

EXECUTIVE SUMMARY

This 2018 Ottawa County Community Health Assessment (CHA) was conducted by the Ottawa County Health Department and INTEGRIS Miami Hospital. Members of the Partnership for Ottawa County, Inc. were also involved in this process. The Partnership for Ottawa County, Inc. is a county wide coalition consisting of a variety of sectors including the county health department, local health care facilities, schools, and nonprofit organizations working with at-risk and vulnerable populations. This group strategically joined efforts to assess health in Ottawa County. The purpose of the assessment is to evaluate and prioritize the health concerns in the county and mobilize the community in working towards health outcomes. As a result of the assessment process, collaborative interventions can be implemented to align with the identified health priorities.

The partnership used a variety of methods to collect quantitative and qualitative data to identify the top health priorities in the community. These methods included a community health survey, community chats, coalition meetings, and comprehensive secondary data collection.

Improving the health of the community takes the efforts of many and the Ottawa County Health Department and INTEGRIS Miami Hospital strongly believes in effectively improving community health through collaborative focused action. Community health assessments are commonly the first step in the process of focused planning efforts. This assessment of qualitative and quantitative data will be utilized by the Ottawa County Health Department, INTEGRIS Miami Hospital, Partners for Ottawa County, Inc., its members and other community partners will utilize this assessment to create plans for their organization to improve the health of Ottawa County. Additionally, the Ottawa County Community Partnership will employ this assessment in the development of the 2019 Ottawa County Health Improvement Plan. The County Health Improvement Plan is a five-year action plan to address the health priorities based on the results of the CHA, with special focus on addressing disparities to improve the health of all Ottawa County residents.



ACKNOWLEDGMENTS

Members of the Ottawa County Community Health Assessment committee included:

COMMUNITY PROFILE – OTTAWA COUNTY

Ottawa County is located in northeastern Oklahoma and comprises of two cities (Commerce and Miami) and six towns (Afton, Fairland, North Miami, Peoria, Quapaw, Wyandotte). Other census-designated communities include Dotyville and Narcissa. The county is bordered on the east by the state of Missouri. The northern part of the county is bordered by the state of Kansas. Ottawa County is bordered by Delaware County and Craig County to the south. In 2016, the county population was 31,848, approximately 49% of which is rural. The median income was \$37,139. The largest age distribution (29.3%) was 20-45 years. Over 83% of the county population has graduated from high school, less than 14% have a bachelor's degree or higher.

The county seat is located in the city of Miami, which has a population of 13,570. Miami is approximately 90 miles northeast of the Tulsa metropolitan area and 190 miles northeast of the Oklahoma City metropolitan area. The largest employers in the county include education, health care, entertainment, and manufacturing. One hospital serves Ottawa County and is located in the city of Miami, INTEGRIS Miami Hospital.

OTTAWA COUNTY DEMOGRAPHICS	
SEX	50.9% FEMALE 49.1% MALE
MEDIAN HOUSEHOLD INCOME	\$37,139
PERCENTAGE OF POPULATION IN POVERTY	22.5%
MEDIAN MONTHLY RENT	\$647
MEDIAN MONTHLY MORTGAGE	\$894
2016 UNEMPLOYMENT RATE	4.5%
U.S. CENSUS, 2016 ESTIMATES	

OTTAWA COUNTY RACIAL DISTRIBUTION	
WHITE	68.6%
AMERICAN INDIAN/ ALASKAN NATIVE	13.5%
TWO OR MORE RACES	13.8%
HISPANIC OR LATINO	5.2%
ASIAN	.7%
BLACK OR AFRICAN AMERICAN	.9%
U.S. Census, 2016 Estimates	

In 2017, Oklahoma ranked 43rd in the nation in health according to the United Health Foundation's America's Health Rankings (2018). The following information demonstrates the identified health strengths, challenges, trends, and achievements experienced by the state:

Strengths:

- Small disparity in health status by educational attainment
- Low prevalence of excessive drinking
- Higher number of mental health providers

Challenges:

- Higher percentage of uninsured population
- High cardiovascular death rate
- High infant mortality rate

In addition, the following indicators have experienced considerable changes:

- In the past four years, low birthweight decreased 7% from 8.5% to 7.9% of live births
- In the past year, immunizations among children decreased 11% from 75.4% to 67.0% of children aged 19 to 35 months
- In the past five years, smoking decreased 25% from 26.1% to 19.6% of adults
- In the past two years, cardiovascular deaths increased 4% from 322.5 to 335.2 death per 100,000 population
- In the past five years, excessive drinking decreased 26% from 17.3% to 12.8% of adults

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 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, Ottawa County ranks poorly in multiple key health status indicators. According to the 2018 *County Health Rankings* Ottawa County ranked 59th 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). In the Oklahoma State Department of Health's 2017 *State of the County's Health Report*, ranked Ottawa County as 4th (best) in the state for fruit consumption, 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:

- 4th for minimum daily fruit consumption (2013)
- 10th for percent of population engaging in binge drinking (2015)
- 15th for percent of mothers receiving prenatal care in the 1st trimester (2011-2015)
- 19th for motor vehicle mortality rate (2011-2015)
- 27th for percent of physically inactive population (2015)

According to the 2018 *County Health Rankings*, Ottawa County ranked 61st 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:

- The uninsured rate for the total population in Ottawa County decreased 2% from 2013-2015

Health Behaviors and Risk Factors:

- In 2016, approximately, 1 in 3 adults reported 3+ days of limited activity in the past month (36%).
- In 2014, 36% of residents reported no leisure time physical activity
- In 2014, 37% of Ottawa County residents were obese

Socioeconomic Factors:

- In 2016, 27% of children in Ottawa County lived in poverty
- The overall unemployment rate in 2016 was 5.1% for the population 16 and older
- In 2012-2015, the percent of the population 25 and older with no high school diploma was 17% and the percent of the population 25 with some college was 49%.

Physical Environment:

- Ottawa County ranked 76th out of 77 counties in Oklahoma for physical environment (air and water quality, housing conditions, and transportation) in 2018.⁷

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 Ottawa County. Community health needs and assets for Ottawa

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 Ottawa County residents
- Community input survey of Partners for Ottawa County, Inc. workgroup members
- Input from community leaders and representatives
- Input from the public health workforce and local coalitions/partnerships

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 AND COLLABORATION

INTEGRIS Miami Hospital and the Ottawa County Health Department engaged a multitude of other community organizations to conduct this assessment of Ottawa County.

Central to this community assessment is a survey by the Ottawa County Health Department and INTEGRIS Miami Hospital to obtain direct input from community members. The survey is referred to by community stakeholders as the *Community Health Needs Survey 2018*. A number of community stakeholders and local organizations were

also engaged in community input meetings 2018. Workgroup members from the Partners for Ottawa County, Inc. were also engaged to complete a community input survey in 2018. Additionally, the general public was engaged in input meetings during the fall of 2018.

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 Ottawa County residents
- A community input meeting with community members, leaders, and representatives
- A survey of Partners for Improving Ottawa County, Inc. workgroup members
- Input from the general public, public health workforce and local coalitions/partnerships

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:

- Ottawa County residents who participated in 2018 *Ottawa County Community Health 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
- Partners for Improving Ottawa County, Inc. workgroup members

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 Ottawa 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

PRIORITIZATION PROCESS & PRIORITY HEALTH NEEDS

The Ottawa County Health Department, INTEGRIS Miami Hospital and the Partners for Improving Ottawa County, Inc. called together decision makers, community residents, community partners, and community leaders and representatives to prioritize the significant community health needs of Ottawa 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:

1. Mental Health
2. Alcohol/Drug Abuse
3. Chronic Disease
4. Obesity

CONCLUSION

This report describes the findings of a comprehensive health needs assessment for the residents of Ottawa County, Oklahoma. The prioritization of the identified significant health needs will guide the community health improvement efforts of the Ottawa County Health Department, INTEGRIS Miami Hospital and the Partner for Improving Ottawa County, Inc. From this process, Ottawa County community partners will outline how they will address the top four prioritized health needs in our fiscal year 2019 -2021 implementation strategy.

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 2018 Community Health Assessment provides a basis for understanding the factors that contribute to the health of the Ottawa 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 addressed²

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.

INTEGRIS GROVE HOSPITAL

Since 1919, INTEGRIS Miami Hospital has been providing medical care to patients in northeast Oklahoma, INTEGRIS Miami remains dedicated to its mission. As a member of INTEGRIS Health, the states largest locally owned health care system, area residents have peace of mind knowing their health care is delivered by professionals committed to the highest standards of patient care.

INTEGRIS Miami Hospital is licensed for 117 beds and has more than 50 physicians and advanced practice providers on staff. The hospital provides a host of inpatient and outpatient services including intensive care and surgical services, comprehensive rehabilitation, geriatric behavioral health, hospice, home health care, and home medical equipment.

Fully accredited by the Joint Commission, INTEGRIS Miami Hospital is also one of the largest employers in Ottawa County. The hospital employs more than 400 employees and has a compassionate force of more than 60 volunteers.

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 INTEGRIS Miami Hospital, the following was taken into consideration:

- General geographic area
- Geopolitical definitions
- Primary and regional service areas
- Patient population

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](http://www.irs.gov/Charities-&-Non-Profits/Charitable-Organizations/New-Requirements-for-501(c)(3)-Hospitals-Under-the-Affordable-Care-Act)

- 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

INTEGRIS Miami Hospital serves the entire northeastern Oklahoma region, as well as parts of Missouri and Arkansas. The primary service area is Ottawa County and the surrounding counties. Although, INTEGRIS Miami Hospital 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 Ottawa County, Oklahoma. The decision to focus on the geopolitical definition of Ottawa County was largely influenced by the fact that a significant number of patients utilizing INTEGRIS Miami Hospital's services reside in Ottawa County. In fact, an estimated 81% of inpatient and outpatient visits originated in Ottawa County in the 2016 fiscal year.

Counties of Patient Residence FY 2016

County	Total Number of Visits
Ottawa	1625
Craig	192
Delaware	133
Mayes	25
Out of State	232

**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 Ottawa 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 Miami and Ottawa County.

For the purposes of this assessment, the community served by INTEGRIS Miami Hospital includes all of Ottawa County, Oklahoma. INTEGRIS Miami Hospital is based out of the city of Miami and the bulk of the community's population is concentrated in and around the city. Accordingly, the city of Miami serves as INTEGRIS Miami Hospital's primary area of focus within the Ottawa County community. An effort was made to focus on the community health needs and assets specific to this region as well as Ottawa County as a whole. Our efforts will also extend to other cities and towns within Ottawa County based on lessons learned through our work with the Miami community.

COMMUNITY HEALTH NEEDS ASSESSMENT PROCESS: METHODOLOGY

Community health needs and assets for Ottawa 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 Ottawa County residents
- Survey of Partners for Ottawa County, Inc. workgroup members
- Input from community leaders and representatives
- Input from the public health workforce and local coalitions/partnerships

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. 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.

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.

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.

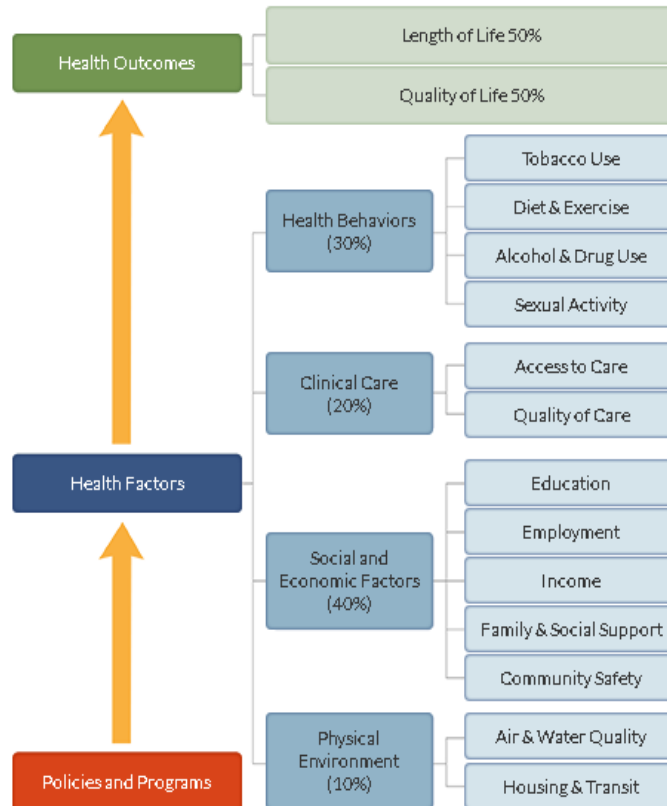
⁵ Hanson, D., Hanson, J., Vardon, P., McFarlane K., Lloyd, J., Muller, R., et al. (2005). The injury iceberg. An ecological approach to planning sustainable community safety interventions. *Health Promotion of Australia*, 16(1), 5-10.

