higher rates of chronic conditions such as hypertension, high blood pressure, and elevated serum cholesterol, which can be predictors of more acute conditions in the future.[56]

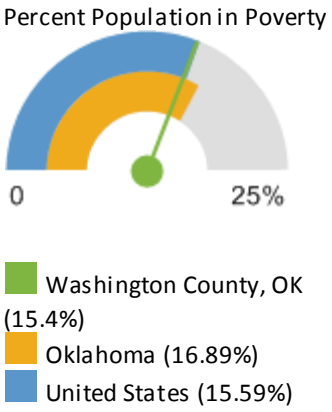
How Are We Doing?

Estimates for 2014 stated that the poverty rate for Washington County was 15.4 percent (Figure 65 and Figure 66).[14] According to the Oklahoma State Department of Health's *2014 State of the State's Health* report, one in six people in Washington County lived in poverty. The percentage of the population living in poverty worsened by 34 percent from 2013-2014.[24]

Figure 65: Percent Population in Poverty

Report Area	Total Population	Population in Poverty	Percent Population in Poverty
Washington County, OK	69,598	10,716	15.4%
Oklahoma	3,704,019	625,508	16.89%
United States	306,226,400	47,755,608	15.59%

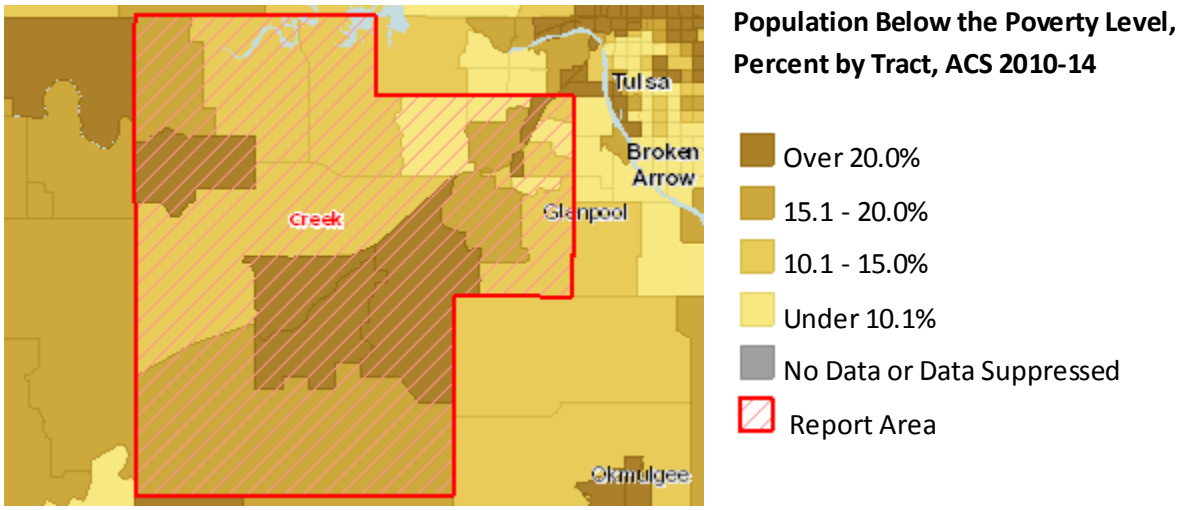
Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html. *Source*: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016



[55] U.S. Census Bureau. (2013). *Poverty Thresholds 2013*. Retrieved from: https://www.census.gov/hhes/www/poverty/index.html

[56] United States Government Accountability Office. (2007). *Poverty in America: Economic Research Shows Adverse Impacts on Health Status and Other Social Conditions as well as the Economic Growth Rate*. Retrieved from: http://www.gao.gov/new.items/d07344.pdf.

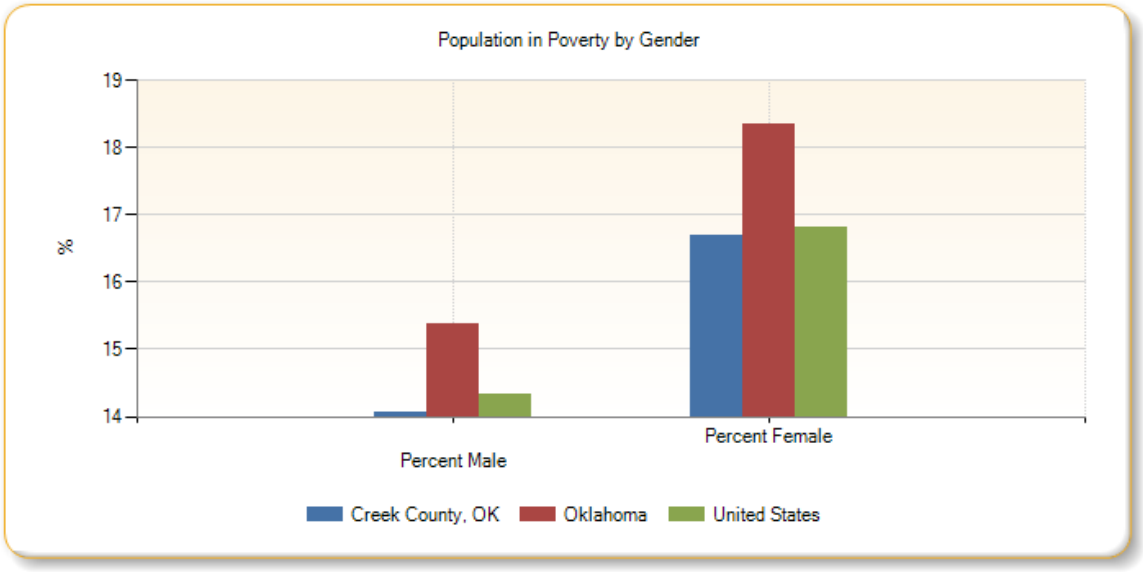
Figure 66: Population below the Poverty Level, Percent by Tract, ACS 2010-2014



Data Source: Same as above
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016.

The female population living in poverty was higher (16.7%) than the male population living in poverty (14.1%) (Figure 67).[14]

Figure 67: Population in Poverty by Gender

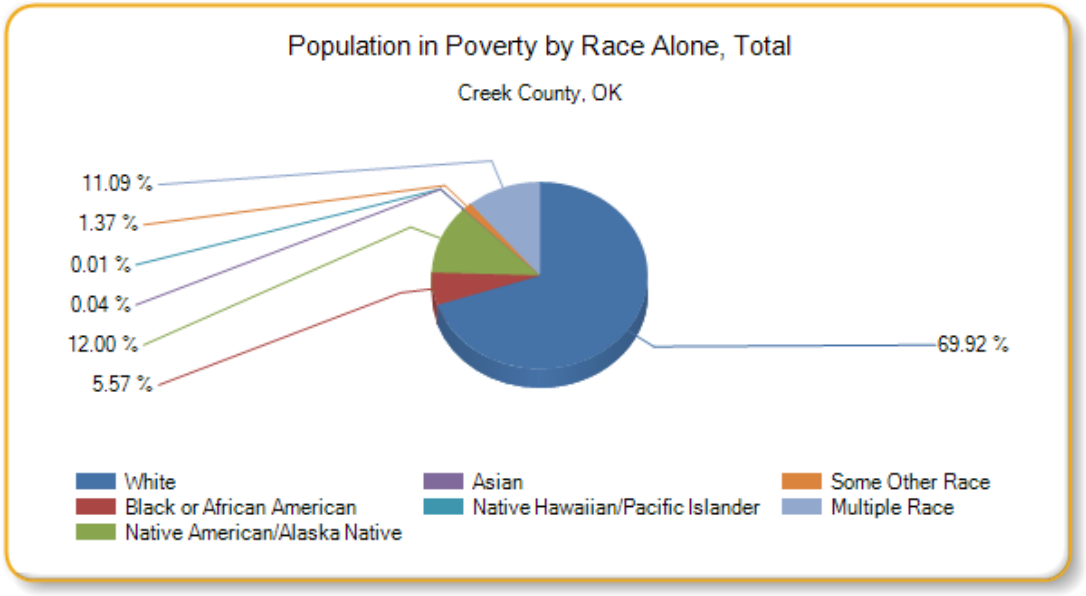


Report Area	Total Male	Total Female	Percent Male	Percent Female
Washington County, OK	4,846	5,870	14.06%	16.7%
Oklahoma	279,731	345,777	15.37%	18.35%
United States	21,461,752	26,293,856	14.33%	16.81%

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

The 2014 American Community Survey showed that approximately 70 percent of the white population and 12 percent of the Native American/Alaskan Native population lived below the poverty line. About twenty-eight percent of the Hispanic population lived below the poverty level (Figure 68). [14]

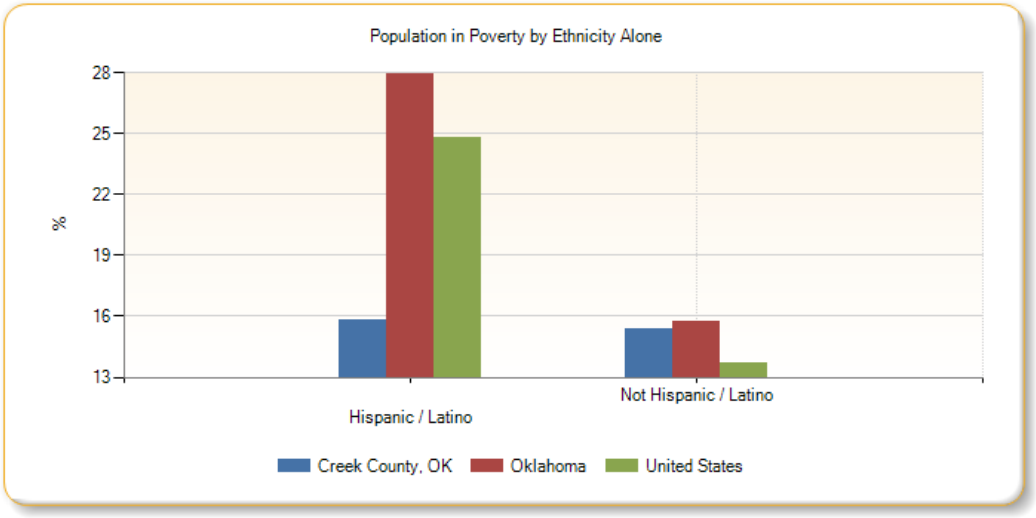
Figure 68: Population in Poverty by Race Alone, Total



Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

About 15.8 percent of the Hispanic population lived below the poverty level (Figure 69). [14]

Figure 69: Population in Poverty by Ethnicity



Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Washington County, OK	391	10,325	15.84%	15.38%
Oklahoma	97,348	528,160	27.96%	15.74%
United States	12,880,559	34,875,048	24.77%	13.72%

Data Source: Same as above

Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Educational Attainment

Definition

Educational attainment is defined as completion of at least a high school education by the population age 25 and older. It is presented as a percentage of the total population 25 and older, based on 2014 American Community Survey 5-year estimates.

Why Is This Indicator Important?

Education is a basic component of socioeconomic status, because it shapes future occupational opportunities and earning potential. Education also provides knowledge and life skills that allow better-educated persons to more readily gain access to information and resources that promote health.[57]

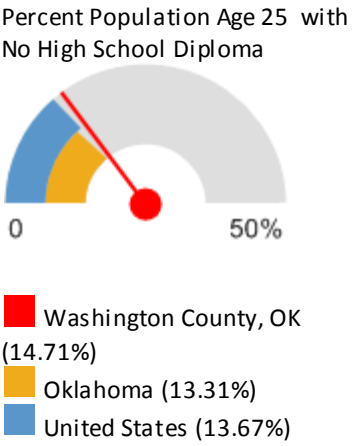
How Are We Doing?

[57] Telfair, J. & Shelton, T. (2012). Educational Attainment as a Social Determinant of Health. *North Carolina Medical Journal* 73(5). Retrieved from: https://libres.uncg.edu/ir/uncg/f/J_Telfair_Educational_2012.pdf.

Washington County was estimated to have 14.7 percent of its population with no high school diploma in 2010-2014, according to the American Community Survey.[14] This percentage was higher than both Oklahoma (13.31%) and the U.S. (13.67%) (Figure 70 and Figure 71).[14]

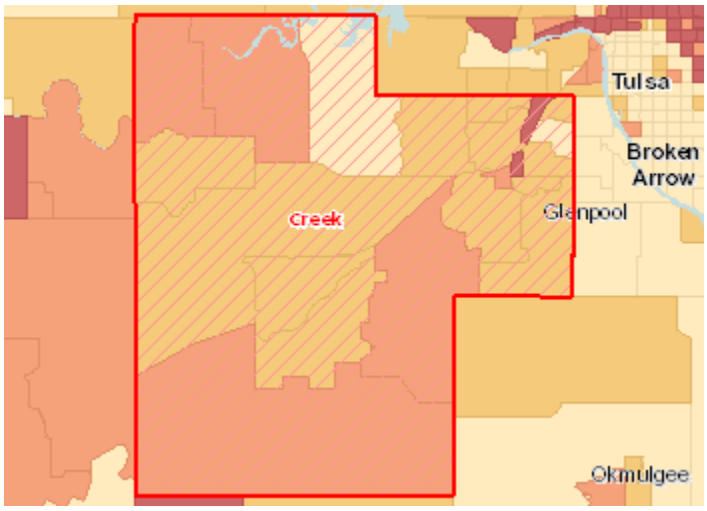
Figure 70: Educational Attainment by Race/Ethnicity, Washington County 2013

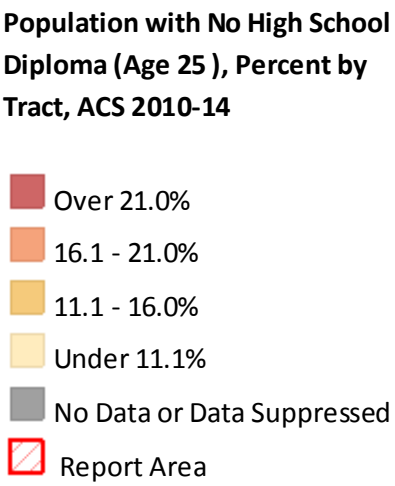
Report Area	Total Population Age 25	Population Age 25 with No High School Diploma	Percent Population Age 25 with No High School Diploma
Washington County, OK	47,657	7,009	14.71%
Oklahoma	2,489,023	331,202	13.31%
United States	209,056,128	28,587,748	13.67%



Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Figure 71: Population with No High School Diploma (Age 25), Percent by Tract, ACS 2010-2014

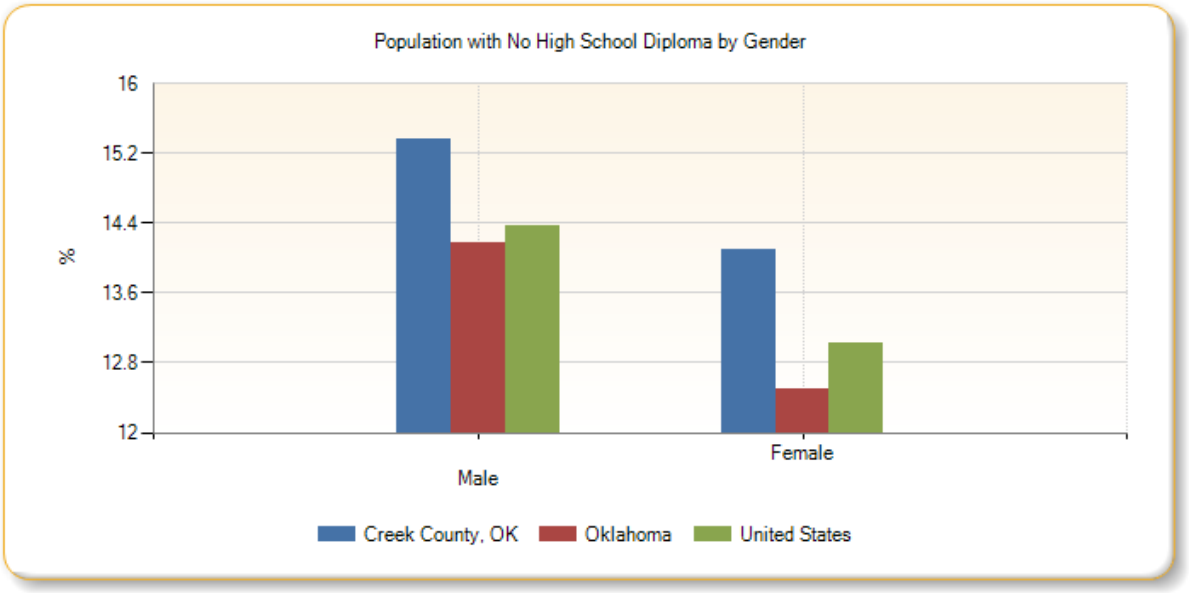




Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

With regard to gender, females had lower educational attainment (14.1%) as compared to males (15.4%) (Figure 72).[14]

Figure 72: Educational Attainment by Locality, 2013

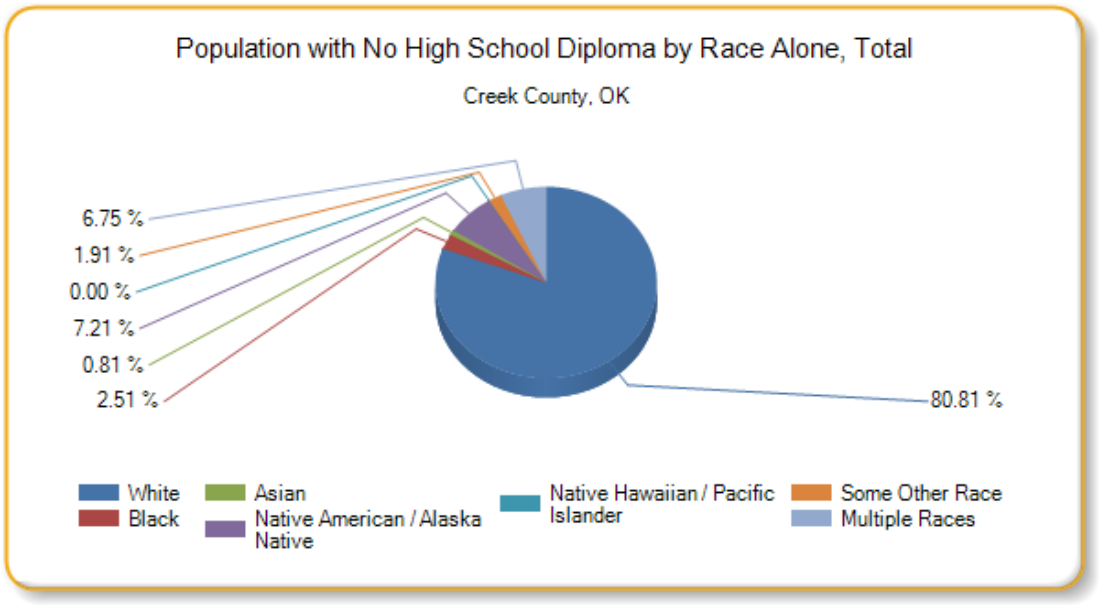


Report Area	Total Male	Total Female	Percent Male	Percent Female
Washington County, OK	3,554	3,455	15.36%	14.09%
Oklahoma	171,338	159,864	14.18%	12.49%
United States	14,483,210	14,104,538	14.37%	13.03%

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

This percentage was highest in whites (80.81%), followed by Native Americans/Alaskan Natives (7.71%) (Figure 73).[14]

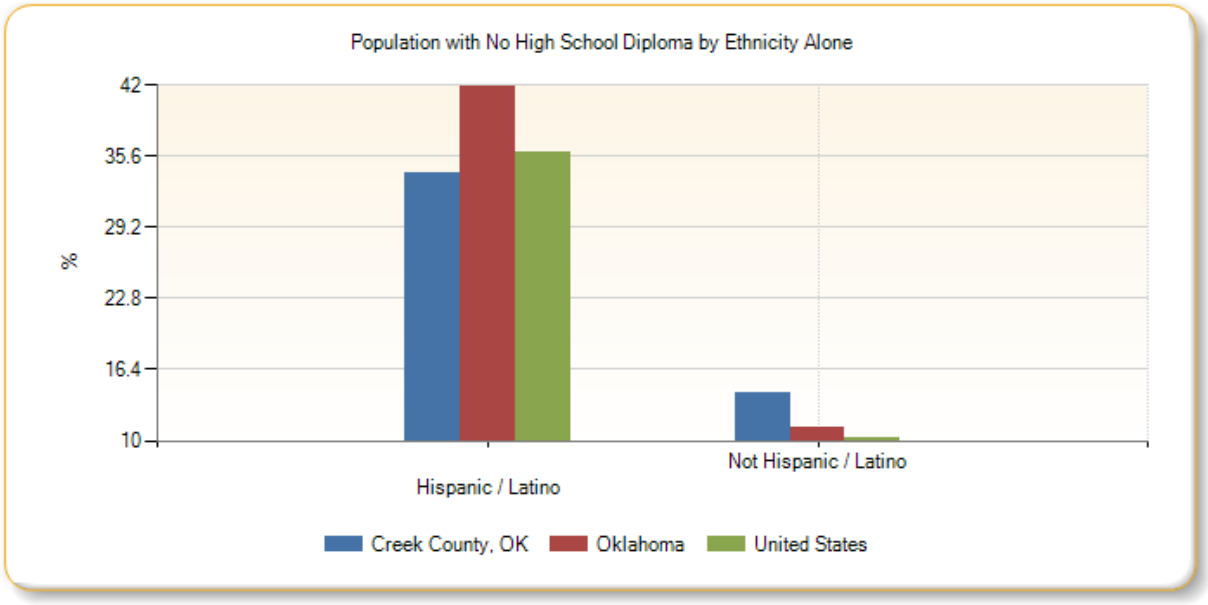
Figure 73: Population with No High School Diploma by Race Alone



Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

About 34.2 percent of Hispanics had a high school education or higher (Figure 74). [14]

Figure 74: Population with No High School Diploma by Ethnicity



Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Washington County, OK	402	6,607	34.15%	14.21%
Oklahoma	70,861	260,341	41.92%	11.22%
United States	10,436,617	18,151,132	35.89%	10.09%

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

In 2010-2014, 21.96 percent of the population in Washington County aged 25 and older, or 10,466 obtained an Associate's level degree or higher. This percentage was lower than Oklahoma (30.96%) and the U.S. (37.21%) (Figure 75 and Figure 76). [14]

Figure 75: Percent Population Age 25 with Associate's Degree or Higher

Report Area	Total Population Age 25	Population Age 25 with Associate's Degree or Higher	Percent Population Age 25 with Associate's Degree or Higher
Washington County, OK	47,657	10,466	21.96%
Oklahoma	2,489,023	770,662	30.96%
United States	209,056,128	77,786,232	37.21%

Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

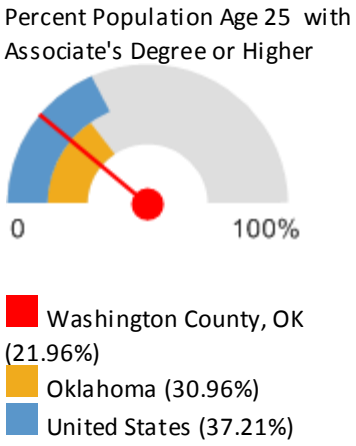
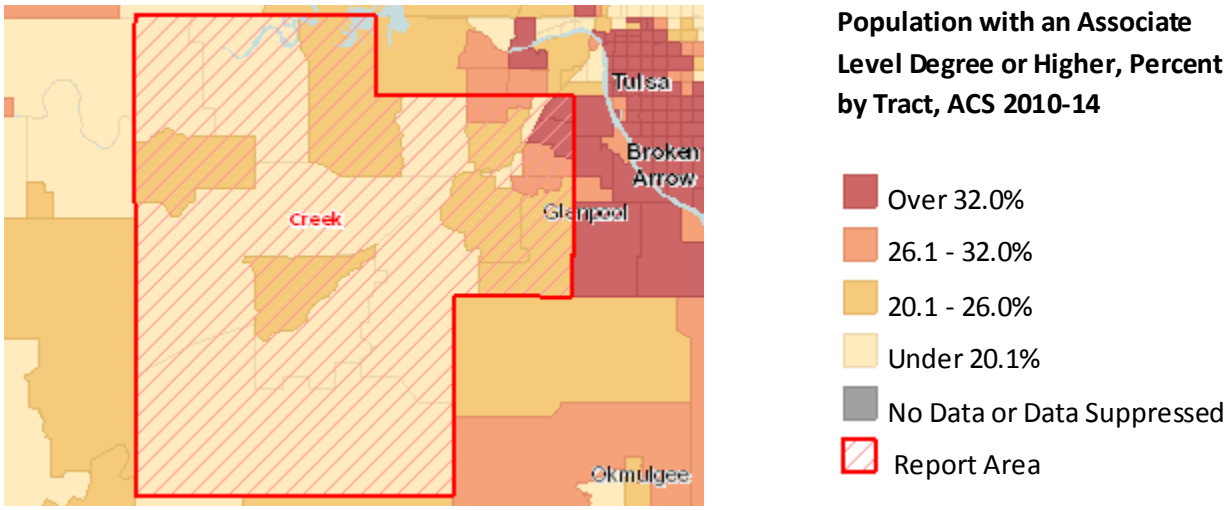


Figure 76: Population with an Associate Level Degree or Higher, Percent by Tract, ACS 2010-2014



Data Source: Same as above
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

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Unemployment Rate

Definition

This indicator is presented as the percentage of the total civilian labor force (age 16 and older) that was unemployed in April 2016, based on information from the U.S. Department of Labor, Bureau of Labor Statistics. This is the source that is often reported by economists in the news as a measure of the health of the economy.

Why Is This Indicator Important?

This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status. Health insurance is a major determinant of access to both preventive and acute health care. Most Americans rely on employer-provided insurance. Thus, unemployment affects their access to health services, due to both loss of employer-sponsored health insurance and reduced income. Unemployed adults have poorer mental and physical health than employed adults; this pattern is also found for insured and uninsured adults. Unemployed adults are less likely to receive needed medical care and prescription drugs due to cost than the employed in each insurance category.[58]

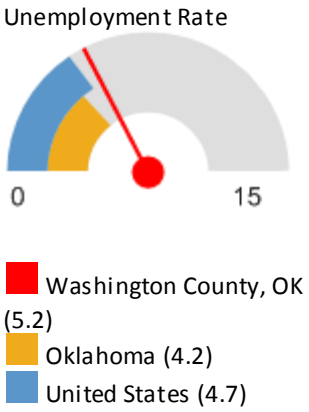
How Are We Doing?

[58] Centers for Disease Control and Prevention, National Center for Health Statistics. (2015*). Health and Access to Care among Employed and Unemployed Adults: United States, 2009–2010*. Retrieved from: http://www.cdc.gov/nchs/data/databriefs/db83.htm.

The overall unemployment rate in April 2016 for Washington County was 5.2 percent. This was higher than Oklahoma (4.2%) and the United States (4.7%) (Figure 77). The unemployment rate in Washington County has been decreasing each year since peaking in 2010.[59]

Figure 77: Unemployment Rate by Locality, 2016

Report Area	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
Washington County, OK	31,798	30,149	1,649	5.2
Oklahoma	1,852,350	1,773,837	78,513	4.2
United States	159,624,372	152,082,706	7,541,666	4.7



Data Source: U.S. Department of Labor, Bureau of Labor Statistics (BLS). (2016). *Local Area Unemployment Statistics (LAUS)*. Retrieved from: www.bls.gov.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Social Environment

Social environments lacking safe living environments and supportive social networks present a high public health risk for serious illness and premature death. Without a network of support and a safe community, individuals and families cannot thrive.

Community Safety: Violent Crime

Definition

This indicator reports the rate of violent crime offenses reported by law enforcement per 100,000 residents, based on estimates from the Federal Bureau of Investigation's (FBI) Uniform Crime Reporting (UCR) Program. Crime totals, population figures, and crime rates are multi-year estimates for the three year period 2010-2012. County-level estimates are created by the National Archive of Criminal Justice Data (NACJD) based on agency-level records in a file obtained from the FBI, which also provides aggregated county totals. Violent crime includes homicide, rape, robbery, and aggravated assault.

Why Is This Indicator Important?

This indicator is relevant because it assesses community safety. High levels of violent crime compromise physical safety and psychological well-being. High crime rates can also deter residents from pursuing healthy behaviors such as exercising outdoors. Additionally, exposure to crime and violence has been shown to increase stress, which may exacerbate hypertension and other stress-related disorders

[59] U.S. Department of Labor, Bureau of Labor Statistics (BLS). (2016). *Local Area Unemployment Statistics (LAUS)*. Retrieved from: www.bls.gov.

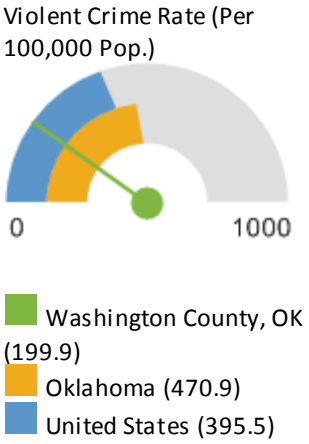
and may contribute to obesity prevalence.[60] Exposure to chronic stress also contributes to the increased prevalence of certain illnesses.[61]

How Are We Doing?

The violent crime rate in 2010-2012 for Washington County was 199.9 per 100,000 population. This was lower than Oklahoma (470.9) and the United States (395.5) rates per 100,000 population (Figure 78).[62] [63] [64]

Figure 78: 2010-2012 Washington County Violent Crime Rate per 100,000 Population

Report Area	Total Population	Violent Crimes	Violent Crime Rate (Per 100,000 Pop.)
Washington County, OK	70,528	141	199.9
Oklahoma	3,783,867	17,820	470.9
United States	306,859,354	1,213,859	395.5



Data Source: Federal Bureau of Investigation. *(2016). FBI Uniform Crime Reports. Retrieved from: http://www.fbi.gov/about-us/cjis/ucr/ucr.*
National Archive of Criminal Justice Data. *(2016). Inter-university Consortium for Political and Social Research. 2010-12. Retrieved from: http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/57.*
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Deaths from Homicide

Definition

The mortality rate from homicide (murder) is presented as the number of deaths from homicide per 100,000 population, over the years 2007 – 2013. The rates were age-adjusted to account for differences in age distribution among localities, ZIP codes, and races/ethnicities. Rates were based on the residence of the victim, not the location of the crime.

Why Is This Indicator Important?

[60] Ellen IG, Mijanovich T, Dillman KN. (2001). Neighborhood effects on health: Exploring the links and assessing the evidence. *Journal of Urban Affairs, 23*:391-408.
[61] Johnson SL, Solomon BS, Shields WC, McDonald EM, McKenzie LB, Gielen AC. (2009). Neighborhood violence and its association with mothers' health: Assessing the relative importance of perceived safety and exposure to violence. *J Urban Health, 86*:538-550.
[62] Community Commons. (2016). *Community Health Needs Assessment: Creek County*. Retrieved from www.communitycommons.org on April 1, 2016.
[63] Federal Bureau of Investigation. *(2016). FBI Uniform Crime Reports. Retrieved from: http://www.fbi.gov/about-us/cjis/ucr/ucr.*
[64] National Archive of Criminal Justice Data. *(2016). Inter-university Consortium for Political and Social Research. 2010-12. Retrieved from: http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/57*

This indicator is relevant because homicide rate is a measure of poor community safety and is a leading cause of premature death. Over three-quarters of the total homicides in the nation during 2011 – 2013 were caused by assault with firearms.[65] In the U.S. there are significant disparities in homicide deaths by age, race/ethnicity, and sex. The homicide rate is particularly high among young, black males.[66]

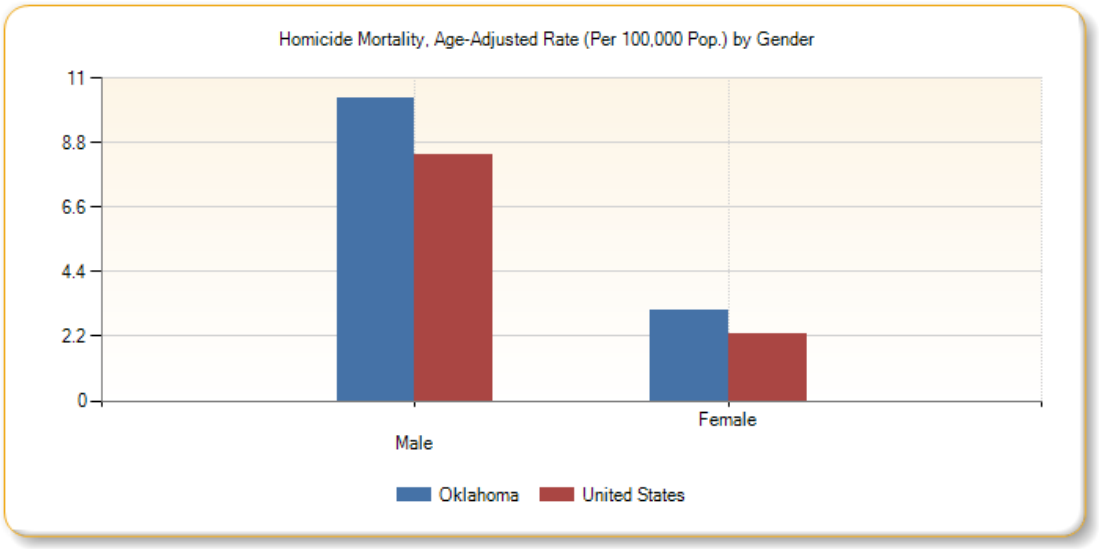
How Are We Doing?

From 2007 – 2013, Washington County had an age-adjusted death rate of 3 deaths per 100,000 individuals.

This rate was higher than that of Oklahoma (7), the U.S. (5.2), and the top performing counties in the U.S. (2). [7] The Healthy People 2020 national goal is to reduce the homicide death rate to 5.5 deaths per 100,000 population.[67] The United States overall met this target, but Washington County and Oklahoma did not.

Males in Oklahoma had a higher age-adjusted rate of homicide mortality than females (10.3 vs. 3.1 homicide deaths per 100,000 population) (Figure 79). [23]

Figure 79: Age-Adjusted Homicide Death Rate by Gender, Oklahoma



Report Area	Male	Female
Washington County, OK	no data	no data
Oklahoma	10.3	3.1
United States	8.4	2.3

[65] Centers for Disease Control and Prevention. (2016). *Injury Prevention and Control: Key Data and Statistics*. Retrieved from: http://www.cdc.gov/injury/overview/data.html.

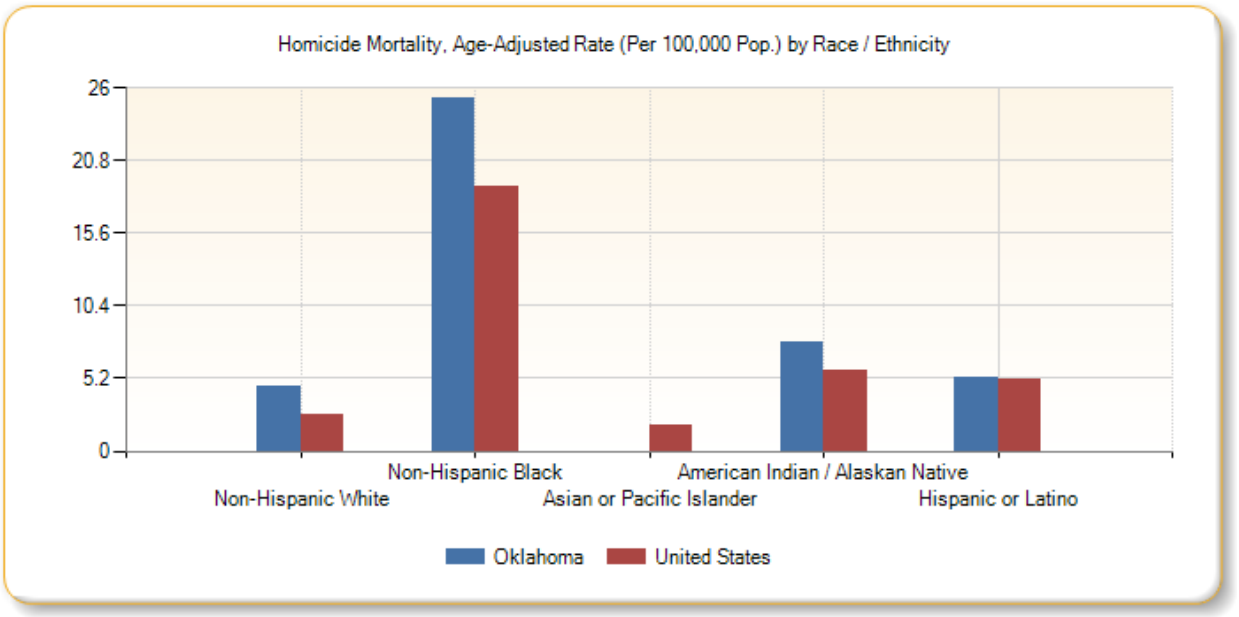
[66] Centers for Disease Control and Prevention. (2016). *Health Disparities in Homicides Fact Sheet*. Retrieved from: http://www.cdc.gov/minorityhealth/reports/CHDIR11/FactSheets/Homicide.pdf.

[67] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. *Healthy People 2020: Injury and Violence Prevention*. Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=24.

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. (2016). Retrieved from: CDC WONDER 2011-13.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

There was clear racial disparity, with blacks dying from homicide in Oklahoma at a rate five times that of whites (25.3 compared to 4.6). The homicide death rate for Hispanics was 5.2 per 100,000 population. The age-adjusted rate for Asians/Pacific Islanders is not shown because it is based on a relatively small number of deaths (Figure 80).[23]

Figure 80: Age-Adjusted Homicide Death Rate by Race/Ethnicity, Oklahoma



Report Area	Non-Hispanic White	Non-Hispanic Black	Asian or Pacific Islander	American Indian / Alaskan Native	Hispanic or Latino
Washington County, OK	no data	no data	no data	no data	no data
Oklahoma	4.6	25.3	no data	7.8	5.2
United States	2.6	18.9	1.9	5.8	5.1

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Deaths from All Accidents

Definition

Unintentional injuries (accidents) include motor vehicle accidents, accidental falls, drowning, fires, and poisonings. The death rate from unintentional injuries is the number of deaths from accidents per 100,000 population, over the years 2007 – 2013. The rates were age-adjusted to account for differences in age distribution among localities, ZIP codes, and races/ethnicities.

Why Is This Indicator Important?

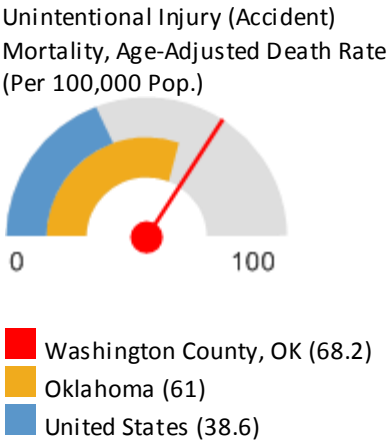
This indicator is relevant because accidents are a leading cause of death in the U.S. Accidents were the fifth leading cause of death in Washington County from 2014.. Motor vehicle accidents accounted for one quarter of all deaths. Motor vehicle safety prevention efforts often aim to improve car/booster seat and seat belt use, reduce impaired driving, as well as focus on high risk groups such as child passengers, teen drivers, and older adult drivers. [68]

How Are We Doing?