⁶ McLeroy, K.R., Bibeau, D., Steckler, A. & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15(4), 351-3

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*.

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 health⁹:

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

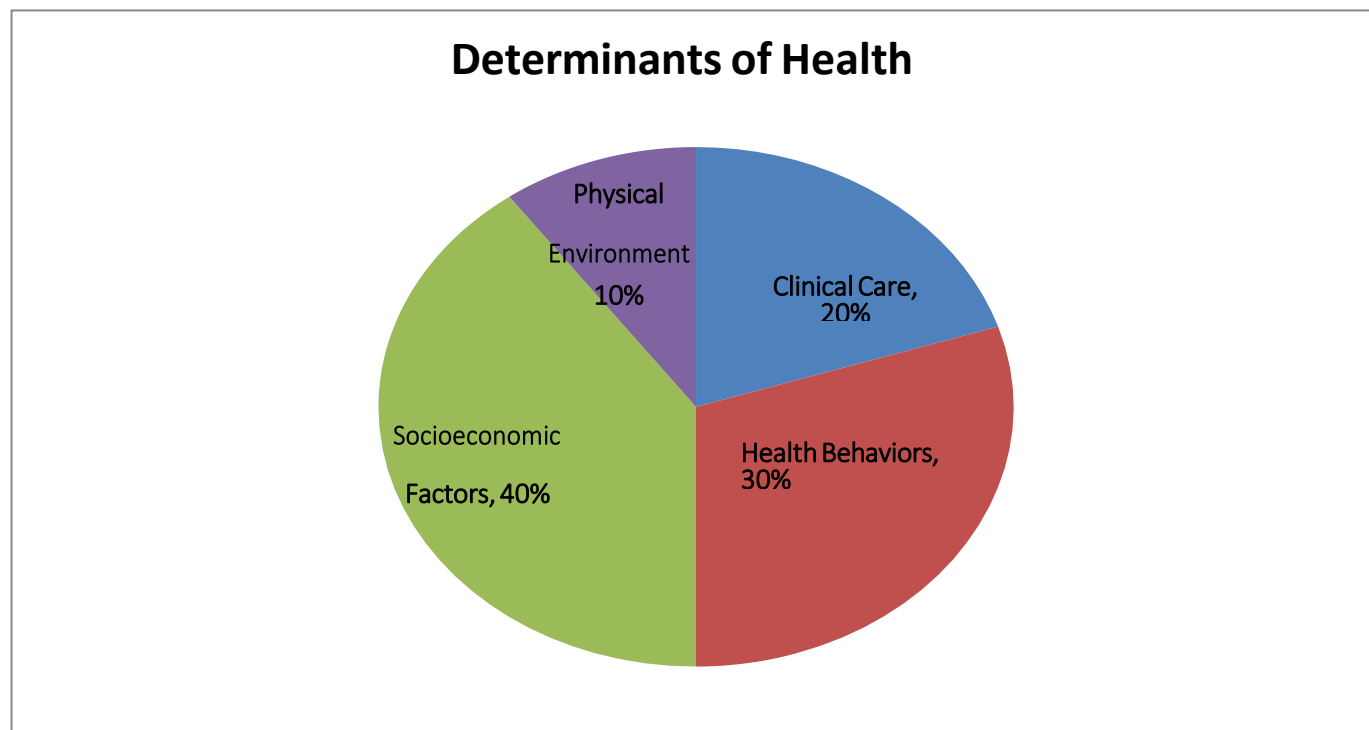
⁷ Centers for Disease Control and Prevention. (2015). *Community Health Improvement Navigator*. Retrieved from: <http://www.cdc.gov/chinav/>.

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>.

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. Some determinants of health are more modifiable than 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. 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.

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

Certain disadvantaged populations are at greater risk of experiencing of health disparities. *Healthy 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 Ottawa County, American Indian, black/African-American, Hispanic/Latino families are more likely to live in poverty and experience poorer health outcomes than their white neighbors.

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*

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 health¹²:

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
- 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)

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/Phase1_o.pdf.

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>.

- 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

PRIORITY POPULATIONS

Although this assessment aims to include information all population in the geographic area, a special effort was made to incorporate information on the health and well-being of priority populations, of 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.

INTEGRIS Miami Hospital and the Ottawa County Health Department engaged 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, the Ottawa County Health Department and INTEGRIS Miami Hospital worked to initiate and strengthen our relationships with community partners and will continue to do so to promote effective and community-driven community health improvement initiatives within Ottawa County. We are proud of the steps taken to move us forward in our mutual work to improve the health and well-being of the community.

The Ottawa County Health Department serves Ottawa County as well as the adjacent Craig and Delaware counties. The Partners for Ottawa County, Inc. (DCCP) is a 501(c)(3) Non-Profit Corporation incorporated in the State of Oklahoma. The organization is dedicated to supporting the numerous organizations, coalitions, initiatives, and projects providing services to the residents of Ottawa County with the goal of improving the health of the community.

Central to this community assessment are surveys conducted by the INTEGRIS Miami Hospital and Ottawa County Health Department to obtain direct input from community members and workgroup members. The survey with community members is referred to by the as the *Community Health Needs Survey 2018*. A number of community stakeholder, local organizations, and the general public were also engaged in our community input meetings during 2018.

INFORMATION GAPS

Although it is quite comprehensive, this assessment cannot measure all possible aspects of health and also cannot represent every possible population within Ottawa 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 available at that level
- Some sources of valuable data are completed with grant 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 Ottawa County, a review of publically available secondary data was conducted.

SECONDARY DATA METHODOLOGY 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 2015 or 2016. However, data sources ranged from 2005-2017 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 Ottawa 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 Oklahoma State Department of Health, the University of Wisconsin Population Health Institute's *County Health Rankings & Roadmaps*, U.S. Census Bureau, and INTEGRIS 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 43rd in the nation in health according to the United Health Foundation's *America's Health Rankings* (2017)¹⁵.

Similar to the state, Ottawa 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' Ottawa County *Community Health Needs Assessment*.

¹⁵ United Health Foundation. (2017) *America's Health Rankings: Oklahoma*. Retrieved from: <http://www.americanhealthrankings.org/OK>

DEMOGRAPHICS

Population

Total Population

Definition

The total population is presented simply as the number of individuals living in Ottawa County and the population density per square mile, according to the 2012-2016 5-year population estimates by the American Community Survey.

Why Is This Indicator Important?

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.

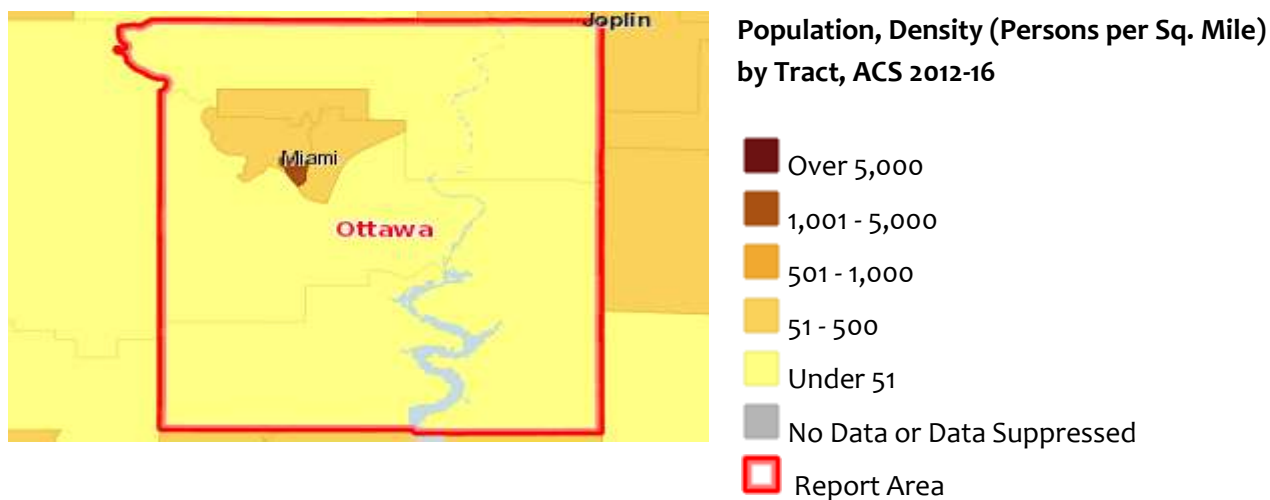
How Are We Doing?

A total of 32,022 people live in the 470.84 square mile report area defined for this assessment according to the U.S. Census Bureau American Community Survey 2012-16 5-year estimates. The population density for this area, estimated at 68.01 persons per square mile, is less than the national average population density of 90.19 persons per square mile.

Report Area	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
Ottawa County, OK	32,022	470.84	68.01
Oklahoma	3,875,589	68,596.35	56.5
United States	318,558,162	3,532,068.58	90.19

Data Source: U.S. Census Bureau. (2014). American Community Survey 2010-2014. Retrieved from: <https://www.census.gov/programs-surveys/acs/data.html>

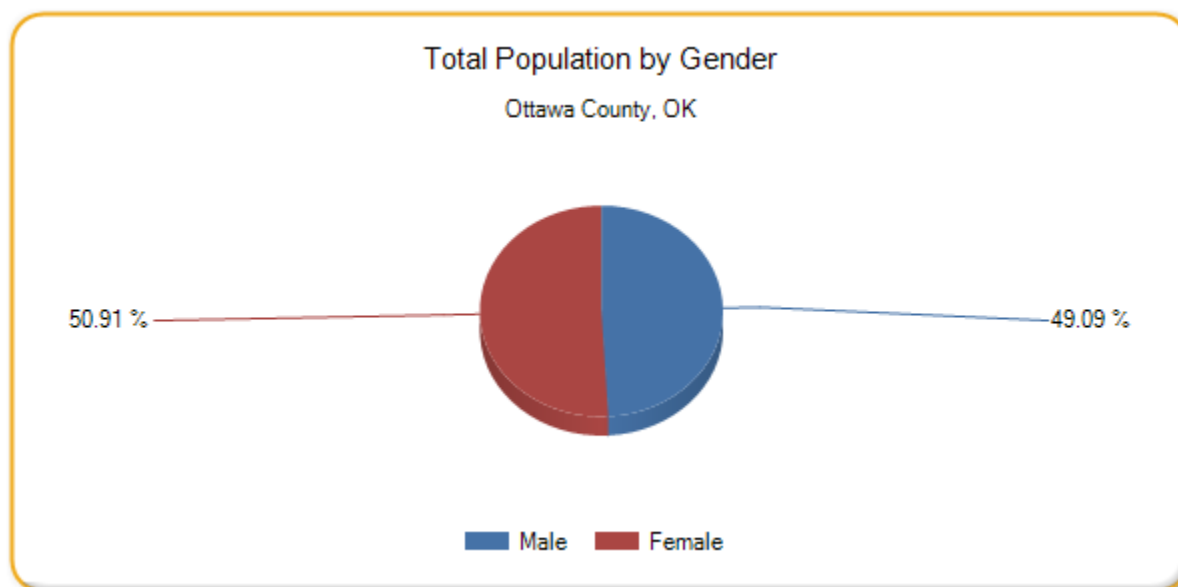
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on October 1, 2018



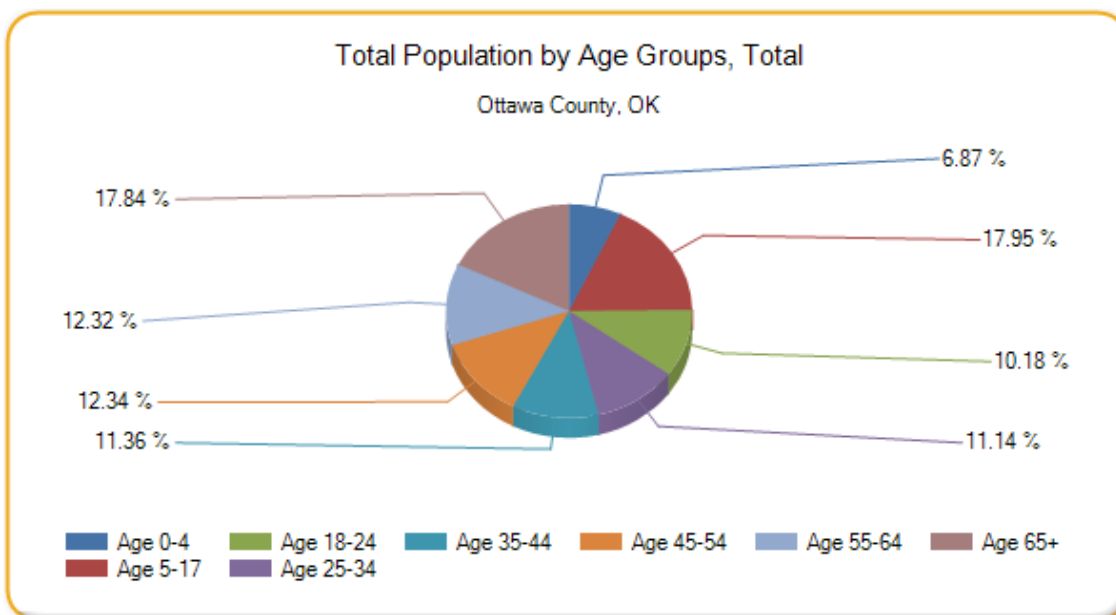
Overall, the female population 50.91% slightly exceeded the male population (49.09 percent).

Total Population by Gender, Ottawa County 2012-2016

Report Area	Male	Female	Percent Male	Percent Female
Ottawa County, OK	15,720	16,032	49.09%	50.91%
Oklahoma	1,919,995	1,955,594	49.54%	50.46%
United States	156,765,322	161,792,840	49.21%	50.79%



Percentages of the population age 65 (17.84 percent) and older and 5-17 (17.95%) were the highest.

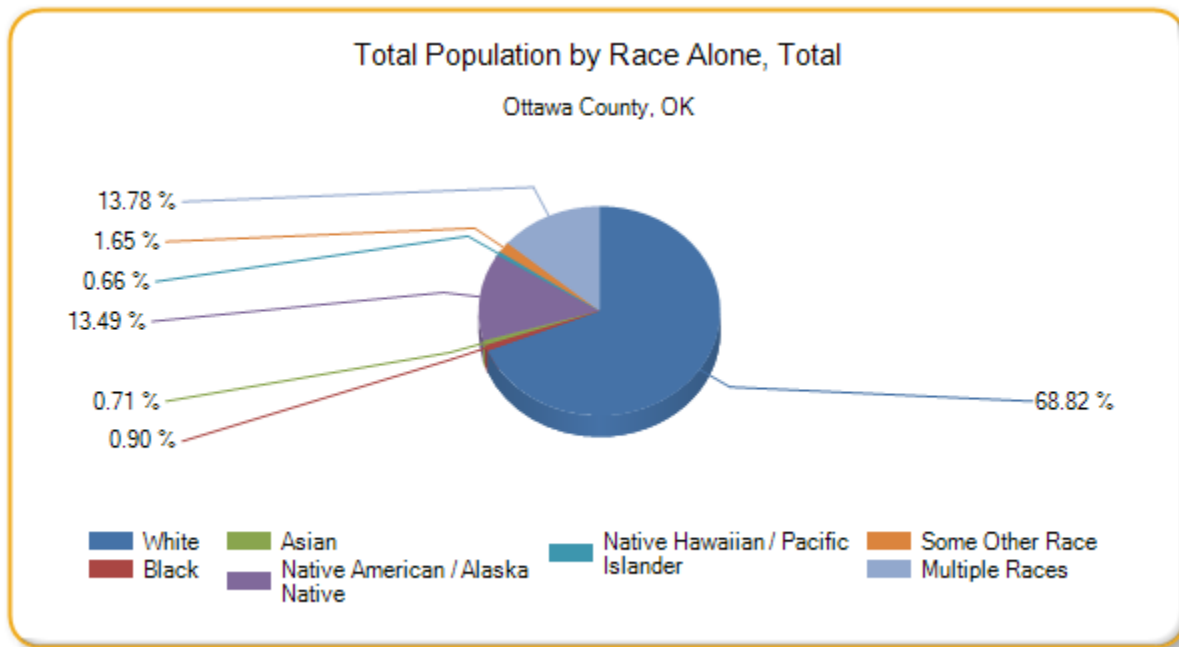


Total Population by Age Groups, Percent

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
Ottawa County, OK	6.87%	17.95%	10.18%	11.14%	11.36%	12.34%	12.32%	17.84%
Oklahoma	6.86%	17.71%	10.04%	13.77%	12.21%	12.66%	12.25%	14.5%
United States	6.24%	16.87%	9.82%	13.62%	12.73%	13.64%	12.58%	14.5%

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 October 1, 2018

White comprised 68.82% of the population and Native American/Alaska Natives made up the largest minority race at 13.49 percent. Hispanics comprised 5.24 percent of the population, although it is likely an underestimation because of potential undercounting of undocumented Hispanic immigrants. It should be noted that race and ethnicity are separate concepts. Individuals of Hispanic origin are those who indicate 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.



Total Population by Race Alone, Percent

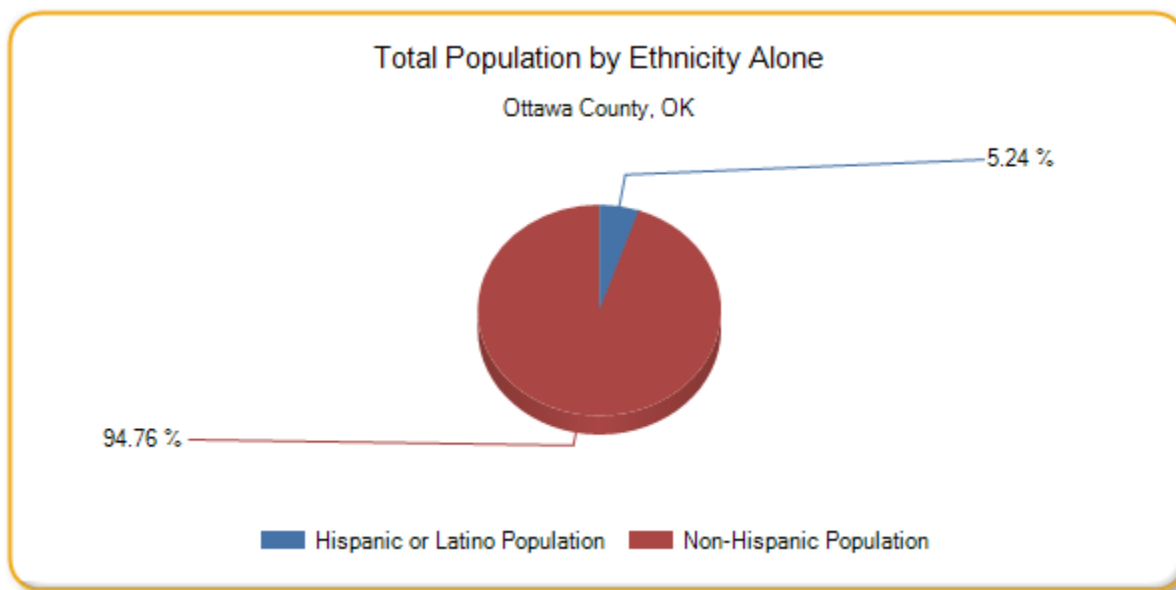
Report Area	White	Black	Asian	Native American / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
Ottawa County, OK	68.82%	0.9%	0.71%	13.49%	0.66%	1.65%	13.78%
Oklahoma	72.85%	7.26%	2%	7.39%	0.13%	2.64%	7.73%
United States	73.35%	12.63%	5.22%	0.82%	0.18%	4.75%	3.06%

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 October 1, 2018

Total Population by Ethnicity Alone

Report Area	Total Population	Hispanic or Latino Population	Percent Population Hispanic or Latino	Non-Hispanic Population	Percent Population Non-Hispanic
Ottawa County, OK	32,022	1,677	5.24%	30,345	94.76%
Oklahoma	3,875,589	381,467	9.84%	3,494,122	90.16%
United States	318,558,162	55,199,107	17.33%	263,359,055	82.67%

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 October 1, 2018



Population Change

Definition

This demographic indicator is presented as the percentage change in the population within the county from the U.S. Census Bureau Decennial Census, between 2000 and 2010.

Why is this indicator important?

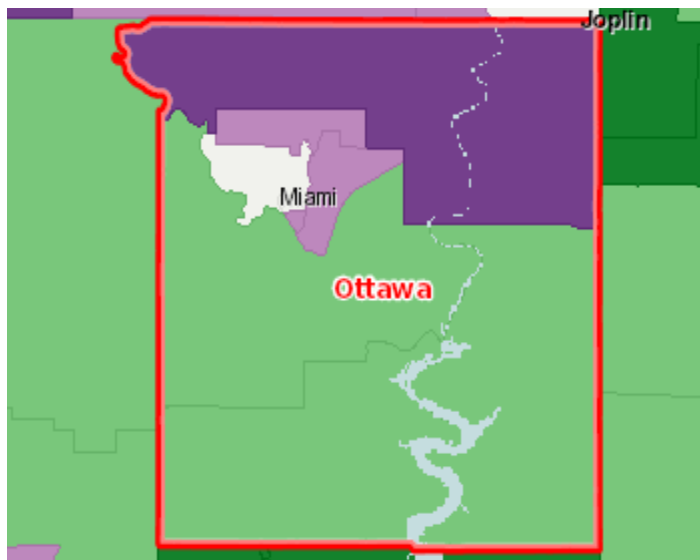
Trends in general population growth and decline help target specific locations and/or demographic groups where public health efforts should be focused in order to ensure adequate access to community-based programs.

How are we doing?

According to the United States Census Bureau Decennial Census, between 2000 and 2010 the population in the report area fell by 1,346, a change of 4.05%. A significant positive or negative shift in total population over time impacts healthcare providers and the utilization of community resources.

Report Area	Total Population, 2000 Census	Total Population, 2010 Census	Total Population Change, 2000-2010	Percent Population Change, 2000-2010
Ottawa County, OK	33,194	31,848	-1,346	-4.05%
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: US Census Bureau, Decennial Census. 2000 - 2010. Retrieved from: <https://www.census.gov> Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on October 1, 2018



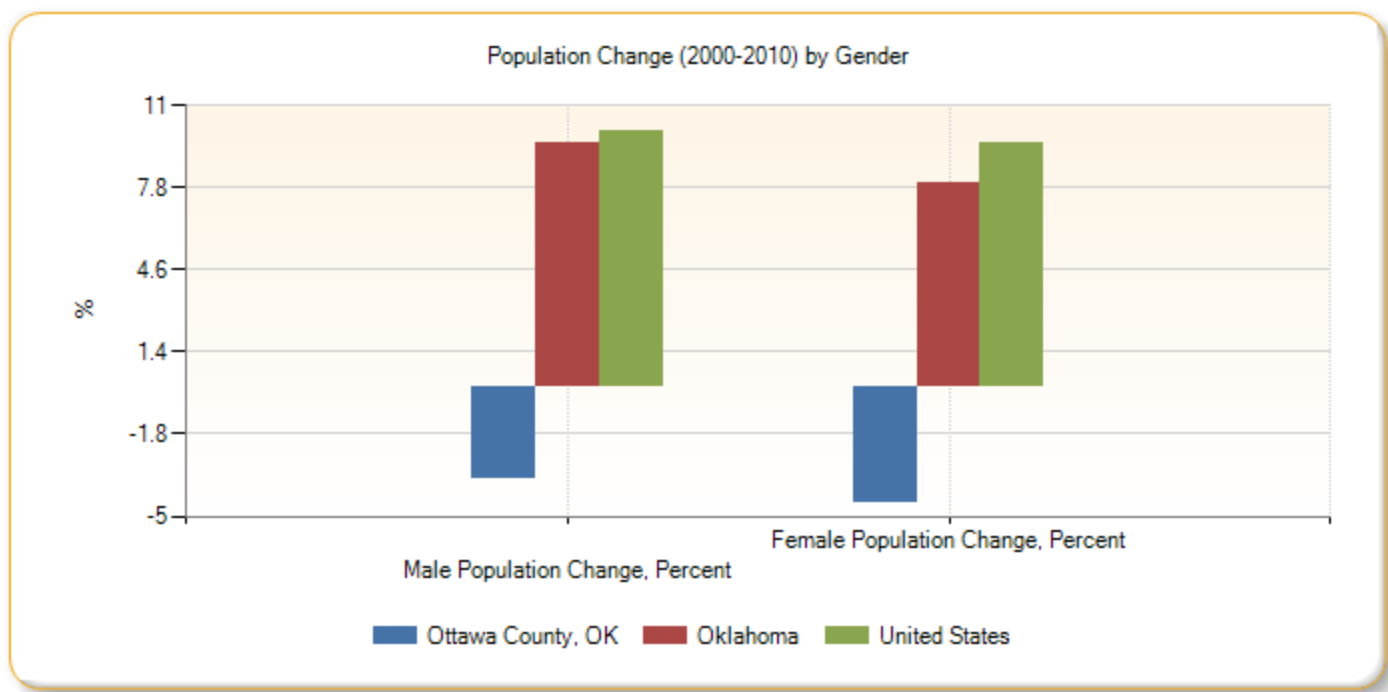
Population Change, Percent by Tract, US Census 2000 - 2010