Accidents killed 48 Washington County residents from 2007 to 2013, for a death rate of 68.2 deaths per 100,000 individuals. This rate was higher than Oklahoma (61) and the U.S. (38.6) (Figure 81). [23] None of these regions met the Healthy People 2020 target of 36.0 deaths from unintentional injuries per 100,000 population.[65]

Figure 81: Age-Adjusted Unintentional Injury (Accident) Death Rate by Race/Ethnicity, Washington County

Report Area	Total Population	Average Annual Deaths, 2007-2011	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Washington County, OK	70,218	48	68.93	68.2
Oklahoma	3,785,164	2,339	61.79	61
United States	311,430,373	124,733	40.05	38.6
HP 2020 Target				<= 36.0

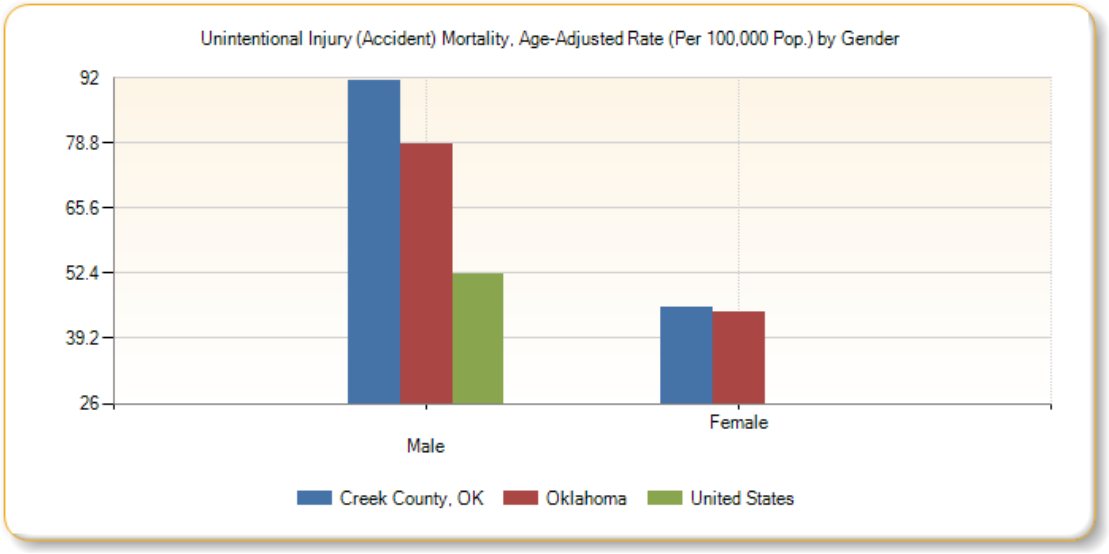


Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. (2016). Retrieved from: CDC WONDER 2007-13.
Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on April 1, 2016.

Males had a higher rate of accident mortality than females (91.4 compared to 45.4 per 100,000 population) (Figure 82). [23]

[68] Centers for Disease Control and Prevention. (2016). Motor Vehicle Safety. Retrieved from: http://www.cdc.gov/motorvehiclesafety/

Figure 82: Unintentional Injury (Accident) Mortality, Age-Adjusted per 100,000 Population by Gender

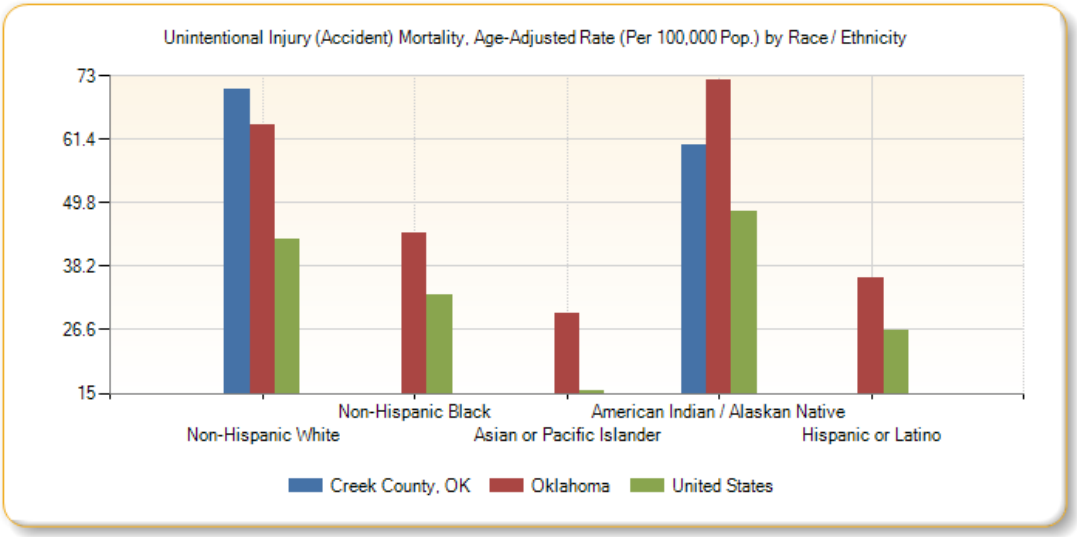


Report Area	Male	Female
Washington County, OK	91.4	45.4
Oklahoma	78.5	44.4
United States	52.3	26

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

With regard to race, the death rate was highest among whites (70.6 deaths per 100,000) and second highest among American Indians (60.4 deaths per 100,000 population). The unintentional injury death rate was higher among non-Hispanics than Hispanics in Oklahoma (72.1 compared to 36 deaths per 100,000 population) (Figure 83).[23]

Figure 83: Unintentional Injury (Accident) Mortality, Age-Adjusted Rate per 100,000 Population by Race/Ethnicity



Report Area	Non-Hispanic White	Non-Hispanic Black	Asian or Pacific Islander	American Indian / Alaskan Native	Hispanic or Latino
Washington County, OK	70.6	no data	no data	60.4	no data
Oklahoma	64	44.3	29.5	72.1	36
United States	43.2	32.8	15.2	48.1	26.4

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

Social/Emotional Support

Definition

This indicator represents the percentage of adults aged 18 and older who self-report that they receive insufficient social and emotional support all or most of the time. This information is based on 2006-2012 estimates from the Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System.

Why Is This Indicator Important?

This indicator is relevant because social and emotional support is critical for navigating the challenges of daily life as well as for good physical and mental health. Socially isolated individuals have an increased risk for poor health outcomes.[69] Individuals who lack adequate social support are particularly vulnerable to the effects of stress, which has been linked to cardiovascular disease and unhealthy behaviors such as

[69] House J.S. (2001). Social isolation kills, but how and why? *Psychosomatic Medicine, 63*:273-274.Retrieved from: http://www.psychosomaticmedicine.org/content/63/2/273.x.

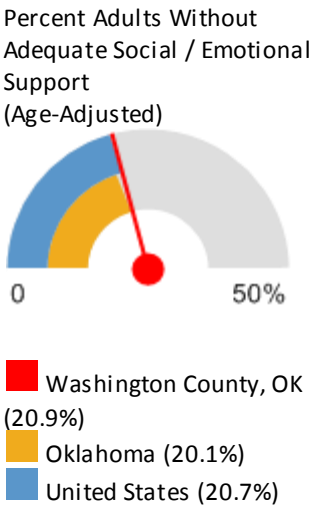
overeating and smoking in adults, and obesity in children and adolescents.[70] Social and emotional support is also linked to educational achievement and economic stability.

How Are We Doing?

The age-adjusted percent of adults self-reporting inadequate social/emotional support in 2006-2012 in Washington County was 20.9 percent. This was higher than percentages in Oklahoma (20.1) and the United States (20.7) (Figure 84). [71]

Figure 84: Percent of Adults without Adequate Social/Emotional Support (Age-Adjusted), Washington County

Report Area	Total Population Age 18	Estimated Population Without Adequate Social / Emotional Support	Crude Percentage	Age-Adjusted Percentage
Washington County, OK	52,041	10,981	21.1%	20.9%
Oklahoma	2,793,624	561,518	20.1%	20.1%
United States	232,556,016	48,104,656	20.7%	20.7%



Data Source: Centers for Disease Control and Prevention. (2016). *Behavioral Risk Factor Surveillance System 2006-2012*. Accessed via the US Department of Health and Human Services, Health Indicators Warehouse.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016

Child Abuse and Neglect

Definition

The Oklahoma Department of Human Services (OKDHS) assesses all accepted reports of alleged child abuse and neglect and, if necessary, investigates individuals responsible for the child's care. Investigations are conducted when the report contains allegations of serious threats to the child's safety, whereas assessments are conducted when the allegation of abuse or neglect does not constitute a serious or immediate threat to a child's health or safety. This indicator is presented as the number of alleged and confirmed cases of child abuse or neglect. Please note that these rates reflect a duplicated count of children confirmed to be victims of child abuse and neglect.

[70] Egerter S., Braveman P., Barclay C. (2011). *Stress and health*. Princeton: Robert Wood Johnson Foundation (RWJF). Exploring the Social Determinants of Health Issue Brief No. 3. Retrieved from: http://www.rwjf.org/en/research-publications/find-rwjf-research/2011/03/how-social-factors-shape-health.html.
[71] Centers for Disease Control and Prevention. (2016). *Behavioral Risk Factor Surveillance System 2006-2012*. Accessed via the US Department of Health and Human Services, Health Indicators Warehouse.

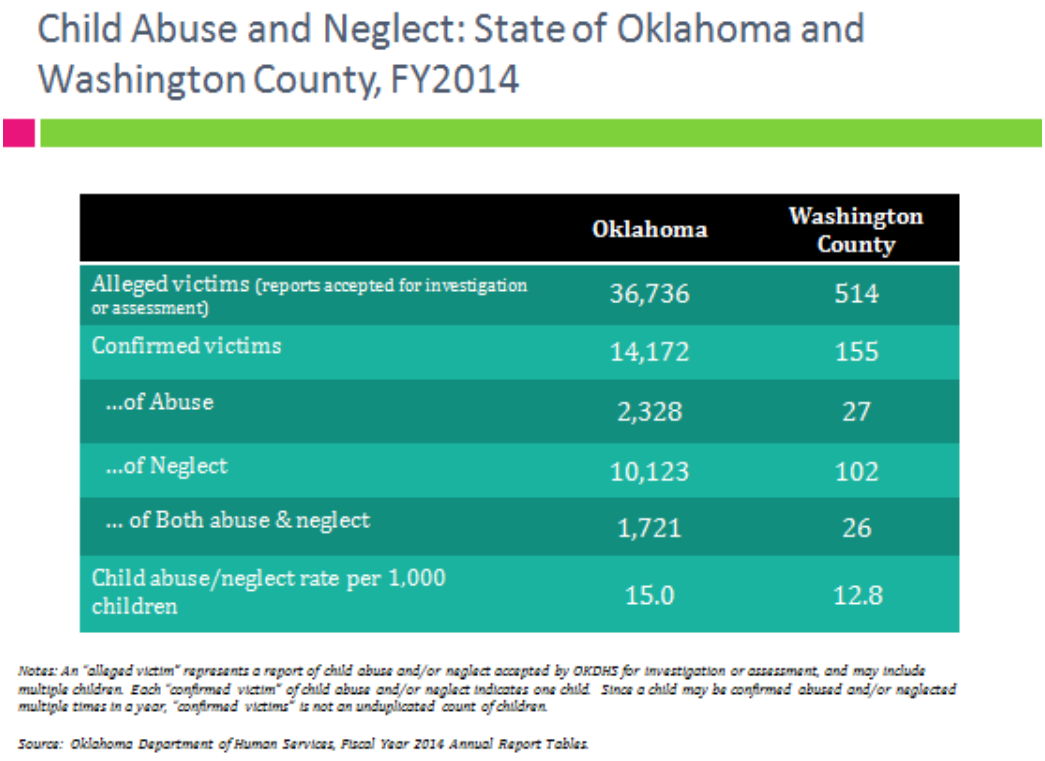
Why Is This Indicator Important?

Healthy and safe environments are important to the well-being and development of children. Victims of child abuse are at higher risk of having a number of adverse outcomes throughout their life, including physical, psychological, and behavioral consequences. Physical consequences include abusive head trauma, impaired brain development, and poor physical health. Psychological consequences include difficulties during infancy, poor mental and emotional health, cognitive difficulties, and social difficulties. Behavioral consequences include difficulties during adolescence, juvenile delinquency, adult criminality, substance abuse, and abusive behavior.[72]

How Are We Doing?

From July 1, 2012 – June 30, 2013 (fiscal year 2013), there were a total of 1,156 reports of alleged child abuse or neglect received in Washington County.[73] Overall, there were 11.5 confirmed cases of child abuse or neglect per 1,000 children in Washington County during the 2013 fiscal year. During fiscal year 2013, Washington County had a lower rate of confirmed child abuse cases compared to Oklahoma (12.0 confirmed cases per 1,000 children) but higher than the United States (9.1 confirmed cases per 1,000 children) (Figure 85).[74]

Figure 85: Confirmed Child Abuse Rate by Locality, FY 2009-2013



	Oklahoma	Washington County
Alleged victims (reports accepted for investigation or assessment)	36,736	514
Confirmed victims	14,172	155
...of Abuse	2,328	27
...of Neglect	10,123	102
... of Both abuse & neglect	1,721	26
Child abuse/neglect rate per 1,000 children	15.0	12.8

Notes: An "alleged victim" represents a report of child abuse and/or neglect accepted by OKDHS for investigation or assessment, and may include multiple children. Each "confirmed victim" of child abuse and/or neglect indicates one child. Since a child may be confirmed abused and/or neglected multiple times in a year, "confirmed victims" is not an unduplicated count of children.

Source: Oklahoma Department of Human Services, Fiscal Year 2014 Annual Report Tables.

[72] U.S. Department of Health and Human Services. (2016). *Child Welfare Information Gateway: Long-Term Consequences of Child Abuse and Neglect Fact Sheet.* Retrieved from: https://www.childwelfare.gov/pubs/factsheets/long_term_consequences.pdf.

[73] Oklahoma Department of Human Services. (2016). *Child Abuse and Neglect Statistics.*

[74] U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2015). *Child maltreatment 2013*. Retrieved from: http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment.

Data Source: Oklahoma Department of Human Services. (2016). *Child Abuse and Neglect Statistics.*
Source: Courtesy of the Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2014). *Community Profile: Washington County 2015*. Retrieved from: www.csctulsa.org.

Adverse Childhood Experiences (ACE)

Definition

The Adverse Childhood Experiences (ACE) study – a collaboration between the Centers for Disease Control and Prevention and Kaiser Permanente's Health Appraisal Clinic in San Diego, with lead researchers Robert Anda, MD and Vincent Felitti, MD, in the late 1990s – found correlations between childhood neglect, abuse and household dysfunction with later-life health and well-being. This is one of the largest investigations ever conducted to assess relationships between child maltreatment and later-life health and well-being.[75] [76] Information included in this section on the ACE study was prepared by and provided courtesy of the Community Service Council. This information was sourced from the Community Service Council's (supported by the Metropolitan Human Services Commission in Tulsa) *Community Profile: Washington County 2015*. Oklahoma and Washington County ACE rankings data was sourced from the Oklahoma Institute for Child Advocacy and the Annie E. Casey Foundation KIDS COUNT 2014 and 2015 resources.

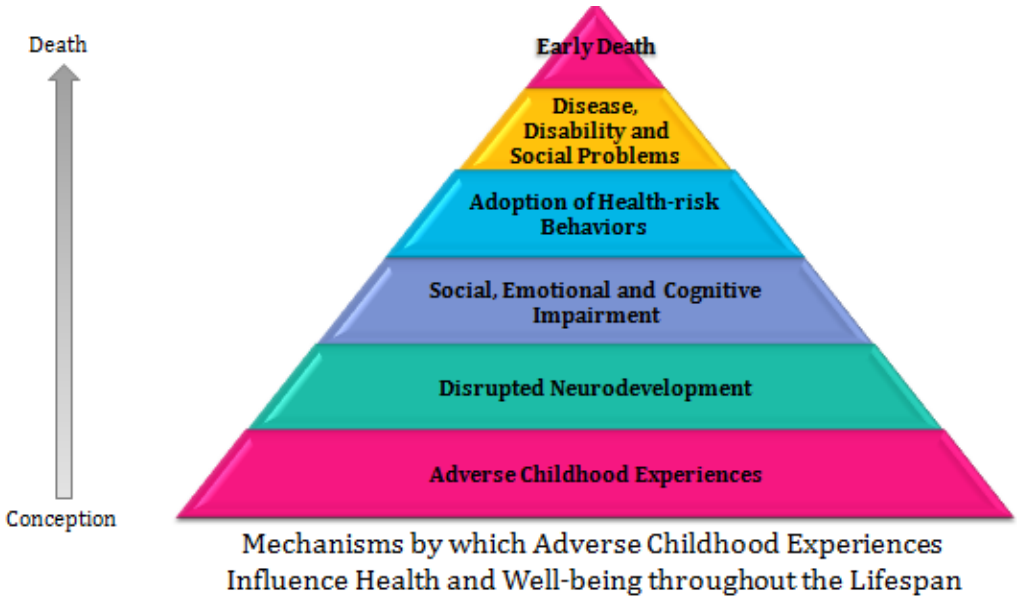
Why Is This Indicator Important?

This study has received renewed interest in recent years as a conceptual model to examine the potential for changes in well-being through the life cycle of the child. The implications for our state are dramatic with the large number of children experiencing child abuse and neglect, incarcerated parents, single parenting, as well as other negative indicators. [73]

The study found that children who experience adverse childhood trauma may have disrupted neurodevelopment which increases their risk for school failures and ultimately poorer well-being throughout the life span, including greater incidences of premature death. Risk for health problems increases as number of ACEs increases (Figure 86). Adolescent pregnancy, early initiation of sexual activity and long-term psychosocial consequences have been shown to correlate inversely with childhood family strengths – the greater the number of strengths, the lower the risk of these events occurring. [73] [74] [77]

[75] Centers for Disease Control and Prevention. (2016). *Adverse Childhood Experiences*. Retrieved from: https://www.cdc.gov/violenceprevention/acestudy/.
[76] Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2015). *Community Profile: Creek County 2015*. Retrieved from: www.csctulsa.org.
[77] Felitti, V.J. et al. (1998).Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. *American Journal of Preventive Medicine (14)*4, 245 – 258.

Figure 86: The Adverse Childhood Experiences (ACE) Study Pyramid



Data Source: Felitti, V.J. et al. (1998).Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. *American Journal of Preventive Medicine (14)*4, 245 – 258.
Centers for Disease Control and Prevention. (2016). *Adverse Childhood Experiences*. Retrieved from: https://www.cdc.gov/violenceprevention/acestudy/.
Source: Courtesy of the Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2014). *Community Profile: Washington County 2015*. Retrieved from: www.csctulsa.org.

A child's early years matter because early relationships and experiences help shape the architecture and wiring of the brain, creating either a sturdy or fragile foundation for a young child's cognitive, emotional and behavioral development. Nurturing relationships with parents and other caregivers, as well as stimulating and educationally rich environments, help young children thrive. But the experience of poverty and related risk factors — such as poor parenting, inadequate nutrition, frequent moves and changes in non-parental caregivers, insufficient cognitive stimulation and unsafe environments — can actually suppress brain development and have lasting effects. [73] [74] [75]

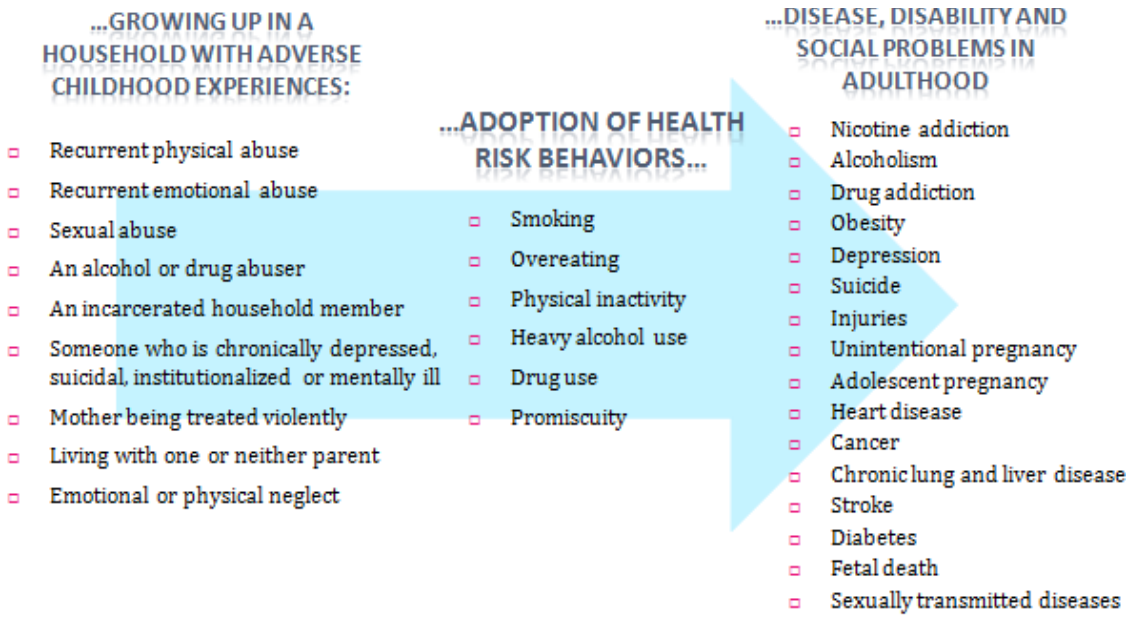
Adverse childhood experiences include, but are not limited to:

- Recurrent physical abuse
- Recurrent emotional abuse
- Sexual abuse
- An alcohol or drug abuser in the household
- An incarcerated household member
- Household member who is chronically depressed, suicidal, institutionalized or mentally ill
- Mother being treated violently
- One or neither parent living with child
- Emotional or physical neglect

Any one of these experiences may be traumatic enough by itself to create changes in neurodevelopment, but the increase in the number of adverse childhood experiences increases the

correlation with negative lifetime outcomes. According to the study, approximately 13% of average middle-class Americans experienced 4 or more of these conditions as a child (15% of women, 9% of men). Some of the resulting conditions include drug, alcohol and nicotine addiction, obesity, depression and suicide, unintentional pregnancy, heart disease, cancer and premature death (Figure 87). [73] [74] [75]

Figure 87: Adverse Childhood Experiences (ACEs)



Data Source: Felitti, V.J. et al. (1998). Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. *American Journal of Preventive Medicine (14)*4, 245 – 258.
Centers for Disease Control and Prevention. (2016). *Adverse Childhood Experiences.* Retrieved from: https://www.cdc.gov/violenceprevention/acestudy/.
Source: Courtesy of the Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2014). *Community Profile: Washington County 2015*. Retrieved from: www.csctulsa.org.

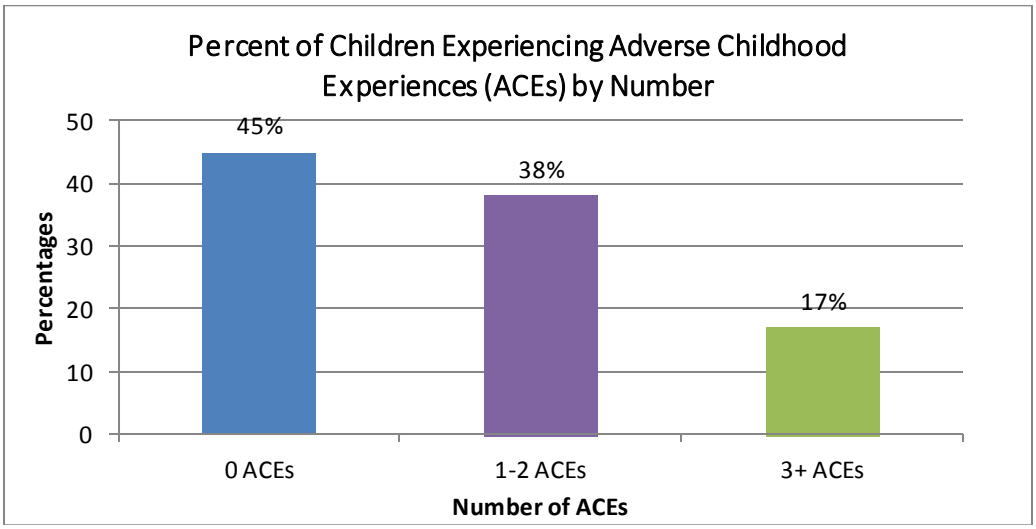
A child's earliest relationships and experiences matter. Early intervention can prevent, or at least reduce, some of the negative effects associated with adverse childhood experiences.

How Are We Doing?

Approximately 1 in 6 children in Oklahoma experience 3 or more ACEs (Figure 97). Furthermore, 1 in 4 children in Oklahoma live in poverty and 1 in 10 births in Oklahoma are to a teen mother. [78]

[78] Oklahoma Institute for Child Advocacy. (2014). *The State of Children in Oklahoma 2014 Fact Sheet*. Retrieved from http://oica.org/wp-content/uploads/2014/07/2014-OK-Fact-Sheet2.pdf.

Figure 88: Percent of Children Experiencing Adverse Childhood Experiences (ACEs) by Number



Data Source: Oklahoma Institute for Child Advocacy. (2014). *The State of Children in Oklahoma 2014 Fact Sheet.* Retrieved from http://oica.org/wp-content/uploads/2014/07/2014-OK-Fact-Sheet2.pdf.

Oklahoma ranked 39th in the U.S. in terms of overall child well-being as ranked by the Annie E. Casey Foundation in 2015 (Table 23).[79] The overall rank is a composite index derived from the combined data across the four domains: (1) Economic Well-Being, (2) Education, (3) Health and (4) Family and Community. Washington County had a moderate likelihood (relative to other Oklahoma counties) of experiencing adversity and having increased risk for adult health and social problems, as ranked by the Oklahoma Institute for Child Advocacy in 2014. Washington County ranked 30th out of Oklahoma's 77 counties in terms of overall child well-being in 2014 (Table 23).[80]

Table 23: Overall Child Well-Being by Locality, 2014-2015

Locality	Overall Rank	Economic Well-Being Rank	Education Rank	Health Rank	Family and Community Rank
Oklahoma	39	30	42	39	41
Washington County	30	27	53	34	34

Data Source: Oklahoma Institute for Child Advocacy. (2014). *Oklahoma KIDS COUNT Databook 2014.* Retreived from: http://oica.org/wp-content/uploads/2014/11/2014-KC-Data-Book.pdf.
Annie E. Casey Foundation. (2015). *2015 KIDS COUNT Profile: Oklahoma*. Retrieved from: http://oica.org/wp-content/uploads/2014/11/2015KC_profile2_OK.pdf.

Incarceration

[79] Annie E. Casey Foundation. (2015). *2015 KIDS COUNT Profile: Oklahoma*. Retrieved from: http://oica.org/wp-content/uploads/2014/11/2015KC_profile2_OK.pdf.
[80] Oklahoma Institute for Child Advocacy. (2014). *Oklahoma KIDS COUNT Databook 2014.* Retreived from: http://oica.org/wp-content/uploads/2014/11/2014-KC-Data-Book.pdf.

Definition

This indicator examines the number of justice-involved individuals in corrections facilities, the rate of female incarceration, and incarceration trends within the state. Estimates are based on data from the Oklahoma Department of Corrections and the Bureau of Justice Statistics.

Why Is This Indicator Important?

The health disparities that exist in our communities are especially evident in the population that cycles in and out of our jails and prisons. For many obvious reasons, justice-involved populations in prison are among the unhealthiest members of society. Most come from impoverished communities where chronic and infectious diseases, drug abuse and other physical and mental stressors are present at much higher rates than in the general population. Health care in those communities also tends to be poor or nonexistent.

The experience of being locked up — which often involves dangerous overcrowding and inconsistent or inadequate health care — exacerbates these problems, or creates new ones. Justice-involved populations have very high rates of physical illness, mental illness, and substance use disorders. And their health problems have significant impacts on the communities from which they come and to which they return.

How Are We Doing?

Despite efforts to reduce incarceration, Oklahoma's incarnated justice-involved population is growing at a steady pace. The trend includes a surge of state justice-involved populations being held in county jails in recent months and the rate of women in prison reaching its highest recorded level.[81]

Oklahoma Department of Corrections data show that since late 2014, a year when early-release policies were relaxed to help reduce incarceration, the number of justice-involved individuals in corrections facilities has increased by nearly 1,200, reaching 28,095 near the end of 2015.[82] The total also rose throughout 2014. Data released by the U.S. Bureau of Justice Statistics also show that Oklahoma had the second highest incarceration rate in the nation in 2014, at 700 justice-involved persons per 100,000 population. The national rate was 471 (Table 24). Oklahoma also had the highest rate nationally of justice-involved persons housed in in-state private prison facilities, including halfway houses, according to Bureau of Justice Statistics data for 2014.[83]

[81] Oklahoma Watch. (2016). Growth in Prison Population Persists. Retrieved from: http://oklahomawatch.org/2016/01/07/number-of-prison-inmates-surges-again/.
[82] Oklahoma Department of Corrections (2015). Annual Report 2014. Retrieved from: https://www.ok.gov/doc/documents/annual%20report%202014.final%20copy.website.pdf.
[83] Bureau of Justice Statistics. (2014). National Prisoner Statistics Program. Retrieved from: http://www.bjs.gov/index.cfm?ty=dcdetail&iid=269.

Table 24: Number of Incarcerated Justice-Involved Persons per 100,000 Population by Locality, 2014

Locality	Number of Incarcerated Justice-Involved Persons Per 100,000 Population
United States	471
Oklahoma	700

Data Source: Bureau of Justice Statistics. (2014). National Prisoner Statistics Program. Retrieved from: http://www.bjs.gov/index.cfm?ty=dcdetail&iid=269.

In 2014, nearly 3% of non-Hispanic black males and 1% of Hispanic males were serving sentences of at least 1 year in U.S. prisons, compared to less than 0.5% of non-Hispanic white males. An estimated 516,900 black males (37%), 453,500 white males (32%), and 308,700 Hispanic males (22%) were in custody. Black men had the highest imprisonment rate in every age group and were in state or federal facilities 3.8 to 10.5 times more often than white men and 1.4 to 3.1 times more often than Hispanic men. [81] Fifty percent of federal inmates and 16% of state prisoners were convicted drug offenders. In comparison, 53% of state prisoners and 7% of federal prisoners were serving time for violent offenses. [81]

In addition, the state also led the nation in rates of imprisonment of female offenders in 2014, the latest year for which national data is available. Oklahoma's lockup rate for women – 143 per capita in 2014 [81]– was more than twice the national rate and the highest it's been since the Bureau of Justice Statistics began tracking numbers in 1978 (Table 25).

Table 25: Female Incarceration Rates per 100,000 Population by Locality, 2014

Locality	Female Incarceration Rates Per 100,000 Population
United States	65
Oklahoma	143

Data Source: Bureau of Justice Statistics. (2014). National Prisoner Statistics Program. Retrieved from: http://www.bjs.gov/index.cfm?ty=dcdetail&iid=269.

Women in state prisons are more likely than men to be incarcerated for a drug or property offense. In 2014, the imprisonment rate for African American women in the U.S. (109 per 100,000) was more than twice the rate of imprisonment for white women (53 per 100,000).Hispanic women were incarcerated at 1.2 times the rate of white women in the U.S. (64 vs. 53 per 100,000). [81] The national rate of imprisonment for African American women has been declining since 2000, while the rate of imprisonment for white women continues to rise. More than 60% of women in state prisons have a child under the age of 18.[81]

In 2015, there was a resurgence in jail backup. In 2014, the Oklahoma Department of Corrections began trying to reduce the number of state justice-involved populations being temporarily held in county jails until they could be transferred to a prison. The state pays the counties for each day that a justice-involved individual sentenced to prison is housed in a jail. That group is referred to as the "jail backup." A

backup of around 1,700 justice-involved persons at the end of 2013 was decreased down to 313 by the end of 2014.[80] However, the backup number has since more than doubled to 795 individuals, according to 2015 Corrections Department data. [79] [80]

Homelessness

Definition

Each January, the cities, counties, and agencies of the OK 500 North Central Oklahoma Continuum of Care, conduct a one-night survey of homelessness (point-in-time survey). OK 500 represents the north central region of Oklahoma, including Noble, Osage, Pawnee, Creek, Kay, Payne, Grant, Garfield counties and the city of Enid.[84] Oklahoma is comprised of eight Continuums of Care (CoC). [82] These entities manage the provision of services to the homeless, among other functions. By definition, CoCs involve nonprofit homeless providers; victim service providers; faith-based organizations; governments; businesses; advocates; public housing agencies; school districts; social service providers; mental health agencies; hospitals; universities; affordable housing developers; law enforcement and other organizations that serve the homeless and those at risk of becoming homeless. These entities are governed by a community plan that helps them deliver services to the homeless and/or to prevent a return to the homeless. CoCs provide a variety of services aimed at outreach, engagement and assessment, including emergency shelter, rapid re-housing, transitional housing, and permanent housing, among others.[85]

This point-in-time survey count records the number of individuals experiencing homelessness and collects demographic information about persons sleeping in emergency shelters, transitional housing, or other sites, as well as the number of non-sheltered people. This indicator presents results from the 2015 point-in-time survey as sourced from Integra Realty Resource's *Oklahoma Housing Needs Assessment: Washington County*.

Why Is This Indicator Important?

Homelessness is a growing public health problem. It is associated with behavioral, social and environmental risks that lead to poor health outcomes such as heart diseases, cancer, liver disease, kidney disease, skin infections, HIV/AIDS, pneumonia, and tuberculosis. Furthermore, homelessness often presents barriers to healthcare access. As a result of this, people experiencing homelessness have a life expectancy that is estimated to be about 25 – 35 years shorter than the general population.[86]

How Are We Doing?

On January 30, 2015, there were 201 persons experiencing homelessness in Washington County, 56 of which were children under 18. Approximately 154 of the 201 individuals experiencing homelessness were sheltered in emergency shelter or transitional housing. The majority of this population was over the age of 24. [82]

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[84] Integra Realty Resources. (2015). *Oklahoma Housing Needs Assessment: Creek County*. Statewide Affordable Housing Market Study commissioned by the Oklahoma Department of Commerce (ODOC) in partnership with the Oklahoma Housing Finance Agency (OHFA).Retrieved from: http://oklahomahousingneeds.org/counties/creek-county/.

[85] Continuum of Care Network Pamphlet. (2015).

[86]. National Coalition for the Homeless. (2016). *Health Care and Homelessness*. Retrieved from: http://www.nationalhomeless.org/factsheets/health.html.

There were a total of 136 households identified as experiencing homelessness. Most families with children were sheltered. There exists limited data on homeless youth and young adults in this region. [82]

The number of persons experiencing chronic homelessness, defined by the U.S. Department of Housing and Urban Development as someone who has been continuously homeless for one full year or four times within the past three years and has a disability, surveyed during the 2015 count was 29. [82] In 2015, the largest subpopulations of individuals experiencing homelessness in OK 500 included: the individuals experiencing chronic homelessness (29), individuals experiencing chronic substance abuse (23), and individuals who were victims of domestic violence (24). The population of domestic violence victims in this area is disproportionately high, possibly because of the limited resources available in the region that address domestic violence. Approximately 12 individuals who were experiencing homelessness were also experiencing a severe mental illness. Approximately 11 of the identified individuals were veterans. [82]

Housing Affordability: Housing Cost Burden (30%)

Definition

This indicator reports the percentage of the households where housing costs exceed 30% of total household income. This indicator provides information on the cost of monthly housing expenses for owners and renters.

Why Is This Indicator Important?

Where we live is at the very core of our daily lives. Housing is generally an American family's greatest single expenditure, and, for homeowners, their most significant source of wealth. Given its importance, it is not surprising that factors related to housing have the potential to help–or harm–our health in major ways. This information offers a measure of housing affordability and excessive shelter costs.

How Are We Doing?

In 2010-2014, the percentage of cost burdened households (over 30% of income) was 22.96%. This percentage was slightly higher than in Oklahoma overall (27%), but lower than in the U.S. overall (34.86%) (Figure 89 and 90).[87]

[87] U.S. Census Bureau. (2015). *American Community Survey 2010-2014 Estimates*. Retrieved from: https://www.census.gov/ programs-surveys/acs/data.html.

Figure 89: Percentage of Households where Housing Costs Exceed 30% of Income by Locality, 2010-2014

Report Area	Total Households	Cost Burdened Households (Housing Costs Exceed 30% of Income)	Percentage of Cost Burdened Households (Over 30% of Income)
Washington County, OK	26,232	6,022	22.96%
Oklahoma	1,450,117	391,510	27%
United States	116,211,096	40,509,856	34.86%

Data Source: U.S. Census Bureau. (2015). *American Community Survey 2010-2014 Estimates.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons.
Retrieved from www.communitycommons.org on April 1, 2016.

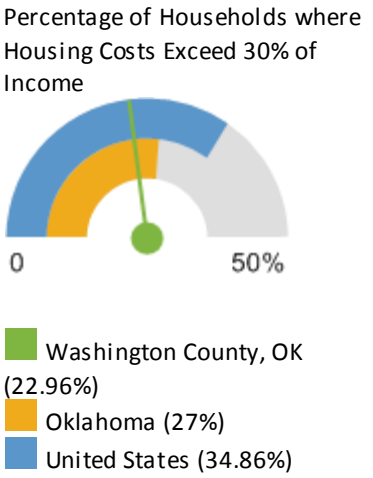
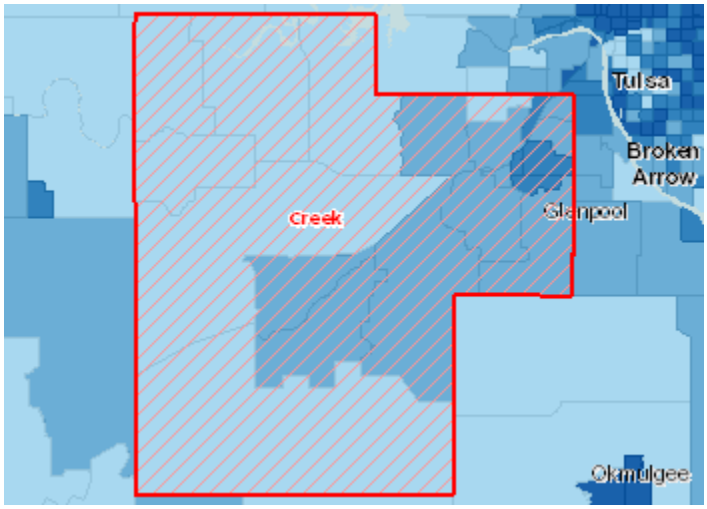
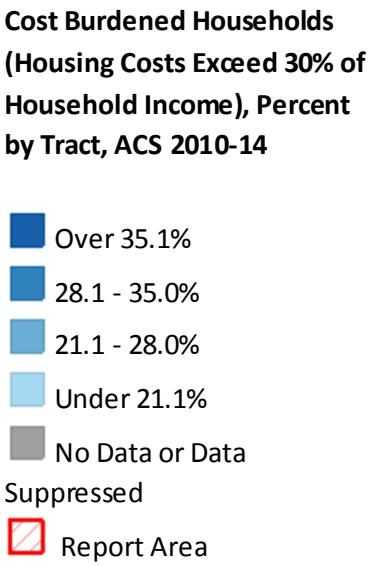


Figure 90: Cost Burdened Households Percent by Tract, ACS, 2010-2014





Data Source: U.S. Census Bureau. (2015). *American Community Survey 2010-2014 Estimates.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons.
Retrieved from www.communitycommons.org on April 1, 2016.

Food Insecurity Rate

Definition

This indicator reports three different measures: 1) the estimated percentage of the population that experienced food insecurity at some point during the report year; 2) the estimated percentage of the population under age 18 that experienced food insecurity at some point during the report year; and 3) the estimated percentage of the total population and the population under age 18 that experienced food insecurity at some point during the report year, but are ineligible for State or Federal nutrition assistance. Food insecurity is the household-level economic and social condition of limited or uncertain access to adequate food. Assistance eligibility is determined based on household income of the food insecure households relative to the maximum income-to-poverty ratio for assistance programs (SNAP, WIC, school meals, CSFP and TEFAP).

Why Is This Indicator Important?