- Over 10.0% Increase ()
- 1.0 - 10.0% Increase ()
- Less Than 1.0% Change (/ -)
- 1.0 - 10.0% Decrease (-)
- Over 10.0% Decrease (-)
- No Population or No Data
- Report Area

The female population in Ottawa County had the largest decrease in population between 2000 and 2010 (-4.53%) as compared to the male population (-3.55%). This increase was similarly reflected in Oklahoma and the U.S

Population Change (2000-2010) by Gender

Report Area	Male Population Change, Total	Male Population Change, Percent	Female Population Change, Total	Female Population Change, Percent
Ottawa County, OK	-572	-3.55%	-774	-4.53%
Oklahoma	161,081	9.5%	139,615	7.96%
United States	13,738,020	10.02%	13,601,733	9.55%

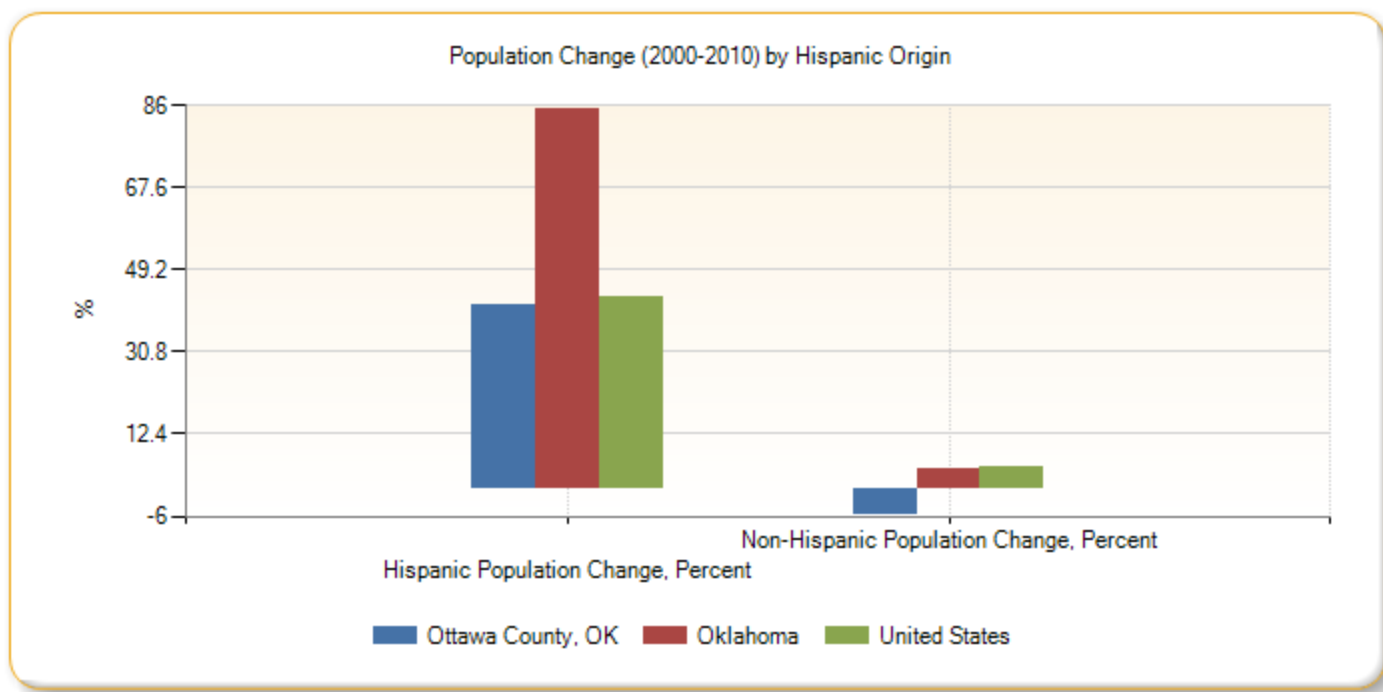


Increasing Hispanic Population

Based on U.S. Census data, the Hispanic populations in Ottawa County, the state, and the nation, have been increasing since 2000. According to the 2014 American Community Survey 5-year estimates, the Hispanic Population increased by 41.28.

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
Ottawa County, OK	438	41.28%	-1,784	-5.55%
Oklahoma	152,703	85.16%	147,992	4.52%
United States	15,152,943	42.93%	12,099,099	4.92%

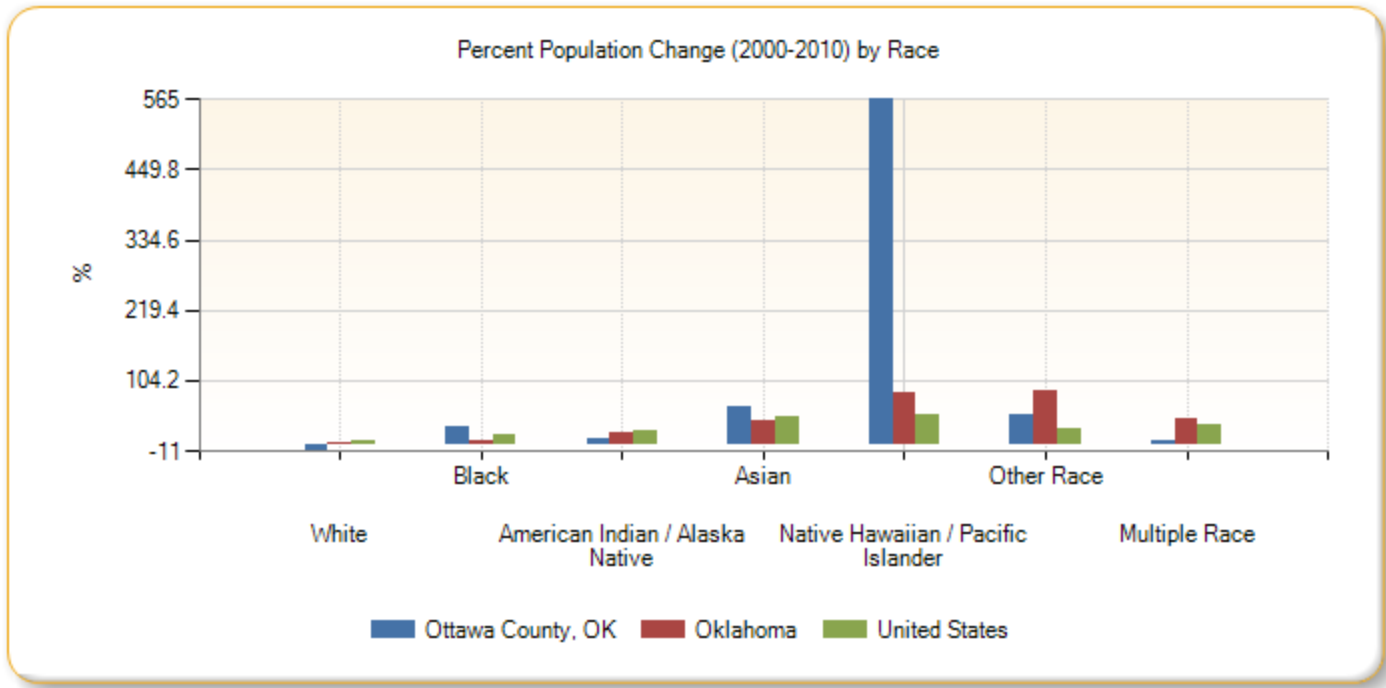


Total Population Change (2000-2010) by Race

Report Area	White	Black	American Indian / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Other Race	Multiple Race
Ottawa County, OK	-2,643	53	519	61	254	246	164
Oklahoma	78,412	16,676	48,457	18,309	1,997	71,511	65,336
United States	12,199,518	5,189,316	521,420	4,433,864	141,446	3,703,567	2,190,889

Percent Population Change (2000-2010) by Race

Report Area	White	Black	American Indian / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Other Race	Multiple Race
Ottawa County, OK	-10.74%	27.6%	9.46%	62.89%	564.44%	48.24%	7.29%
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%



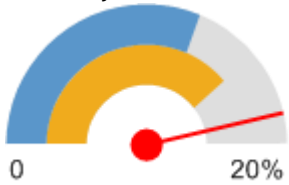
Population with Any Disability

This indicator reports the percentage of the total civilian non-institutionalized population with a disability. This indicator is relevant because disabled individuals comprise a vulnerable population that requires targeted services and outreach by providers.

Report Area	Total Population (For Whom Disability Status Is Determined)	Total Population with a Disability	Percent Population with a Disability
Ottawa County, OK	31,578	5,856	18.54%
Oklahoma	3,794,815	594,454	15.66%
United States	313,576,137	39,272,529	12.52%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on October 1, 2018

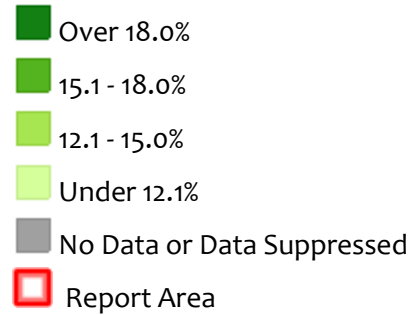
Percent Population with a Disability



■ Ottawa County, OK (18.54%)
■ Oklahoma (15.66%)
■ United States (12.52%)



Disabled Population, Percent by Tract, ACS 2012-16



Population in Limited English Households

This 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.”

Why Is This Indicator Important?

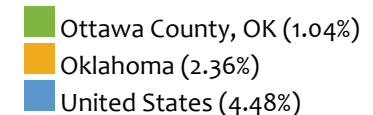
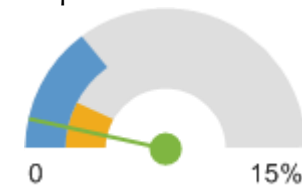
This indicator is significant as it identifies households and populations that may need English-language assistance. These indicators are relevant because an inability to speak English well creates barriers to healthcare access, provider communications, and health literacy/education.

How Are We Doing?

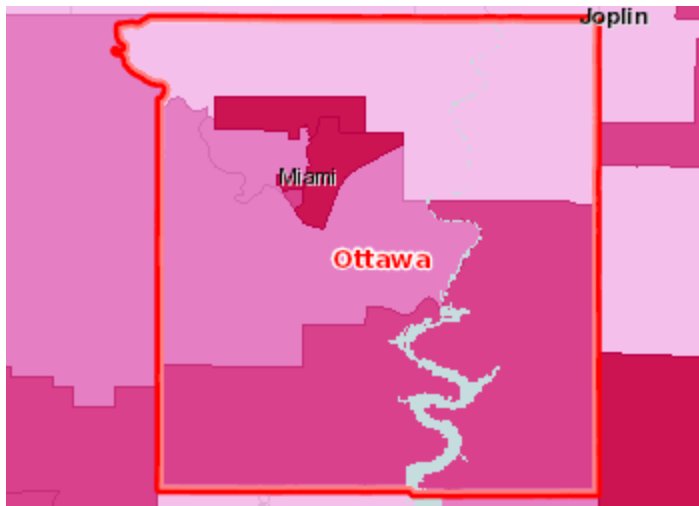
In 2012-2016, the percent of population in Ottawa County that was linguistically isolated was 1.04 percent, which was lower than in Oklahoma overall, (2.36%) and in the U.S. overall (4.48%).

Report Area	Total Population Age 5	Linguistically Isolated Population	Percent Linguistically Isolated Population
Ottawa County, OK	29,822	311	1.04%
Oklahoma	3,609,771	85,264	2.36%
United States	298,691,202	13,393,615	4.48%

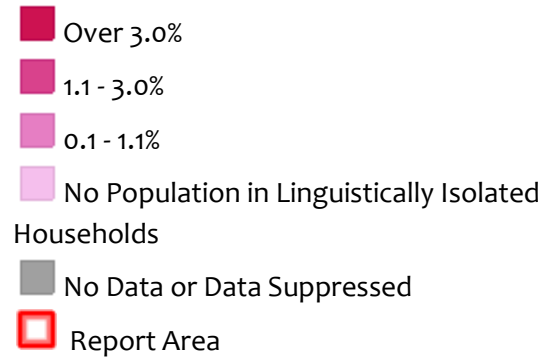
Percent Linguistically Isolated Population



Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on October 1, 2018



Population in Linguistically Isolated Households, Percent by Tract, ACS 2012-16

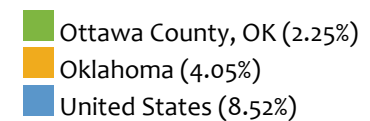
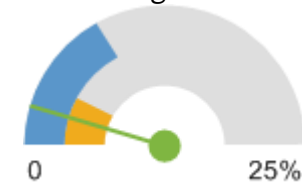


Population with Limited English Proficiency

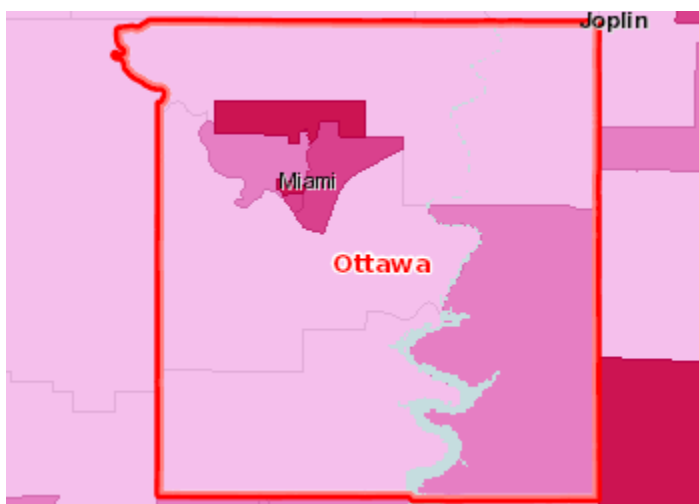
This indicator reports the percentage of the population aged 5 and older who speak a language other than English at home and speak English less than "very well." This indicator is relevant because an inability to speak English well creates barriers to healthcare access, provider communications, and health literacy/education.

Report Area	Population Age 5	Population Age 5 with Limited English Proficiency	Percent Population Age 5 with Limited English Proficiency
Ottawa County, OK	29,822	670	2.25%
Oklahoma	3,609,771	146,023	4.05%
United States	298,691,202	25,440,956	8.52%

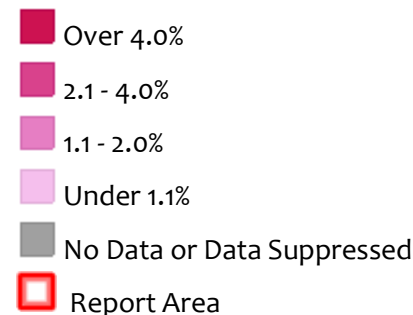
Percent Population Age 5 with Limited English Proficiency



Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract
Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on October 1, 2018

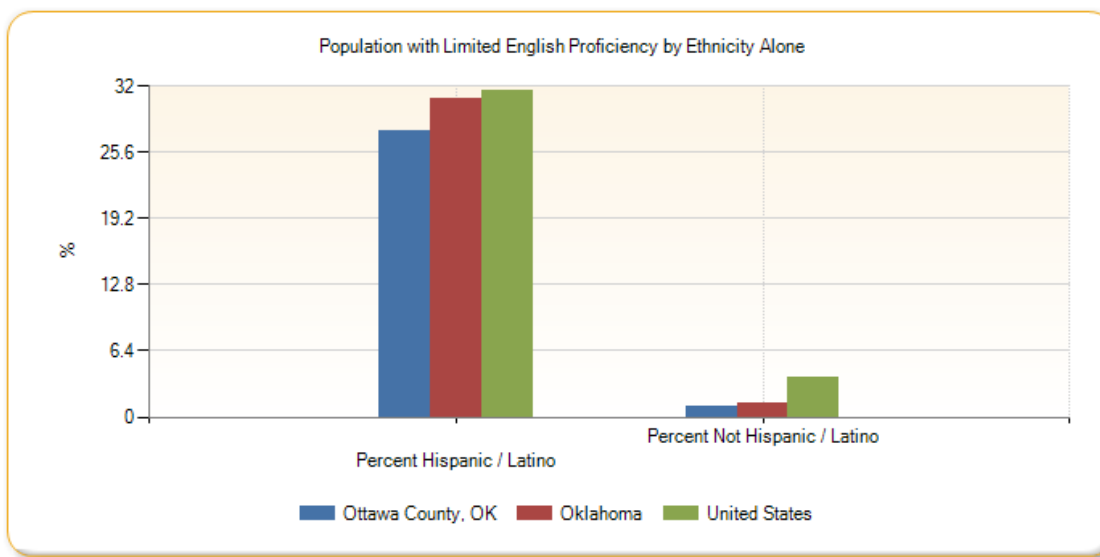


Population with Limited English Proficiency, Percent by Tract, ACS 2012-16



Population with Limited English Proficiency by Ethnicity Alone

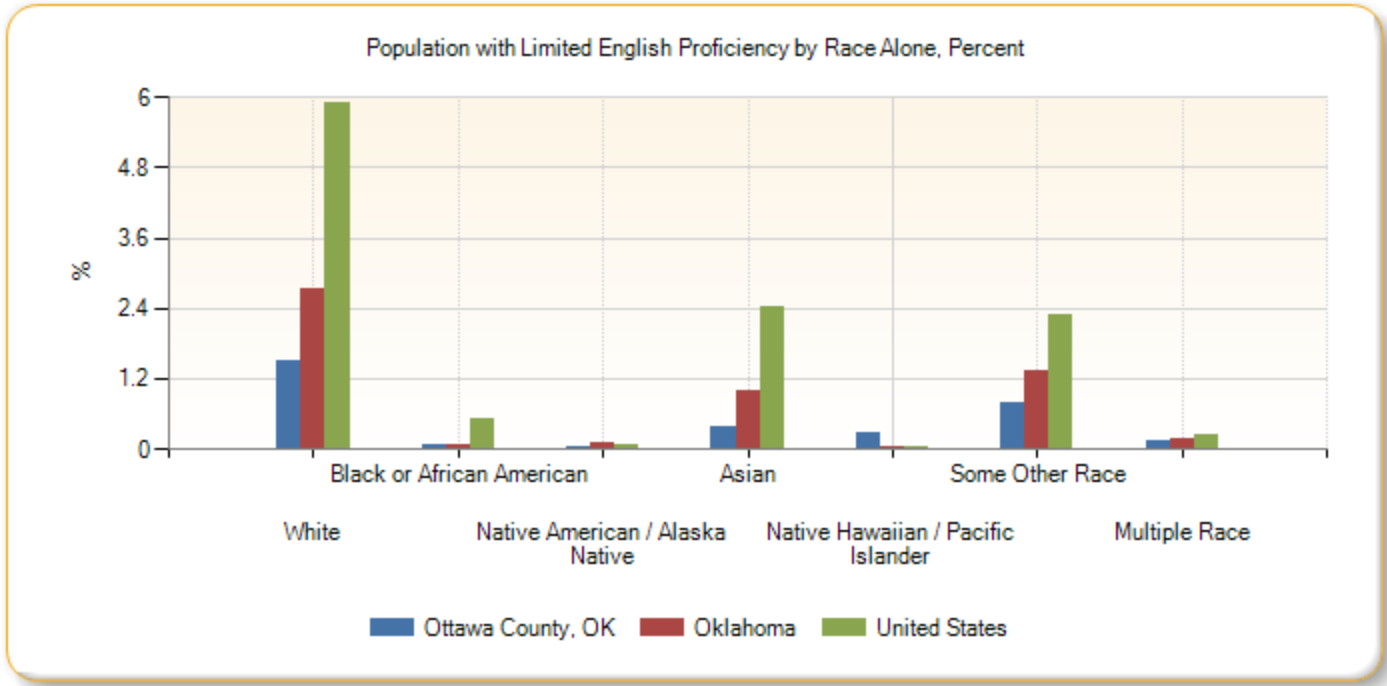
Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Ottawa County, OK	400	270	27.7%	0.95%
Oklahoma	103,086	42,937	30.83%	1.31%
United States	15,824,332	9,616,624	31.61%	3.87%



Population with Limited English Proficiency by Race Alone, Percent

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on October 1, 2018

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	1.49%	0.09%	0.03%	0.39%	0.29%	0.79%	0.13%
Oklahoma	2.73%	0.09%	0.12%	0.99%	0.04%	1.34%	0.19%
United States	5.91%	0.51%	0.08%	2.44%	0.03%	2.3%	0.26%

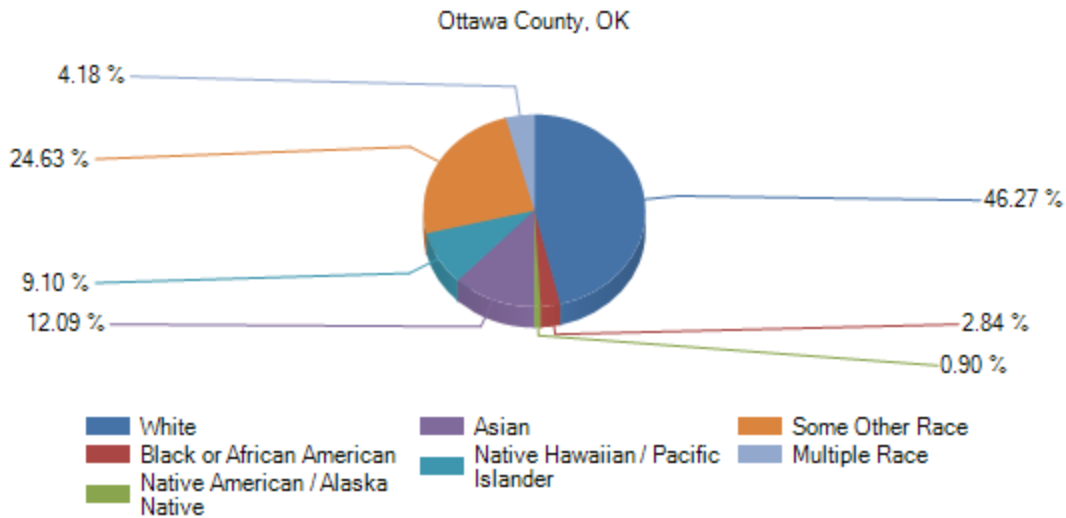


Population with Limited English Proficiency by Race Alone, Total

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Source: Courtesy of Community Commons.
 Retrieved from: www.communitycommons.org on October 1, 2018

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	310	19	6	81	61	165	28
Oklahoma	72,500	2,376	3,102	26,297	1,114	35,572	5,062
United States	13,038,966	1,122,629	178,600	5,389,594	70,574	5,076,851	563,742

Population with Limited English Proficiency by Race Alone, Total

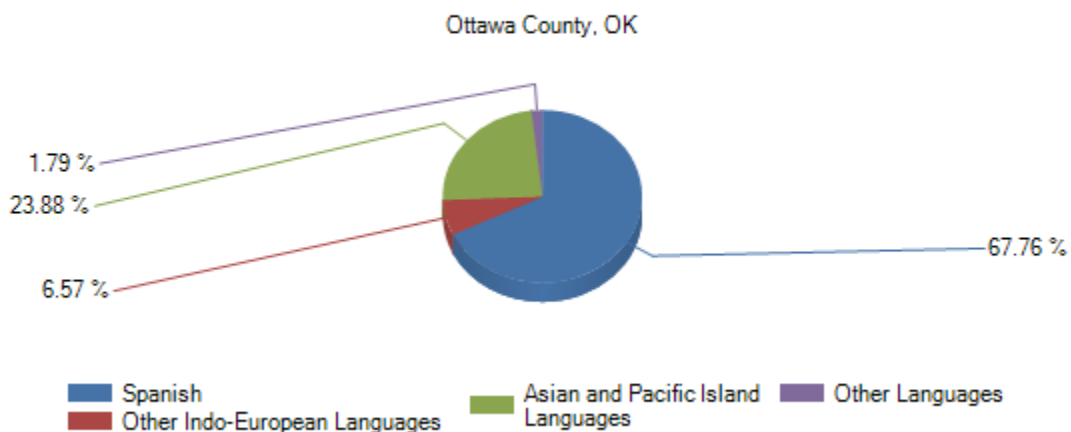


Population with Limited English Proficiency by Language Spoken at Home (4-Category)