Food insecurity refers to the inability to afford enough food for an active, healthy life. Associations exist between food insecurity and adverse health outcomes among children adults.

How Are We Doing?

In 2013, the percentage of the population in Washington County with experiencing food insecurity was 16.23%. This was similar to the percentage in Oklahoma (17%), but lower slightly lower than the percentage in the U.S. (15.21%) (Figure 91 and Figure 92).[88] The child food insecurity rate in Washington County was 25.66% which was slightly higher than the rate in Oklahoma (25.64%) and higher than the rate in the U.S. (23.49%) (Table 26). [86] The percentages of the total population and children experiencing food insecurity ineligible for food assistance in Washington County were 28% and 25% respectively.[81] These percentages were lower than percentages in Oklahoma and the U.S. overall (Figure 93).

Figure 91: Percentage of the Population Experiencing Food Insecurity by Locality, 2013

Report Area	Total Population	Food Insecure Population, Total	Food Insecurity Rate
Washington County, OK	70,246	11,400	16.23%
Oklahoma	3,850,568	654,640	17%
United States	320,750,757	48,770,990	15.21%

Data Source: Feeding America (2013). *Hunger and Food Insecurity in America*. Retrieved from: www.feedingamerica.org.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016

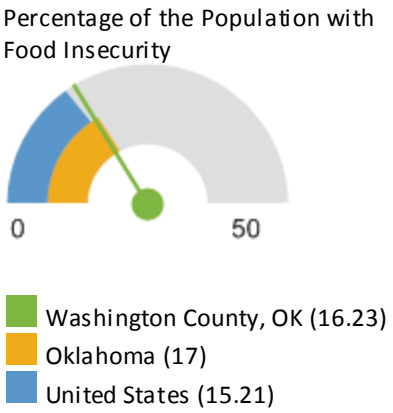
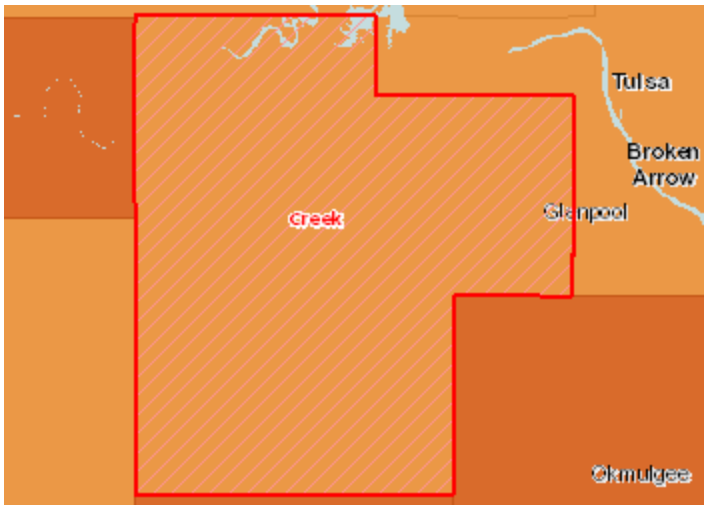


Figure 92: Population Experiencing Food Insecurity, Percent by County, Feeding American 2013

[88] Feeding America. (2013). *Hunger and Food Insecurity in America*. Retrieved from: www.feedingamerica.org.



Food Insecure Population, Percent by County, Feeding America 2013

- Over 18.0%
- 15.1 - 18.0%
- 12.1 - 15.0%
- Under 12.1%
- Report Area

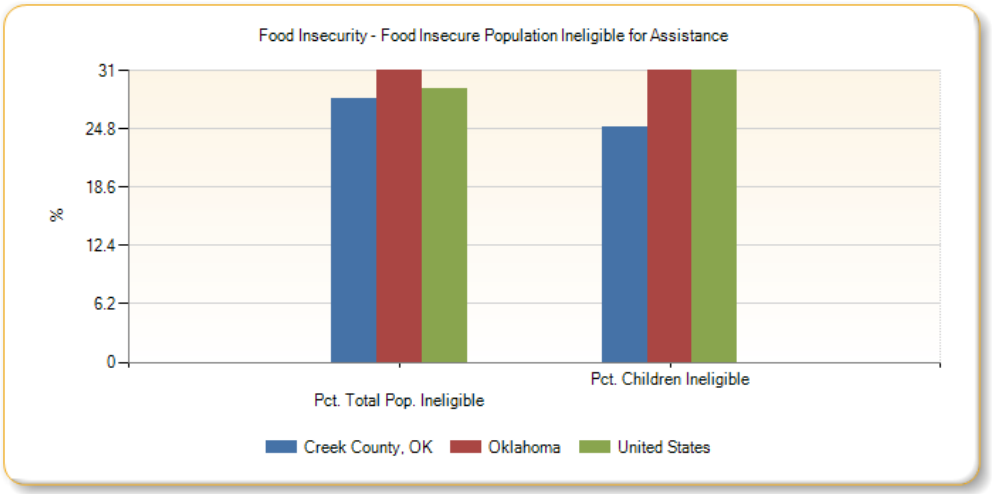
Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Table 26: Children Experiencing Food Insecurity by Locality, 2013

Report Area	Population Under Age 18	Food Insecure Children, Total	Child Food Insecurity Rate
Washington County, OK	17,304	4,440	25.66%
Oklahoma	947,832	242,990	25.64%
United States	73,580,326	17,284,530	23.49%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Figure 93: Population Experiencing Food Insecurity, Ineligible for Assistance by Locality, 2013



Report Area	Food Insecure Population, Total	Percentage of Food Insecure Population Ineligible for Assistance	Food Insecure Children, Total	Percentage of Food Insecure Children Ineligible for Assistance
Washington County, OK	11,400	28%	4,440	25%
Oklahoma	654,640	31%	242,990	31%
United States	48,770,990	29%	17,284,530	31%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Geographic Areas of Highest Need

Definition

The Healthy Communities Institute (HCI) SocioNeeds Index ® summarizes multiple socioeconomic indicators, ranging from poverty to education, which may impact health or access to care. All ZIP codes in the United States are given an Index value from 0 (low need) to 100 (high need). Within Washington County, ZIP codes are ranked based on their Index value. These ranks are used to identify the relative level of need within the county.

Why Is This Indicator Important?

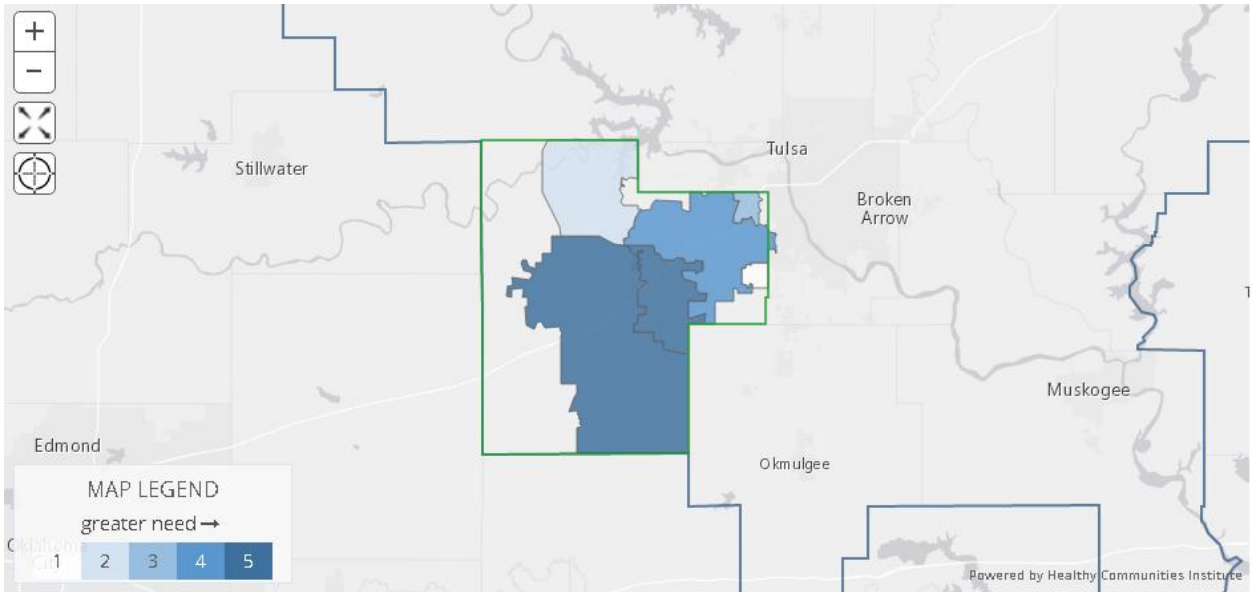
Social and economic factors are well known to be strong determinants of health outcomes. Examining geographic areas based on socioeconomic need helps to determine which areas in the county are most in need of services and interventions.

How Are We Doing?

Geographically, there are parts of Washington County for which socioeconomic needs and quality of life issues are of greater concern (Figure 94). The Index shows that zip codes 74039, 74010, and 74066 are the three geographic areas with the highest socioeconomic needs within Washington County and are

more likely to be affected by poor health outcomes (Table 27).[89] It is important to note these ZIP codes are similarly evidenced as experiencing the highest socioeconomic needs by other socioeconomic indicators presented in this assessment.

Figure 94: HCI SocioNeeds Index ® by ZIP Code in Washington County



Source: Courtesy of Xerox Community Health Solutions. (2016). *Healthy Communities Institute SocioNeeds Index ®*. Retrieved from: http://ascension.thehcn.net/.

Table 27: Top 10 Washington County ZIP Codes with Highest Socioeconomic Need, HCI SocioNeeds Index ® Values and Rankings by ZIP Code, Washington County

Zip Code	Index	Rank
74039	66.2	5
74010	60.0	5
74066	48.9	4
74131	44.6	3
74044	41.6	2
74041	30.2	1

Source: Courtesy of Xerox Community Health Solutions. (2016). *Healthy Communities Institute SocioNeeds Index ®*. Retrieved from: http://ascension.thehcn.net/.

[89] Xerox Community Health Solutions. (2016). *Healthy Communities Institute SocioNeeds Index ®*. Retrieved from: http://ascension.thehcn.net/.

Clinical Care

Access to Health Care

A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of uninsurance, financial hardship, transportation barriers, cultural competency, and coverage limitations all affect access.

Rates of morbidity, mortality, and emergency hospitalizations can be reduced if community residents access services such as health screenings, routine tests, and vaccinations. Prevention indicators can call attention to a lack of access or knowledge regarding one or more health issues and can inform program interventions.

Health Professional Shortage Areas

Definition

This indicator reports the designation of an area as a Health Professional Shortage Area (HPSA). HPSAs demonstrate a critical shortage of either primary care, dental, or mental health providers, in accordance with the federal U.S. Health Resources and Services Administration (HRSA) Shortage Designation Branch guidelines. There are three types of HPSA designations: Primary Care, Dental, and Mental Health. Each type of HPSA is further classified into one of the following categories: geographic, population group, facility, or automatic. This information was sourced from the Oklahoma State Department of Health Center For Health Innovation And Effectiveness, Office of Primary Care and Rural Health Development's *Oklahoma Health Workforce Data Book 2014-2015.*

Primary Care HPSA: identifies within an area that there is insufficient access to primary care physicians (M.D. and D.O.) that primarily practice in one of the following specialties: family practice, general practice, internal medicine, pediatrics, OB/GYN, and general geriatrics. A population-to-provider ratio based on the number of provider FTEs (full time equivalents, 1 Full Time Equivalent (FTE) = 40 hours of direct patient care per week) is used to determine eligibility

Dental HPSA: Identifies an area's access to dental care. Unlike the Primary Care and Mental Health HPSAs, dental provider FTEs (full time equivalents) are calculated by weighting the number of patient care hours provided by a dentist (general and pediatric) per week by the dentist's age and the number of assistants the dentist employs.

Mental Health HPSA: Identifies an area's access to either psychiatrists only, or core mental health professionals (CMHPs) which include psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists. Similar to Primary Care and Dental HPSAs, a population-to-provider ratio is used to help determine eligibility. Several different population-to-provider ratios are available for consideration depending on whether the population to-provider ratios include psychiatrists only or include all CMHPs.

HPSA Sub-Categories: Each type of HPSA must be categorized into one of the following categories. Each category has a different set of qualifying criteria.

- **Geographic:** This designation demonstrates a shortage for the total population of an area. (e.g., if a county has a population-to-provider ratio of greater than 3,500 to 1, the entire county is likely a geographic HPSA).
- **Population Group**: This designation demonstrates a shortage of providers for population groups. A population group must be one of the following:
    - Low income populations (greater than 30% of population with incomes at or below 200% of the Federal
    - Poverty Level).
    - Migrant and/or seasonal farm workers and families
    - Medicaid-eligible
    - Native American/Native Alaskan
    - Homeless Populations
    - Other populations isolated from access by means of a specified language, cultural barriers, or handicap.
- **Facility:** Facilities can be designated as a HPSA if the facility is located in a Medically Underserved Area (MUA).Facilities that can apply for this designation include community health centers, rural health clinics, federal correctional facilities, and state hospitals. Some of the factors used to evaluate a facility's designation eligibility are outpatient census, wait times, patients' residences, and in-house faculty.
- **Automatic:** All Federally Qualified Health Centers and Rural Health Clinics that provide access to care regardless of ability to pay receive automatic facility HPSA designation.

HPSA Scoring

Each HPSA is given a score by the Shortage Designation Branch based on certain specific criteria for each type of HPSA. This score indicates the degree of shortage. The federal Shortage Designation Branch calculates a score (0 to 25 for both primary care and mental health, and 0 to 26 for dental) with 25 / 26 representing the highest degree of shortage for each designated HPSA. The score is used to prioritize areas of greatest need for providers including National Health Service Corps placements. Each HPSA application is evaluated and scored based on the criteria listed below.

Primary Care:

- Population-to-provider ratio
- Percent of individuals below 100% of the federal poverty level
- Infant health index (infant mortality rate or low birth weight rate)
- Average travel time or distance to nearest source of non-designated accessible care

Dental:

- Population-to-provider ratio
- Percent of individuals below 100% of the federal poverty level
- Water fluoridation status
- Average travel time or distance to nearest source of non-designated accessible care

Mental Health:

- Population-to-provider ratio
- Percent of individuals below 100% of the federal poverty level
- Youth ratio (ratio of children under 18 to adults ages 18-64)
- Elderly ratio (ratio of adults over 65 to adults ages 18-64)
- Substance abuse prevalence
- Alcohol abuse prevalence

- Average travel time or distance to nearest source of non-designated accessible care

Why Is This Indicator Important?

This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

How Are We Doing?

Washington County is a designated Primary Care and Mental Health Population Group HPSA.[90] In 2016, Washington County ranked 11 (moderate shortage) in terms of primary care shortage and 13 (moderate shortage) in terms mental health shortage according to scoring by the federal Shortage Designation Branch.[91]

Facilities Designated as Health Professional Shortage Areas

Definition

This indicator reports the number and location of healthcare facilities designated as Health Professional Shortage Areas (HPSAs), defined as having shortages of primary medical care, dental or mental health providers. Facilities can be designated as a HPSA if the facility is located in a Medically Underserved Area (MUA). Facilities that can apply for this designation include community health centers, rural health clinics, federal correctional facilities, and state hospitals. Some of the factors used to evaluate a facility's designation eligibility are outpatient census, wait times, patients' residences, and in-house faculty. Health Professional Shortage Area (HPSA) facility files were acquired from the U.S. Health Resources and Services Administration (HRSA) GIS data warehouse. The point locations of these institutions, along with their designation type, were intersected with geographic areas to provide a count of the total number of facilities in an area.

Why Is This Indicator Important?

This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

How Are We Doing?

In 2016, there were an estimated five (one primary care, three mental health care, and one dental health care) facilities designated as HPSA facilities in Washington County according to the U.S .Health Resources and Services Administration (HRSA) (Table 28 and Figure 95).[92]

[90] Oklahoma State Department of Health Center for Health Innovation and Effectiveness, Office of Primary Care and Rural Health Development. (2015). *Oklahoma Health Workforce Data Book 2014-2015.* Retrieved from: https://www.ok.gov/health2/documents/Oklahoma%20Health%20Workforce%20Databook%20V2.pdf.

[91] U.S. Department of Health and Human Services, Health Resources and Services Administration. (2016). Data Warehouse.

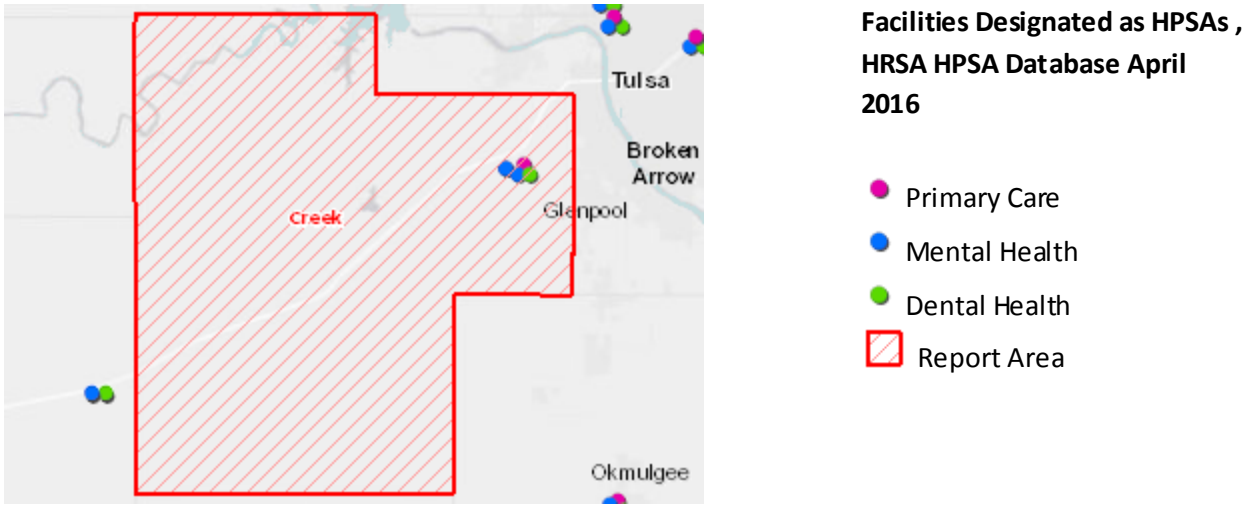
[92] U.S. Department of Health and Human Services, Health Resources and Services Administration. (2016). GIS Warehouse.

Table 28: Facilities Designated as Health Professional Shortage Areas, Washington County 2016

Report Area	Primary Care Facilities	Mental Health Care Facilities	Dental Health Care Facilities	Total HPSA Facility Designations
Washington County, OK	1	3	1	5
Oklahoma	106	103	96	305
United States	3,599	3,171	3,071	9,836

Data Source: U.S. Department of Health and Human Services, Health Resources and Services Administration. (2016). GIS Warehouse.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Figure 95: Facilities Designated as HPSAs, HRSA HPSA Database April 2016



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Medically Underserved Areas

Definition

A Medically Underserved Area designation identifies areas with a shortage of healthcare services. Designation is based on the explanation as to why the area in question is rational (similar to the HPSA process) and the documentation of four factors; health care provider-to-population ratio, infant mortality rate, percentage of population below 100% of the federal poverty level, and the percentage of population aged 65 and over. 2016 data on Medically Underserved Areas was acquired from the U.S. Health Resources and Services Administration (HRSA) data warehouse.

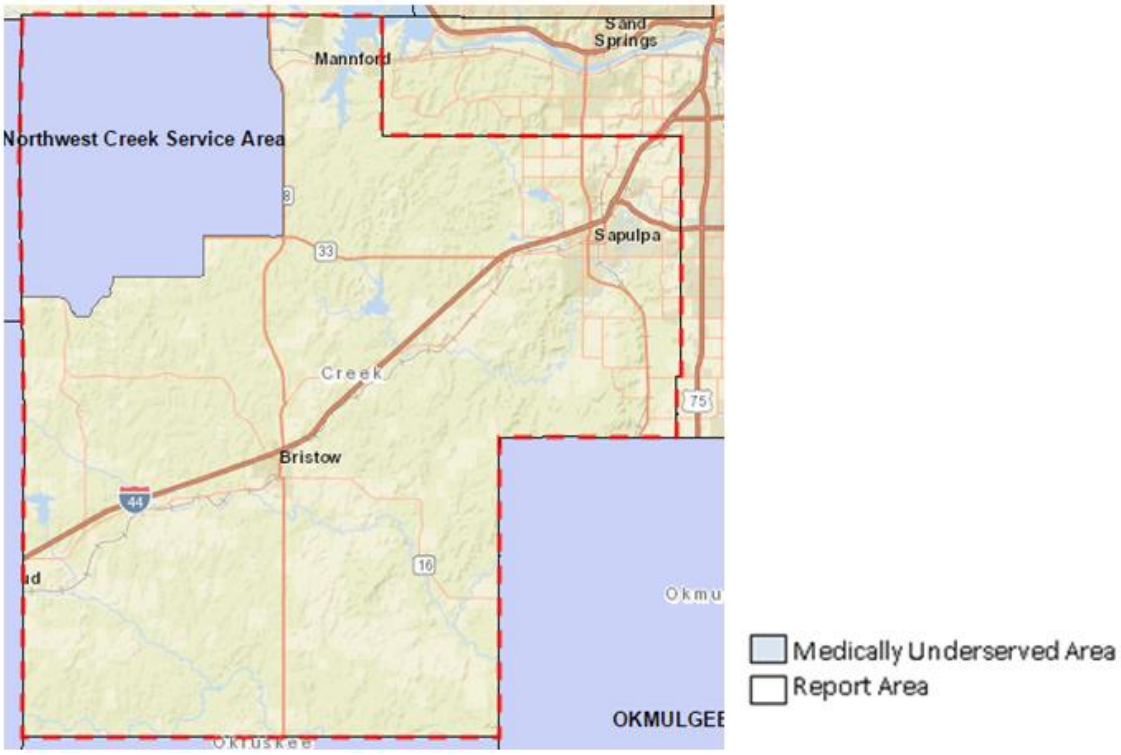
Why Is This Indicator Important?

This indicator is relevant because a shortage of healthcare services leads to access and health status issues.

How Are We Doing?

According to the US Health Resources and Services Administration (HRSA) data warehouse, there is one area in northwest Washington County designated as a Medically Underserved Area in 2016 (Figure 108).Washington County is considered a partial Medically Underserved Area.[89]

Figure 96: Areas Designated as Medically Underserved Areas HRSA MUA Database, Tulsa County 2016



Data Source: U.S. Department of Health and Human Services, Health Resources and Services Administration. (2016). Data Warehouse.

Access to Primary Care

Definition

This indicator reports the number of primary care physicians per 100,000 population. Doctors classified as "primary care physicians" by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs. Physicians age 75 and over and physicians practicing sub-specialties within the listed specialties are excluded. This physician data was acquired from the 2013-14 Health Resources and Services Administration (HRSA) Area Health Resource File (AHRF). These counts are tabulations from the 2012 *American Medical Association (AMA) Physician Masterfiles*.

Why Is This Indicator Important?

This indicator is relevant because a shortage of health professionals contributes to access and health status issues. Access to regular primary care is important to preventing major health issues and emergency department visits. For many people, having good access to health care means having a regular doctor, being able to schedule timely appointments, and being able to find new doctors when needed. Good access to doctors is especially important for people with Medicare—seniors and adults with

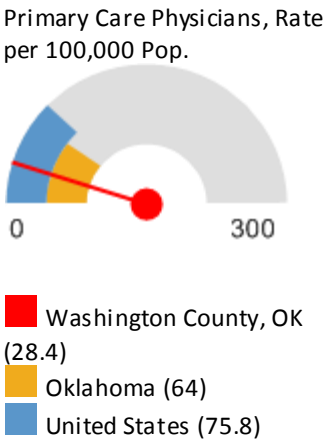
permanent disabilities—because they are significantly more likely than others to need healthcare services.[93]

How Are We Doing?

In 2012, there was a rate of 28.4 primary care physicians per 100,000 population in Washington County according to the 2013-14 Health Resources and Services Administration (HRSA) Area Health Resource File (AHRF). The rate of primary care physicians per 100,000 population is higher in Washington County than in Oklahoma (64) and the U.S. (75.8) (Figure 97).[94]

Figure 97: Primary Care Physicians, Rate per 100,000 Population, by Locality 2012

Report Area	Total Population, 2013	Primary Care Physicians, 2013	Primary Care Physicians, Rate per 100,000 Pop.
Washington County, OK	70,470	20	28.4
Oklahoma	3,850,568	2,464	64
United States	316,128,839	239,500	75.8



Data Source: U.S. Department of Health Human Services, Health Resources and Services Administration. (2015). *2013 and 2014 Area Health Resource File.*
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Access to Dentists

Definition

Definition

This indicator reports the number of primary care physicians per 100,000 population. Doctors classified as "primary care physicians" by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs. Physicians age 75 and over and physicians practicing sub-specialties within the listed specialties are excluded. This physician data was acquired from the 2013-14 Health Resources and Services Administration (HRSA) Area Health Resource File (AHRF). These counts are tabulations from the Centers from Medicare and Medicaid Services (CMS) National Provider Identification (NPI) File, accessed January 2014.

[93] Boccuti, C, Swoope, C, Damico, A, & Neuman, P. (2013). *Medicare Patients' Access to Physicians: A Synthesis of the Evidence.* The Henry J. Kaiser Family Foundation. Retrieved from: http://kaiserfamilyfoundation.files.wordpress.com/2013/12/8526-medicare-patients-access-to-physicians2.pdf.
[94] U.S. Department of Health Human Services, Health Resources and Services Administration. (2015). *2013 and 2014 Area Health Resource File.*

Why Is This Indicator Important?

This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

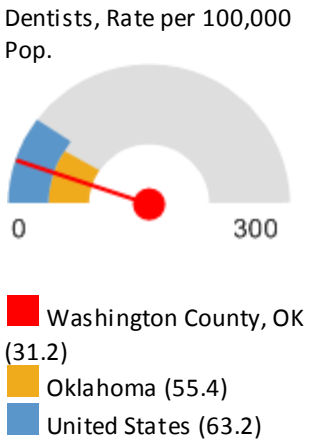
How Are We Doing?

In 2013, there was a rate of 31.2 dentists per 100,000 population in Washington County according to the 2013-14 Health Resources and Services Administration (HRSA) Area Health Resource File (AHRF). The rate of dentists per 100,000 population is lower in Washington County than in Oklahoma (55.4) and the U.S. (63.2). (Figure 98).[92]

Figure 98: Dentists, Rate per 100,000 Population by Locality, 2013

Report Area	Total Population, 2013	Dentists, 2013	Dentists, Rate per 100,000 Pop.
Washington County, OK	70,470	22	31.2
Oklahoma	3,850,568	2,133	55.4
United States	316,128,839	199,743	63.2

Data Source: U.S. Department of Health Human Services, Health Resources and Services Administration. (2015). *2013 and 2014 Area Health Resource File*.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.



Lack of a Consistent Source of Primary Care

Definition

This indicator reports the percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as their personal doctor or health care provider. This data was acquired from the acquired from analysis of annual survey data from the Center for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS) for years 2011-2012.

Why Is This Indicator Important?

This indicator is relevant because access to regular primary care is important to preventing major health issues and emergency department visits.

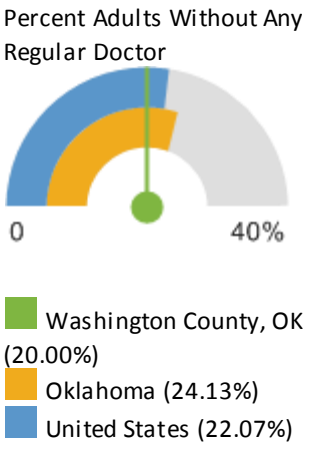
How Are We Doing?

In 2011-2012, the percentage of adults without a consistent source of primary care (by self-report) in Washington County was 20.00 percent which was lower than in Oklahoma (24.13%) and the U.S. (22.07%) (Figure 99 and Figure 100).[95]

[95] Centers for Disease Control and Prevention. (2016). *Behavioral Risk Factor Surveillance System 2011-2012*. Accessed via the US Department of Health and Human Services, Health Indicators Warehouse.

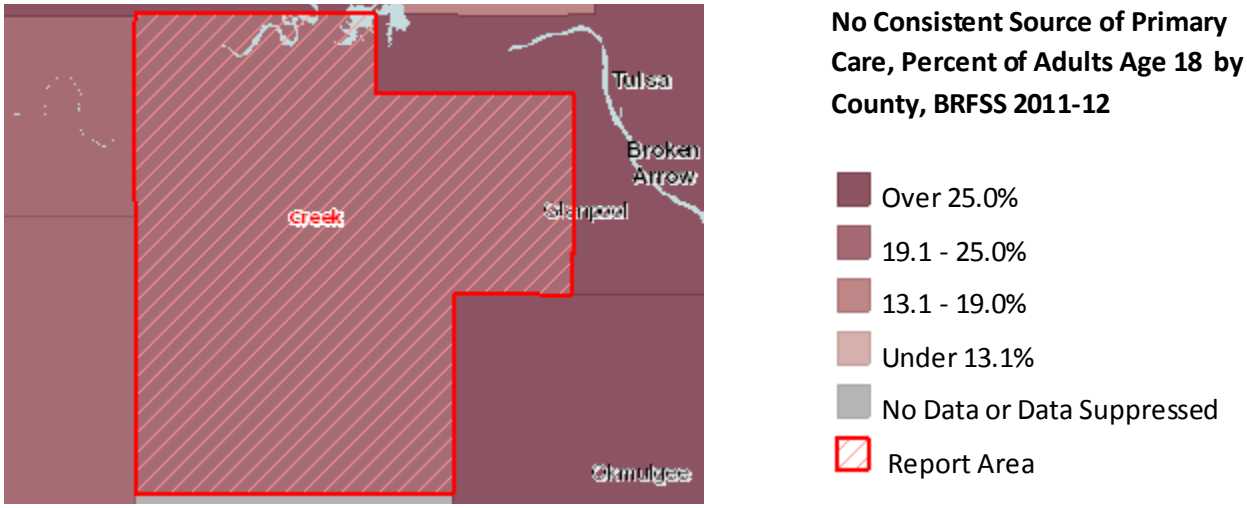
Figure 99: Percentage of Adults without Any Regular Doctor by Locality, 2011-2012

Report Area	Survey Population (Adults Age 18)	Total Adults Without Any Regular Doctor	Percent Adults Without Any Regular Doctor
Washington County, OK	49,489	9,897	20.00%
Oklahoma	2,843,159	686,103	24.13%
United States	236,884,668	52,290,932	22.07%



Data Source: Centers for Disease Control and Prevention. (2016). *Behavioral Risk Factor Surveillance System 2011-2012*. Accessed via the US Department of Health and Human Services, Health Indicators Warehouse
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

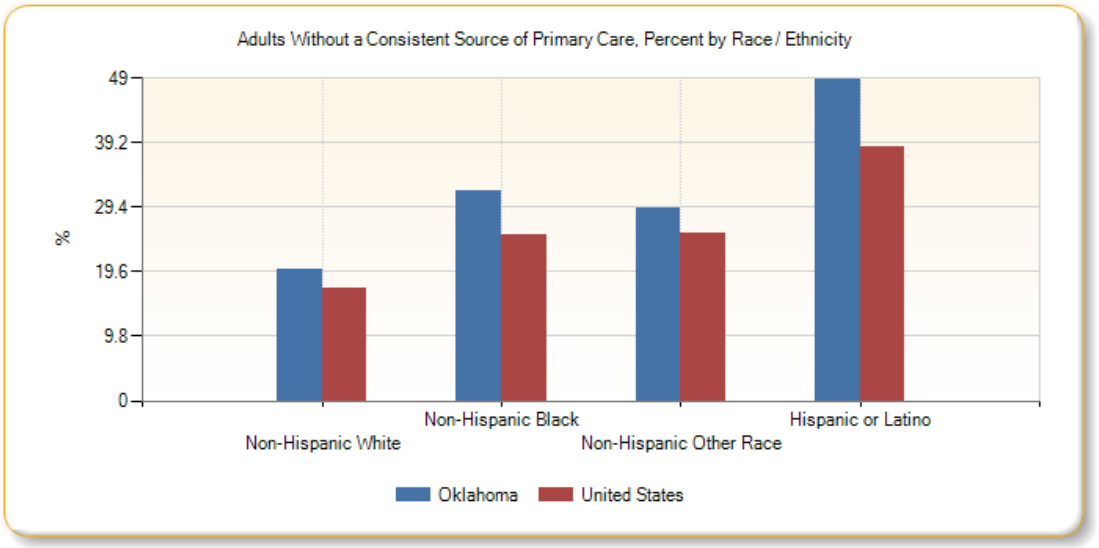
Figure 100: No Consistent Source of Primary Care, Percent of Adults Age 18 by County, BRFSS 2011-2012



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

The percentage of Hispanic or Latinos reporting no consistent source of primary care in Oklahoma in 2011-2012 was 48.74 percent which was higher than non-Hispanic s. Non-Hispanic black's had the highest self-reported percentage without a consistent source of primary care in Oklahoma, followed by non-Hispanic other races (29.33%) and non-Hispanic whites (19.98%) (Figure 101). [93]

Figure 101: Adults without a Consistent Source of Primary Care, Percent by Race/Ethnicity



Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Oklahoma	19.98%	31.78%	29.33%	48.74%
United States	17.15%	25.28%	25.47%	38.58%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Access to Behavioral Health Providers

Definition

This indicator reports the rate of behavioral health providers per 100,000 population. This includes psychiatrists (D.O. and M.D.) in the county.

Why Is This Indicator Important?

This indicator is relevant because a shortage of behavioral health providers contributes to access issues and worsening mental health conditions. Access to mental health services, especially early treatment, greatly improves outcomes and can change the course of an individual's life, increasing the chances for a brighter future.

How Are We Doing?

There is an evident shortage of behavioral health providers in Washington County and Oklahoma. In 2015, Washington County had 1 psychiatrist and a rate of .14 psychiatrists per 10,000 population. Oklahoma had 341 psychiatrists and a rate of .89 psychiatrists per 10,000 population (Table 29).[96] Many

[96] Oklahoma State Department of Health Center for Health Innovation and Effectiveness, Office of Primary Care and Rural Health Development. (2015). *Oklahoma Health Workforce Data Book 2014-2015.* Retrieved from: https://www.ok.gov/health2/documents/Oklahoma%20Health%20Workforce%20Databook%20V2.pdf.

psychiatrists in Oklahoma are centered at the University of Oklahoma Health Sciences Center in Oklahoma City.

In the U.S. there is 1 psychiatrist for every 6,530 people. In Oklahoma, there is less than 1 psychiatrist for every 10,000 people. To put the shortage of psychiatrists in Oklahoma in better perspective: to get to the national average, Oklahoma would need to add **321** new psychiatrists.[97]

In addition, there were zero child and adolescent psychiatrists and only two clinical/counseling psychologists in Washington County in 2015. In Oklahoma there were 26 child and adolescent psychiatrists and 512 clinical/counseling psychologists in 2015.[95] According to the University of Wisconsin Population Health Institute's *2016 County Rankings and Roadmaps*, the ratio of the population in Washington County to mental health providers was 550:1 in 2016. This ratio was much higher compared to Oklahoma (270:1) and the top U.S. performing counties (270:1).[7]

Table 29: Psychiatrists by Locality, 2015

Report Area	Number of Psychiatrists	Rate of Psychiatrists per 10,000 Population
Washington County	1	.14
Oklahoma	341	.89

Data Source: Oklahoma State Department Of Health Center For Health Innovation And Effectiveness, Office of Primary Care And Rural Health Development. (2015). *Oklahoma Health Workforce Data Book 2014-2015.* Retrieved from: https://www.ok.gov/health2/documents/Oklahoma%20Health%20_Workforce%20Databook%20V2.pdf.

Barriers to Accessing Behavioral Health Services

Definition

This indicator reports on a number of barriers to behavioral health services (mental health and substance abuse services).

Why Is This Indicator Important?

This indicator is relevant access to behavioral health services, especially early treatment, greatly improves outcomes and can change the course of an individual's life, increasing the chances for a brighter future.

How Are We Doing?

The Oklahoma Department of Mental Health Substance Abuse Services network reported being able to serve 190,000 Oklahomans in 2015. **However, behavioral health access remains low as six out of 10 adults reported not receiving treatment and four out of 10 youth did not receive treatment in 2015**.[28]

Inpatient psychiatric beds in Oklahoma (there are no inpatient mental health facilities in Washington County) are full all of the time because the outpatient system is not able to prevent and limit psychiatric emergencies.[95] The limited number of psychiatrists to do the outpatient psychiatric care needed complicates this problem. As a result primary care physicians, inpatient general medical hospital wards, local police departments, and the county jails receive the overflow of psychiatric and substance-related

[97] Clancy, G. (2016*). Leadership Tulsa: Building Better Healthcare Systems.* University of Tulsa, The Oxley College of Health Sciences.

emergencies.[95] Issues in terms of lack of preventative services, disjointed coordination of care, care silos, and the limitations to accessing the outpatient behavioral health system further impose major barriers to accessing behavioral health services.

Number of Healthcare Facilities and Beds

Definition

This indicator reports the number of healthcare facilities as reported by the Oklahoma State Department of Health Center for Health Innovation and Effectiveness, Office of Primary Care and Rural Health Development's *2014-2015 Oklahoma Health Workforce Data Book*.

Why Is This Indicator Important?

This indicator is relevant because the supply and accessibility of facilities and beds affect access and health status.

How Are We Doing?

In 2015, there were a total of one general medical/surgical hospital, two Critical Access Hospitals, one free clinic, one Tribal Indian Health Services facility, 1 urgent care center, one adult crisis center, and 16 retail pharmacies in Tulsa County. Additionally, there were an estimated 70 hospital beds and 634 nursing home beds (Table 30).[94]

Table 30: Number of Healthcare Facilities and Beds, Washington County 2015

Type of Facility	Number
General Medical/Surgical Hospitals	1
Critical Access Hospitals	2
Rural Health Clinics	1
Federally Qualified Health Centers	0
Free Clinics	1
Indian Health Services (Federal)	0
Indian Health Services (Tribal)	1
Veterans Affairs Facilities	0
Urgent Care Centers	1
Inpatient Mental Health Centers	0
Community Mental Health Centers	0
Adult Crisis Centers	1
Retail Pharmacies	16
Number of Hospital Beds	70
Number of Nursing Home Beds	634

Data Source: Oklahoma State Department Of Health Center For Health Innovation And Effectiveness, Office of Primary Care And Rural Health Development. (2015). *Oklahoma Health Workforce Data Book 2014-2015.* Retrieved from: https://www.ok.gov/health2/documents/Oklahoma%20Health%20 Workforce%20Databook%20V2.pdf.

Rate of Uninsured

Definition

This indicator reports the rate of uninsured in 2015 as well as the decrease in rate of uninsured from 2013 to 2015. Individual-level estimates are grouped by geography, race, age, gender, and other characteristics which aids in understanding the landscape of the uninsured population across the country, in the state of Oklahoma and its counties. All uninsured rates listed are based on the Enroll America/Civics Analytics uninsured model. All data, figures, and information in this section were provided courtesy of Enroll America and were sourced from Enroll America's *2015 Oklahoma State Snapshot.*

Why Is This Indicator Important?

This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status. The lack of health insurance is considered a key driver of health status.