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Source: Courtesy of Community Commons.
Retrieved from: www.communitycommons.org on October 1, 2018

Report Area	Spanish	Other Indo-European Languages	Asian and Pacific Island Languages	Other Languages
Ottawa County, OK	454	44	160	12
Oklahoma	107,882	7,354	25,886	4,901
United States	16,268,850	3,423,686	4,815,252	933,168

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



Indo-European Language Speaking Population by Language Spoken at Home, Part 1

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on October 1, 2018

Report Area	French or French Creole	Haitian	Italian	Portuguese	German	Yiddish, Pennsylvania Dutch or other West Germanic Languages	Greek	Russian	Polish	Serbo-Croatian	Ukrainian or Other Slavic Languages
Ottawa County, OK	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data
Oklahoma	881	99	249	343	1,318	140	92	583	210	81	87

Families with Children

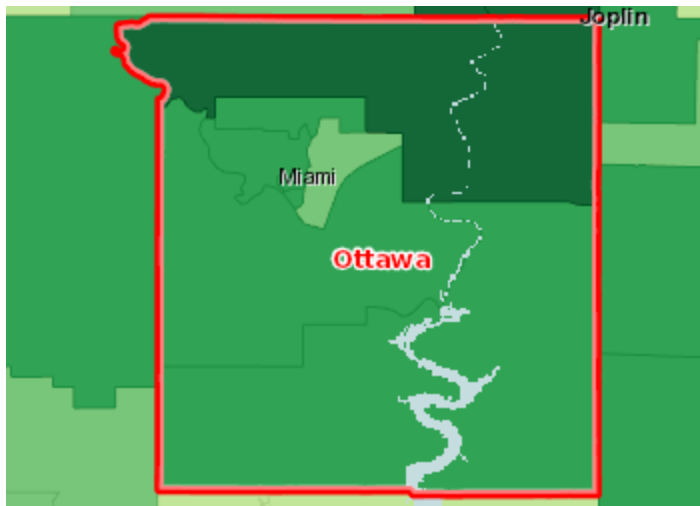
According to the most recent the American Community Survey estimates, 32.79% of all occupied households in the report area are family households with one or more child(ren) under the age of 18. As [defined](#) by the US Census Bureau, a family household is any housing unit in which the householder is 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.

Why Is This Indicator Important?

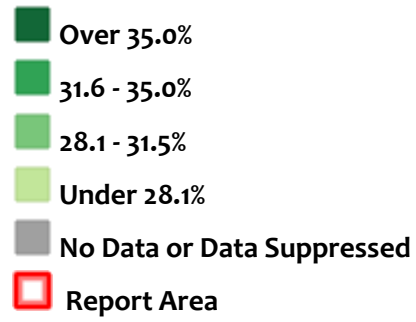
This indicator is significant as it identifies households with children. Adequate resources, healthy and safe environments, and positive intellectual and emotional development of children are key to eventual transition into healthy and productive adulthood. Unfortunately, these are not guaranteed and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

Report Area	Total Households	Total Family Households	Families with Children (Under Age 18)	Families with Children (Under Age 18), Percent of Total Households
Ottawa County, OK	11,982	8,157	3,929	32.79%
Oklahoma	1,461,500	967,783	472,912	32.36%
United States	117,716,237	77,608,829	37,299,113	31.69%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on October 1, 2018

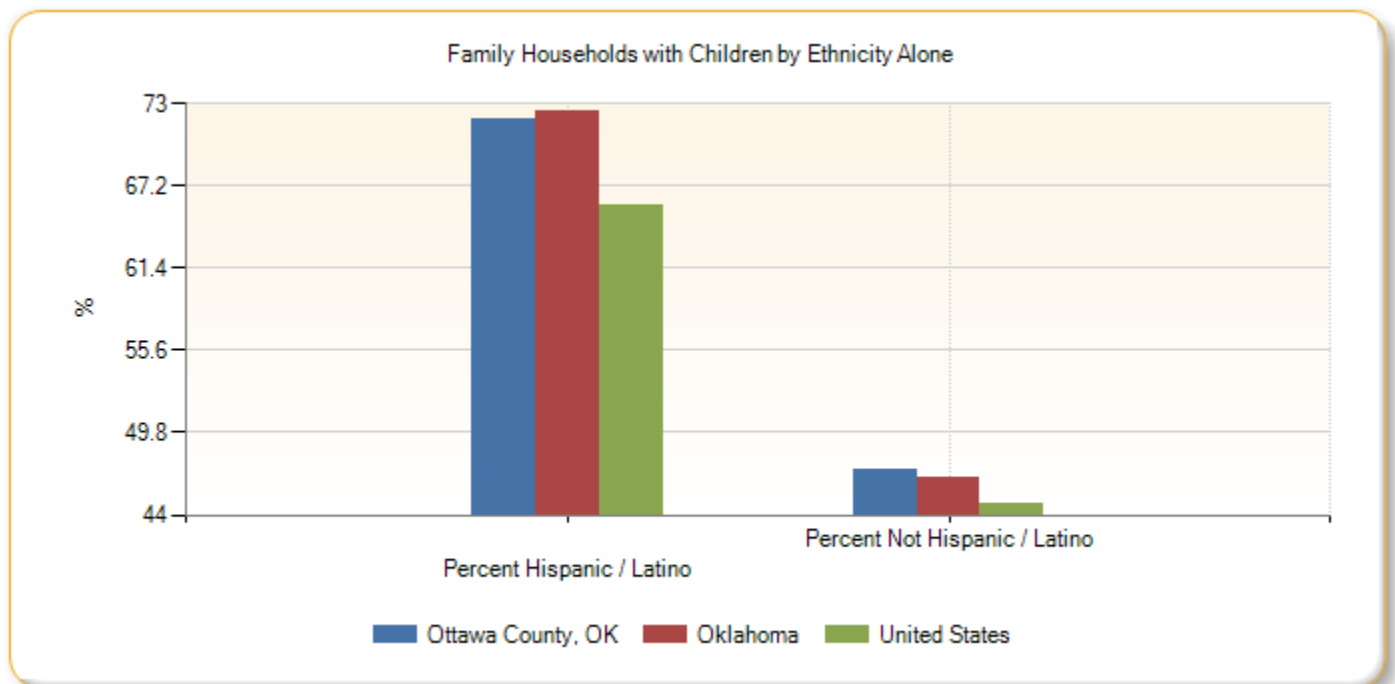


Households with Children (Age 0-17), Percent by Tract, ACS 2012-16



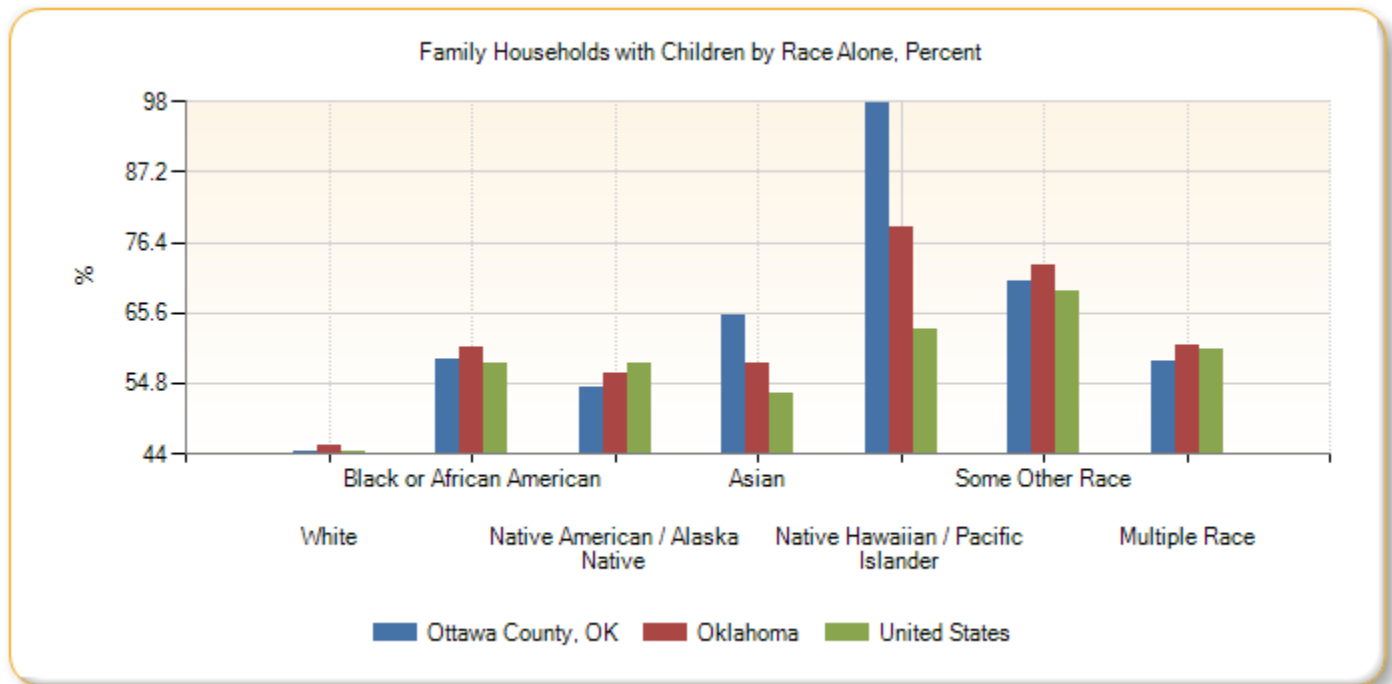
Family Households with Children by Ethnicity Alone

Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Ottawa County, OK	197	3,718	71.9%	47.16%
Oklahoma	53,253	417,453	72.45%	46.68%
United States	7,425,334	29,724,102	65.79%	44.82%



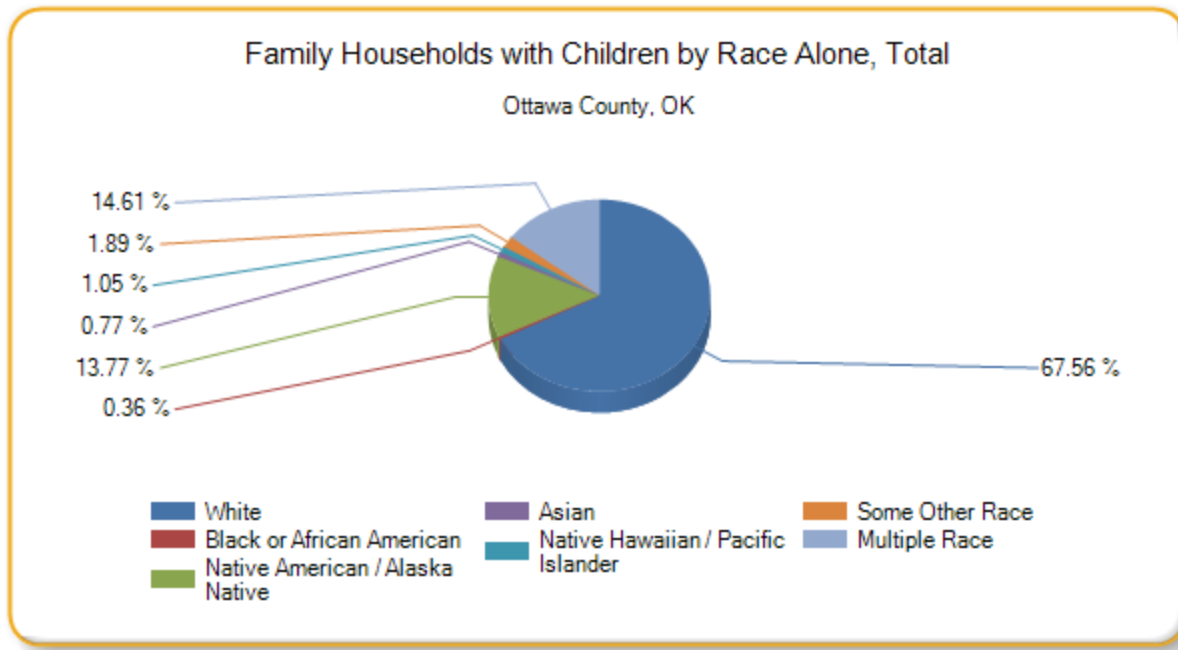
Family Households with Children by Race Alone, Percent

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	44.35%	58.33%	54.28%	65.22%	97.62%	70.48%	58.19%
Oklahoma	45.22%	60.41%	56.4%	57.88%	78.73%	72.94%	60.57%
United States	44.51%	57.91%	57.99%	53.31%	63.03%	68.87%	59.95%



Family Households with Children by Race Alone, Total

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	2,645	14	539	30	41	74	572
Oklahoma	339,156	37,564	36,069	9,416	729	15,517	32,255
United States	26,544,351	5,137,588	326,490	2,057,654	69,946	2,157,859	855,548



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 2016 *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.