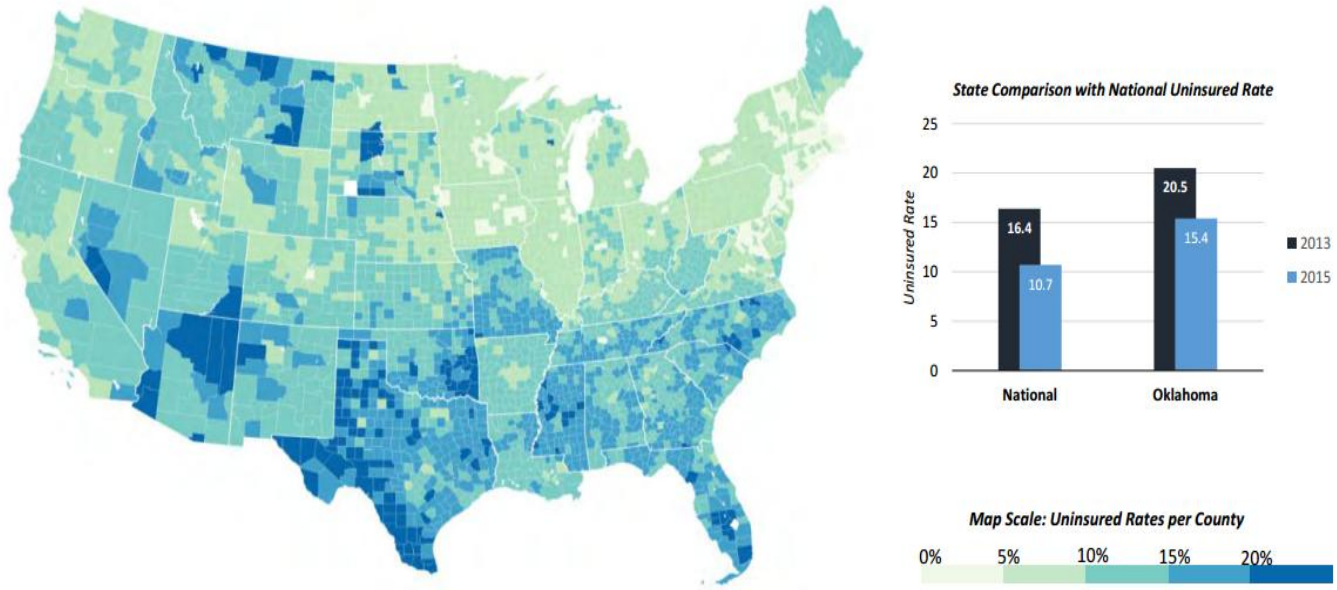
How Are We Doing?

Since 2013, Oklahoma is participating in the Federally-facilitated Health Insurance Marketplace. In 2013, before the first open enrollment period for the Health Insurance Marketplace, Oklahoma's uninsured rate of 20.5 percent and was 4.1 percent greater than the national uninsured rate. In 2015, Oklahoma's uninsured rate improved as it decreased to 15.4%. The 2015 Oklahoma uninsured rate is a **5.1 percent decrease** since 2013 prior to the first open enrollment period. Oklahoma's rate of uninsured was 4.7 percent greater than the national rate (Figure 103).[98]

Despite some recent attention to Medicaid expansion in state Legislature in 2016 after years of no traction, as of 2016 Oklahoma has not expanded Medicaid coverage to low-income adults.

[98] Enroll America. (2015). Oklahoma State Snapshot. Retrieved from https://s3.amazonaws.com/assets.enrollamerica.org/wp-content/uploads/2015/11/OK_snapshot.pdf

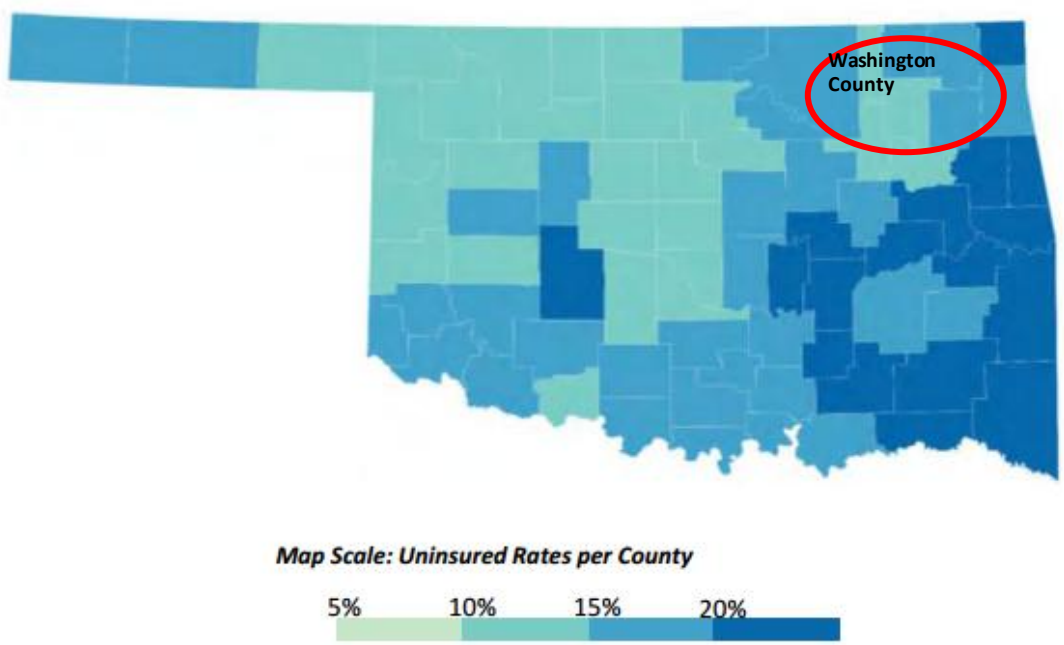
Figure 102: National Map: 2015 Uninsured Rates by State and County



Source: Courtesy of Enroll America. (2015). Oklahoma State Snapshot. Retrieved from https://s3.amazonaws.com/assets.enrollamerica.org/wp-content/uploads/2015/11/OK_snapshot.pdf

In 2015, the uninsured rate for Washington County was 16 percent. This was a **six percent** decrease from 2013 when the uninsured rate in Washington County was 22 percent. More uninsured people lived in Oklahoma County (20% of the uninsured population) and Tulsa County (15% of the uninsured population) than any other county. The counties with the highest uninsured rates currently were Cherokee County (26%), Pushmataha County (25%), Okfuskee County (24%) and Coal County (24%) (Figure 104). [96]

Figure 103: Oklahoma Map: 2015 Uninsured Rates by County



Source: Courtesy of Enroll America. (2015). Oklahoma State Snapshot. Retrieved from https://s3.amazonaws.com/assets.enrollamerica.org/wp-content/uploads/2015/11/OK_snapshot.pdf

Uninsured Adults (18-64)

Definition

This indicator reports the rates of uninsured adults (18-64) in 2013 and 2015. Individual-level estimates are grouped by geography, race, age, gender, and other characteristics which aids in understanding the landscape of the uninsured population across the country, in the state of Oklahoma and its counties. All uninsured rates listed are based on the Enroll America/Civics Analytics uninsured model. All data, figures, and information in this section were provided courtesy of Enroll America and were sourced from Enroll America's *2015 Oklahoma State Snapshot.*

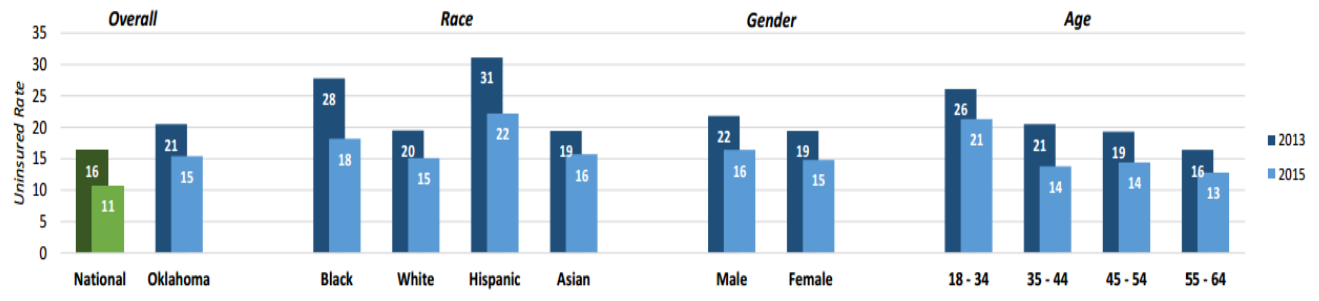
Why Is This Indicator Important?

This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status. The lack of health insurance is considered a key driver of health status.

How Are We Doing?

An estimated 22 percent of Hispanics in Oklahoma were uninsured, 18 percent of African Americans were uninsured, and 21 percent of young adults (ages 18-34) were uninsured in 2015.[92] Hispanic men ages 18 to 34 (29%) had the highest 2015 uninsured rates, followed by African American men ages 18 to 34 (26%) and Hispanic women ages 18 to 34 (26%) (Figure 105).[96]

Figure 104: Rate of Uninsured by Race/Ethnicity, Gender, and Age - Change from 2013-2015



	Race [1]				Gender		Age			
Distribution of Uninsured Population, Ages 18 to 64	Black	White	Hispanic	Asian	Male	Female	18 - 34	35 - 44	45 - 54	55 - 64
% 2013 Uninsured Population in Oklahoma	6.3%	84.4%	7.9%	1.4%	49.7%	50.3%	31.2%	21.2%	27.9%	19.7%
% 2015 Uninsured Population in Oklahoma	4.9%	86.1%	7.5%	1.4%	49.4%	50.6%	33.4%	18.4%	26.0%	22.1%
Change from 2013 to 2015	*-1.4%*	*1.7%*	*-0.4%*	*0.0%*	*-0.3%*	*0.3%*	*2.2%*	*-2.8%*	*-1.9%*	*2.4%*

Source: Courtesy of Enroll America. (2015). Oklahoma State Snapshot. Retrieved from: https://s3.amazonaws.com/assets.enrollamerica.org/wp-content/uploads/2015/11/OK_snapshot.pdf

In Washington County, the rates of uninsured by race/ethnicity, gender, and age were as follows[96]:

2015 Uninsured Rates by Race

- Black: 19%
- White: 16%
- Hispanic: 21%
- Asian: 19%

2015 Uninsured Rates by Gender

- Male: 17%
- Female: 16%

2015 Uninsured Rates by Age

- Ages 18 to 34: 22%
- Ages 35 to 44: 15%
- Ages 45 to 54: 15%
- Ages 55 to 64: 14%

Uninsured Children (Under 18)

Definition

This indicator reports the percentage of children under age 19 without health insurance coverage in 2013. This data was compiled by the Small Area Health Insurance Estimates (SAHIE) program. The SAHIE program models health insurance coverage by combining survey data with population estimates and administrative records. SAHIE estimates are a product of the U.S. Census Bureau with funding from the Centers for Disease Control and Prevention.

Why Is This Indicator Important?

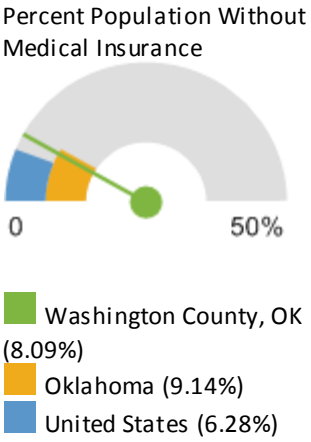
This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status. The lack of health insurance is considered a key driver of health status.

How Are We Doing?

In 2013, the percentage of the population under age 19 in Washington County without health insurance was 8.09 percent, which was lower than in Oklahoma overall (9.14%), but higher than in the U.S. overall (6.28%) (Figure 105).[99]

Figure 105: Percentage of Population Under Age 19 Without Health Insurance by Locality, 2013

Report Area	Total Population Under Age 19	Population with Medical Insurance	Percent Population With Medical Insurance	Population Without Medical Insurance	Percent Population Without Medical Insurance
Washington County, OK	17,662	16,234	91.91%	1,428	8.09%
Oklahoma	980,288	890,730	90.86%	89,558	9.14%
United States	76,146,139	71,365,802	93.72%	4,780,337	6.28%



Data Source: U.S. Census Bureau. (2013). *Small Area Health Insurance Estimates.*
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016

Medicaid Enrollment

Definition

This indicator reports the percentage of the population with insurance enrolled in Medicaid (or other means-tested public health insurance) in 2010-2014. Medicaid is an entitlement program that provides medical benefits to low-income individuals and families who have inadequate or no health insurance. This information was based on information from U.S. Census Bureau's *American Community Survey 2010-2014.*

Why Is This Indicator Important?

This indicator is relevant because it assesses vulnerable populations which are more likely to have multiple health access, health status, and social support needs; when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment. Medicaid provides health coverage for certain low-income individuals, such as families and children, pregnant women, the older

[99] U.S. Census Bureau. (2013). *Small Area Health Insurance Estimates.*

adults, and people with disabilities. It covers one in five Americans, including more than one in three children and 40 percent of all births. Medicaid coverage of children and pregnant women has led to increased access to care and improved child health and birth outcomes. Relative to the uninsured, adults with Medicaid have increased access to preventive and primary care, reduced out-of-pocket burdens, and they are less likely to forgo care due to cost. However, provider shortages and low provider participation in Medicaid, particularly among specialists, are a major concern.[100]

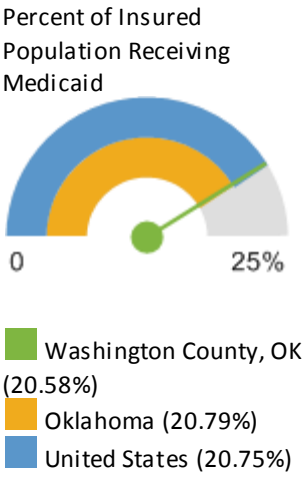
How Are We Doing?

Washington County had 11,742 unduplicated Medicaid enrollees during 2010-2014 which represents 20.58 percent of the total population. This was the similar the percentage of Oklahoma residents (20.79 %) and the U.S. (20.75%) (Figure 106 and Figure 107).[14]

Despite some recent attention to Medicaid expansion in state Legislature in 2016 after years of no traction, as of 2016 Oklahoma has not expanded Medicaid coverage to low-income adults.

Figure 106: Medicaid Enrollees by Locality

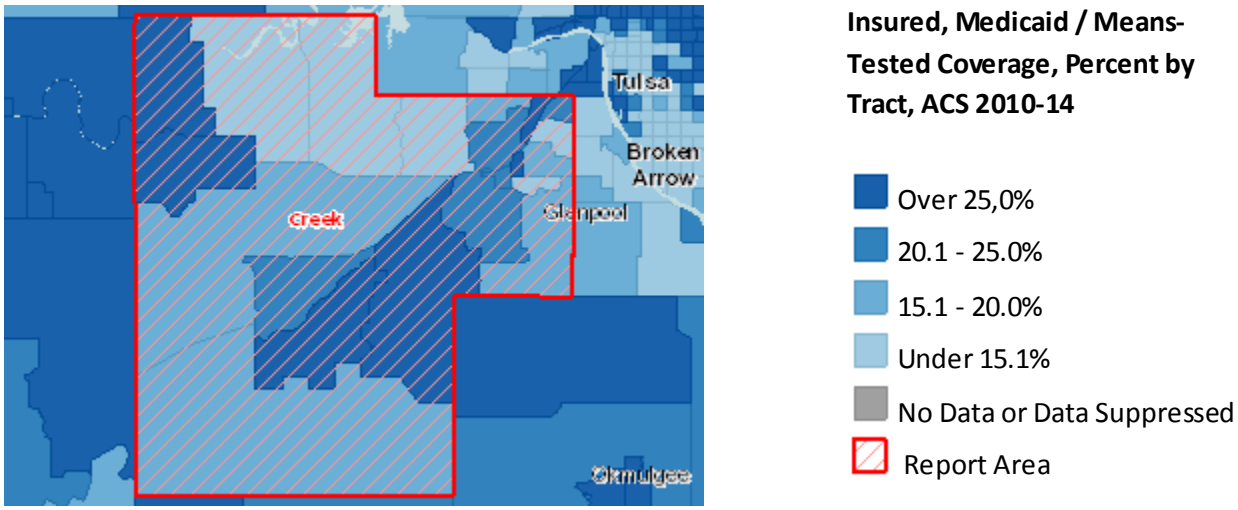
Report Area	Total Population (For Whom Insurance Status is Determined)	Population with Any Health Insurance	Population Receiving Medicaid	Percent of Insured Population Receiving Medicaid
Washington County, OK	69,868	57,061	11,742	20.58%
Oklahoma	3,737,426	3,075,817	639,509	20.79%
United States	309,082,272	265,204,128	55,035,660	20.75%



Data Source: U.S. Census Bureau. (2014). *American Community Survey 2010-2014.* Retrieved from: https://www.census.gov/programs-surveys/acs/data.html.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016

[100] The Kaiser Commission on Medicaid and the Uninsured. (2010). *Medicaid: A Primer.* Retrieved from http://kaiserfamilyfoundation.files.wordpress.com/2010/06/7334-05.pdf.

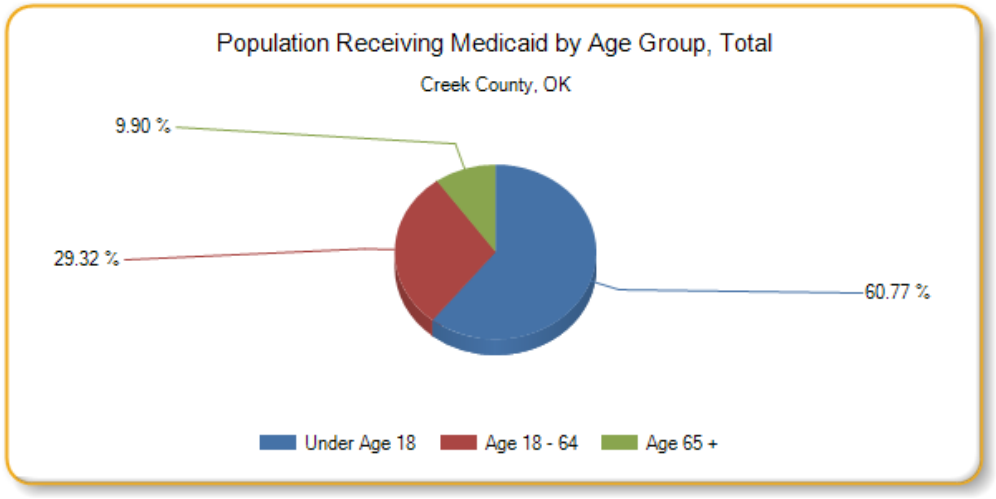
Figure 107: Insured, Medicaid/Means-Tested Coverage, Percent by Tract, ACS 2010-2014



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Individuals under the age of 18 in Washington County were the population with the highest percentage receiving Medicaid (60.77%) (Figure 108). [14]

Figure 108: Population Receiving Medicaid by Age Group



Report Area	Under Age 18	Age 18 - 64	Age 65
Washington County, OK	7,136	3,443	1,163
Oklahoma	387,698	191,922	59,889
United States	27,324,286	21,746,868	5,964,506

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on April 1, 2016.

Medicare Enrollment

Definition

This indicator represents the number of aged and/or disabled individuals enrolled in Medicare Part A and/or B through Original Medicare or Medicare Advantage and Other Health Plans during 2016. Medicare enrollment is based on CMS administrative enrollment data and are calculated using a person-year methodology.

Why Is This Indicator Important?

Medicare provides health coverage for older adults, and people with disabilities. The program protects the well-being and financial security of millions of American families as they age or if they become disabled. Medicare beneficiaries depend on the program to provide critical health services such as preventive services, including flu shots and diabetes screenings, hospital stays, lab tests and critical supplies like wheelchairs and prescription drugs.

How Are We Doing?

According to the Centers for Medicare & Medicaid Services (CMS) Program Statistics, there were a total of 13,730 individuals enrolled in Medicare (70% Original Medicare and 30% Medicare Advantage plans) in Washington County in 2015. With a total population of 70,607 residents, this corresponds to a beneficiary density of 185 beneficiaries per 1,000 residents (Table 31). [101]

There were a total of 687,156 individuals enrolled in Medicare (82% Original Medicare and 18% Medicare Advantage and other plans) in Oklahoma in April 2016. An estimated 55,504,005 individuals were enrolled in Medicare (68% Original Medicare and 32% Medicare Advantage plans) in the U.S in April 2016 (Table 31).[99] The U.S. total includes Medicare beneficiaries residing in the following territories: American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. Additionally, Medicare beneficiaries residing in foreign countries and other outlying areas and beneficiaries in unknown areas of residence are also included in this total.

Table 31: Total Number of Oklahoma Medicare Beneficiaries in April 2016

Location	Total Medicare Beneficiaries
Washington County	13,730
Oklahoma	687,156
United States	56,459,538

Data Source: Centers for Medicare & Medicaid Services (CMS). (2016). *CMS Program Statistics: Medicare Enrollment Dashboard*. Retrieved from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Dashboard/Medicare-Enrollment/Enrollment%20Dashboard.html.

The 2014 gender breakdown for Medicare patients in Washington County was:

[101] Centers for Medicare & Medicaid Services (CMS). (2016). *CMS Program Statistics: Medicare Enrollment Dashboard*. Retrieved from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Dashboard/Medicare-Enrollment/Enrollment%20Dashboard.html.

- Female: 53.1%
- Male: 46.9%

The 2014 gender breakdown for Medicare patients in Oklahoma was:

- Female: 55.0%
- Male: 45.0%

The 2014 gender breakdown for Medicare patients in America was:

- Female: 54.7%
- Male: 45.4%

The 2014 proportions of ethnicities for Medicare patients in Washington County were:

- White (Non Hispanic): 85.9%
- African American: 2.7%
- Hispanic: 0.8%
- Other: 10.6%

The 2014 proportions of ethnicities for Medicare patients in Oklahoma were:

- White (Non Hispanic): 82.4%
- African American: 5.6%
- Hispanic: 2.0%
- Other: 10.0%

The 2014 proportions of ethnicities for Medicare patients in America were:

- White (Non-Hispanic): 79.9%
- African American: 9.7%
- Hispanic: 5.8%
- Other: 4.6%

Emergency Room Visits among Medicare Beneficiaries

Definition

This indicator reports trends in Medicare-recipient emergency department visits per 1,000 beneficiaries over the past over eight years (2007-2014) for Washington County.

Why Is This Indicator Important?

Lack of access to adequate and timely health care services can lead to increased use of the hospital emergency department as a source of primary care. According to the CDC, uninsured adults were more

likely than those with private health insurance or a public health plan to visit the emergency room due to having no other place to go.[102] This can place unnecessary strain on the hospital emergency department.

How Are We Doing?

In 2007-2014, Washington County emergency department visits occurred on average 719 times per 1,000 beneficiaries. Emergency department visits for beneficiaries in the county took place 62 more times per 1,000 beneficiaries than the national rate for beneficiaries in the U.S. [99]

Late or No Prenatal Care

Definition

This indicator is defined as births to Washington County mothers who had no prenatal care or did not begin prenatal care until after the first trimester (greater than 12 weeks gestation). It is presented as a percentage of all births in 2012.

Why Is This Indicator Important?

Prenatal care is medical attention for expecting mothers and their developing babies. It also includes the mother caring for herself by following her healthcare provider's advice, practicing good nutrition, getting plenty of rest, exercising sensibly, and avoiding things that could harm her or her baby, such as smoking and alcohol.[103] This indicator is relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. Babies born to mothers who received late or no prenatal care are more likely to be born at a low birth weight and are more likely to die. [101] This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

How Are We Doing?

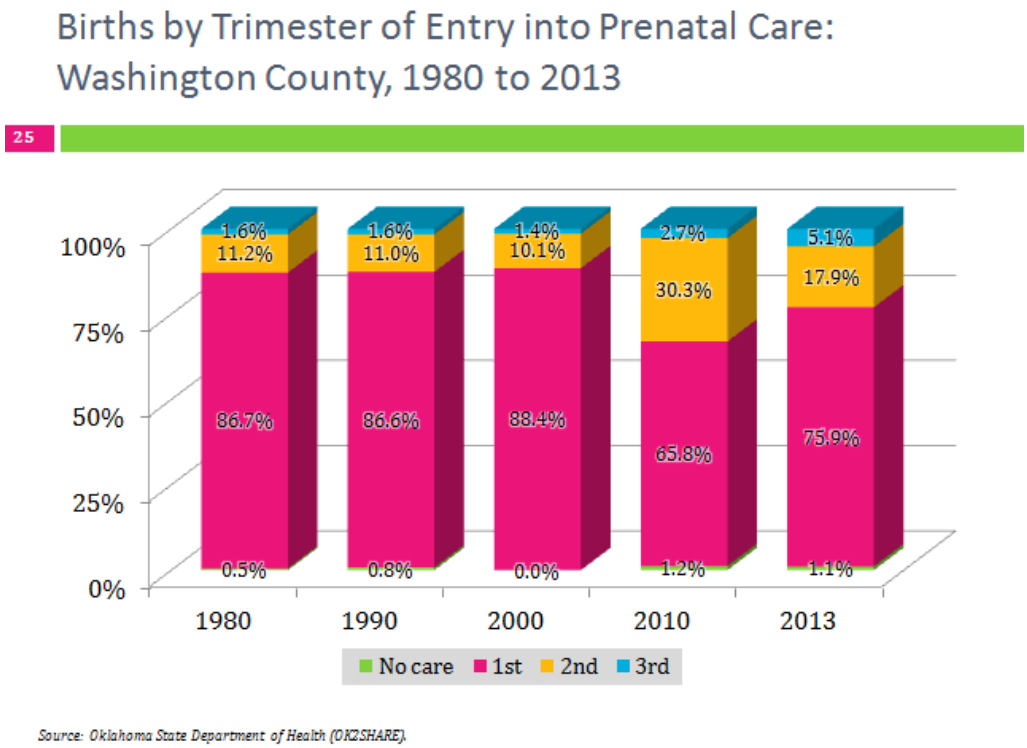
In 2012, a total of 39 percent of Washington County mothers did not receive prenatal care or received delayed prenatal care (after the first trimester). In other words, 61 percent of Washington County mothers received prenatal care during the first trimester.[24] This was lower than the rate of prenatal care in both Oklahoma (68.2 percent) and the United States (64.1 percent) (Figure 128).[104] Washington County, Oklahoma, and the U.S. all fell short of the Healthy People 2020 first trimester prenatal care goal of 77.9 percent.[43]

According to Community Service Council's *Community Profile: Washington County 2015* (supported by the Metropolitan Human Services Commission in Tulsa, the trimester of entry into prenatal care has been fluctuating in Washington County since at least 1980. The percentage of pregnant women no care,

[102] Gindi RM, Cohen RA, and Kirzinger WK. (2012*). Emergency room use among adults aged 18 – 64. Early release of estimates from the National Health Interview Survey, January – June 2011.* National Center for Health Statistics.. Retrieved from: http://www.cdc.gov/nchs/data/nhis/earlyrelease/emergency_room_use_january-june_2011.pdf.
[103] U.S. Department of Health and Human Services, Health Resources and Services Administration. (2015). Maternal and Child Health: Prenatal Services. Retrieved from: http://mchb.hrsa.gov/programs/womeninfants/prenatal.html.
[104] United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics. (2015). *Natality public-use data 2007-2013*, on CDC WONDER Online Database. Retrieved from: http://wonder.cdc.gov/natality-current.html.

however, has increased from less than one percent in 1980 to nearly three percent in 2013 (Figure 109). This trend is a problem as adequate and early care is essential for best birth outcomes.[26][105]

Figure 109: Births by Trimester of Entry into Prenatal Care, Washington County, 1980-2013



Source: Oklahoma State Department of Health (OK2SHARE).

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Oklahoma Inpatient Data 2013. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: http://www.health.ok.gov/ok2share..

Source: Courtesy of the Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2014). *Community Profile: Washington County 2015*. Retrieved from: www.csctulsa.org.

From 2011 to 2012, the percentage of pregnant women in Oklahoma who received first trimester prenatal care improved across all demographic categories. As education increased, so did the percent of women who received first trimester prenatal care. College graduates were 42 percent more likely than those who had not graduated high school to receive first trimester prenatal care. Non-Hispanic White women had the highest rate for early prenatal care compared to non-Hispanic Black women who had the lowest. The rate of initiating first trimester prenatal care did not vary substantially across regions.[24]

Quality of Care

High quality health care is timely, safe, effective, and affordable–the right care for the right person at the right time. High quality care in inpatient and outpatient settings can help protect and improve health and reduce the likelihood of receiving unnecessary or inappropriate care.[7]

Hospital Readmissions among Medicare Beneficiaries

[105] Community Service Council, supported by the Metropolitan Human Services Commission in Tulsa. (2014). *Community Profile: Creek County 2015*. Retrieved from: www.csctulsa.org

Definition

This indicator reports trends in Medicare-recipient acute hospital readmission rates per 1,000 beneficiaries over the past over eight years (2007-2014) for Washington County.

Why Is This Indicator Important?

Hospital readmissions, especially those that are avoidable, are a strong indicator of poor health outcomes. These readmissions are strongly linked to our nation's "fragmented health care system that too often leaves discharged patients confused about how to care for themselves at home, and unable to follow instructions and get the necessary follow-up care." Readmissions are also very costly and use up resources that healthcare organizations often do not have to spare.[106]

How Are We Doing?

In 2007-2014, Washington County showed a 19.16 percent hospital readmission rate per 1,000 beneficiaries. Compared to the national average for all counties and states, hospital readmissions in the county occurred 2.39 percent more frequently than the average rate (16.78%).

Preventable Hospital Events

Definition

This indicator reports the discharge rate (per 1,000 Medicare enrollees) for conditions that are ambulatory care sensitive (ACS). ACS conditions include pneumonia, dehydration, asthma, diabetes, and other conditions which could have been prevented if adequate primary care resources were available and accessed by those patients.

Why Is This Indicator Important?

This indicator is relevant because analysis of ACS discharges allows demonstrating a possible "return on investment" from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through better access to primary care resources. Diseases typically associated with preventable hospitalization include diabetes, hypertension, congestive heart failure, angina, asthma, dehydration, bacterial pneumonia and urinary infections. Patients who actively participate in their care and adopt healthy lifestyle behaviors may avoid some hospital admissions. Comprehensive, coordinated outpatient care has been shown to reduce preventable hospitalizations.[24]

How Are We Doing?

In 2013, the age-adjusted ambulatory care sensitive condition discharge rate per 1,000 Medicare enrollees was 95.7 in Washington County, 71.4 in Oklahoma, and 59.2 in the U.S (Figure 110).[107]

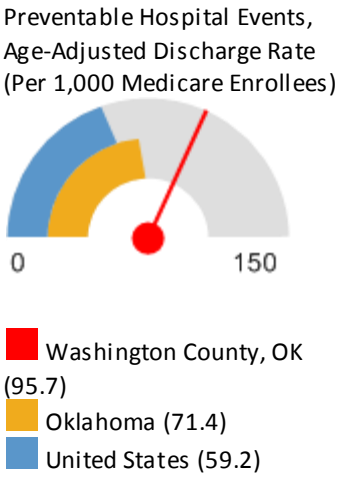
[106] Ness, D. and Kramer, W. (2013). Reducing hospital readmissions: It's about improving patient care. *Health Affairs Blog.* Retrieved from: http://healthaffairs.org/blog/2013/08/16/reducing-hospital-readmissions-its-about-improving-patient-care/.

[107] Dartmouth College Institute for Health Policy Clinical Practice. (2012). *Dartmouth Atlas of Health Care*.

Figure 110: Preventable Hospital Events, Age-Adjusted Discharge Rate by Locality, 2013

Report Area	Total Medicare Part A Enrollees	Ambulatory Care Sensitive Condition Hospital Discharges	Ambulatory Care Sensitive Condition Discharge Rate
Washington County, OK	6,540	625	95.7
Oklahoma	418,626	29,878	71.4
United States	58,209,898	3,448,111	59.2

Data Source: Dartmouth College Institute for Health Policy Clinical Practice. (2012). *Dartmouth Atlas of Health Care.*
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.



In 2011, there were approximately 52,000 potentially preventable hospitalizations in Oklahoma which resulted in more than $1 billion in hospital charges. In 2010, costs for preventable conditions totaled nearly $32 billion for the nation. If low income residents had been hospitalized at the same rate as high income residents, the U.S. would have saved $4 billion in 2007. Oklahoma and the other southern states tended to have the highest rates of hospitalizations for preventable chronic and acute conditions.[24]

Mammography Screening

Definition

This indicator reports the percentage of female Medicare enrollees, age 67-69, who have received one or more mammograms in the past two years.

Why Is This Indicator Important?

This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

How Are We Doing?

In 2013, the percentage of female Medicare enrollees who have received one or more mammograms in the past two years was 58 percent in Washington County, 55 percent in Oklahoma, and 63 percent in the U.S. (90th percentile or top 10 percent was 71%) (Table 20).[7] The percentage of female Medicare enrollees who have received one or more mammograms in the past two years has worsened over recent years in Washington County.

Table 32: Percent Female Medicare Enrollees with Mammogram in Past 2 Years by Locality, 2013

Report Area	Percent Female Medicare Enrollees with Mammogram in Past 2 Years
Washington County, OK	50%
Oklahoma	55%
United States	63%

Data Source: University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps*. Retrieved from: www.countyhealthrankings.org.

Diabetes Monitoring - Hemoglobin A1c Test

Definition

This indicator reports the percentage of Medicare patients with diabetes who have had a hemoglobin A1c (hA1c) test, a blood test which measures blood sugar levels, administered by a health care professional in the past year.

Why Is This Indicator Important?

This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

How Are We Doing?

In 2013, the percentage of Medicare enrollees with diabetes who have who have had a hemoglobin A1c (hA1c) test in the past year was 81 percent in Washington County, 78 percent in Oklahoma, and 85 percent in the U.S. (90th percentile or top 10 percent was 90%) (Table 33).[7]

Table 33: Percentage of Medicare Enrollees with Diabetes with Annual Exam by Locality, 2013

Report Area	Percent Medicare Enrollees with Diabetes with Annual Exam
Washington County, OK	81%
Oklahoma	78%
United States	85%

Data Source: University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps*. Retrieved from: www.countyhealthrankings.org.

Health Behaviors and Risk Factors

Health behaviors such as poor diet, a lack of exercise, substance abuse, and other risk factors contribute to poor health status.

Diet and Physical Activity

The environments where we live, learn, work, and play affect our access to healthy food and opportunities for physical activity which, along with genetic factors and personal choices, shape our health and our risk of being overweight and obese.

Fruit/Vegetable Consumption

Definition

This indicator is the percentage of Washington County residents who reported that they consumed less than five servings of fruit and vegetables daily in 2005-2009.

Why Is This Indicator Important?

Fruits and vegetables are part of a well-balanced and healthy diet. Eating more fruits and vegetables along with whole grains and lean meats, nuts, and beans is a way to lose weight or maintain a healthy weight. Most fruits and vegetables are naturally low in fat, sodium, and calories. None have cholesterol. Along with helping to control weight, diets rich in fruits and vegetables may reduce the risk of some types of cancer and other chronic diseases.[108]

Fruits and vegetables also provide essential vitamins and minerals, fiber, and other substances that are important for good health. Nutrients that are obtained from fruits and vegetables include potassium, dietary fiber, folate (folic acid), vitamin A, and vitamin C. These nutrients can help lower cholesterol and blood pressure, as well as keep the body healthy overall. Consumption of folate (folic acid) is especially important for women of childbearing age who may become pregnant. Folate (folic acid) lowers the risk of birth defects during fetal development.[109]

How Are We Doing?

In 2005-2009, 87.7 percent of Washington County residents reported that they consumed less than five servings of vegetables daily. This was higher than Oklahoma (84.5%) and the United States (75.7%) (Figure 111).[110]

[108] Centers for Disease Control and Prevention. (2016). Fruits *and Vegetables*. Retrieved from: http://www.cdc.gov/healthyweight/healthy_eating/fruits_vegetables.html.

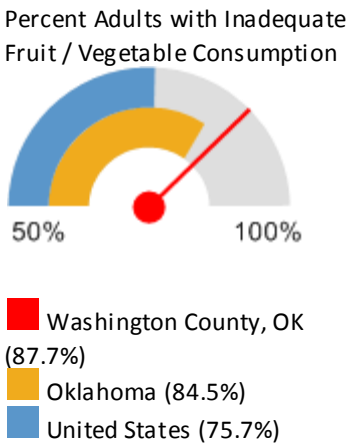
[109] United States Department of Agriculture. (2016). *Choose My Plate: Food Groups*. Retrieved from http://www.choosemyplate.gov/food-groups/.

[110] Centers for Disease Control and Prevention (2010). *Behavioral Risk Factor Surveillance System*. Retrieved from the Health Indicators Warehouse, U.S. Department of Health and Human Services. 2005-2009.

Figure 111: Consume <5 Servings of Fruit/Vegetables Daily, Washington County, 2005-2009

Report Area	Total Population (Age 18)	Total Adults with Inadequate Fruit / Vegetable Consumption	Percent Adults with Inadequate Fruit / Vegetable Consumption
Washington County, OK	51,411	45,087	87.7%
Oklahoma	2,709,105	2,289,194	84.5%
United States	227,279,010	171,972,118	75.7%

Data Source: Centers for Disease Control and Prevention (2010). *Behavioral Risk Factor Surveillance System*. Retrieved from the Health Indicators Warehouse, U.S. Department of Health and Human Services. 2005-2009.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.



According to the Oklahoma State Health Department's *2014 State of the State's Health* report, 52.6 percent of Washington County residents reported they did not eat at least one fruit daily and 27.2% of Washington County residents they did not eat at least one vegetable daily in 2011.[24]

In 2011, Oklahoma ranked as the 50th state in the nation for fruit consumption and the 44th state in the nation for vegetable consumption. The percent of adults who ate fruit and vegetables increased with education and income. Approximately 44 percent of youth reported they did not eat at least one piece of fruit daily and 40 percent reported they did not eat at least one vegetable daily. More than half of men in Oklahoma did not eat at least one vegetable every day.[111]

Physical Activity

Definition

This indicator is presented as the percentage of adults in 2012 who reported no physical activity in the past month, other than their regular job.

Why Is This Indicator Important?

This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health. Regular physical activity can improve the health and quality of life of people of all ages, regardless of the presence of a chronic disease or disability. Among adults and older adults, physical activity can lower the risk of early death, coronary heart disease, stroke, high blood pressure, type 2 diabetes, breast and colon cancer, falls, and depression. Among children and adolescents, physical activity can improve bone health, improve cardiorespiratory and muscular fitness, decrease levels of body fat, and reduce symptoms of depression. For people who are inactive, even small increases in physical activity are associated with health benefits.

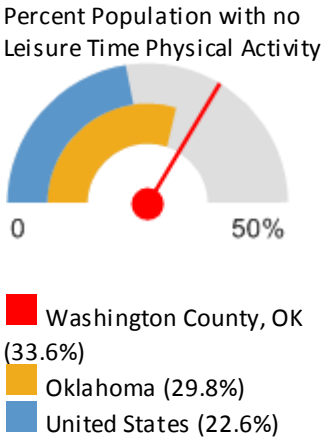
[111] Centers for Disease Control and Prevention. (2011). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC.

How Are We Doing?

Overall, 33.6 percent of Washington County adults reported no leisure time physical activity in the previous month in 2012. This was higher than in Oklahoma (29.8%) and the United States (22.6%) (Figure 112).[112]All of these regions except Washington County met the Healthy People 2020 national target of 32.6 percent of adults reporting no leisure time physical activity.[113] The prevalence of 'no physical activity' increased in Washington County from 2011 – 2012.

Figure 112: Percent Population with No Leisure Time Physical Activity by Locality, 2012

Report Area	Total Population Age 20	Population with no Leisure Time Physical Activity	Percent Population with no Leisure Time Physical Activity
Washington County, OK	51,756	18,270	33.6%
Oklahoma	2,770,324	845,275	29.8%
United States	231,341,061	53,415,737	22.6%

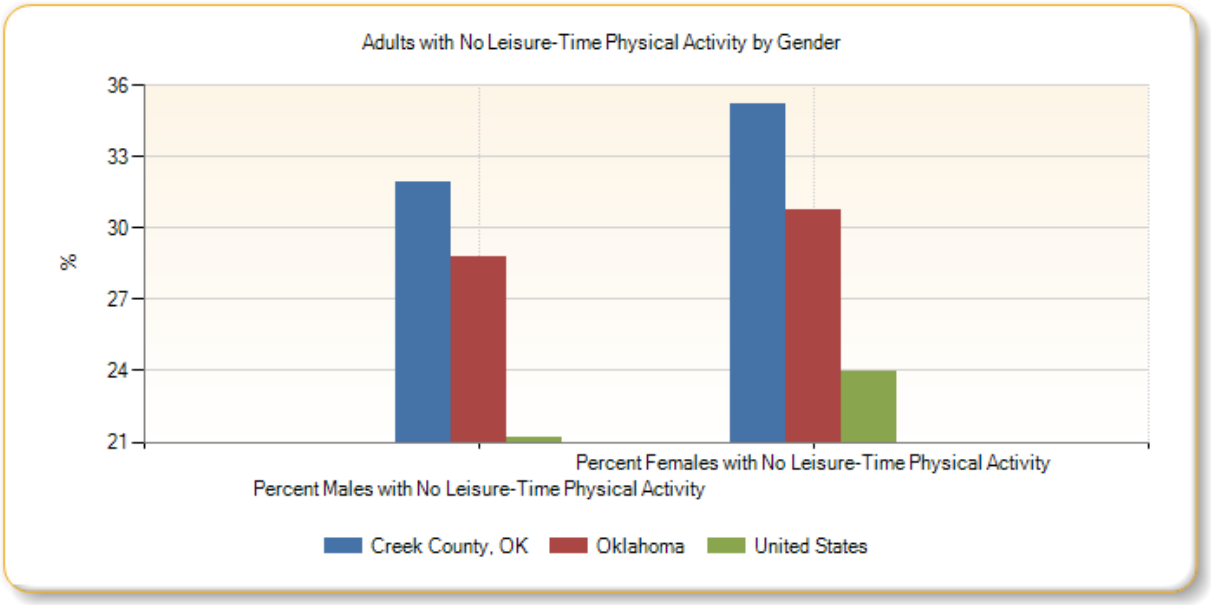


Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. (2012).
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Females were more likely than males to have no leisure time physical activity (35.2% compared to 31.9%) (Figure 113). [113]

[112] Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. (2012).
[113] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2016). *Healthy People 2020: Physical Activity*. Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=33

Figure 113: Adults with No Leisure-Time Physical Activity by Gender



Report Area	Total Males with No Leisure-Time Physical Activity	Percent Males with No Leisure-Time Physical Activity	Total Females with No Leisure-Time Physical Activity	Percent Females with No Leisure-Time Physical Activity
Washington County, OK	8,395	31.9%	9,875	35.2%
Oklahoma	395,823	28.79%	449,453	30.74%
United States	24,071,561	21.2%	29,344,293	23.94%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Weight Status

Overweight and Obese

Definition

This indicator is the percentage of Washington County residents who were overweight or obese in 2012. Overweight is defined by the World Health Organization as individuals who have a body mass index (BMI) greater than or equal to 25. Obesity refers to individuals who have a BMI greater than or equal to 30. BMI is calculated by taking the person's weight in kilograms divided by the square of his height in meters (kg/m^2).

Why Is This Indicator Important?

Excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues. A variety of factors, including behavioral, environmental, and genetic factors can all play a role in overweight/obese. Individuals who are overweight or obese have an increased risk of many health

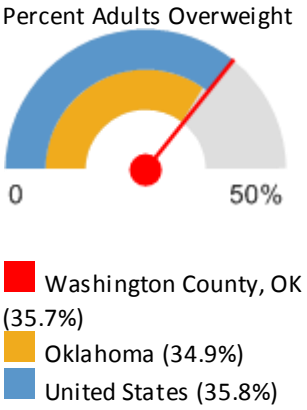
conditions: heart disease, type 2 diabetes, certain cancers, hypertension, and stroke, as well as other conditions. Obesity and overweight (and associated health problems) have a significant economic impact on the health system through direct medical costs, lost productivity in the general workforce, and early death.[114]

How Are We Doing?

In 2012, 35.7 percent of Washington County residents were overweight compared to 34.9 percent of Oklahomans and 35.8 percent of residents of the United States (Figure 114). [111]

Figure 114: Percent Adults Overweight by Locality, 2011-2012

Report Area	Survey Population (Adults Age 18)	Total Adults Overweight	Percent Adults Overweight
Washington County, OK	47,337	16,891	35.7%
Oklahoma	2,730,646	954,311	34.9%
United States	224,991,207	80,499,532	35.8%

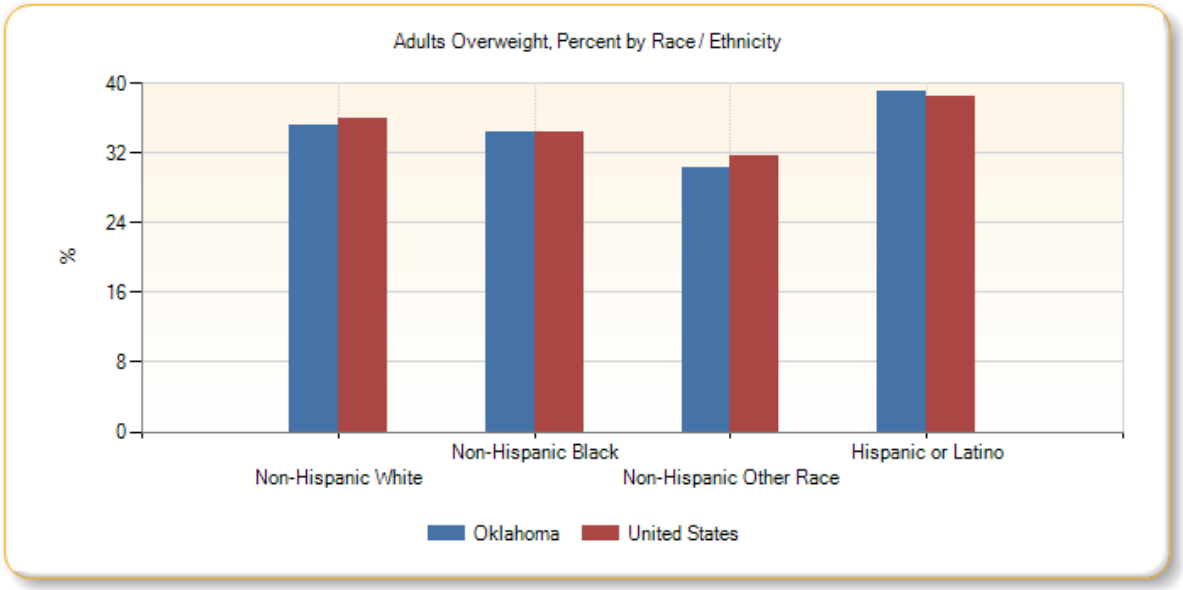


Data Source: Centers for Disease Control and Prevention (2010). *Behavioral Risk Factor Surveillance System*. Retrieved from the Health Indicators Warehouse, U.S. Department of Health and Human Services. 2011-2012.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

With regard to race/ethnicity, percent overweight was most prevalent among white, non-Hispanic (NH) and Hispanic individuals in Oklahoma and the U.S. (Figure 115). [111]

[114] Centers for Disease Control and Prevention. (2016). *Overweight and Obesity: Causes and Consequences.* Retrieved from: http://www.cdc.gov/obesity/adult/causes/index.html.

Figure 115: Adults Overweight by Race/Ethnicity, 2011-2012



Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Oklahoma	35.19%	34.34%	30.24%	39.05%
United States	35.85%	34.31%	31.61%	38.43%

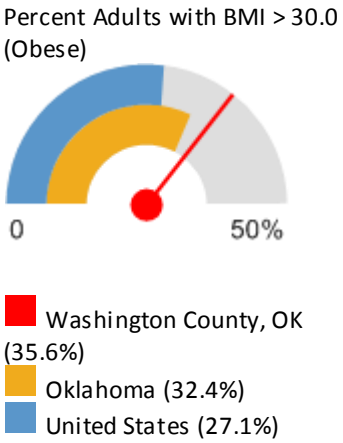
Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

In 2012, 35.6 percent of Washington County residents were obese compared to 32.4 percent of Oklahomans and 27.1 percent of residents of the United States (Figure 116). [113]

Figure 116: Percent Obese by Locality, 2012

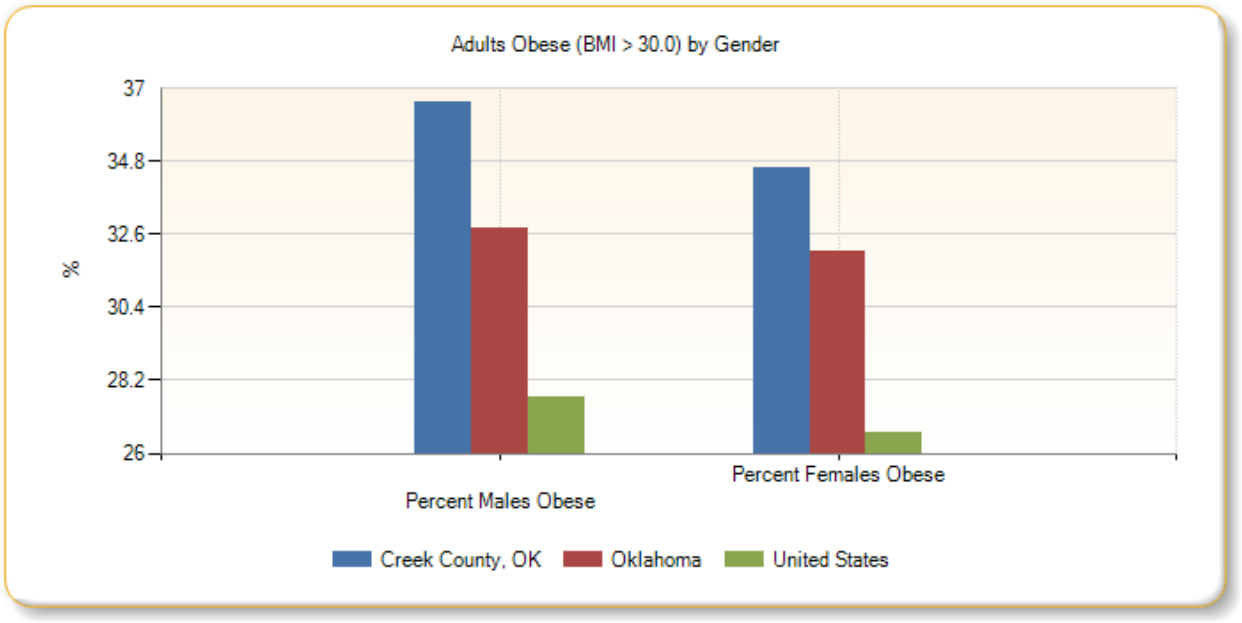
Report Area	Total Population Age 20	Adults with BMI > 30.0 (Obese)	Percent Adults with BMI > 30.0 (Obese)
Washington County, OK	51,724	18,362	35.6%
Oklahoma	2,770,964	898,600	32.4%
United States	231,417,834	63,336,403	27.1%

Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. (2012).
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.



Men were more likely to be obese than women (36.6% compared to 34.6%) (Figure 117).[113]

Figure 117: Percent Obese by Gender



Report Area	Total Males Obese	Percent Males Obese	Total Females Obese	Percent Females Obese
Washington County, OK	9,259	36.6%	9,102	34.6%
Oklahoma	445,684	32.76%	452,912	32.1%
United States	31,423,447	27.7%	31,912,963	26.59%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Hypertension

High Blood Pressure

Definition

This indicator is presented as the percentage of adult Washington County residents age 18 and older who had ever been diagnosed with high blood pressure in 2006-2012.

Why Is This Indicator Important?

Uncontrolled high blood pressure can lead to serious health consequences if untreated. It is sometimes called 'the silent killer,' because it has no symptoms, so individuals may not be aware that it is damaging their arteries, heart, and other organs. Possible health consequences include heart disease, stroke, kidney

damage, as well as other complications. Risk factors for high blood pressure include family history, age, low physical activity, poor diet, overweight/obese, and high alcohol consumption.[115]

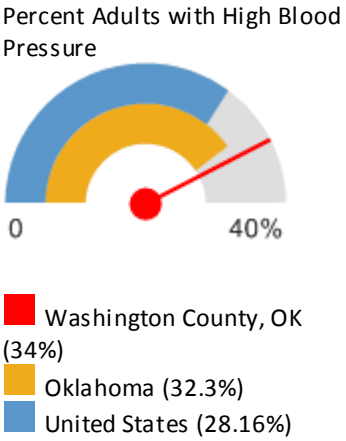
How Are We Doing?

In 2006-2012, 34 percent of Washington County residents reported having high blood pressure. This was higher than in Oklahoma (32.3%) and the United States (28.16%) (Figure 118). [111] These regions did not meet the Healthy People 2020 national goal of reducing the proportion of individuals with high blood pressure to 26.9 percent.[116]

Figure 118: High Blood Pressure by Locality, 2005-2013

Report Area	Total Population (Age 18)	Total Adults with High Blood Pressure	Percent Adults with High Blood Pressure
Washington County, OK	52,041	17,694	34%
Oklahoma	2,793,624	902,341	32.3%
United States	232,556,016	65,476,522	28.16%

Data Source: Centers for Disease Control and Prevention. (2015). *Behavioral Risk Factor Surveillance System 2006-2012.* Additional data analysis by CARES.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.



High Blood Pressure Management

Definition

This indicator is presented as the percentage of adults who self-reported that they are not taking medication for their high blood pressure according to the CDC's Behavioral Risk Factor Surveillance System (2006-2010).

Why Is This Indicator Important?

This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. When considered with other indicators of poor health, this indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

How Are We Doing?

[115] American Heart Association. (2015). *High Blood Pressure.* Retrieved from: http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/High-Blood-Pressure-or-Hypertension_UCM_002020_SubHomePage.jsp.

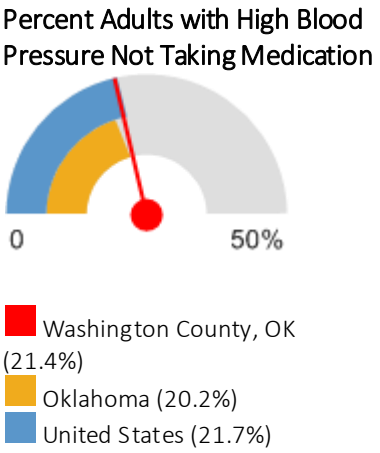
[116] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. *Healthy People 2020: Heart Disease and Stroke*. Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=21.

In the report area, 21.9 percent of adults, or 11,264, self-reported that they are not taking medication for their high blood pressure according to the CDC's Behavioral Risk Factor Surveillance System (2006-2010). This was higher than in Oklahoma (20.2%) and slightly higher than in the U.S. (21.7%) (Figure 119).[111]

Figure 119: Percent Adults with High Blood Pressure Not Taking Medication by Locality, 2006-2010

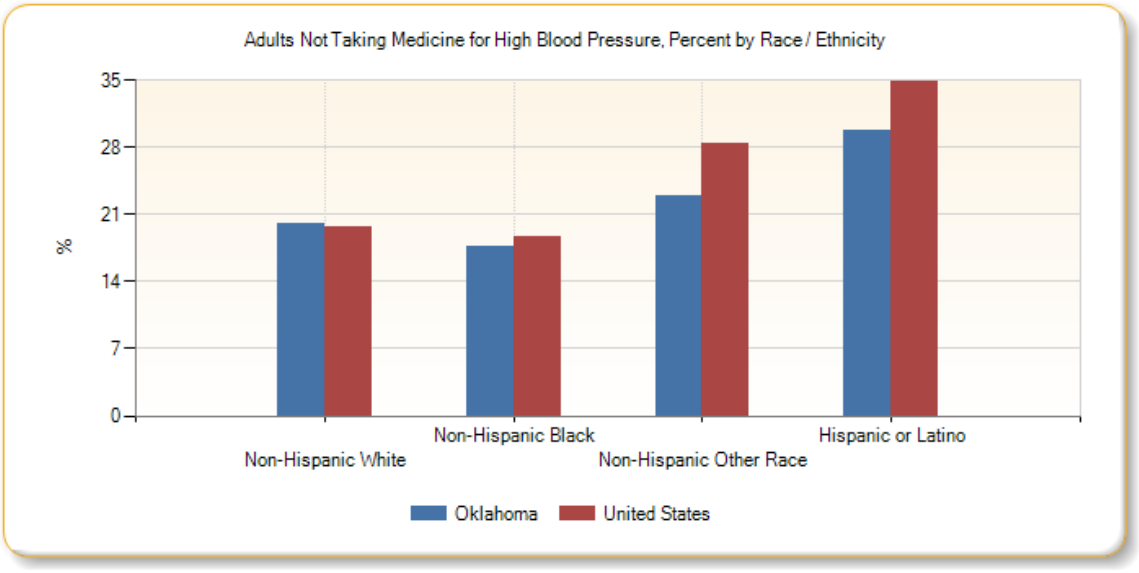
Report Area	Total Population (Age 18)	Total Adults Not Taking Blood Pressure Medication (When Needed)	Percent Adults Not Taking Medication
Washington County, OK	439,019	93,939	21.4%
Oklahoma	2,793,624	565,511	20.2%
United States	235,375,690	51,175,402	21.7%

Data Source: Centers for Disease Control and Prevention. (2015). *Behavioral Risk Factor Surveillance System 2006-2010.* Additional data analysis by CARES.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.



Hispanic or Latino adults were more likely to report not taking medication for high blood pressure than non-Hispanic adults (29.77%). Non-Hispanic adults of other races were also more likely to report not taking medication high blood pressure (22.92%) (Figure 120). [111]

Figure 120: Adults Not Taking Medicine for High Blood Pressure, Percent by Race/Ethnicity



Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Oklahoma	20.01%	17.71%	22.92%	29.77%
United States	19.66%	18.65%	28.31%	34.86%

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Dental Care

Dental Care Utilization

Definition

This indicator reports the percentage of adults aged 18 and older who self-report that they have not visited a dentist, dental hygienist or dental clinic within the past year.

Why Is This Indicator Important?

This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

How Are We Doing?

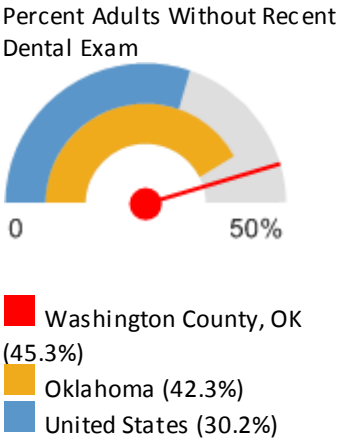
In the report area, 45.3 percent of adults, or 23,344, self-reported that they had not visited a dental provider or clinic within the past year according to the CDC's Behavioral Risk Factor Surveillance System (2006-2010). This was higher than in Oklahoma (42.3%) and the U.S. (30.2%) (Figure 121). [111]

Males were more likely to be without a recent dental exam than females (44.82 % compared to 39.92 %) in Oklahoma. With regard to race and ethnicity, Non-Hispanic blacks in Oklahoma were the most likely to report not having had a recent dental exam compared to other race/ethnic groups (50.89%). Hispanic or Latinos in Oklahoma were the second most likely to report no recent dental exam (50.29%). Non-Hispanic whites in Oklahoma were the least likely to report no recent dental exam (39.63%). [111]

Figure 121: Percentage of Adults without a Recent Dental Exam by Locality, 2006-2010

Report Area	Total Population (Age 18)	Total Adults Without Recent Dental Exam	Percent Adults with No Dental Exam
Washington County, OK	51,497	23,344	45.3%
Oklahoma	2,793,624	1,181,932	42.3%
United States	235,375,690	70,965,788	30.2%

Data Source: Centers for Disease Control and Prevention. (2015). *Behavioral Risk Factor Surveillance System 2006-2010.* Additional data analysis by CARES.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.



Teen Births

Teen Birth Rate Ages 15 – 19

Definition

This indicator is presented as the number of live births to Washington County teenagers ages 15 – 19 per 1,000 females in this age group, over the years 2006-2012..

Why Is This Indicator Important?

This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices. Teen pregnancy can have negative health impacts on both the mother and the child. Infants born to teen mothers are at an increased risk of being born prematurely and at a low birth weight. They are also at a greater risk of infant mortality. Teen mothers are more likely to smoke during pregnancy and less likely to receive appropriate prenatal care.[117]

Although teen birth rates are declining, there are still significant disparities among racial and ethnic minorities, as well as socioeconomically disadvantaged youth of any race or ethnicity. Social and economic costs related to teen parents and childbirth includes increased health care and foster care costs, increased high school dropout rates, and lower educational attainment for teen mothers and their children. The children of teen mothers are also more likely to be incarcerated at some time during adolescence, have more health problems, give birth as a teenager, and face unemployment as a young adult.[118] The children of teens are also more likely to depend on publicly provided healthcare. [119]

How Are We Doing?

There were 2,372 births to Washington County teens ages 15 – 19 from 2006-2012, for a birth rate of 54.1 live births per 1,000 females ages 15 – 19. This was significantly higher than Oklahoma (42.9) and the United States (26.5) (Figure 122).Teen births have been decreasing in Washington County, Oklahoma, and the U.S. since 2005[119]

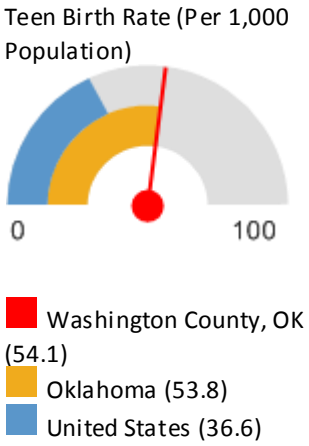
[117] The National Campaign to Prevent Teen and Unplanned Pregnancy. (2016). *Teen Pregnancy and Other Health Issues*. Retrieved from: http://www.thenationalcampaign.org/why-it-matters/pdf/health.pdf.

[118] Centers for Disease Control and Prevention. (2016). *Teen Pregnancy: About Teen Pregnancy*. Retrieved from: http://www.cdc.gov/TeenPregnancy/AboutTeenPreg.htm.

[119] U.S. Department of Health and Human Services, Health Indicators Warehouse and Centers for Disease Control and Prevention, National Vital Statistics System. (2013). *National Vital Statistics Reports 2006-2012.* Hyattsville, MD: National Center for Health Statistics.

Figure 122: Teen Birth Rates (Ages 15-19) by Locality, 2006-2012

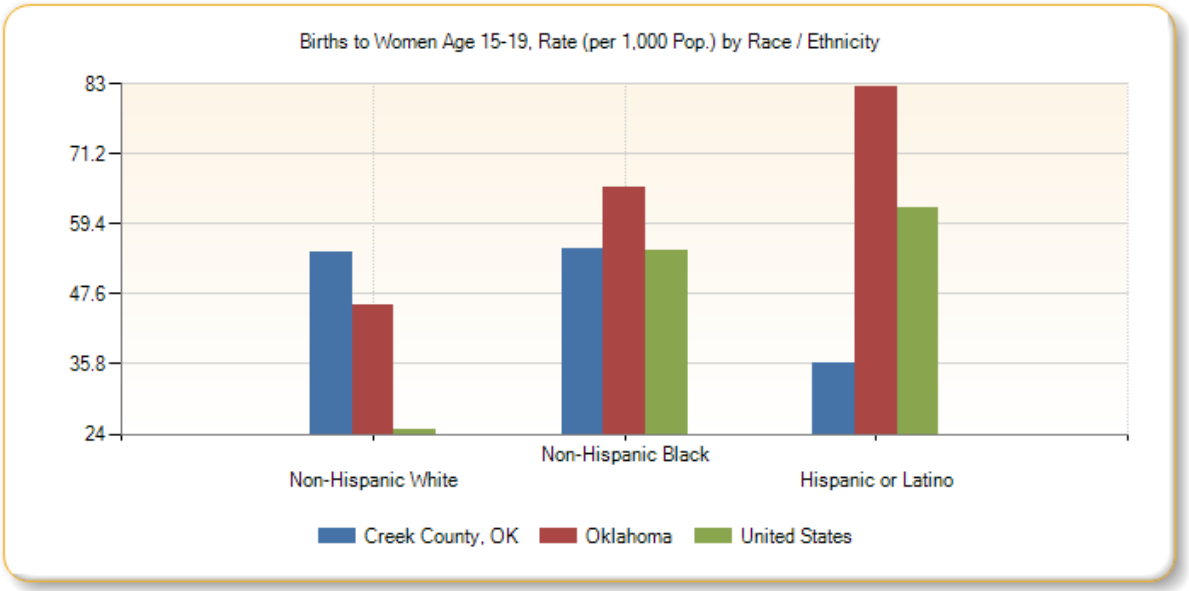
Report Area	Female Population Age 15 - 19	Births to Mothers Age 15 - 19	Teen Birth Rate (Per 1,000 Population)
Washington County, OK	2,372	128	54.1
Oklahoma	128,840	6,932	53.8
United States	10,736,677	392,962	36.6



Data Source: U.S. Department of Health and Human Services, Health Indicators Warehouse and Centers for Disease Control and Prevention, National Vital Statistics System. (2013). *National Vital Statistics Reports 2006-2012.* Hyattsville, MD: National Center for Health Statistics.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Black were the race with the highest birth rate for teenagers ages 15 – 19 (55.2). Additionally, the birth rate for Hispanic women in this age group was lower than that of non-Hispanic women (35.9) (Figure 123). [120]

Figure 123: Births to Women Age 15-19, Rate (per 1,000 Population) by Race/Ethnicity



Report Area	Non-Hispanic White	Non-Hispanic Black	Hispanic or Latino
Washington County, OK	54.7	55.2	35.9
Oklahoma	45.6	65.4	82.4
United States	24.6	54.9	62

Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Tobacco Use

Tobacco Use among Current Smokers

Definition

This indicator is the percentage of Washington County residents who self-reported currently smoking cigarettes in 2006-2012.

Why Is This Indicator Important?

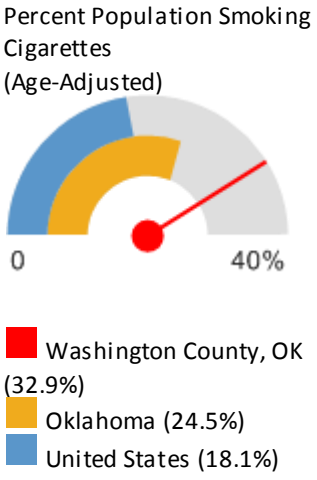
Tobacco use is the single most preventable cause of death and disease in the United States. Tobacco use causes cancer, heart disease, lung diseases (including emphysema, bronchitis, and chronic airway obstruction), premature birth, low birth weight, stillbirth, and infant death. Secondhand smoke causes heart disease and lung cancer in adults and a number of health problems in infants and children, including severe asthma attacks, respiratory infections, ear infections, and is associated with Sudden Infant Death Syndrome (SIDS). There is no risk-free level of exposure to secondhand smoke.

How Are We Doing?

In 2006-2012, 32.9 percent of Washington County residents reported smoking cigarettes on some days or every day (current smokers). This was higher than Oklahoma (24.5%) and the United States (18.1%) (Figure 124). [111] None of these regions met the Healthy People 2020 national goal of reducing smoking prevalence to 12.0 percent. [120]

Figure 124: Current Smokers by Locality, 2006-2012

Report Area	Total Population Age 18	Total Adults Regularly Smoking Cigarettes	Percent Population Smoking Cigarettes (Crude)	Percent Population Smoking Cigarettes (Age-Adjusted)
Washington County, OK	52,041	16,393	31.5%	32.9%
Oklahoma	2,793,624	673,263	24.1%	24.5%
United States	232,556,016	41,491,223	17.8%	18.1%



Data Source: Centers for Disease Control and Prevention. (2015). *Behavioral Risk Factor*

[120] U.S. Department of Health and Human Services. (2016). *Healthy People 2020: Tobacco Use*. Retrieved from: http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=41.

Surveillance System 2006-2010. Additional data analysis by CARES.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Substance Use

Alcohol Consumption

Definition

This indicator reports the percentage of adults aged 18 and older who self-report heavy alcohol consumption (defined as more than two drinks per day on average for men and one drink per day on average for women).

Why Is This Indicator Important?

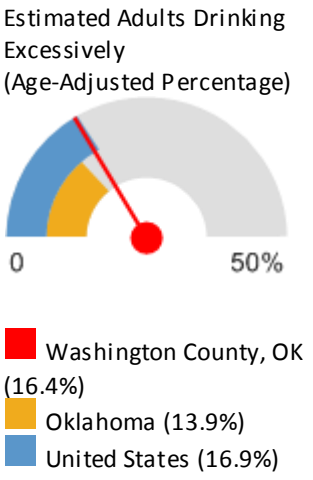
This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as cirrhosis, cancers, and untreated mental and behavioral health needs.

How Are We Doing?

In Washington County, an estimated 16.4 percent of adults reported drinking excessively (age-adjusted) according to the CDC's Behavioral Risk Factor Surveillance System (2006-2010). This was higher than in Oklahoma (13.9%), but slightly lower than in the U.S. (16.9%) (Figure 125). [111]

Figure 125: Estimated Adults Drinking Excessively (Age-Adjusted Percentage) by Locality, 2006-2010

Report Area	Total Population Age 18	Estimated Adults Drinking Excessively	Estimated Adults Drinking Excessively (Crude Percentage)	Estimated Adults Drinking Excessively (Age-Adjusted Percentage)
Washington County, OK	52,041	7,702	14.8%	16.4%
Oklahoma	2,793,624	368,758	13.2%	13.9%
United States	232,556,016	38,248,349	16.4%	16.9%



Data Source: Centers for Disease Control and Prevention. (2015). *Behavioral Risk Factor Surveillance System 2006-2010.* Additional data analysis by CARES.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Physical Environment

A community's health also is affected by the physical environment. A safe, clean environment that provides access to healthy food and recreational opportunities is important to maintaining and improving community health.

Air and Water Quality

Clean air and safe water are prerequisites for health. Poor air or water quality can be particularly detrimental to vulnerable populations such as the very young, the elderly, and those with chronic health conditions.

Air Quality - Ozone

Definition

This indicator reports the percentage of days per year with Ozone (O3) levels above the National Ambient Air Quality Standard of 75 parts per billion (ppb). Figures are calculated using data collected by monitoring stations and modeled to include census tracts where no monitoring stations exist.

Why Is This Indicator Important?

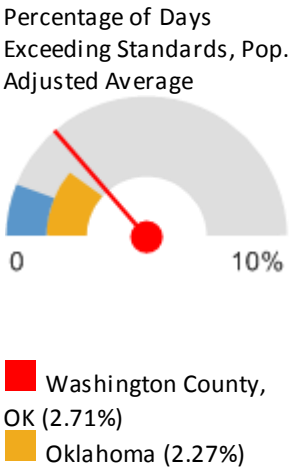
This indicator is relevant because poor air quality contributes to respiratory issues and overall poor health.

How Are We Doing?

Within the report area, 10, or 2.71 percent of days exceeded the emission standard of 75 parts per billion (ppb) in 2012. This was higher than in Oklahoma (2.27%) and in than in the U.S. (1.24%) (Figure 126).[121]

Figure 126: Percentage of Days Exceeding Standards, Population-Adjusted Average by Locality, 2012

Report Area	Total Population	Average Daily Ambient Ozone Concentration	Number of Days Exceeding Emissions Standards	Percentage of Days Exceeding Standards, Crude Average	Percentage of Days Exceeding Standards, Pop. Adjusted Average
Washington County, OK	69,967	45.66	10	2.74%	2.71%



[121] Centers for Disease Control and Prevention. (2012). *National Environmental Public Health Tracking Network.*

Oklahoma	3,751,351	45.05	8.35	2.29%	2.27%
United States	312,471,327	38.95	4.46	1.22%	1.24%

Data Source: Centers for Disease Control and Prevention. (2012). *National Environmental Public Health Tracking Network.*
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Air Pollution - Particulate Matter 2.5

Definition

Air Pollution - Particulate Matter is the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) in a county. Fine particulate matter is defined as particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air.

Why Is This Indicator Important?

The relationship between elevated air pollution, particularly fine particulate matter and ozone, and compromised health has been well documented. Negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. [7]

How Are We Doing?

The average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) in Washington County was 10.5 which was slightly higher than in Oklahoma (10.3) and higher than the top 90th percentile, or top 10 percent of the counties in the U.S. (9.5). [114]

Water Quality-Drinking Water Violations

Definition

Drinking Water Violations is an indicator of the presence or absence of health-based drinking water violations in counties served by community water systems. Health-based violations include Maximum Contaminant Level, Maximum Residual Disinfectant Level and Treatment Technique violations. A "Yes" indicates that at least one community water system in the county received a violation during the specified time frame; while a "No" indicates that there were no health-based drinking water violations in any community water system in the county.

Why Is This Indicator Important?

Recent studies estimate that contaminants in drinking water sicken 1.1 million people each year. [7] Ensuring the safety of drinking water is important to prevent illness, birth defects, and death for those with compromised immune systems. A number of other health problems have been associated with contaminated water, including nausea, lung and skin irritation, cancer, kidney, liver, and nervous system damage.[7]

How Are We Doing?

Washington County measured positive ("Yes") for drinking water violations in 2016. [122]

Housing and Transit

The housing options and transit systems that shape our communities' built environment affect where we live and how we get from place to place. The choices we make about housing and transportation, and the opportunities underlying these choices, also affect our health.

Severe Housing Problems

Definition

This indicator reports the percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities. Severe overcrowding is defined as more than 1.5 persons per room. Severe cost burden is defined as monthly housing costs (including utilities) that exceed 50% of monthly income.

Why Is This Indicator Important?

This indicator is relevant because good health depends on having homes that are safe and free from physical hazards. When adequate housing protects individuals and families from harmful exposures and provides them with a sense of privacy, security, stability and control, it can make important contributions to health. In contrast, poor quality and inadequate housing contributes to health problems such as infectious and chronic diseases, injuries and poor childhood development.[7]

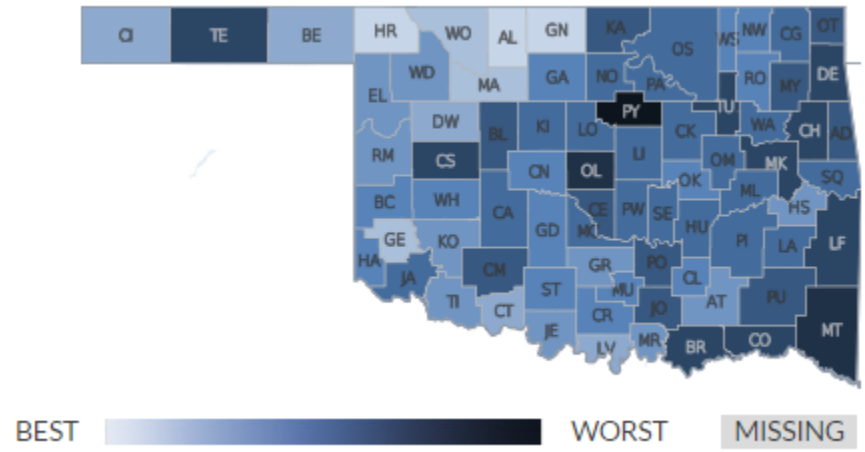
How Are We Doing?

The percentage of households with at least 1 of 4 housing problems (overcrowding, high housing costs, or lack of kitchen or plumbing facilities) in Washington County was 12 percent in 2008-2012. This was lower than in Oklahoma (14%) and higher than the top 90th percentile, or top 10 percent of the counties in the U.S. (9%) (Figure 155). [123]

[122] Environmental Protection Agency. (2016). The Safe Drinking Water Information System (SDWIS).

[123] The U.S. Department of Housing and Urban Development (HUD) (2016). *Comprehensive Housing Affordability Strategy Data 2008-2012.*

Figure 127: Severe Housing Problems, Oklahoma



Data Source: The U.S. Department of Housing and Urban Development (HUD) (2016). *Comprehensive Housing Affordability Strategy Data 2008-2012.*
Source: Courtesy of University of Wisconsin Population Health Institute. (2016). *County Health Rankings & Roadmaps*. Retrieved from: www.countyhealthrankings.org.

Use of Public Transportation

Definition

This indicator reports the percentage of population using public transportation as their primary means of commute to work. Public transportation includes buses or trolley buses, streetcars or trolley cars, subway or elevated rails, and ferryboats.

Why Is This Indicator Important?

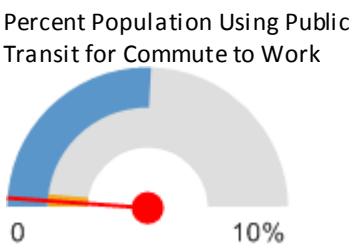
The transportation choices that communities and individuals make have important impacts on health through active living, air quality, and traffic crashes. The choices for commuting to work can include walking, biking, taking public transit, carpooling, or the most damaging to the health of communities which is individuals commuting alone by car. In most counties, the latter is the primary form of transportation to work.[7]

How Are We Doing?

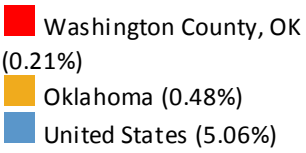
The percentage of the population in Washington County using public transit for commuting to work was .21 percent in 2010-2014. This was lower than in Oklahoma (.48%) and significantly lower than in the U.S. (5.06%) (Figure 128 and 129).[19]

Figure 128: Percentage of the Population Using Public Transit for Commute to Work by Locality

Report Area	Total Population Employed Age 16	Population Using Public Transit for Commute to Work	Percent Population Using Public Transit for Commute to Work
Washington	29,242	61	0.21%

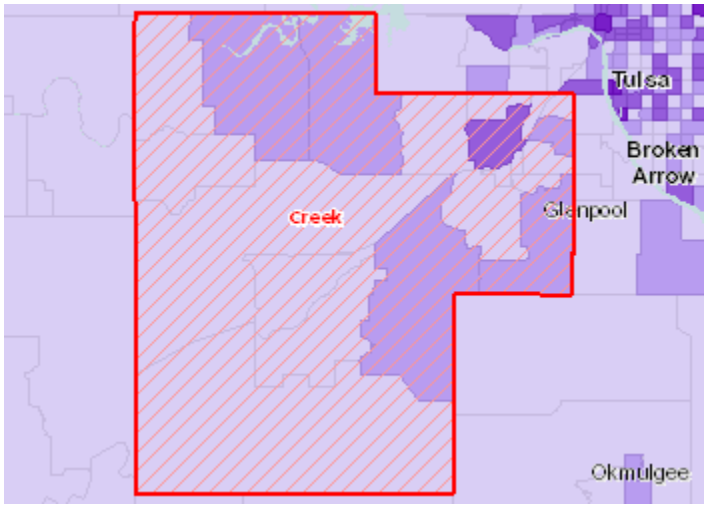


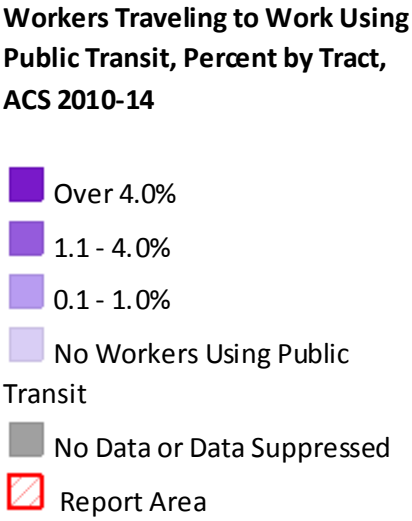
County, OK			
Oklahoma	1,686,185	8,100	0.48%
United States	141,337,152	7,157,671	5.06%



Data Source: U.S. Census Bureau. (2015). *American Community Survey 2010-14*.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Figure 129: Workers Traveling to Work Using Public Transit, Percent by Tract, ACS 2010-2014





Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Food Access

Food Access - Low Food Access

Definition

This indicator reports the percentage of the population living in census tracts designated as food deserts. A food desert is defined as a low-income census tract (where a substantial number or share of residents has low access to a supermarket or large grocery store.