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}

²¹The 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>.

How Are We Doing?

According to the 2016 American Community Survey estimates, married couple family households make up 49.6% of the population, female headed families consist of 13.0% of the population, and male headed households with no wife present consist of 5.5% of the population, 31.9% of care considered no family households.

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.

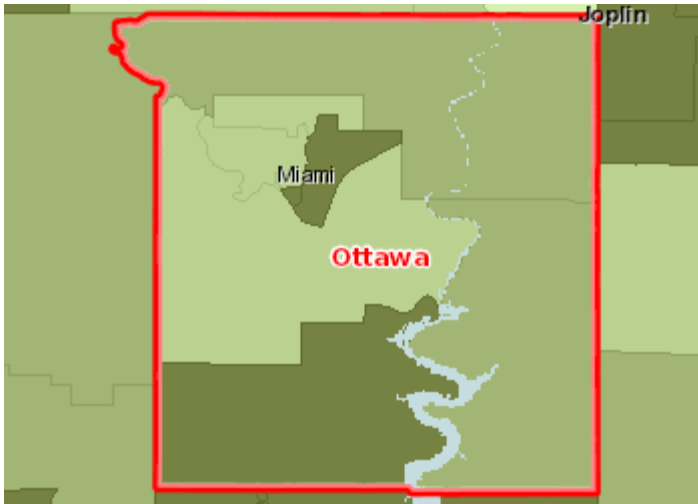
Foster care is more likely to be on public assistance as adults. The number of children in foster care is commonly used as an indicator for the future prison population. Eighty percent of the prison populations were once foster children.¹⁸

Population Geographic Mobility

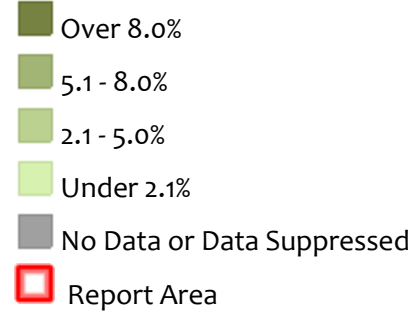
This indicator reports information about population in-migration by assessing changes in residence within a one year period. Of the 31,622 persons residing in the report area, an estimated 6.58% relocated to the area, according to the latest American Community Survey 5-year estimates. Persons who moved to a new household from outside of their current county of residence, from outside their state of residence, or from abroad are considered part of the in-migrated population. Persons who moved to a new household from a different household within their current county of residence are not included.

Report Area	Total Population	Population In-Migration	Percent Population In-Migration
Ottawa County, OK	31,622	2,080	6.58%
Oklahoma	3,825,777	288,725	7.55%
United States	314,813,229	19,417,258	6.17%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Retrieved from: www.communitycommons.org on October 1, 2018

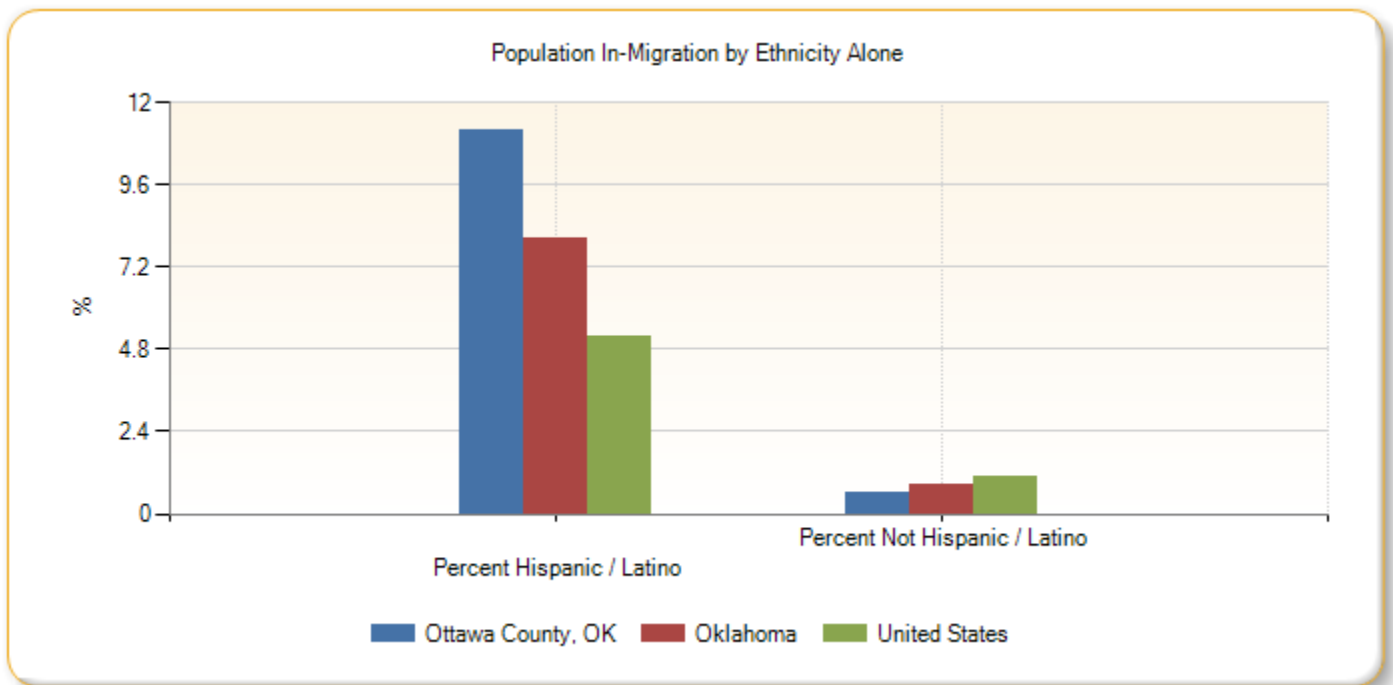


Population Migrated from Outside of the County, State, or Country, Percent of Total Population by Tract, ACS 2012-16



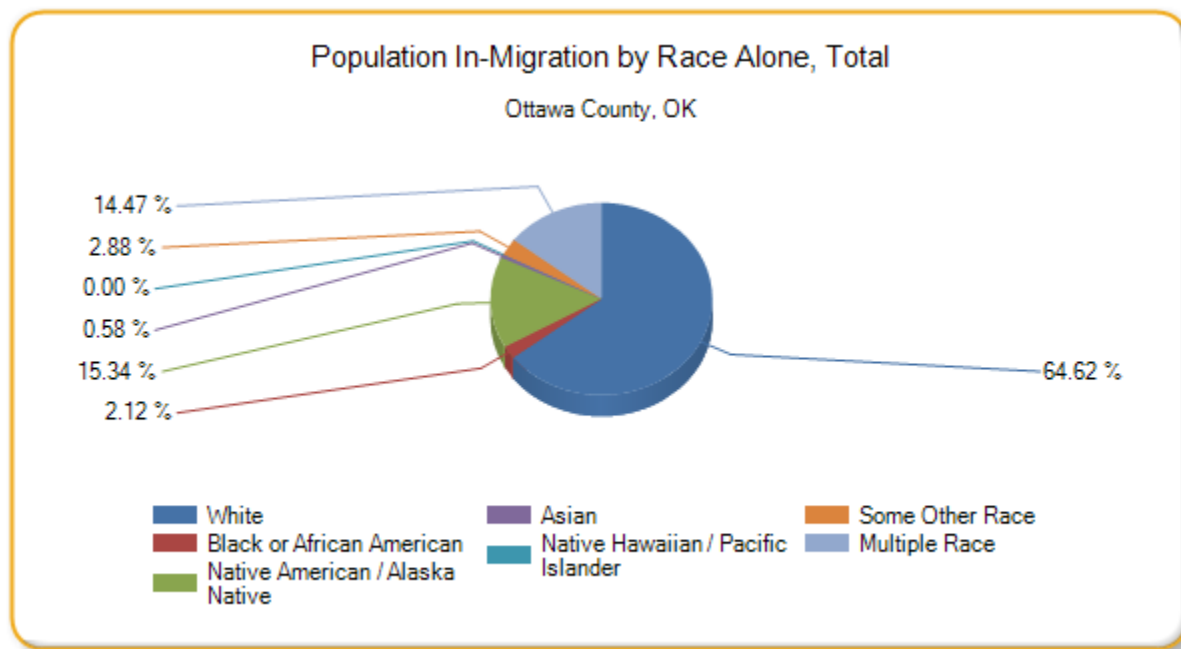
Population In-Migration by Ethnicity Alone

Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Ottawa County, OK	183	1,897	11.17%	0.61%
Oklahoma	30,046	258,679	8.06%	0.87%
United States	2,811,712	16,605,546	5.18%	1.08%



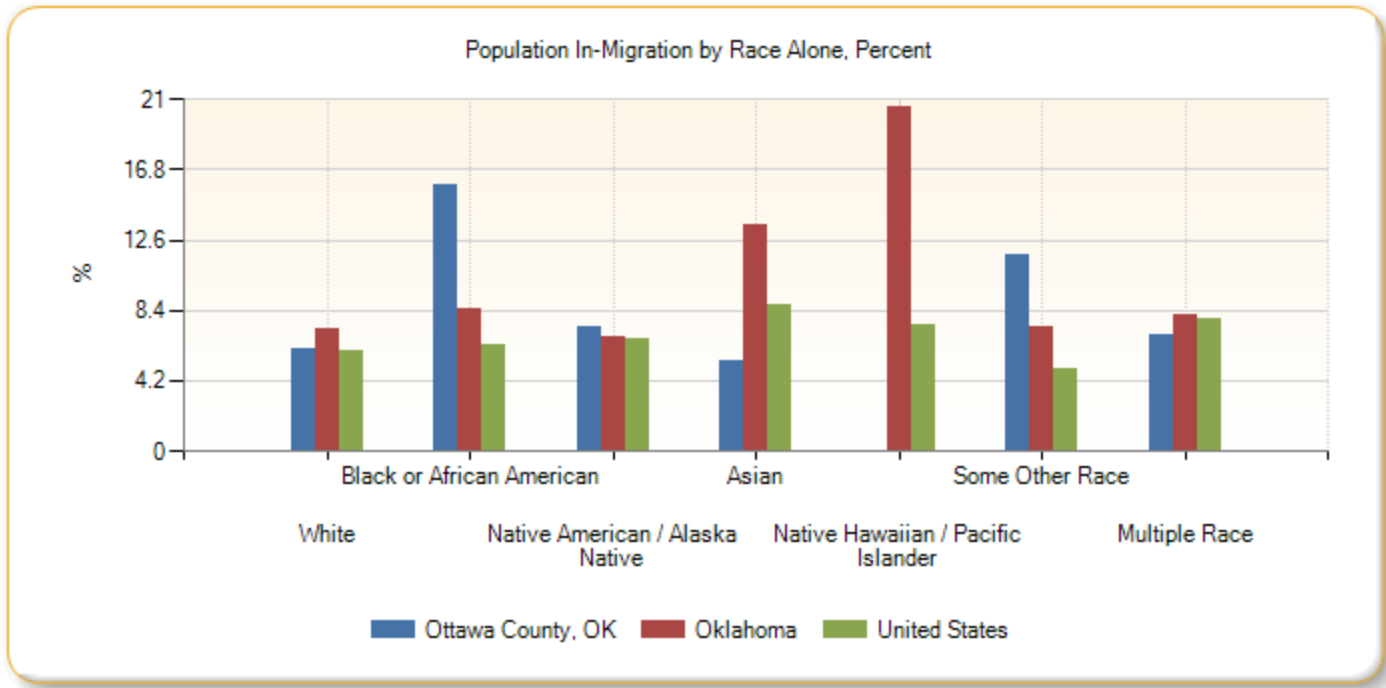
Population In-Migration by Race Alone, Total

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	1,344	44	319	12	0	60	301
Oklahoma	203,767	23,456	19,177	10,326	991	7,426	23,582
United States	13,772,935	2,516,439	171,031	1,430,350	41,696	735,568	749,239



Population In-Migration by Race Alone, Percent

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	6.16%	15.88%	7.45%	5.41%	0%	11.76%	7%
Oklahoma	7.3%	8.45%	6.8%	13.48%	20.58%	7.4%	8.08%
United States	5.96%	6.33%	6.67%	8.7%	7.54%	4.94%	7.92%

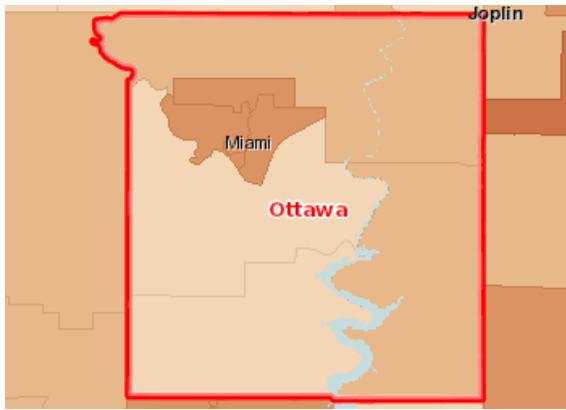


Foreign-Born Population

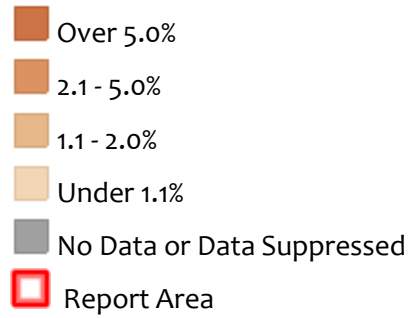
This indicator reports the percentage of the population that is foreign-born. The foreign-born population includes anyone who was not a U.S. citizen or a U.S. national at birth. This includes any non-citizens, as well as persons born outside of the U.S. who have become naturalized citizens. The native U.S. population includes any person born in the United States, Puerto Rico, a U.S. Island Area (such as Guam), or abroad of American (U.S. citizen) parent or parents. The latest figures from the U.S. Census Bureau show that 673 persons in the report area are of foreign birth, which represents 2.1% of the report area population. This percentage is less than the national rate of 13.18%.