Why Is This Indicator Important?

This indicator is relevant because it highlights populations and geographies facing food insecurity.

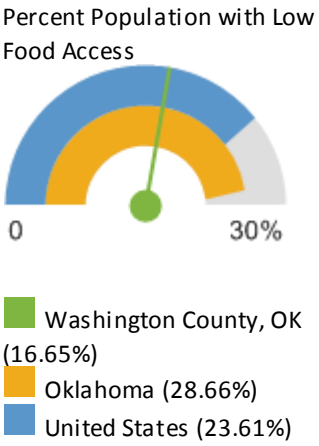
How Are We Doing?

The percentage of the population in Washington County with low food access was 16.65 percent in 2010. This was significantly lower than in Oklahoma (28.66%) and lower than in the U.S. (23.61%) (Figure 130).[124] Some disparities in food access are evident by the population map below (Figure 131).

[124] U.S. Department of Agriculture, Economic Research Service. (2010). *USDA - Food Access Research Atlas*.

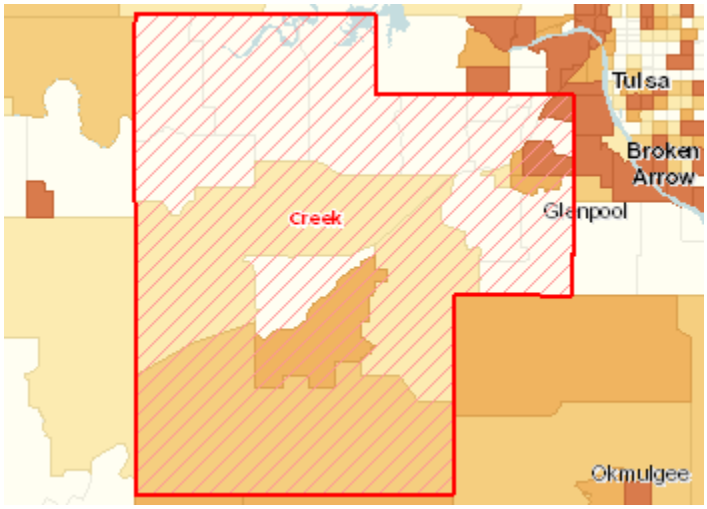
Figure 130: Percentage of Population with Low Food Access by Locality, 2010

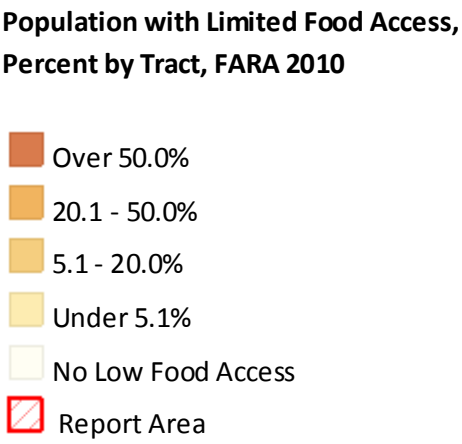
Report Area	Total Population	Population with Low Food Access	Percent Population with Low Food Access
Washington County, OK	69,967	11,653	16.65%
Oklahoma	3,751,351	1,075,089	28.66%
United States	308,745,538	72,905,540	23.61%



Data Source: U.S. Department of Agriculture, Economic Research Service. (2010). *USDA - Food Access Research Atlas*.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Figure 131: Population with Limited Food Access, Percent by Tract, FARA 2010





Data Source: Same as above.
Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Food Access – Healthy Food Access

Definition

This indicator reports the percentage of population living in census tracts with no or low access to healthy retail food stores. Figures are based on the CDC Modified Retail Food Environment Index. For this indicator, low food access tracts are considered those with index scores of 10.0 or less (0=worst; 10=best).

Why Is This Indicator Important?

There is strong evidence that residing in a food desert is correlated with a high prevalence of overweight, obesity, and premature death. Supermarkets traditionally provide healthier options than convenience stores or smaller grocery stores. Additionally, lack of access to fresh fruits and vegetables is a substantial barrier to consumption and is related to premature mortality.[7]

How Are We Doing?

In 2011, the percentage of the population in tracts with no healthy food outlet was 39.78%. This was higher than in Oklahoma (37.41%) and significantly higher than in the U.S. (18.63%) (Table 34). An estimated 6.49 percent of the population in Washington County resides in tracts with high healthy food access which is higher than in Oklahoma (3.51%) and in the U.S. (5.02%).[125] The disparities in healthy food access are evident by the population map below (Figure 132).

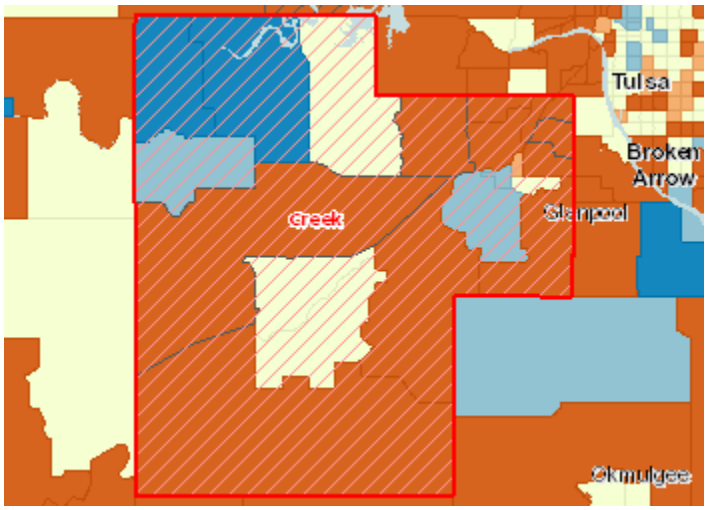
Table 34: Percentage of Population with Healthy Food Access by Locality, 2010

Report Area	Total Population	Percent Population in Tracts with No Food Outlet	Percent Population in Tracts with No Healthy Food Outlet	Percent Population in Tracts with Low Healthy Food Access	Percent Population in Tracts with Moderate Healthy Food Access	Percent Population in Tracts with High Healthy Food Access
Washington County, OK	69,967	12.46%	39.78%	3.24%	38.02%	6.49%
Oklahoma	3,751,351	1.96%	37.41%	30.39%	26.74%	3.51%
United States	312,474,470	0.99%	18.63%	30.89%	43.28%	5.02%

Data Source: Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity, and Obesity. (2011).
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

[125] Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity, and Obesity. (2011).

Figure 132: Modified Retail Food Environmental Index Score by Tract, DNPAO 2011



Data Source: Same as above.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016.

Modified Retail Food Environmental Index Score by Tract, DNPAO 2011

- Index Score Over 30 (High Access)
- Index Score 15 - 30 (Moderate Access)
- Index Score 5 - 15 (Low Access)
- Index Score Under 5 (Poor Access)
- No Healthy Retail Food Outlet (No Access)
- No Retail Food Outlets Present (Food Desert)
- Report Area

Access to Physical Activity Opportunities

Recreation and Fitness Facility Access

Definition

This indicator reports the number per 100,000 population of recreation and fitness facilities as defined by North American Industry Classification System (NAICS) Code 713940.

Why Is This Indicator Important?

This indicator is relevant because the role of the built environment is important for encouraging physical activity. Individuals who live closer to sidewalks, parks, and gyms are more likely to exercise and other healthy behaviors.

How Are We Doing?

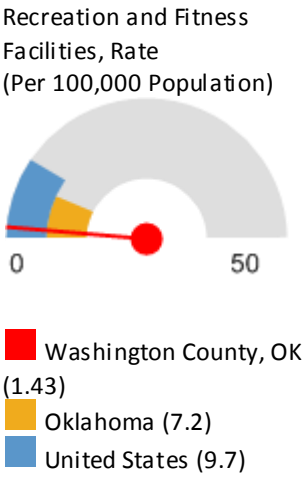
In 2013, the rate of recreation and fitness facilities per 100,000 population was 1.43 which was significantly lower than in the Oklahoma (7.2) and in the U.S. (9.7) (Figure 133).[126]

[126] U.S. Census Bureau. (2013). *County Business Patterns*.

Figure 133: Recreation and Fitness Facilities, Rate per 100,000, by Locality 2013

Report Area	Total Population	Number of Establishments	Establishments, Rate per 100,000 Population
Washington County, OK	69,967	1	1.43
Oklahoma	3,751,351	270	7.2
United States	312,732,537	30,393	9.7

Data Source: U.S. Census Bureau. (2013). *County Business Patterns*. Additional data analysis by CARES.
Source: Courtesy of Community Commons. Retrieved from www.communitycommons.org on April 1, 2016



PRIMARY DATA: COMMUNITY INPUT

Community input provides information and insights about the health and well-being of the community that cannot be obtained through secondary data alone. Community stakeholders understand the "why" and "how" behind the numbers and can share details on barriers to health services that exist within the community. Sometimes the numbers are missing for certain issues and experts or professionals who have special knowledge of community health needs can fill in information or "data gaps" not covered by available secondary data. Community stakeholders also know where strengths and assets exist within the community, including resources and programs to address areas of concern. Given the vital importance of community input in understanding the health needs of a community, the IRS requires that community input be taken into consideration during the community health needs assessment process.

Community input is a primary focus of this assessment. Accordingly, input from community members, community leaders and representatives, as well as the health's system's Community Health Needs Assessment (CHNA) Advisory Group and leadership was obtained to expand upon information gleaned from the secondary data review. A concerted effort was made to obtain community input from persons who represent the broad interests of the community served by the hospital, including those with special knowledge and expertise of public health issues and populations deemed vulnerable. This assessment also took in to account the importance of engaging communities on an ongoing basis and the promotion of a continual dialogue. This includes disseminating the results of the assessment within the community and engaging the community in mutually reinforcing and community-driven activities to improve the community health and well-being.

COMMUNITY INPUT METHODOLOGY

As aforementioned, community input is a form of primary data collection. Many methods can be used to gather community input, including key informant interviews, focus groups, listening circles, community forums, and surveys. This assessment employed several methods of community input to yield the desired results. For the purposes of this assessment, community input was obtained through the following methods:

- Survey of 1,009 Washington County residents
- A hospital community input meeting with16 community members, leaders, and representatives
- A survey of 30 Washington County Wellness Initiative workgroup members
- Input from the public health workforce and local coalitions/partnerships
- Input from the health's system's Community Health Needs Assessment (CHNA) Advisory Group and leadership

COMMUNITY INPUT SOURCES

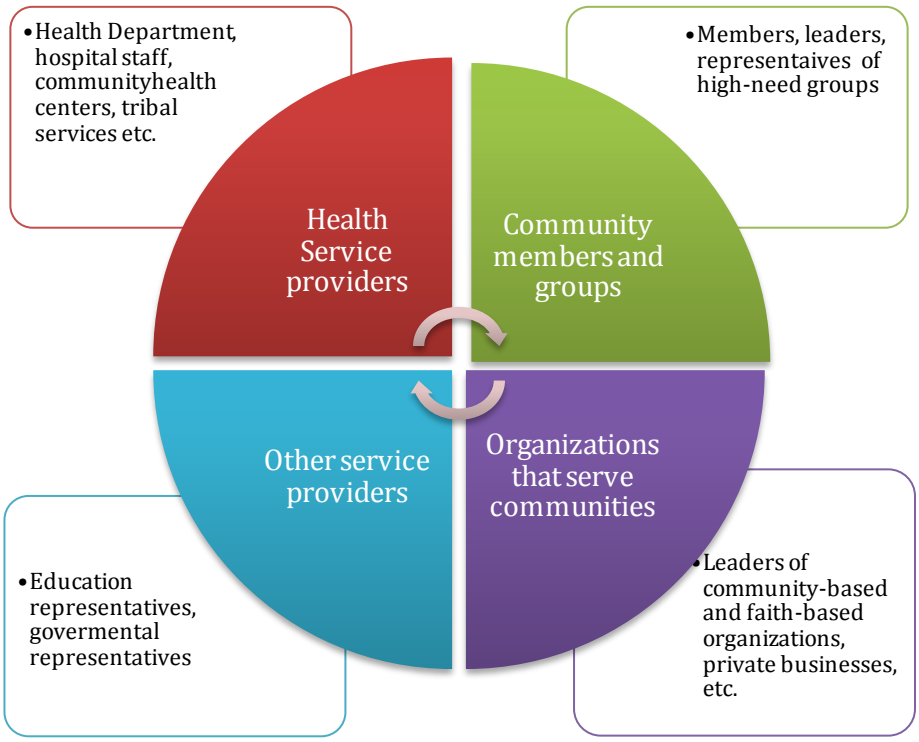
Community input was solicited from a diverse set of community stakeholders such as community members, community organizations, and the public health workforce. A variety of sources ensured that as many different perspectives as possible were represented while satisfying the broad interests of the community. Sources of community input for this assessment were as follows:

- Washington County residents who participated in the Washington County Wellness Initiative *2015 Washington County Community Assessment* survey
- Community leaders and representatives
- Local public health workforce and coalitions/partnerships
- Members and representatives of medically underserved, low-income, minority, at-risk, and otherwise vulnerable populations
- Washington County Wellness Initiative workgroup members
- Health system CHNA Advisory Group and leadership

Community stakeholders who provided community input represented a variety of community sectors including: community members, healthcare providers and services, non-profit agencies, community-based organizations, private businesses, education and academia, community developers, faith communities and faith-based organizations, government representatives, safety net service providers, economic and workforce development, the public health workforce, and other interest groups working with at-risk and vulnerable populations. This assessment especially focused on community input from those with special knowledge or expertise in public health as well as members and representatives of medically underserved, low income, minority, or otherwise vulnerable populations. Each offered critical strengths and insights on the health needs and assets of the community.

The following is visual representation of the types of constituents who contributed community input throughout this assessment process (Figure 161):

Figure 134: Community Input Sources



Source: Adapted from Ascension Health. (2015). *Community Engagement, Community Input Guide*.

The following sections summarize this assessment's community input, how and when it was gathered, community members and other stakeholders who participated in the process, and a description of the medically underserved, low-income, minority, at-risk, or otherwise deemed vulnerable populations being represented by organizations or individuals that provided input.

WCWI COMMUNITY ASSESSSMENT: SURVEY

The Washington County Wellness Initiative (WCWI) is a 501(c) (3) Non-Profit Corporation incorporated in the State of Oklahoma. It is certified through the Public Health Improvement Organization (PHIO) as a County Health Improvement Organization (CHIO). The organization is dedicated to supporting the numerous organizations, coalitions, initiatives, and projects providing services to the residents of Washington County with the goal of improving the health of the community.[13]

The Washington County Wellness Initiative (WCWI) serves as a fiscal agent and administration for member organizations, committees, initiatives, and projects while encouraging member engagement and pooling of community resources to improve Washington County's capacity to obtain optimum health and social well-being outcomes the residents of Washington County. The organization collaborates with other federal, state and local partners to conduct assessments to identify gaps in services and implements plans and strategies to address the gaps. WCWI is currently working on nine initiatives focused on healthcare, lifestyle/prevention, mental health, and poverty alleviation. The organization's eleven workgroups are:

Access to Healthcare, the Casa Hispana Hispanic Outreach Center, Family Promise of Washington County Inc., the Poverty Alleviation Coalition, the Preventative Health Partnership, the Washington County Affordable Housing Coalition, the Washington County Anti-Drug Network, the Washington County Association for Mental Health, the Washington County Suicide Prevention Coalition, and the Washington County Transportation Coalition. [13]

This section of the assessment provides a review of the quantitative data derived from one of this assessment's primary data (community input) research methods, the 2014-2015 Washington County Wellness Initiative (WCWI) Community Assessment survey. A copy of the full assessment survey is available in Appendix and via www.wcwiok.org. All information on the WCWI and the community assessment survey included in this assessment was sourced directly from WCWI. This information was written and prepared by WCWI and was provided for reprint and use in this assessment courtesy of WCWI.

SURVEY METHODOLOGY

As part of the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant P10RH26875, Rural Health Network Development Planning Grant, the Washington County Wellness Initiative (WCWI) developed and conducted a county-wide community assessment. The assessment survey was available to all Washington County residents to complete online or on a paper form beginning November 2014. After 1000 assessments were completed, the data gathering period concluded in May 2015. All data was gathered in a HIPAA compliant method and has been aggregated in this report for analysis and summarization. Surveys were provided throughout the county via multiple distribution points. Ninety-five percent of all assessments were completed without assistance.[127]

Data Sources

The most current secondary data (other existing health-related data) was used for comparisons at the state and national level. In general, state and national data was available for 2013 or 2014. A variety of secondary data sources were used for benchmark comparisons to Oklahoma and the United States. Specific citations are included throughout the report. *Healthy People 2020* goals were also utilized as indicators for areas for improvement or success.

Survey Instrument

The survey instrument used for the 2014-2015 Washington County Wellness Initiative (WCWI) Community Assessment survey was developed by the Washington County Wellness Initiative (WCWI). Prior to developing the assessment survey, the WCWI team met with members of the community to determine if their data gathering needs could be met using the same survey instrument developed for the purposes of the Rural Health Network Development Planning Grant assessment. Additionally, WCWI reviewed the 2012 Washington County Health Improvement Plan to ensure questions were included to address four public health strategic issues: Health Care, Lifestyle Prevention, Mental Health, and Poverty. As such, the length of the assessment was expanded to incorporate questions designed to meet the most

[127] Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

needs for each workgroup and community partner. [124] A copy of the survey instrument is available in the Appendix and via www.wcwiok.org.

Sample Approach and Design

The sample was drawn from the total non-institutionalized adult population residing in Washington County, Oklahoma. **Online and paper surveys with 1,009 respondents were conducted between November 2014 and May 2015.** All administration of the surveys, data collection, and data analysis was conducted by the Washington County Wellness Initiative (WCWI).

SURVEY RESULTS

Information Gaps

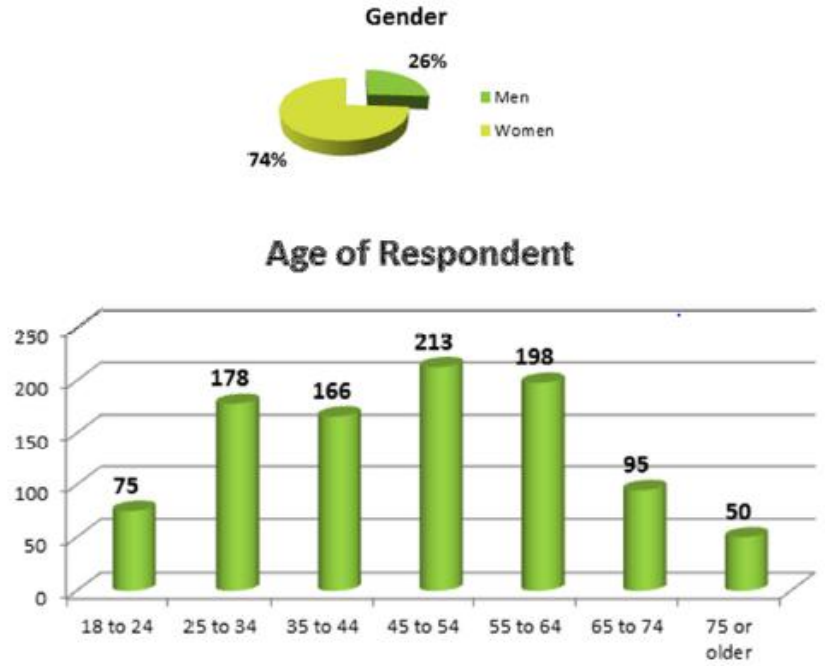
Although it is quite comprehensive, this assessment and survey cannot measure all possible aspects of health and also cannot represent every possible population with Washington County. These gaps might in some ways limit the ability to assess all of the community's health needs.

For example, certain population groups such as the transient population, institutionalized people or those who only speak a language other than English or Spanish are not represented in the survey data. Other population groups such as lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups might not be identifiable or might not be represented in numbers sufficient for independent analysis.

Demographics

A pool of 1009 respondents completed the community assessment with approximately three-fourths of the assessments completed by females over the age of 18. Within the pool, the age distribution of respondents was very balanced. An estimated 77% of survey respondents were between the ages of 25 and 64 (Figure 152).

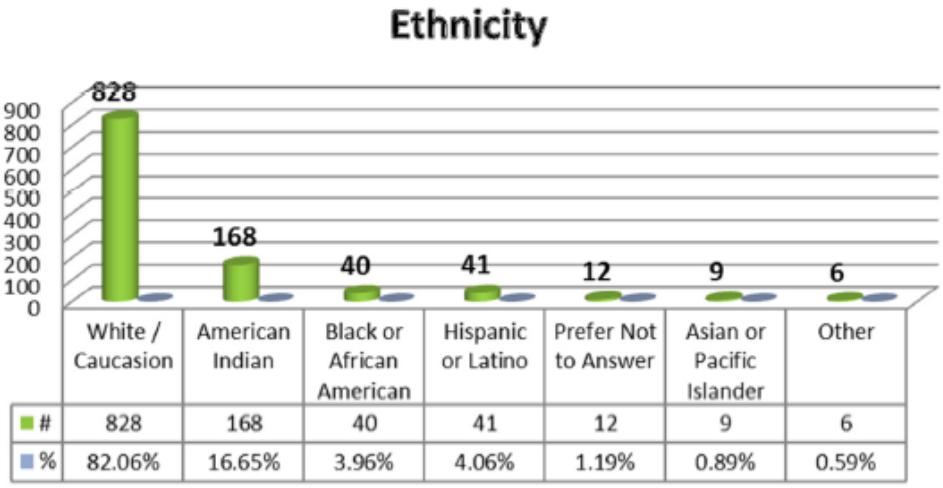
Figure 135: Sex and Age of Survey Respondents



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

The ethnicity of the respondents and the residences mirrored the ethnicity and populations represented in the 2010 U.S. Census as well as the 2012 survey conducted by the Washington County Health Department as part of its Community Health Improvement Plan (Figure 136 and Figure 137).

Figure 136: Race/Ethnicity of Survey Respondents



	White / Caucasion	American Indian	Black or African American	Hispanic or Latino	Prefer Not to Answer	Asian or Pacific Islander	Other
#	828	168	40	41	12	9	6
%	82.06%	16.65%	3.96%	4.06%	1.19%	0.89%	0.59%

Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

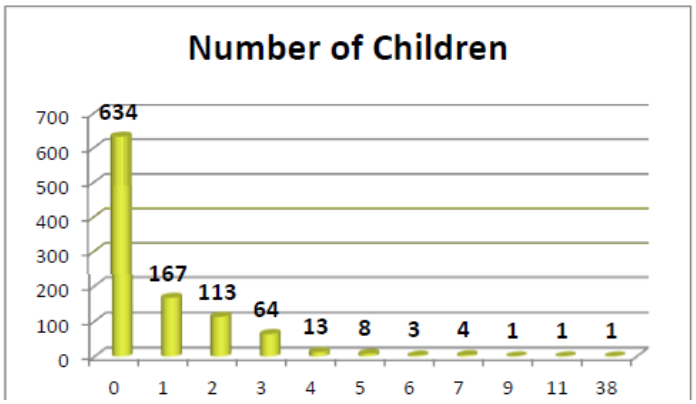
Figure 137: Respondent Race/Ethnicity Cohort Comparison

2012 CHIP REPORT (Washington County Health Department)			Washington County Wellness Initiative Community Assessment 2014-2015 (1001 Ethnicity Responses)	2010 CENSUS (Source: U.S. Census Bureau, 2010 Census)
Race	County	Oklahoma	WCWI Community Assessment	County
White Persons	79.60%	75.80%	82.06%	78.30%
Black Persons	3.00%	7.70%	3.96%	2.40%
American Indian	10.40%	8.90%	16.65%	10.30%
Asian Persons	1.20%	1.80%	0.89%	1.10%
Reporting >=2 races	5.70%	5.70%	10.60%	6.10%
Hispanic/Latino	5.40%	9.20%	4.06%	5.00%
White -not Hispanic	75.30%	68.20%	81.02%	75.90%

Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

The majority of respondents reported not having children. For respondents that did report having children, one to three children was the most commonly reporting number (Figure 155).

Figure 138: Reported Number of Children in the Household



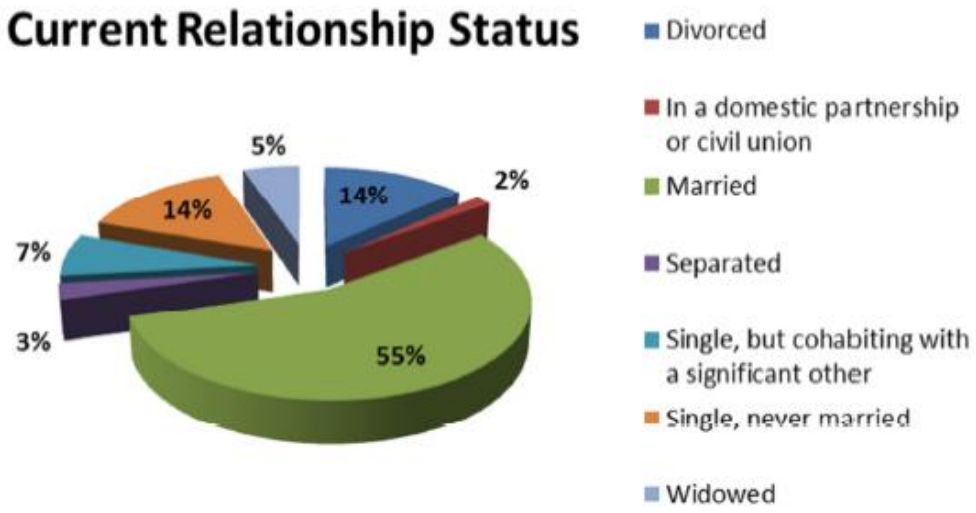
NOTE: The entry for 38 children is more likely an error than an actual data point. The entries for 9 and 11 did include the ages of these children so their entries are more likely to be accurate responses.

Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

In addition to basic demographic information, WCWI also gathered tribal affiliation, relationship status, education level, and employment status (for education level and employment status, see summary of finding s in following section). This data was used for cross-analysis of results. Fifty-five (55%) percent of respondents were married. Single, never married and divorced were the second highest response

categories within the pool (Figure 156).

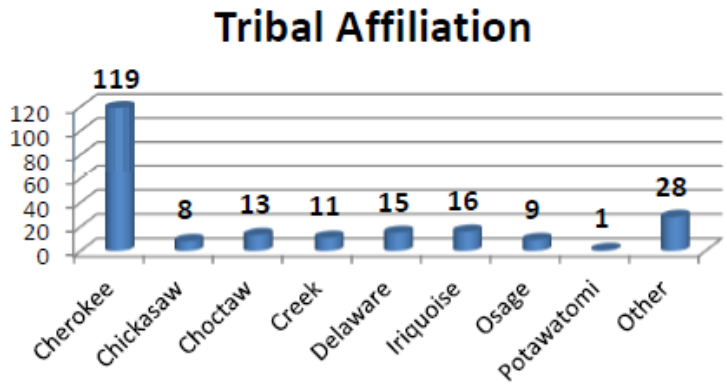
Figure 139: Current Relationship Status Reported by Survey Respondents



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

Over 16% of respondents reported a tribal affiliation. Most tribal affiliations were self-reported as Cherokee. Other tribal affiliations included Apache, Beau master, Blackfoot, Kaw, Kickapoo, Navajo, Peoria, Ponca, Sac and Fox, Seminole, Seneca, Shawnee, and Tonkawa (Figure 157).

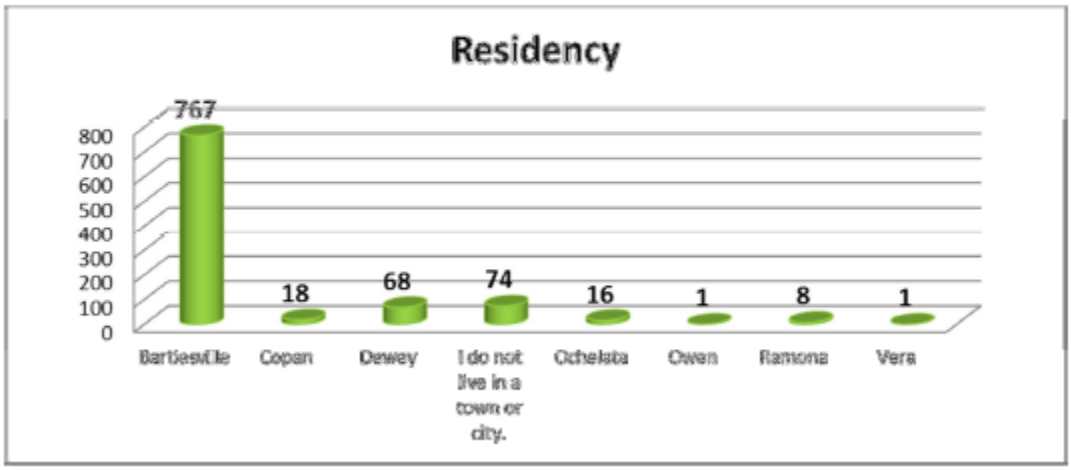
Figure 140: Tribal Affiliation of Survey Respondents



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

Respondents were primarily from Bartlesville, but residents from seven other geographic areas participated in the assessment (Figure 158).

Figure 141: Residency of Survey Respondents



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

SUMMARY OF FINDINGS

A summary of findings from the survey is provided below (Figure 159 and Table 25) :

Figure 142: 2014-2015 WCWI Community Assessment Survey Results

Washington County Wellness Initiative

COMMUNITY ASSESSMENT RESULTS

- 88 WCWI respondents reported being disabled as their "employment status"
- 13% of WCWI respondents have been Homeless within the last 10 years
- 63% of respondents report Washington County needs More Jobs

7% of WCWI respondents did not have a high school diploma or GED

25% of WCWI respondents were uninsured in the last year.
• 31% of WCWI respondents are currently living Below the Poverty Line • 45% of respondents receive some government assistance 
• 17% of respondents had to go without mental health services last year • 17.8% of respondents reported more than 10 Bad Physical Health Days in the Last Month • 8.5% of respondents reported more than 10 Bad Mental Health Days in the Last Month
• 57% of respondents had only 0 or 1 serving of fruit a day • 39% of respondents had only 0 or 1 serving of vegetables a day 
• 68% of respondents were trying to lose weight • Obesity was the fourth most reported health issue for respondents
There were 655 instances of respondents going without healthcare, dental care, and mental health care due to a lack of money. 
• 25% of respondents do not have a Primary Care Physician • 161 respondents used the Emergency Room last year for Healthcare

- Child Abuse and Child Neglect were identified as the #1 Community Health Issue by Respondents
- Safe programs for children was identified in the top four issues needing more services

Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

Table 35: 2014-2015 WCWI Community Assessment Survey Summary of Findings

DEMOGRAPHICS
1009 Respondents Included in Results
Respondent Pool mirrored 2000 U.S. Census
19.5% Resided outside Bartlesville
Unemployed and Looking for a Job? 8%
People with bachelor degrees are more likely to be fully employed
People without a car rely on Friends & Family first and then CityRide Circuit (Quarter Bus)

FINANCIAL FINDINGS
31% Live **Below Poverty Line**
45% Receive Some **Government Assistance**
NOT ENOUGH MONEY FOR ESSENTIALS? 44%
LACK OF MONEY = LACK OF SERVICES 655 TIMES (Healthcare, Dental Care, and Mental Health Care)
TOP 3 BARRIERS TO HEALTHCARE: Insurance/Ability to Pay, Transportation, and Hours of Available Service
NO Personal Car? 167 Respondents
HOMELESS WITHIN THE LAST 10 YEARS? 13%
SKIPPED DOCTOR because NO Money: 33%
SKIPPED EYE CARE because of NO Money: 32%
SKIPPED MENTAL HEALTH CARE because of NO Money: 17%
SKIPPED DENTAL CARE because of NO Money: 38%

COMMUNITY PERCEPTIONS
HIGH RISK SUBSTANCES: Meth, Alcohol, and Prescription Drugs
FEEL **EXTREMELY SAFE**? Only 12%
WHAT SERVICES DO WE NEED: Transportation, Affordable Housing, Substance Abuse Treatment, and Safe Programs for Children
NEIGHBORHOODS NEED: Road Maintenance & Repair, Lack of Public Transportation, and Crime Patrols & Neighborhood Watches
TOP 4 COMMUNITY ISSUES that need more attention: Clean Water & Clean Air
Drug/Alcohol Abuse is the **TOP Community Health Danger**
91 People HAD a **STRONG** Sense of Community
74% of Respondents believe **Government** is at least moderately effective at problem solving
TOP FAMILY ISSUE: Economics, Financial, and Budgeting
IT'S **NOT EASY** for the DISABLED TO GET AROUND: 49%
People MAINLY **RELY on People** for Information - Internet is Secondary Source
Good Place to **Grow Old**? 80% of Seniors (65+) say YES

PREVENTATIVE HEALTH
NEVER HAD a **Check-Up**: 100
NEVER HAD **Blood Pressure** Checked: 47
NEVER HAD **Blood Sugar** Checked: 220
NEVER HAD a **Clinical Breast Exam** (Only Women): 148
NEVER HAD a **Pap Test** (Only Women): 96
NEVER HAD a **Mammogram** (Only Women 44 and Older): 51

Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

HEALTH ISSUES
5 TOP PERSONAL HEALTH ISSUES: Stress/Depression, High Blood Pressure, Arthritis, Obesity, and Dental Problems
NO Personal Doctor? 25%
TOP 5 HEALTH ISSUES: Child Abuse/Neglect, Domestic Violence, Aging, Mental Health, and Teenage Pregnancy
TRYING TO **LOSE WEIGHT**? 63%
20% feel only **Moderately** or **Slightly** Healthy
PAIN kept 160 respondents from USUAL activities for 10 or MORE DAYS LAST MONTH
42 Respondents were in the **Emergency Room 4 or more times** Last Year
DO NOT Have a Doctor: 224
165 People **Travel MORE THAN 30 Miles** for Healthcare
165 People **Used the ER** Last Year
POOR Teeth & Gums: 11%
NO Fruits Each Day: 145
NO Veggies Each Day: 45
Started Smoking between age 7 and 52: 193 Respondents
HAVE NOT Heard of "**Medical Home**": 697
OKLAHOMA **RANKS 46th** in OVERALL HEALTH OUTCOMES
NO Health Insurance in Last Year: 25%
271 People PAY for their **HEALTH INSURANCE**

Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

HEALTHY PEOPLE

General Health Status

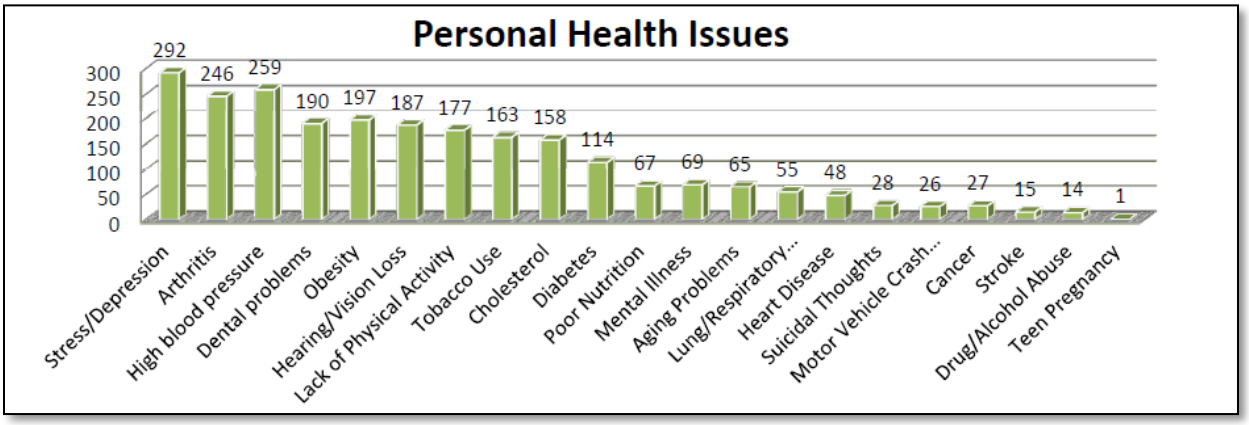
Measures of general health are often used as indicators of health-related quality of life. Poor self-reported health status and high self-reported stress can be indicators of poor physical and mental health, which can contribute to a lower quality of life. Chronic diseases, mental health disorders, and other health-related conditions can cause disability and premature death, and can also have economic consequences for the individual as well as a community.[128]

[128] U.S. Department of Health and Human Services, Office Disease Prevention and Health Promotion. (2015). *Healthy People: 2020*. Retrieved from: http://www.healthypeople.gov/2020/about/foundation-health-measures/General-Health-Status#top.

Personal Health Issues

The following graph shows reported personal health in Washington County, based on survey respondents. Stress and depression were the top personal health issue according to respondents (Figure 160).

Figure 143: Personal Health Issues



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

HEALTHY COMMUNITIES

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect health and quality of life, both positively and negatively. Conditions in these various environments and communities have been referred to as "place." "Place" can refer to material attributes of a community, as well as social engagement and sense of security and well-being that a person feels in their community. The conditions in which we live can help explain why some individuals are healthier than others and why some are not as healthy as they could be. Resources that enhance quality of life, such as safe and affordable housing, public safety, and availability of healthy foods, can have significant impacts on the health outcomes of a population.[129]

Acceptability and Perceptions of a Healthy Community

According to the *Healthy People 2010* report, a healthy community is one that "continuously creates and improves both its physical and social environments, helping people to support one another in aspects

[129] U.S. Department of Health and Human Services, Office Disease Prevention and Health Promotion. (2015). *Healthy People: 2020*. Retrieved from: http://www.healthypeople.gov/2020/about/foundation-health-measures/General-Health-Status#top.

of daily life and to develop to their fullest potential."[130] Healthy places are designed and built to improve the quality of life for all people who live, work, worship, learn, and play there by providing healthy, available, accessible, and affordable options.[131]

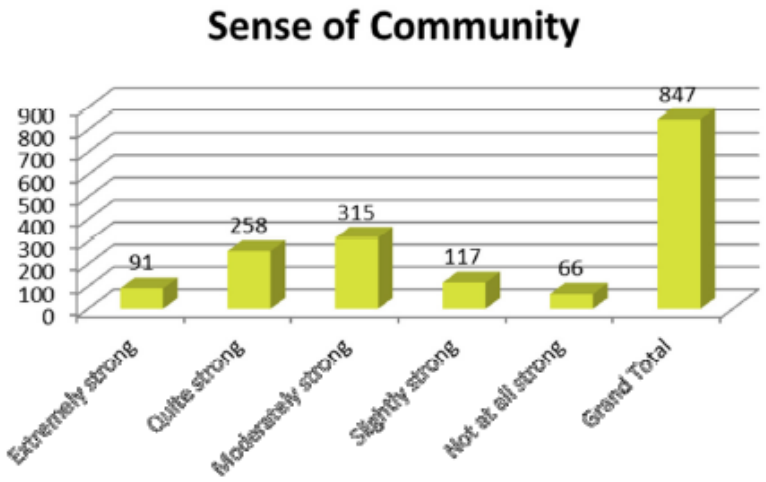
Community Safety and Perceptions

Community health perceptions are used to determine how an individual feels about their community and also to identify areas for improvement and concern. Unsafe communities can cause anxiety, depression, and stress, and are also linked to higher rates of pre-term births and low birth weight babies. Fear of violence can also keep people indoors and away from neighbors, exercise, and healthy foods.[132] Safe neighborhoods can promote healthy behaviors and strong social support, which is linked to improved health outcomes.[133]

Sense of Community

The majority of survey respondents reporting having a 'moderately strong ' or 'quite strong' sense of community (Figure 161).

Figure 144: Sense of Community



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

[130] U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2000). *Healthy People 2010. Part 7: Educational and community based programs*. Retrieved from: http://healthypeople.gov/2020/topicsobjectives2020/ DataDetails.aspx?topicId=11.

[131] U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (2015). *About Healthy Places*. Retrieved from: http://www.cdc.gov/healthyplaces/about.htm.

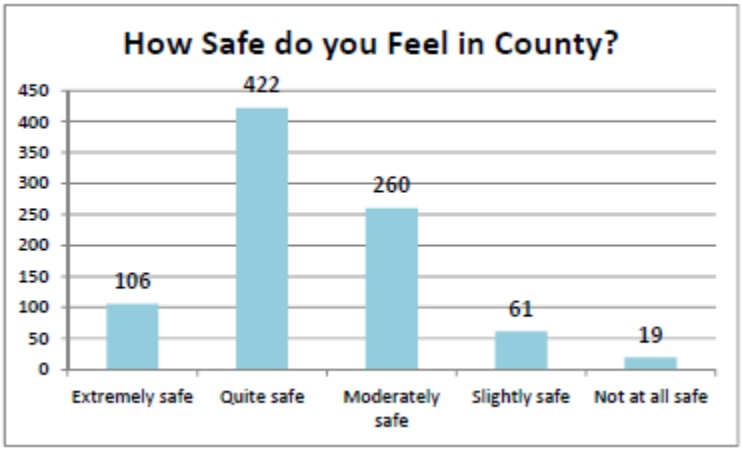
[132] University of Wisconsin Population Health Institute, County Health Rankings & Roadmaps (2015). *Community Safety*. Retrieved from: http://www.countyhealthrankings.org/our-approach/health-factors/community-safety.

[133] University of Wisconsin Population Health Institute, County Health Rankings & Roadmaps (2015). *Family and Societal Support.* Retrieved from: http://www.countyhealthrankings.org/our-approach/health-factors/family-and-social-support.

Personal Safety within Community

Overall the survey respondents seemed to feel their community was somewhat safe as approximately 422 respondents reported feeling 'quite safe' in their community and 260 respondents reported feeling 'moderately safe.' However, only 12% of respondents reported feeling 'extremely safe' in the community. (Figure 162).

Figure 145: Community Safety Perceptions of Survey Respondents

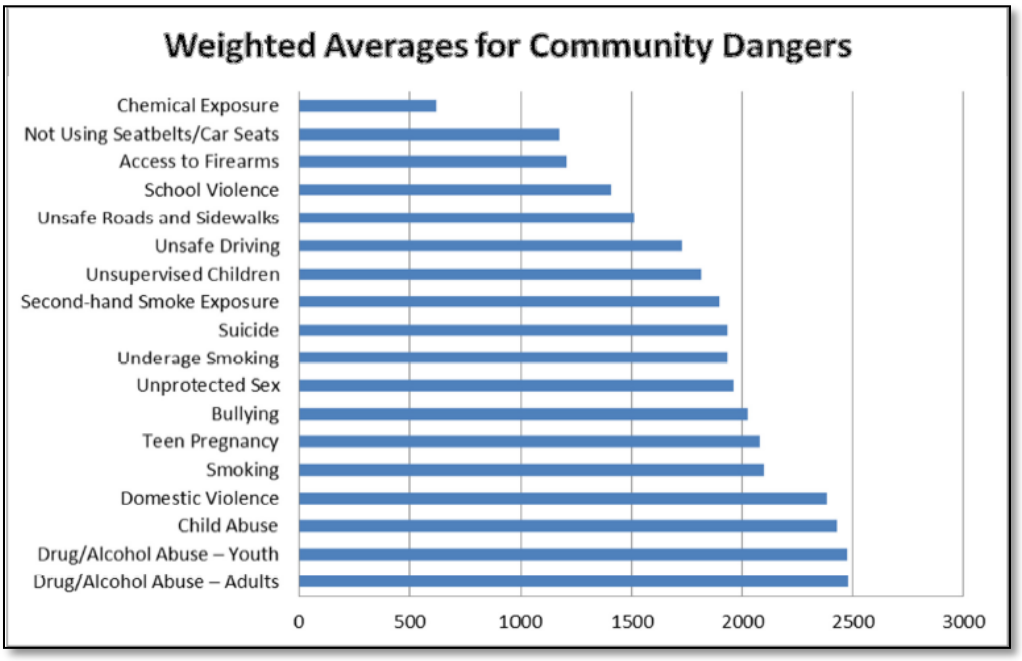


Only 12% of our respondents feel extremely safe in Washington County.

Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

The following graph shows reported community dangers in Washington County, based on survey respondents. Drug and alcohol use were the top community danger according to respondents (Figure 163).

Figure 146: Survey Respondents Perceptions of Community Dangers



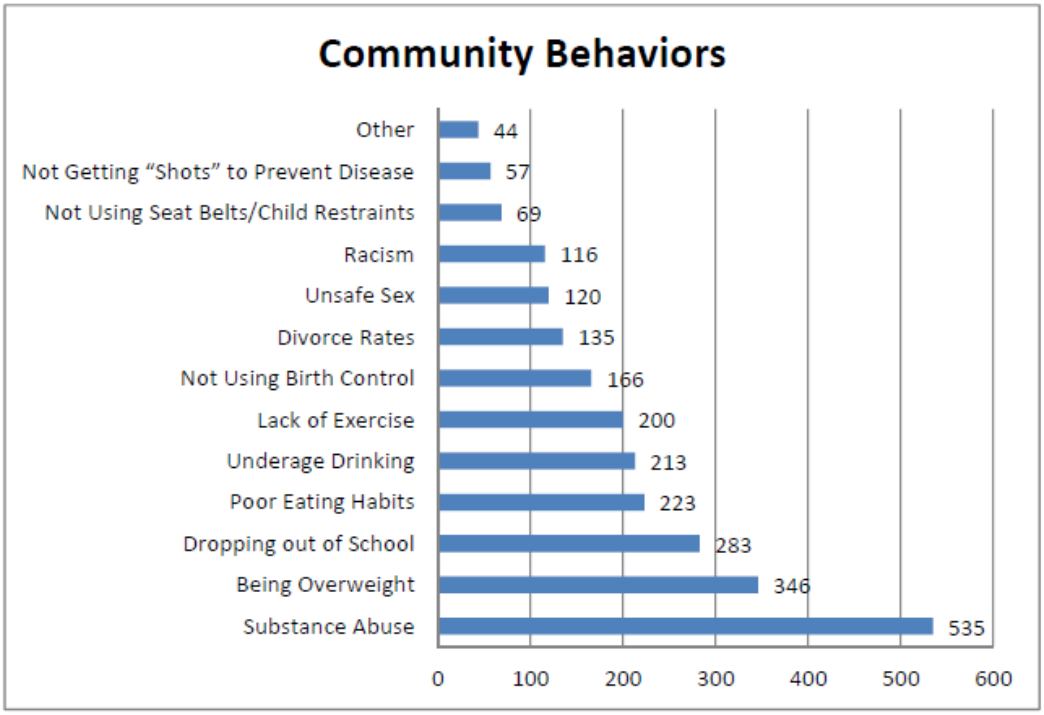
Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

Healthy Behaviors

Identifying healthy (and unhealthy) behaviors in a population allows for interventions that promote prevention activities. All of these health behaviors may have long lasting health and economic consequences with regard to chronic disease and potential death, which is information that the health department and its partners can use to target high risk populations.

The following chart represents the health behaviors of the community based on survey respondents. Substance abuse and being overweight ranked as the highest community behaviors of concern (Figure 164).

Figure 147: Survey Respondents Perceptions of Health Behaviors of Community

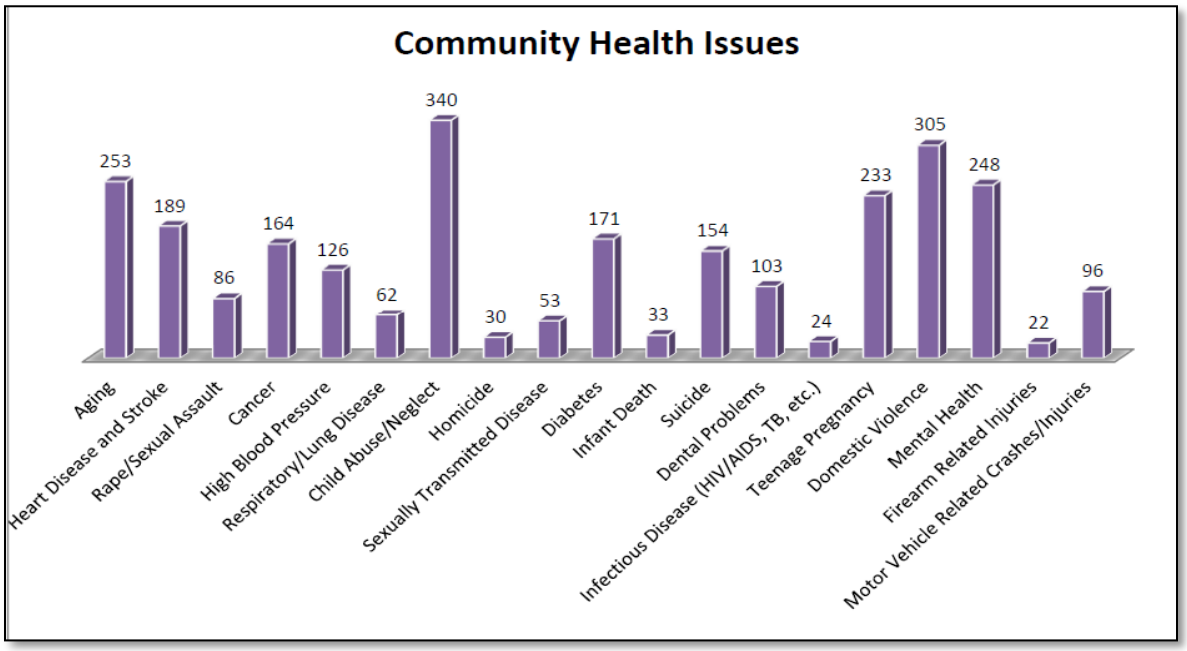


Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

Community Health Concerns

Survey respondents were asked about what they perceive as community health concerns. The following graph shows reported health concerns in Washington County and rankings, based on survey respondents. The top five health issues were child abuse/neglect, domestic violence, aging, mental health, and teenage pregnancy. According to 731 respondents, interpersonal violence issues (child abuse, domestic violence, and rape/sexual assault) are the leading community health issue. When similar issues were consolidated together (e.g. different types of chronic disease), behavioral health and chronic disease are also ranked as top health issues (Figure 165).

Figure 148: Survey Respondents Perceptions of Community Health Issues



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

Access to Health Services

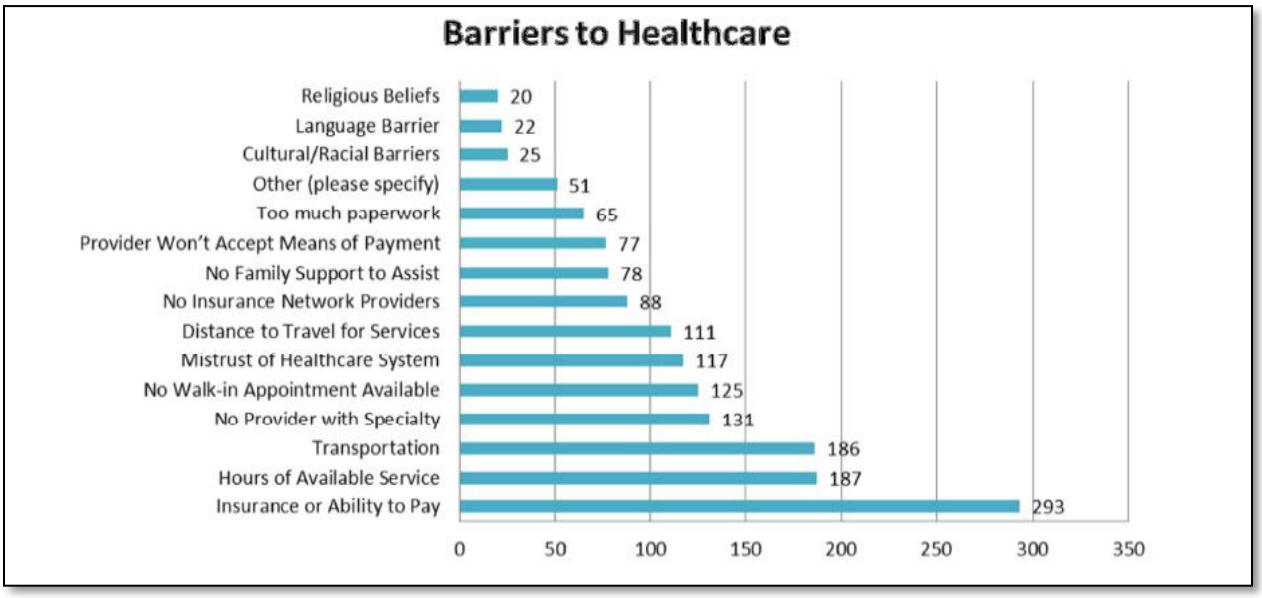
Access to comprehensive, quality health services is necessary for health equity and a healthy quality of life for individuals in our community. Access to health care can impact physical, social and mental health, disease and disability prevention, and life expectancy, among other things. In order to achieve this, individuals must gain entry into the health care system, find a health care location with their needed services, and find a provider with whom they can communicate and trust. Each of these actions comes with unique barriers that can hinder access to care.[121]

Healthcare Coverage and Barriers to Care

Barriers to services include lack of availability, high cost, and lack of insurance coverage. Uninsured people are less likely to receive medical care, more likely to die early, and more likely to have poor health status. Current policy efforts focus on the provision of insurance coverage as the principal means of ensuring access to health care among the general population.

Survey respondents rated insurance or inability to pay as the most likely reason for not getting health care. Hours of available service, transportation, no provider with specialty, and no walk-in appointments available were also top reported barriers to receiving care (Figure 166).

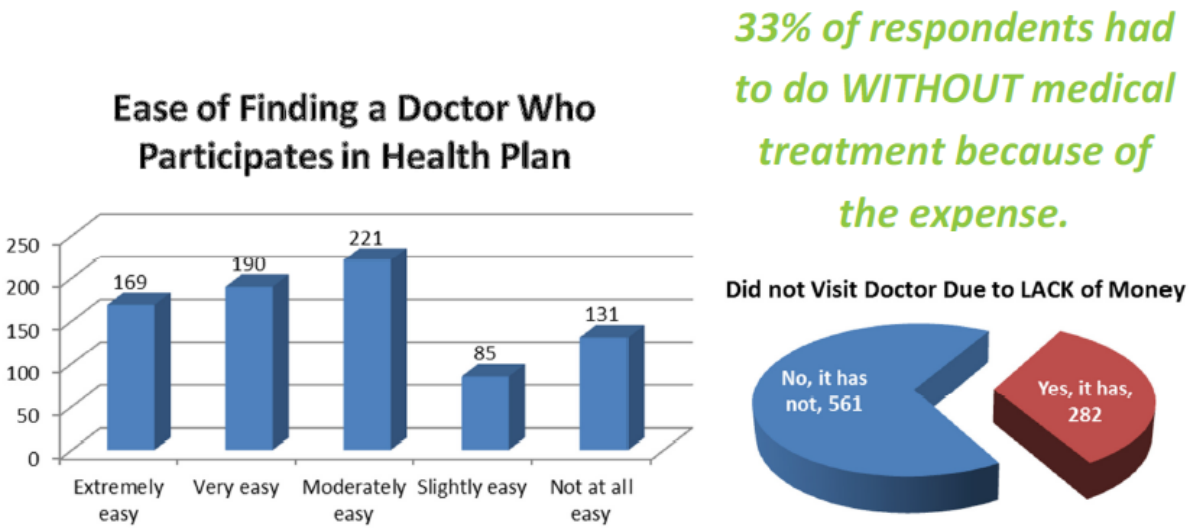
Figure 149: Barriers to Healthcare per Survey Respondents



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

The majority of survey respondents reported that it was 'moderately easy' or 'very easy' to find a doctor who participates in their health plan. Approximately 33 percent of respondents reporting having to do without medical treatment due to the expense (Figure 167).

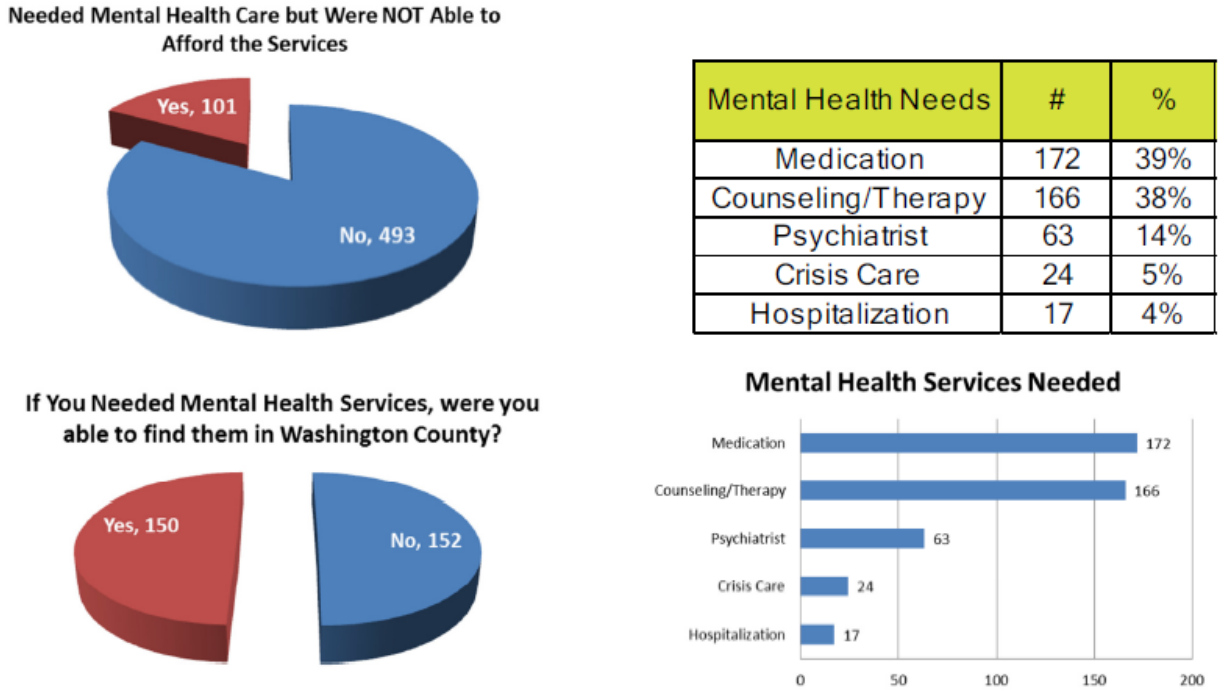
Figure 150: Two Types of Barriers to Health Care



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

An estimated 17 percent of respondents reported having to do without mental health services because of the expense. Of those needing mental health services, approximately 50% were unable to find a provider in Washington County. This is in stark contrast to the mental health needs reported (Figure 168).

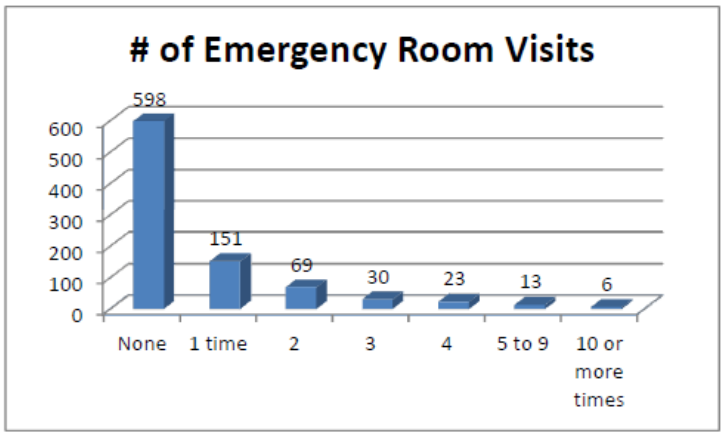
Figure 151: Barriers to Mental Healthcare Services



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

The majority of respondents reported no Emergency Room visits in the last year. Emergency visits at Jane Phillips Medical Center have been on the decline, but are still in need of reduction (Figure 169).

Figure 152: Emergency Room Visits



Jane Phillips Medical Center reports the following number of Emergency Room Visits over the last three years:

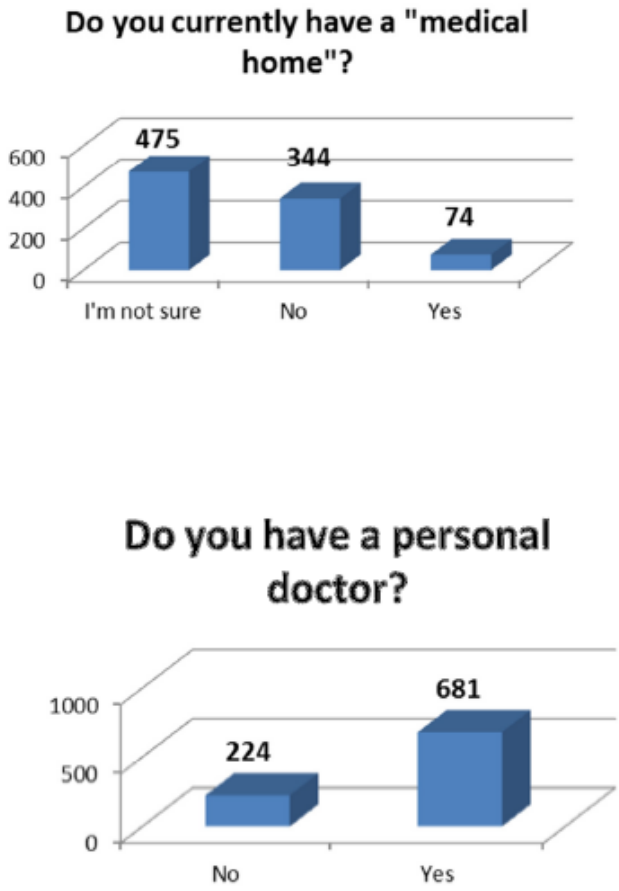
2012 - 39,975
2013 - 35,557
2014 - 35,255

Although the number of Emergency Room visits is on the decline, when more residents establish a medical home, the ER visit total should be reduced by an even larger percentage.

Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

The majority of respondents reported either being unsure or not having access to a medical home. From the data provided, 224 of respondents need to establish a personal doctor. (Figure 170).

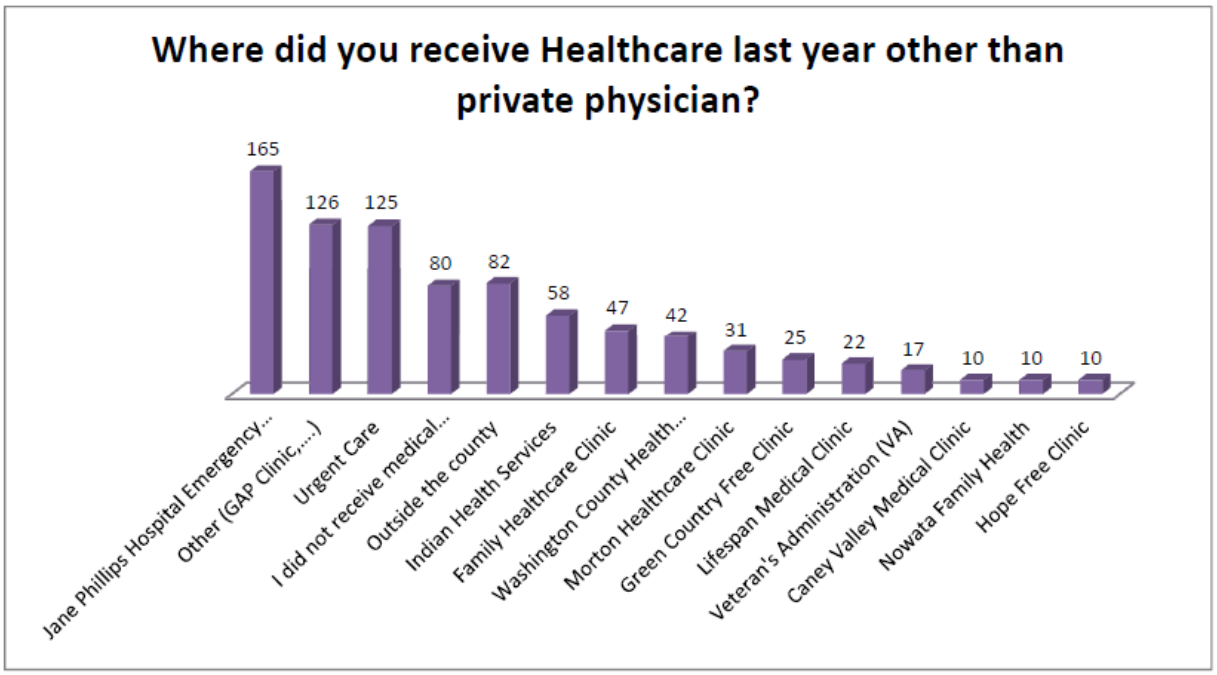
Figure 153: Medical Home and Personal Doctor Utilization



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

The majority of survey respondents reporting receiving healthcare services from Jane Phillips Medical Center in the last year. Other healthcare providers such as the GAP clinic and urgent care were also common places of care as reported (Figure 171).

Figure 154: Places where Healthcare was Received in the Last Year



Source: Courtesy of the Washington County Wellness Initiative. (2015). *2014-2015 Community Assessment*. Retrieved from: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob.

COMMUNITY INPUT MEETING

On April 19, 2016, a total of 16 community leaders and representatives participated in a community input meeting conducted at Jane Phillips Medical Center. The purpose of this meeting was to solicit community input from persons representing the broad interests of the community, especially those most in need. The meeting was intended to obtain community input specific to the hospital and surrounding community of Creek County.

COMMUNITY INPUT MEETING DESIGN

Approximately 20 local community health leaders and representatives were invited and sixteen of the invitees attended the meeting. The meeting took place over a two hour period and consisted of four main exercises:

1. Hospital assessment exercise
2. Nominal group exercise to validate and prioritize health needs based on top health needs identified
3. Community perception group exercise
4. Community capacity assessment exercise

Each participant was asked to give a brief introduction to the group at the beginning of the meeting. A PowerPoint presentation and overview of the community health needs assessment process was also conducted at the beginning of the session to orient attendees. Following the presentation, the group was asked to engage in a hospital assessment exercise through discussion. Participants were asked two questions about their community perceptions of Jane Phillips Medical Center in terms of community health improvement strengths and opportunities. Flip charts were utilized to record input.

In order to identify, validate, and prioritize significant community health needs, participants were engaged in a nominal group exercise using wall charts and post-it notes to number and rank significant health concerns identified. A total of six concerns were selected as the top health concerns of the community to have the participants prioritize and included:

- Poor Diet and Physical Inactivity
- Mental Health
- Alcohol and Drug Use
- Tobacco Use
- Access to Health Care
- Chronic Disease

Following the nominal group exercise, participants broke up into groups of four-five to complete a community perception exercise as a group. Participants were asked to identify the top three things that make them proud of their community and the top three things that they would like to change about the community. Answers were discussed and recorded as a group on index note cards.

The last exercise consisted of community capacity exercise. Participants were asked to identify existing organizational assets (organizations, programs, services, resources, etc.) in the community that can be used to address the top six identified health needs. A pre-filled excel spreadsheet was projected on to the projection screen. As participants offered information on available assets, the information was entered into the grid on the spreadsheet.

COMMUNITY INPUT MEETING OBJECTIVES

The main objectives of hosting a community input meeting at the hospital were as follows:

1. Solicit community input and facilitate dialogue;
2. Engage community stakeholders ;
3. Initiate or strengthen partnerships and collaboration;
4. Identify community perceptions of Jane Phillips Medical Center in terms of community health improvement strengths and opportunities ;
5. Determine top and prioritize top community health concerns; and
6. Assess the availability and types of resources and assets within the community to address top community health needs.

COMMUNITY INPUT MEETING PARTICIPANTS

The participant constituency was diverse and included those with professional experience and/or the ability to represent populations which are medically underserved, low-income, minority and/or with chronic disease needs. Community representatives and leaders also included those with special knowledge of and/or expertise in public health. Participants represented areas of healthcare services, law enforcement, education, non-profit agencies, faith communities, government representatives, safety net service providers, economic and workforce development, mental/behavioral health services, housing and homelessness and other interest groups working with vulnerable populations.

COMMUNITY INPUT MEETING FINDINGS

The following sections provide summaries of findings from the three of the four exercises completed with community leaders and representatives:

Community Input Group Discussion – Compilation of Answers

Question 1: What is Jane Phillips Medical Center doing well that improves the health of the community?

- Project Fit America (elementary schools)
- FLOWCO
- Education Efforts/PR
- Service to North
- Training of students
- Disaster Response training
- Red Cross
- Support of Community
- Wellness Connection
- OB Care
- Rx for Cancer patients / access – Cancer Care
- Awarded-winning heart care
- E.R.
- Quality, Compassionate Care
- CCTT / TCU
- Diabetes Education
- Pulmonary/cardiac rehab

Question 2: What opportunities exist for Jane Phillips Medical Center to improve the health of the Community?

- Access to Primary Care
- Shortage of Doctors
    - Accept Insurance

    - More Networks
- Mental Health (Adults & Children)
- Mental Health Crisis Center
- Prevention Efforts – Child Abuse
- Inpatient Capacity – MH
- Drug / Alcohol Treatment
- Outreach to Schools / Community
- VA Care – distance to access
- Suicide Prevention
- Access to Child Specialty Care (Neurology, psychiatric, etc.)
    - Often have to use telemedicine
- MH Court

Community Perception Group Exercise – Compilation of Answers

Question 1: If you had the power to change anything in the community, what are the top three things you would change to improve the health of the community?

- Environment – Safe environment for people to be active – park systems, trails, Police/Fire Safety
- Diet – Where to buy healthy food and eat healthy food; restaurants
- Opportunities for movement/exercise in the summer that's out of the heat
- Resources – book to know where to go or how to access resources
- Transportation – barrier
- Community collaboration
- Everyone with a need would have access to any service in the community: mental health, chronic disease, pediatrics, etc.
- Eliminate tobacco use
- Empower community to take ownership of their health: weight loss/exercise, diet
- Access to health care: expand networks accepted, more doctors
- Mental Health – more facilities for real treatment and help
- Education and prevention with kids

Question 2: What are the top three things about the community that you are proud of?

- Educational level of the community and number of professionals with advanced degrees
- Community involvement
- Hopestone Center, Run the Streets program, Paths to Independence
- Community Center offerings (Broadway Musicals), OK Mozart, Sunfest Festivals
- The quality of our facilities, doctors and staff for a town our size
- The community's generosity to help with both money and time

- Connection/collaboration of community to address and solve problems – our community resources
- Small community / still has a hospital
- Eldercare facility to help with many elder needs
- Outstanding cardiac/oncology care
- Great corporate support in the community – funds many outreach programs

Prioritized Community Health Concerns

The following list shows the top six health concerns as prioritized by community leaders and representatives in the meeting (listed in order of highest to lowest prioritization).

1. Mental Health
2. Alcohol/Drug Abuse
3. Access to Health Care
4. Poor Diet/Inactivity
5. Chronic Disease
6. Tobacco Use

**Health Education/Health Literacy and Aging Problems were also raised as a health concerns throughout meeting discussion.*

For more detailed information on the prioritization methodology utilized to confirm this ranking, please see the Jane Phillips Medical Center Community Input Meeting Prioritization of Community Health Concerns in the Appendices. The community capacity assessment exercise is summarized in the "Resources and Assets Section".

WCWI COMMUNIT INPUT SURVEY

A community input survey of Washington Count Wellness Initiative workgroup members was conducted via SurveyMonkey and email. The survey designed to be supplemental to the hospital's community input meeting and utilized the same questions and methodology to obtain input as the meeting. Approximately 30 workgroup members participated in the survey.

A summary of the survey responses is as follows:

What is Jane Phillips Medical Center doing well that improves the health of the community?
Treat the sick
They offer good facilities and service for a community this size
Being here and maintaining quality health care as the only hospital in town is huge
It is actually located here
Participate in community coalitions such as the Washington County Wellness Initiative, Access to Health Care Committee, Washington County Anti-Drug Network, Washington County Transportation Coalition and Preventative Health Partnership. FLOWCO, Project Fit America, Diabetes Education, fitness center are all excellent examples of how JPMC is helping improve our community
Offers exercise area for community use
Starting the new program of follow-up post hospital discharge
Meeting urgent medical needs requiring hospitalization
Helping with health needs
Available for relative quick access to medical care
Trying to get more doctors in Bartlesville
Diabetes workshops and one on one attention
They not only help physically ill people, but the mentally ill and elderly
Partnering up with Hope Clinic
It is located locally
Great cardiac care
Breastfeeding support
Reaching out to the community for input on the current health needs is a positive step to improve community relations.
Wellness programs that are available to community

What opportunities exist for Jane Phillips Medical Center to improve the health of the community?
Not sure
Need more services for the poor and those without insurance. Also transportation to those services is a problem for many
Finding good doctors and keeping them instead of poor relationships with the health system cause them to leave. This is a major problem
Better quality care before dismissal
Participating in community health improvement efforts is critical. By looking at not just our community health data, but also the social health indicators, it helps us mobilize partnerships to increase efforts on needs that are identified
Help to educate the community on having a "Medical Home"
The waiting time in the ER can be hours long at times. Also create a new mental health/substance abuse outpatient list that is up to date and used consistently.
Check into the hospital
Better mental health service
More specialists! Or... more than one specialist
Nutrition info, stop smoking classes, walking & workout seminars
We need more doctors and more that take Medicaid
They are getting a reputation of misdiagnosis in the ER
Increase education for diabetics (What is available is very good I am told), increase alternatives to ER
Communicating via the mail and/or social media. The newspaper seems to be the only way they are communicating and readership is low
Transportation is a major need within the community as is access to preventative health care and medical homes for un- and under-insured citizens
Offer free Diabetes classes

If you had the power to change anything in the community, what are the top three things you would change to improve the health of the community?		
#1 Change to Improve Health of the Community	*# 2 Change to Improve Health of the Community*	*# 3 Change to Improve Health of the Community*
A father and mother present in each family unit.	Establish meaningful jobs to support the family.	Eliminate meth, heroin and cocaine usage
Less fast food restaurants	More sidewalks making it easier to walk in neighborhoods.	Need more doctors - many of the current ones are not accepting new patients.
Sustained funding for an expanded transportation system which would make health care more available for everyone.	Better mental health services	Freedom for doctors to serve women and the dying without interference from St. John and Ascension
Encourage workers to quit smoking	Stop tobacco sales	Stop sales of e-cigarettes and smokeless tobacco
Provide a comprehensive public transit system that is affordable and accessible	Support local efforts such as the Washington County Wellness Initiative that assess community health and mobilize partners to take action on needs that are identified	Increase access to physical, mental, dental, medication, drug treatment and eye care for those who can't afford them
Give (educate) people the understanding of being responsible for their own health	Review at time of discharge available substance abuse options	Have better follow up plans for outpatient mental health
Recruit an additional psychiatrist or mid-level for the hospital	Mental Health	Weight due to poor diet & inactivity
Alcohol/ Drug Abuse	Hospital beds available for immediate psych needs	More education for community
Better medication services for mental health patients	Better access to specialists	Education for eating and exercise
More recreational resources	More Education on Health Issues	Free access to exercise areas for all people
Lower cost for health care	A simple walking class, maybe free to the public on some of our many paths, in different areas of town	If people had to pay out of their pocket for meds, etc. for problems stemming from obesity, drug abuse, and lack of exercise, the community would look different!

Better Mental Health Care Accessibility	Help with the needy who cannot afford their care for chronic disease.	Mental Health and suicide prevention.
No use of food stamps for candy, starches, pop, etc.	Free smoking cessation classes	depression warning system - not sure how, but working with doctors and clinics
Access to Healthcare	Increase the number of physicians	Increase public transportation
offer vouchers for fresh produce from the farmers' market	More parks and green spaces	Build a community health facility that is funded by the city (or non-profit) and open to all
Start a movement to decrease Obesity	Coordinated Response to Substance Misuse/Abuse Issues	Increased support from local governmental agencies and business entities
More sidewalks; make it easy and safe for pedestrians and bikers.	Increase awareness of currently available programs	More transportation for medical services
Coordinated Response to Mental Health Issues	I	
Free health care		

What are the top three things about the community that you are proud of?		
First	*Second*	*Third*
Churches	Schools	Availability of professional Medical care
We have a lot of amenities not usually available in a community this size.	Affordable housing and cost of living.	Smaller community means that I spend less time driving to work or running errands giving me more time to spend on things that matter to me.
Programs helping people out of poverty	The generosity of the people of Bartlesville	The school system
Park and trails	Doenges Stadium	Price Tower
I am proud of the way so many individuals and organizations in our community are passionate about helping those who are less fortunate	I like the way businesses provide not only community giving programs but encourage their employees to get involved in making a difference	We have had several physicians who value community health such as Dr. Michael Woods
We have access to care for low income patients	We have many who give of their time and money to support our community	There are many activities to get involved in (free and low priced)
Willingness to help	Volunteerism	Parks
Artistic Appreciation opportunities	Willingness to serve others	Supporting their own
Sense of pride	Christian faith still strong	Vocational opportunities
Local people	Our cardiac doctors	Amount of bikers that bike in the area

Pathfinder walking trail	Exercise space--Silver Sneakers, etc.	Pathfinder and Lee Lake
Diabetes Education	Pathfinder Parkway	Eldercare
The many helping organizations in Wash. County	All the generosity of giving monetarily and time people give to volunteer.	The amount of culture and heart that most have to constantly want to improve our community
All the non-profits that help the community to meet their needs	Price Tower	Downtown
Parks	That we have some great physicians	Specialty care like cardiac and cancer care available in our community
That we have a thriving hospital	OK Mozart, Indian Summer and other festivals	Lots of activities offered throughout the year
Lots of landmarks and unique restaurants	Opportunities for Service to the Community	Location -- Beautiful Part of the State
Some Incredibly Active and Engaged Citizens	Health Dept.	Health Fairs
FlowCo		

Health Needs: Level of Priority You Would Like to See Them Addressed					
#1 Priority	**#2 Priority**	**#3 Priority**	**#4 Priority**	**#5 Priority**	**#6 Priority**
Tobacco Use	*Alcohol/Drug Abuse*	*Chronic Disease*	*Poor Diet/Inactivity*	*Mental Health*	*Access to Healthcare*

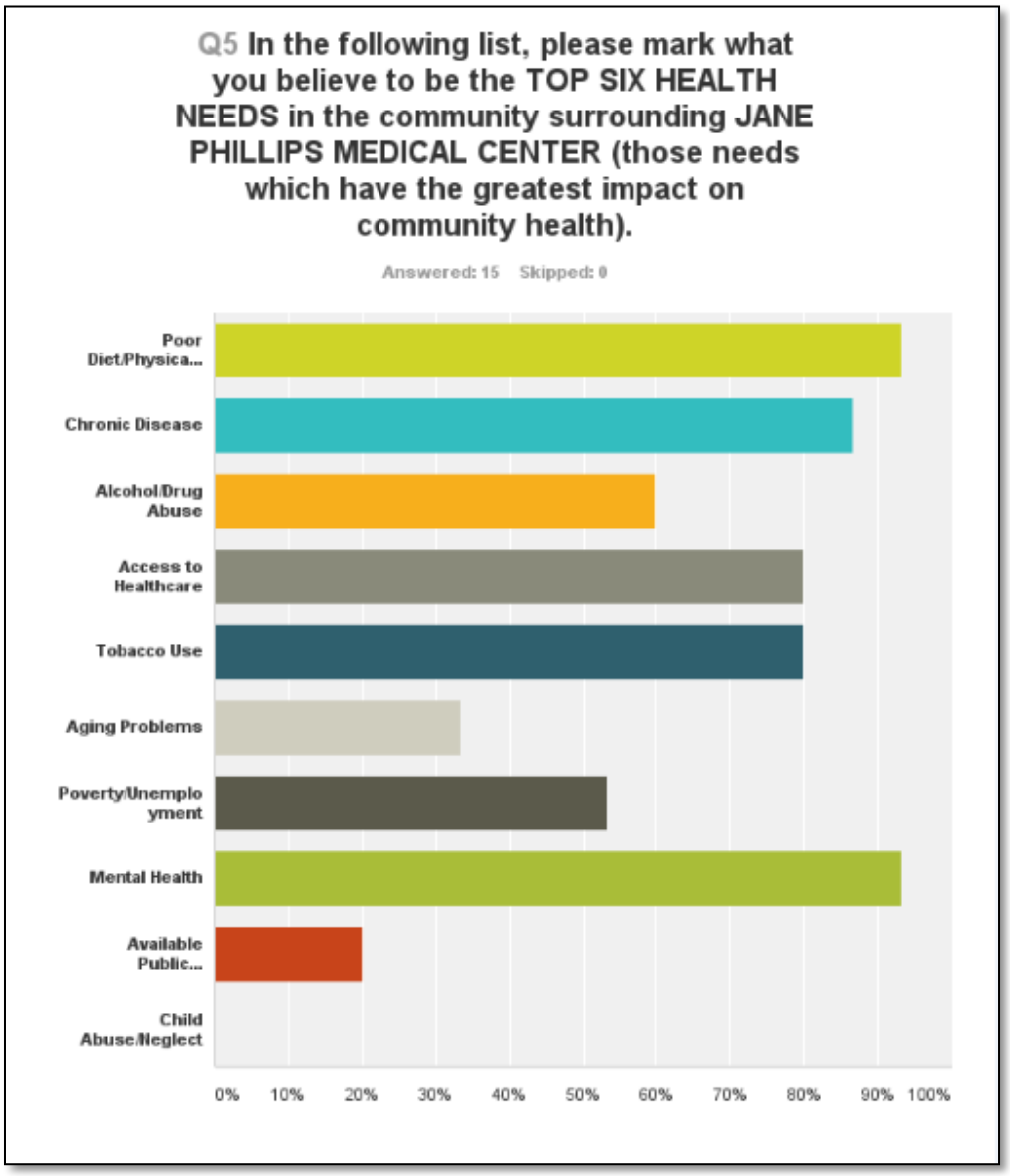
Additional comments about health needs of the Washington County community
Responsible Health Care programs to protect the abused children in the home. Too much pressure on budget costs to protect our youth in terrible part home relationships.
Need to keep religion out the health care services at JPMC. Freedom of religion does not give the hospital the right to impose their beliefs on everyone in the community.
I should have mentioned the out of control obesity in Bartlesville. Again, potential for a great hospital, but more active respect for relationships -- with doctors, women and the poor.
I think it is important for community folks to work closely with the medical community to stay abreast of community health needs and trends that affect the population
Drugs are out of control. Inconsistent law enforcement & preferential treatment of drug & alcohol related infractions (i.e.: racial discrimination). Lack of nightlife possibilities for high school and young adult. Teen pregnancy!
Maintain the community hospital spirit and not corporate image
Maybe a "Be Healthy, Stay Healthy" class. Grocery shopping lists for healthy eating class.
We need more awareness and exposure of all the non-profits that help people in need.
I am concerned about obesity and diabetes and I am also concerned about drug use
Engagement and support of organizations and individuals with access to much needed resources are necessary before any major shifts/evolution in the health and well-being of the entire community will be realized.

CHNA ADVISORY GROUP AND HEALTH SYSTEM LEADERSHIP INPUT

A Community Health Needs Assessment (CHNA) Advisory Group was formed in the beginning of this assessment process to provide direction, input, and guidance. This group met several times during the process between February and May 2016. Group membership consisted of thirteen key representatives from hospital facilities, St. John Clinic, and departments throughout the health system. These members assisted with the design and coordination of the hospital community health input meetings and also helped to compile information and data related to our evaluation of impact from our 2013 community health needs assessment process. Additional members of hospital and health system leadership were also engaged to provide input and guidance throughout the process. A listing of the CHNA Advisory Group members and hospital/health system leadership that contributed to this process is available in the Acknowledgements section at the beginning of this report.

A short community health needs prioritization survey was emailed to CHNA Advisory Group members and hospital/health system leadership via SurveyMonkey in April 2016. A total of fifteen members and leadership responded to the survey (Figure 155).

Figure 155: Survey of CHNA Advisory Group and Health System Leadership to Prioritize Needs



The following list shows the top six health concerns among the health system CHNA Advisory Group and leadership for each hospital (*listed in order of highest to lowest prioritization, but it is important to note some concerns tied in terms of the number of individuals reporting them as a problem):

- *Poor Diet/Inactivity
- *Mental Health
- Chronic Disease

- **Access to Health Care
- **Tobacco Use
- Alcohol/Drug Abuse

Tied for top priority (14 responses each)
Tied for the third highest priority (12 responses each)

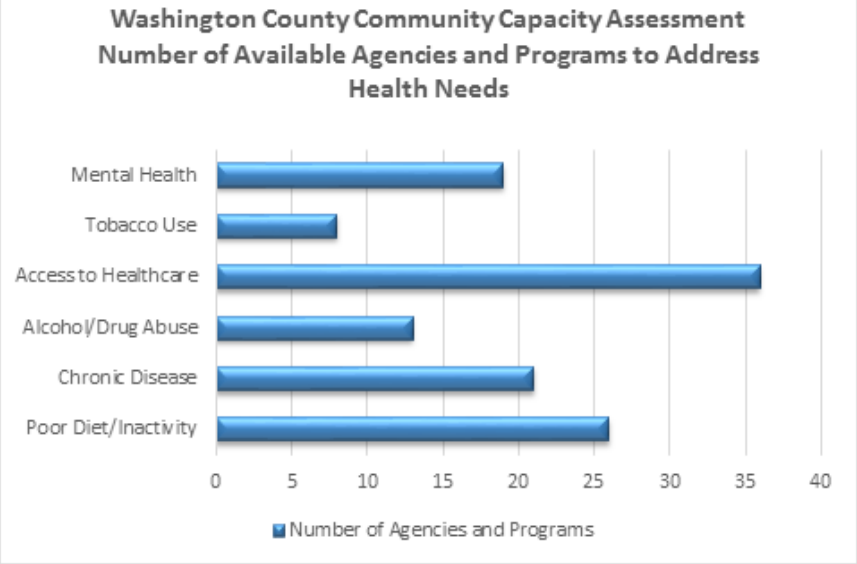
RESOURCES AND ASSETS

Efforts to identify existing resources and assets in the community that can be leveraged to address the priority health needs were undertaken as part of this assessment process. A comprehensive listing including a count of and types of community resources offered in the community is located in the Appendix.

Community Capacity Assessment

A community capacity assessment grid for Creek County was completed based on the input from community leaders and representatives. Following the compilation of the grid, the count of all assets was tabulated to present a number of agencies and programs (Figure 136). The community capacity exercise conducted with community leaders and representatives also served to identify organizational assets (agencies, program, resources, etc) that can be leveraged to address top health needs identified. A detailed listing of all of the identified organizational assets that includes names of all agencies and programs is available in the Appendices section.

Figure 156: Creek County Community Capacity Assessment



PRIORITIZATION OF SIGNIFICANT COMMUNITY HEALTH NEEDS

SIGNIFICANT COMMUNITY HEALTH NEEDS

Primary and secondary data were evaluated and synthesized to identify significant community health needs in Washington County. These needs span the following topic areas and are often inter-related:

- Diet, nutrition, and physical activity
- Weight and obesity
- Mental health and mental health disorders
- Chronic disease management
- Health education and literacy
- Access to health services and affordability
- Tobacco use
- Substance Abuse
- Social environment
- Children's health
- Prevention and safety
- Aging problems
- Available public transportation

PRIORITZATION PROCESS

St. John Health System and Jane Phillips Medical Center called together hospital decision makers, community residents, community partners, and community leaders and representatives to prioritize the significant community health needs of Washington County considering several criteria: magnitude/severity of health; opportunity to intervene at a prevention level; circle of influence/ability to impact change; support from the community; and address underserved populations as well as populations deemed vulnerable.

PRIORITY HEALTH NEEDS

The following community health needs were selected as the top four priorities:

- ❖ Wellness and Chronic Disease Prevention
- ❖ Affordability and Access to Care
- ❖ Behavioral Health (mental health and substance abuse)
- ❖ Health Education and Literacy

PRECEDING CHNA EFFORTS AND EVALUATION OF IMPACT

The community health needs assessment is a cyclical process based on a three year cycle. The periodic process of updating assessments and implementation strategies reflects changes in the health of the communities we serve over time and helps to ensure ongoing improvement efforts are based on the needs of these communities. An important piece of the cycle is revisiting the progress made on priority health needs set forth in the preceding community health needs assessment. By reviewing the actions taken to address a priority health issue and evaluating the impact those actions have made in the community, it is possible to better target our resources and efforts during our next round of the community health needs assessment cycle.

PRIORITY HEALTH NEEDS IN PRECEDING CHNA

As aforementioned, Jane Phillips Medical Center conducted its first community health needs assessment during the 2013 fiscal year. The hospital also developed an implementation strategy in response to the top needs identified in the community health needs assessment to be addressed during the 2014-2016 fiscal years. Over the past three years, Jane Phillips Medical Center has worked to address a set of prioritized health needs based on actions outlined in the implementation strategy. For a detailed review of the Jane Phillips Medical Center's 2013 Implementation Strategy, please visit: https://www.stjohnhealthsystem.com/media/file/1099/Community_Needs_Assessment_Implementation_Strategy

Jane Phillips Medical Center's priority health needs for FY 2014-2016 were as follows:

PRIORITY: Primary Care Access

Goal 1: Increase Primary Care Access.

Strategies:

A. Recruitment of additional Primary Care Physicians.
B. Restructuring of employed physicians contracts.
C. Physician acceptance of all payers.
D. Installation of Federally Qualified Rural Health Clinic.
E. Expansion of Primary Care Access through Regional Clinics

PRIORITY: Community Wellness

Goal 1: To encourage physical activity among Nowata, Osage, and Washington County residents.

Strategies:

A. Development of a Wellness Committee at Jane Phillips Medical Center
B. Design, Approval, and Construction of a New Education and Wellness Center
C. Support local walking/running events in Region Served.

Goal 2: To reduce the incidence of adult obesity.

Strategies:

A. Expansion of the Get Fit Club
B. Education class offerings on diet and healthy eating
C. Provide cafeteria meal options in the hospital that meet healthy nutritional standards.
D. Continue to provide nutritional education to hospital patients/and associates.

Goal 3: To promote wellness among Nowata, Osage, and Washington County residents.

Strategies:

A. Develop a wellness curriculum for adults and offer courses at the hospital in partnership with other local fitness centers (YMCA).
B. Provide community-based wellness services (health screenings and lifestyle education) in non-traditional settings (e.g., churches, community events, etc.).
C. Provide health screenings and lifestyle education at the hospital's annual health fair.
D. Establish a Washington County "Health and Wellness Coalition."
E. Support physical activity and healthy lifestyles in the local high schools by offering speakers and resources.
F. Collaborate with the other fitness centers and other agencies to promote community education.
G. Encourage hospital associates to participate in wellness programs

PRIORITY: Transportation

Goal 1: Insure Local Public Transportation is accessible to all

Strategies:

A. Ensure stability and future of City Ride Transportation program.

Goal 2: Work with surrounding communities on regional transportation

Strategies:

A. Work with surrounding communities to develop transportation program to meet the needs of the citizens who are home bound or unable to afford

EVALUATION OF IMPACT

An evaluation of impact of actions taken to address significant health needs identified in the hospital's FY 2013 community health needs assessment was conducted as part of this updated FY 2016 assessment. All actions since the hospital finished conducting the immediately preceding (FY 2013) community health

needs assessment were included in the evaluation. Actions taken during FY 2014-2016 for each identified priority health need are outlined below.

Primary Care Access

Recruitment is a primary focus for Bartlesville and surrounding communities at the present. Since we have had a shortage of primary care it has been very difficult for patients to access the needed healthcare in our area.

A. In the past few years our physician contracts have been structured to pay the provider for the work relative value unit and not based on whether the patient does or does not have health insurance. In the future our contracts will be looking at value based reimbursement which is focusing on helping our patients to become healthier/quality of life/preventative care.
B. See B.
C. SJC has 3 rural health clinics at present – Siggins Clinic in Barnsdall, OK/Caney Rural Health Clinic in Caney, Ks/Coffeyville Rural Health Clinic in Coffeyville, Kansas.

St. John Clinic has expanded to include regional areas such as Independence, Kansas, as well as established clinics in Pawhuska, OK and our rural health clinics Working with the Morton Clinic to help find new location in Bartlesville.

Community Wellness

Throughout FY 2014-2016, St. John Health System and the hospital promoted healthy activity and diet among associates and the communities we serve through a number of health and wellness initiatives, activities, and events.

Local Runs and Walks

For the past three years, we have supported a Washington County organization named FLOWCo – Fitness Lovers of Washington County, which encourages residents to get healthier together with a free fitness program. The FLOWCo training program is a free walk/run group fitness program open to anyone 12 years and older. FLOWCo is part of the Washington County Wellness Initiative sub-committee Preventative Health Partnership's work towards free opportunities for physical activity and better nutrition in order to improve the poor ranking in health behavior and outcome statistics for Washington County. The hospital and BlueStem Cardiology also sponsor and participate in an annual community Heart Walk and Run.

The health system and the hospital sponsored and participated in a number of local health promotion walks and runs during this time period including, but not limited to: American Cancer Society Relay for Life events, American Heart and American Stroke Associations' Heart Walk, Susan G. Komen – Race for the Cure, the Parkinson Foundation of Oklahoma's Parkinson's Walk, and Oklahoma Chapter of the Alzheimer's Association's Walk to End Alzheimer's.

The health system offered associates free or discounted registration fees for a number of these local runs and walks in FY 2014-2016.

Additional Health and Wellness Events

St. John Health System and its hospitals sponsored and participated in over 300 community events and health fairs throughout the FY 2014-2016 period. St. John associates promoted health and wellness through health screenings and public education at these events. In 2015 alone, Jane Phillips Medical Center sponsored 13 events. In support of a healthy and safe environment which promotes outdoor activity, Jane Phillips Medical Center annual hosts the area Green Fest event each spring. The health system and hospital also hosted a multitude of public health education seminars on a variety of wellness and education topics.

Associate Health and Wellness

St. John Health System is committed to the health and well-being of its associates. In FY 2014, St. John Health System and its hospitals began participating in Ascension Health's Smart Health wellness program initiatives – first focusing on our own associates and subsequently taking lessons learned to the broader community. wellness program was new beginning 1/1/2015. We had 1538 associates complete the 2015 Wellness Program.

Because of the program we had several preventive measures increase:

- 5.5% increase in breast cancer screenings
- 4.1% increase in A1C testing
- 4% increase in colorectal screening
- 5.7% increase in Wellness visits

For Associates we also have a Corporate Wellness Program outside of the health plan; including a Healthy Lifestyles Program and a discounted rate at our Health Club. We also conduct Associate Wellness Week: Associates were given general screenings such as weight, blood pressure etc. We saw a 3.2% increase of participation from the previous year.

During the evaluation period, Jane Phillips Medical Center created Employee Wellness Committee in June of 2013. Membership consisted of 12 people from all areas of the hospital. The committee meets monthly ever since its inception. Have done numerous programs since, including recruiting 27 Wellness Champions spread out over most departments within Jane Phillips, Developed Employee Break program which encourages employees to take breaks that fit their department's needs, Employee Health Screens, Numerous Employee Wellness Surveys, etc.

Patient Wellness

Jane Phillips developed and developed a Diabetes Prevention Program 12 week program during the evaluation period. Classes are held in the First Floor Classroom of Jane Phillips Medical Center. Participants learn how to eat healthy, add physical activity to their routine, manager stress, stay motivated, and solve problems that can get in the way of healthy changes.

Jane Phillips Medical Center provide cafeteria meal options in the hospital that meet healthy nutritional standards during the evaluation period for both associates and patients alike. They recently added a Stop Light program to food serving utensils and Drinks.

St. John Clinic concentrates on those patients who score high or low on their BMI test. Once that is confirmed, patients are counseled about their test and given a follow-up plan to get them closer to goal. We have integrated behavioral therapists who counsel patients on stress eating or other eating disorders. These therapists are integrated into our clinics and travel frequently in between locations. SJC has a health maintenance module along with ACO measures and Meaningful Use that stresses our providers look at each patient's BMI and address any that are above normal by giving the patient information on healthy living with diet and exercise.

TRANSPORTATION

The hospital participates in the Washington County Wellness workgroup, the Washington County Transportation Coalition. The mission of the Washington County Transportation Coalition is to address the unmet transportation needs of Washington County in order to improve economic development and enhance quality of life. Its primary goal is to secure funding in order to sustain the pilot project and expand the routes for the flexible, fixed route bus service.

COMMUNITY BENEFIT

St. John Health System (St. John) provides more than $70 million per year in quantifiable community benefit, including care for the poor, support for graduate and allied health medical education and community outreach.

Healthcare is expensive. For those who are underinsured or underemployed, getting medical care for themselves and their families can seem impossible. St. John believes healthcare is not only for those who can afford it. A benevolent underpinning of the Roman Catholic faith, St. John provides financial assistance for those whose medical bills could be financially devastating. On average over the past three fiscal years, St. John has provided more than $59 million in unreimbursed care for the poor and underserved*. This number is computed as cost of services, not charges written off.

Oklahoma is challenged by a shortage of critical healthcare resources, including one of the lowest ratios of active patient care physicians—1.79 per 1,000 population—in the U.S.** This critical shortage of doctors is a catalyst for St. John's participation as a primary teaching hospital for medical residency programs in internal medicine, family medicine and general surgery. Many other physicians and medical students also receive a portion of their residency and medical school training at St. John facilities. In addition, St. John provides financial and operational support for numerous nursing, physician assistant and medical technologist teaching programs, as well as a pharmacy residency training program.

St. John believes investing in the next generation of physicians, nurses and other medical professionals is critical to bettering local communities. On average, St. John provides funding in excess of $18 million each year to graduate and allied health medical education programs and to support additional community benefit programs. These programs ensure quality healthcare services will be available for many years to come.

St. John's more than 7,000 physicians, associates and volunteers reach out to eastern Oklahoma and southeastern Kansas communities through:

- Supporting Tulsa Area United Way, American Heart Association Heart Walk, and other social service and healthcare programs
- Participation in clinical research and trials to improve the care and treatment of patients
- Participation in health education and health screening events
- Partnering with Washington County Health Department, Good Samaritan Health Services, Morton Health Clinic, In His Image Family Medicine Residency Program, Day Center for the Homeless, Tulsa Dream Center, Community Health Connections, Family and Children's Services, Washington County Medical Society, the University of Oklahoma - Tulsa College of Community Medicine, Tulsa, Broken Arrow and Owasso public schools and many more organizations
- Through the 300 members of the St. John Auxiliary, who greet and serve patients and their families throughout the Health System

St. John is proud of its position as a vital presence in the communities of eastern Oklahoma and southeast Kansas. Among many other accomplishments, St. John has created northeast Oklahoma's only accredited comprehensive stroke center and ACS level II trauma center, established Oklahoma's only collaborative agreement with MD Anderson Cancer Network (through Jane Phillips Medical Center), and a rapidly expanding St. John Clinic network, with new primary and urgent care locations in south Tulsa, Broken Arrow, Claremore and Okmulgee.

St. John continues to invest its available resources into programs and services that improve the health and wellness of the citizens in the communities it serves.

COMMUNITY FEEDBACK

Jane Phillips Medical Center's preceding community health needs assessment and implementation strategy were made available to the public via the health system's website: http://www.stjohnhealthsystem.com/ about/community-health-needs-assessment. In order to collect community feedback on the reports, a contact form was embedded on the health system's community health needs assessment webpage with a request for comments. No comments had been received on the preceding community health needs assessment and implementation strategy at the time this publication was written.

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APPENDIX B: WASHINGTON COUNTY COMMUNITY ASSESSMENT SURVEY

The *2015 Washington County Community Assessment* survey and findings were sourced directly from the Washington County Wellness Initiative. The Washington County Wellness Initiative developed the survey instrument, conducted the survey, and wrote and prepared the assessment report. This source was provided courtesy of the Washington County Wellness Initiative for reprint in this publication.

A copy of the *2015 Washington County Community Assessment* survey report is available at: http://issuu.com/wcwiok/docs/final_community_assessment_11_octob

APPENDIX C: SURVEY INSTRUMENT

This survey instrument was sourced directly from the Washington County Wellness Initiative's *2015 Washington County Community Assessment.* The instrument was developed by the Washington County Wellness Initiative was provided courtesy of the Washington County Wellness Initiative for reprint in this publication.

A copy of this instrument can be found at: http://www.stjohnhealthsystem.com/media/file/1982/WCWI-2015_Washington_County_Community_Assessment_Survey_Instrument.pdf

APPENDIX D: COMMUNITY INPUT MEETING PARTICPANTS

Community Input Meeting Participant List: Jane Phillips Medical Center

Welcome and General Introduction:

Robert Poole, MBA
Director of Operations and Regional Development
Jane Phillips Medical Center

Mike Wilt
Executive Director

Bluestem Medical Foundation
Jane Phillips Medical Center

Meeting Facilitators:

Annie Smith, MSW, MPH
Special Projects Manager, Community Health
St. John Health System

Ann Paul, MPH
Chief Strategy Officer
St. John Health System

Meeting Participants:

Lisa Beeman, MUP
Community Development Director
City of Bartlesville

Larry Bergner
Regional Director
Rogers, Washington, Osage, and Nowata Counties
Washington County Health Department

Angie Bidleman, RN, BSN, MBA
Vice President/Chief Nursing Officer
Jane Phillips Medical Center

Gayle Burden
Director of Operations
St. John Clinic
Susan Buck, M.A., LADC
LADC/Mental Health Counselor and Owner
Stages2Change, LLC.

Jody Burch, M.A.
Chief Executive Officer/Executive Director
Bartlesville Regional United Way

Joseph Callahan, M.S., Ph.D.
Director of Fitness Services and City Councilor-Ward 4
Phillips 66 and Bartlesville City Council

Erin Claiborne, DPh
Pharmacy Program Manager
Jane Phillips Medical Center

Anna DeBough, LPN
Director and QI Coordinator MSS
Community Transitions of Care and Jane Phillips Medical Center

Lindel Fields, M.A.
Superintendent/Chief Executive Officer
Tri County Tech

Bonnie Jo Griffith
Assistant Chief
Delaware Tribe of Indians

Deborah Halpin
Executive Director
Hopestone Cancer Support Center

M'Liss Jenkins, M.S.
Coordinator
Washington County Wellness Initiative

Karen Leinen
Director of Community Relations
ConocoPhillips

Dianne Martinez, M.S.
Executive Director of Elementary Education
Bartlesville Public Schools

William Pierson
Board Chairman
Green Country Free Clinic

Sandra Schmidt
Accreditation Coordinator
Rogers, Washington, Osage, and Nowata Counties
Washington County Health Department

Charlie Taraboletti
Operations Manager

Bartlesville Radio

Sherri Wilt, IOM
President/Chief Executive Officer
Bartlesville Regional Chamber of Commerce

APPENDIX E: COMMUNITY INPUT MEETING AGENDA

Agenda

Community Input Meeting: Jane Phillips Medical Center

Topic	*Speaker*	*Time*
Welcome and General Introduction		5 minutes
Logistics	Annie Smith	5 minutes
Group Introductions 1. Name and organization	Attendees	5 minutes

Community Health Needs Assessment (CHNA) Presentation 1. Overview and purpose 2. Summary of 2013 CHNA and Implementation Strategy Plan 3. 2016 CHNA	Annie Smith	15 minutes
Community Input 5. Hospital assessment exercise 6. Nominal group exercise to validate and prioritize health needs based on top health needs identified 7. Community perception group exercise 8. Community capacity assessment exercise	Annie Smith	50 minutes
Next Meeting and Next Steps	Annie Smith	5 minutes

APPENDIX F: COMMUNITY INPUT MEETING AND SURVEY QUESTIONS

Jane Phillips Medical Center

Community Input Meeting and Survey Questions

Hospital Assessment:

Please answer the following questions based on your perception (may provide bulleted answers).

1. What is Jane Phillips Medical Center doing well that improves the health of the community?

2. What opportunities exist for Jane Phillips Medical Center to improve the health of the community?

Prioritization of Needs:

In the following list, please rank the health needs #1-6 based on the level of priority that you would like to see them addressed (#1 being the highest priority and #6 being the lowest priority).

__Poor Diet/Inactivity

__Mental Health

__Chronic Disease

__Access to Healthcare

__Tobacco Use

__Alcohol/Drug Abuse

Perception of Community:

Please answer the following questions.

1. If you had the power to change anything in the community, what are the top three things you would change to improve the health of the community?

2. What are the top three things about the community that you are proud of?

Additional Comments:

Please include any additional comments that you may have about the health needs of the Washington County community here.

APPENDIX G: Community Input Meeting Prioritization of Health Needs

Jane Phillips Medical Center Community Input Meeting: Prioritization of Health Needs

Health Needs	1's	2's	3's	4's	5's	6's
Tobacco Use	0	1	0	3	8	5
Access to Healthcare	3	3	3	1	2	2
Alcohol/Drug Abuse	1	4	9	1	1	0
Chronic Disease	0	0	2	7	3	4
Poor Diet/Inactivity	1	3	2	3	2	4
Mental Health	11	4	0	1	0	1

Health Needs	x6pts	x5pts	x4pts	x3pts	x2pts	x1pts	Total Points
Tobacco Use	0	5	0	9	16	5	**35**
Access to Healthcare	18	15	12	3	4	2	**54**
Alcohol/Drug Abuse	6	20	36	3	2	0	**67**
Chronic Disease	0	0	8	21	6	4	**39**
Poor Diet/Inactivity	6	15	8	9	4	4	**46**
Mental Health	66	20	0	3	0	1	**90**

**Each number ranking category was assigned a number of points (the greatest points being awarded to the #1 category and lowest points being awarded to the #7 category). Points for each number category were then multiplied times the number of post-its placed in each corresponding health need/number category.*

APPENDIX H: CHNA ADVISORY GROUP

St. John Health System Community Health Needs Assessment (CHNA) Advisory Group Members:

- *Ron Hoffman*- COO, Jane Phillips Medical Center
- *Lindsay Hughes*- Physician Relations, St. John Clinic Administration
- *Pam Kiser, RN, MS, CPHQ*- VP/Chief Nurse Executive, St. John Medical Center
- *Jason McCauley- Regional* Administrator Jane Phillips Nowata Health Center
- *Joy McGill*- St. John Media Relations, St. John Health System
- *Mike Moore, CPA*- COO, Jane Phillips Medical Center
- *Ann Paul, MPH*- Chief Strategy Officer, St. John Health System
- *Cheena Pazzo*- VP, Ascension/Chief Communications and Marketing Officer, St. John Health System
- *David Phillips*- President, Jane Phillips Medical Center/COO, St. John Owasso, St. John Broken Arrow
- *Robert Poole, MBA*- Director of Operations and Regional Development, Jane Phillips Medical Center
- *Mary Skonezny, BSN, RN*- Director, Patient Experience, St. John Health System
- *Kathy Smarinsky*, *MPH*- VP, Clinical Services, St. John Medical Center
- *Mike Wilt*- Executive Director, Bluestem Medical Foundation, Jane Phillips Medical Center

APPENDIX I: WCWI WORKGROUPS

Washington County Wellness Initiative includes 11 workgroups that provide services to the Washington County Area, if you have any questions click here to contact the WCWI Coordinator for additional information.

Access to Healthcare

The mission of Access to Healthcare is that all people in Washington County who are currently uninsured or underinsured will have a "medical home" that focuses on prevention, early detection and coordinated medical care.

Goals

1. To gather/compile data to make the case that Washington County has a real problem with access to healthcare
2. Write grants to fund the initiatives needed to improve access to health care
3. Inform the public of their options and how to best get access to health care in Washington County
4. To improve and expand current facilities and healthcare systems needed to deliver healthcare services
5. Work with legislators and government agencies to improve policies/laws that impact healthcare

---

Casa Hispana Hispanic Outreach Center

The mission of Casa Hispana is to positively integrate Hispanics by networking information, capabilities and services, creating opportunities for full participation and contribution in our community.

Goals

1. To provide assistance in order to help Hispanic individuals learn about their community, becoming a citizen and connecting with resources
2. To assist community organizations by providing free interpreting, translation and case management for Hispanic individuals and families

Casa Hispana Hispanic Outreach Center's website

Family Promise of Washington County, Inc.

Family Promise is a nonprofit and non-denominational organization for families in transition. The program provides temporary shelter hosted by host congregations. The mission is to help homeless and low-income families achieve sustainability or self-sufficiency

Family Promise of Washington County, Inc.'s Website

Poverty Alleviation Coalition

Church Women United Car Repair Project

The mission of Church Women United Car Repair Project is to assist low-income individuals with transportation needs such as car repairs, car insurance and car tags.

Project Prom

The vision for Project Prom is to provide the prom experience for low-income youth. The project provides girls and boys the experience of prom. For the girls, Project Prom provides the whole day, the hair, the make-up, and a little pampering. The girls receive prom dresses and the boys receive tuxedos. The prom experience allows youth to become a part of the experience, become more confident, and raises their self-esteem.

Preventative Health Partnership

Preventative Health Partnerships is established to promote safe and healthy Lifestyles. Its primary goals include creating Safe Routes to School, creating a bicycle friendly community and working with the Certified Healthy Community Programs.

Goals:

1. Safe Routes to School Bartlesville (International Walk to School Day, education and promotion of safety and physical activity, grant requirements)
2. Bicycle Friendly Community
3. Certified Healthy Programs (Make It Your Business Workshop, promotion with businesses, community, schools, campuses, and restaurants)
4. Healthy Community Incentive Grant implementation (bike racks, bike route signage, etc.)

Washington County Affordable Housing Coalition

The Affordable Housing Coalition assesses housing gaps and barriers, and maintains a housing advocacy group designed to pull community partners together to increase and preserve the supply of decent, affordable, accessible housing for low- and moderate-income households in Washington County. The mission is to mobilize community partners to increase access to affordable housing through committed action.

Goals

1. Housing Resource Center
   The Housing Resource Center is a one-stop-shop to help people with their housing needs and direct them to housing resources. We maintain a database of affordable housing units, applications for subsidized housing complexes and housing information such as "How to Avoid Foreclosure", "HUD Homeownership", "Housing Counseling", "Guide to Single Family Home Mortgage Insurance", "Shopping for Your Home", and much more.

2. Renter Education
   The renter education program is a 9 to 12-hour course designed to help renters communicate with landlords, create a personalized plan for stable housing, plan a workable household budget that makes paying rent a priority, review rental agreements to understand common terms and expectations, and learn how to take care of a home and how to move-in and move out the right way.

3. Housing Rehabilitation
   The housing rehabilitation program was established to assist low to moderate income families with maintaining their homes in a safe, healthy condition that encourages pride of ownership in Bartlesville and surrounding communities. The program is designed for residents who intend to stay in their homes and is not a remodel program for resale.

4. Partnership Development
   The Washington County Affordable Housing Coalition provides connections and linkages that allow affordable housing partners to work together to develop and preserve housing for low and moderate income citizens through the rehabilitation of existing properties and new construction. The WCAHC aims to accomplish this by forging strategic partnerships and actively supporting policies and initiatives that promote affordable housing.

Washington County Anti-Drug Network

The vision of the Washington County Anti-Drug Network is that Washington County will have a continuum of services for families, children, and youth that are accessible, available, effective, efficient, and affordable to support, strengthen and build protective factors in our community and prevent youth

substance abuse. Its mission is to create a better future for families, children and youth through drug prevention efforts. Currently an effort is underway to reduce underage drinking and shifting social norms.

Goals:

1. To reduce the number of Alcohol-related arrests/offenses in Washington County by changing policy and procedures on charges made, educating public on consequences of drinking and driving, change the social norm of underage drinking to a no tolerance policy.
2. To educate the community on healthy ways to mentor to youth, strengthen our relationship with law enforcement by educating them on what our alcohol abuse data shows, and promote programs implemented to decrease drug and alcohol use in Washington County youth.

Washington County Association for Mental Health

The purpose of the Washington County Association for Mental Health shall be to improve mental health by promoting the development of community programs and policies which:

- Increase availability of quality mental health services for children and adults
- Strengthen mental health workforce recruitment, retention and training
- Provide a full range of preventative mental health services
- Include inpatient and outpatient day treatment for persons with drug addictions
- Improve communication and joint planning among mental health providers.

Washington County Association for Mental Health's website

Washington County Suicide Prevention Coalition

The mission of the Washington County Suicide Prevention Coalition is to prevent suicide in Washington County through awareness, education and effective prevention, intervention and postvention.

Goals:

1. To reduce the rate of Suicide in Washington County.
2. To have 25% of the community in Washington County trained in Question, Persuade, and Refer (QPR) training by 2015.
3. To provide resources and awareness of suicide to citizens and business.

4. Offer Gatekeeper Programs, ASIST and Mental Health First Aid, twice a year.
5. Develop and Implement a Suicide Prevention Surveillance System (SPSS).
6. Assist Tri-county Technology Center (TCT) in Implementing the Columbia TeenScreen.

Washington County Suicide Prevent Coalition's website

Washington County Transportation Coalition

The mission of the Washington County Transportation Coalition is to address the unmet transportation needs of Washington County in order to improve economic development and enhance quality of life. Its primary goal is to secure funding in order to sustain the pilot project and expand the routes for the flexible, fixed route bus service.

Goal:

1. To secure funding in order to sustain the pilot project and expand the routes for the flexible, fixed route bus service

CityRide Circuit's Website

APPENDIX J: COMMUNITY CAPACITY ASSESSMENT

Poor Diet/Inactivity
Washington County Wellness Initiative- Preventative Health Partnership Committee
Washington County Health Department
Jane Phillips Medical Center Nutrition Education Services
Jane Phillips Medical Center Wellness Connection
Bartlesville Public Schools
Bartlesville Farmers' Market
Meals on Wheels
Jane Phillips Medical Center
Worksite Wellness and Smart Health Initiatives
Washington-Nowata Nutrition Project
Grand Gateway Area Agency on Aging
Cherokee Nation Food Program
Delaware Tribe of Indians; Elder care exercise/fitness opportunities
FLOWCo
Stoplight Food Labeling System-Jane Phillips Medical Center Cafeteria and Dietary Services
Diabetes Prevention Program-Jane Phillips Medical Center
Jane Phillips Medical Center Community Heart Walk and Run
Area Food Pantries
Phillips 66
Tri-County Tech Group Fitness Classes
Community Education & Fitness Classes
YMCA
Multiple athletic clubs and youth sports
Hopestone exercise and nutrition programs
City offerings: dog park, parks, pools, Pathfinder; Adult playground at Johnstone Park
Multiple 5k runs
Morton Comprehensive Health Services, Inc. and Community Health Center system

Chronic Disease
Jane Phillips Medical Center Inpatient and Outpatient Services; Psychiatric services, Med mgmt; Geriatric Behavioral Health
Green Country Free Clinic
CommunityCare transition team, wellness fair
CommunityCare transition team, wellness fair
Oklahoma Health Initiatives, Medicare Shared Savings Program ACO (readmission/admission reduction measures, chronic disease management initiatives, transition of care/care coordination, preventive health measures)
Lifespan Medical Clinic
Green Country Retirement Memory Care Unit
Morton Comprehensive Health Services, Inc. and Community Health Center system
My Health (Health Information Exchange; data for providers that aids in transition of care/care coordination)
St. John Health System/MD Anderson Cancer Care Partnership
GAP Medical Clinic

Healthy Hearts for Oklahoma Initiative
Area Home Health Agencies
Family Healthcare Clinic
Cherokee Nation Health-Area Health Clinics
St. John Clinic (includes care management program)
Delaware Tribe of Indians
Diabetes Prevention Program-Jane Phillips Medical Center
VA Health Services
Eldercare center for Alzheimer's and Parkinson's
Hopestone

Alcohol/Drug Abuse
AA/NA Support Groups
Morton Comprehensive Health Services
Cherokee Nation Health Area Health Clinics
Veterans Affairs Behavioral Health Clinic
Grand Lake Mental Health
Celebrate Recovery at local churches
Cherokee Nation Community Action Network (CAN): Strategic Prevention Framework-Partnership for Success (SPF-PFS) [Washington County Anti-Drug Network]
Jane Phillips Medical Center-Medical Detox Services
Jane Phillips Medical Center-Psychiatrist
Center for Therapeutic Intervention
Stages 2 Change
True Life Counseling
ITR Counseling

Access to Healthcare
Washington County Health Department Community Medication Assistance
Morton Comprehensive Health Services, Inc. and Community Health Center system (primary care, health services, social supports, enrollment assistance, and free, lift-equipped transportation programs)
Cherokee Nation Health-Area Clinics
Medicare Helpline
CommunityCare transition team, wellness fair
Charity Care/Financial Assistance, Jane Phillips Medical Center
Green Country Free Clinic
VA Health Services (includes transportation services
Lifespan Medical Clinic
GAP Medical Clinic
Hope Clinic
Arubah Clinic
Neighbor for Neighbor
Family Wize- BRUW
Oklahoma Project Woman

RSVP
City Ride/ City Ride Circuit
St. John Health System Telemedicine Services
SoonerRide
St. John Health System-Health
Insurance Marketplace Outreach and Enrollment Assistance
Delaware Tribe of Indians
Church Women Car Repair Project (transportation to medical services)
Oklahoma DHS—Medicaid Bartlesville
Oklahoma Health Care Authority
Sooner Care
Grand Lake Medical Clinic
Washington County Wellness Initiative
Washington County Transportation Initiative
St. John Clinic
Casa Hispana Hispanic Outreach Center
Dental hygiene clinic at Tri-County Tech
Tri-County Tech and multiple other health fairs in the area
Eldercare inpatient clinic
Osage Nation clinic
New Cherokee Cooweescoowee Clinic
American Cancer Society Road to Recovery Program (transportation to treatment and cancer related healthcare services in Bartlesville)

Tobacco Use
TSET advertising
Oklahoma Tobacco Helpline
Washington County Health Department
Jane Phillips Medical Center/St. John Clinic Smoking Cessation Screenings and Counseling
Morton Comprehensive Health Services, Inc. and Community Health Center system
Cherokee Nation programs (also Delaware Tribe)
Osage Nation hotline
Tobacco hotline

Mental Health
Family Crisis and Counseling
Samaritan Counseling
Stages2Change
Youth and Family Services
Washington County Health Department
Teen Hotline
Hope Line
Green Country Free Clinic
Morton Comprehensive Health Services, Inc. and Community Health Center system

Cherokee Nation Health-Area Health Clinics
Veterans Affairs Behavioral Health Clinic
Depression screening initiatives: St. John Clinic/Oklahoma Health Initiatives (Medicare Shared Savings Program ACO)
Behavioral Health Task Force: Oklahoma Health Initiatives (Medicare Shared Savings Program ACO)
Grand Lake Mental Health
Washington County Suicide Prevention Coalition
Washington County Association for Mental Health
Cherokee Nation Community Action Network (CAN): Strategic Prevention Framework-Partnership for Success (SPF-PFS)
Jane Phillips Medical Center-Psychiatrist