Report Area	Total Population	Naturalized U.S. Citizens	Population Without U.S. Citizenship	Total Foreign-Birth Population	Foreign-Birth Population, Percent of Total Population
Ottawa County, OK	32,022	252	421	673	2.1%
Oklahoma	3,875,589	75,889	149,627	225,516	5.82%
United States	318,558,162	19,979,407	22,214,947	42,194,354	13.25%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Retrieved from: www.communitycommons.org on October 1, 2018



Foreign-Born Population (Non-Citizen or Naturalized), Percent by Tract, ACS 2012-16

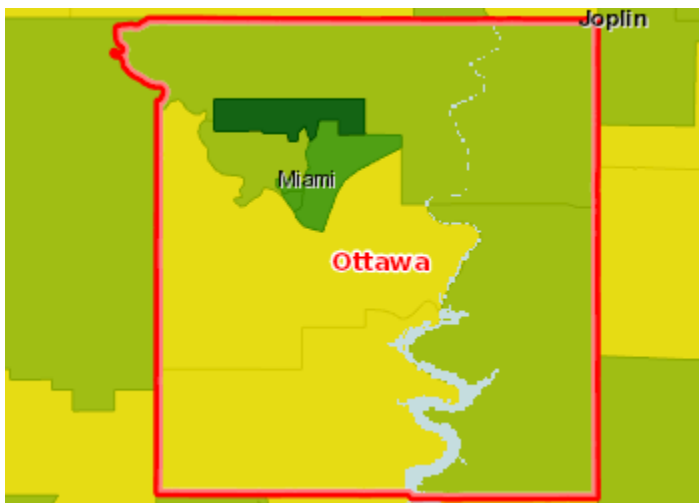


Hispanic Population

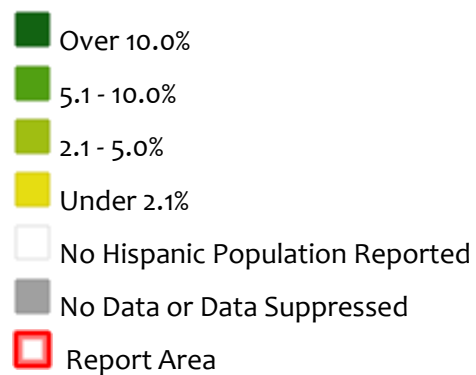
The estimated population that is of Hispanic, Latino, or Spanish origin in the report area is 1,677. This represents 5.24% of the total report area population, which is less than the national 17.33% rate. Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Retrieved from: www.communitycommons.org on October 1, 2018

Report Area	Total Population	Non-Hispanic Population	Percent Population Non-Hispanic	Hispanic or Latino Population	Percent Population Hispanic or Latino
Ottawa County, OK	32,022	30,345	94.76%	1,677	5.24%
Oklahoma	3,875,589	3,494,122	90.16%	381,467	9.84%
United States	318,558,162	263,359,055	82.67%	55,199,107	17.33%

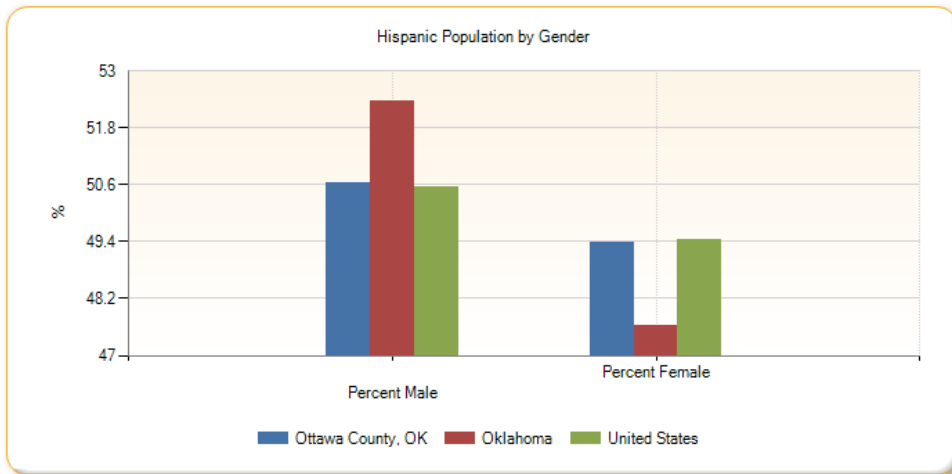


Population, Hispanic or Latino, Percent by Tract, ACS 2012-16



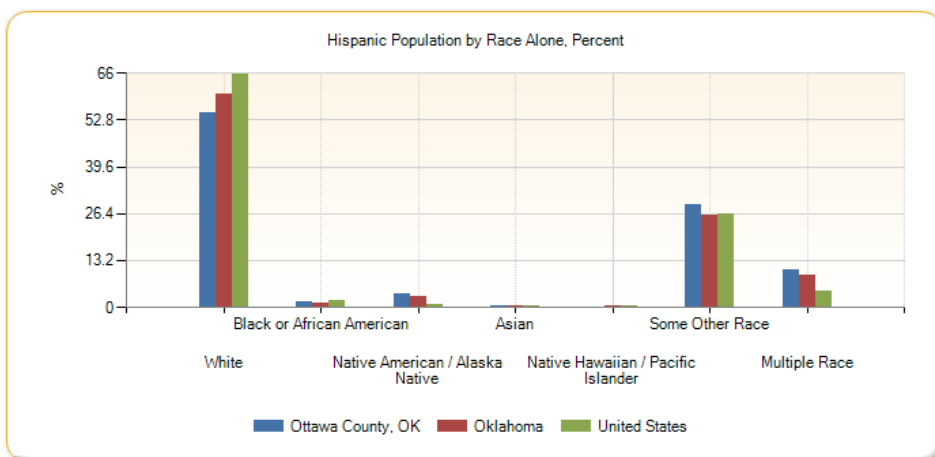
Hispanic Population by Gender

Report Area	Total Male	Total Female	Percent Male	Percent Female
Ottawa County, OK	849	828	50.63%	49.37%
Oklahoma	199,748	181,719	52.36%	47.64%
United States	27,904,147	27,294,960	50.55%	49.45%



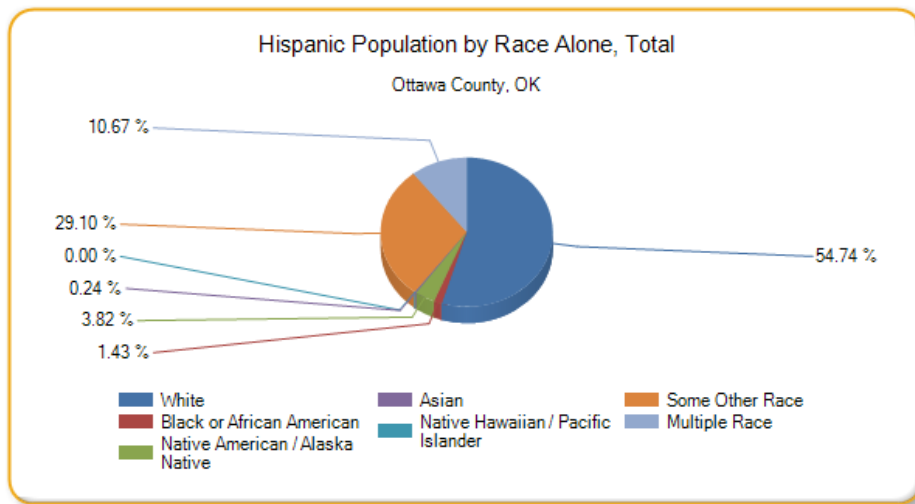
Hispanic Population by Race Alone, Percent

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	54.74%	1.43%	3.82%	0.24%	0%	29.1%	10.67%
Oklahoma	60.2%	1.24%	3.19%	0.24%	0.06%	25.88%	9.19%



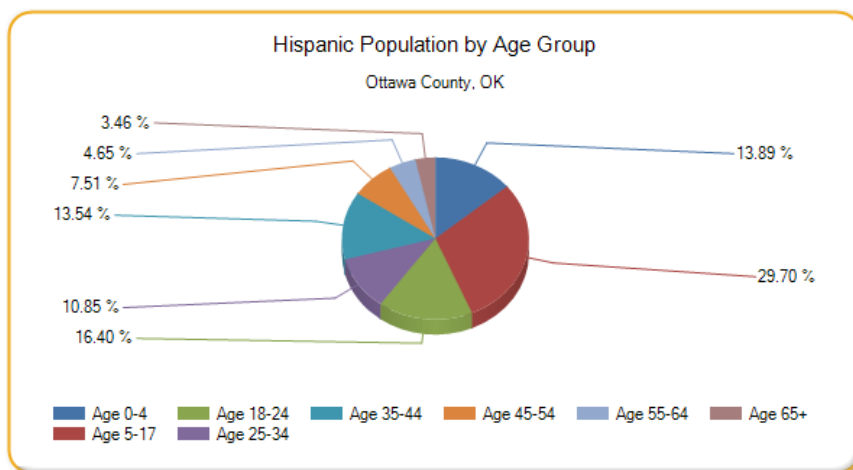
Hispanic Population by Race Alone, Total

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	918	24	64	4	0	488	179
Oklahoma	229,626	4,736	12,169	911	229	98,727	35,069
United States	36,294,406	1,143,499	513,491	189,308	51,097	14,457,853	2,549,453



Hispanic Population by Age Group

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
Ottawa County, OK	233	498	275	182	227	126	78	58
Oklahoma	47,131	105,477	47,413	63,911	50,395	34,886	19,420	12,834
United States	5,130,570	12,816,191	6,585,748	8,818,195	7,972,885	6,284,817	4,052,919	3,537,782



Urban and Rural Population

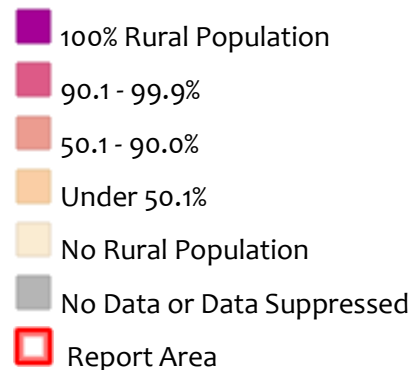
This indicator reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

Report Area	Total Population	Urban Population	Rural Population	Percent Urban	Percent Rural
Ottawa County, OK	31,848	16,144	15,704	50.69%	49.31%
Oklahoma	3,751,351	2,485,029	1,266,322	66.24%	33.76%
United States	312,471,327	252,746,527	59,724,800	80.89%	19.11%

Data Source: US Census Bureau, Decennial Census. 2010. Source geography: Tract Retrieved from: www.communitycommons.org on October 1, 2018



Urban Population, Percent by Tract, US Census 2010

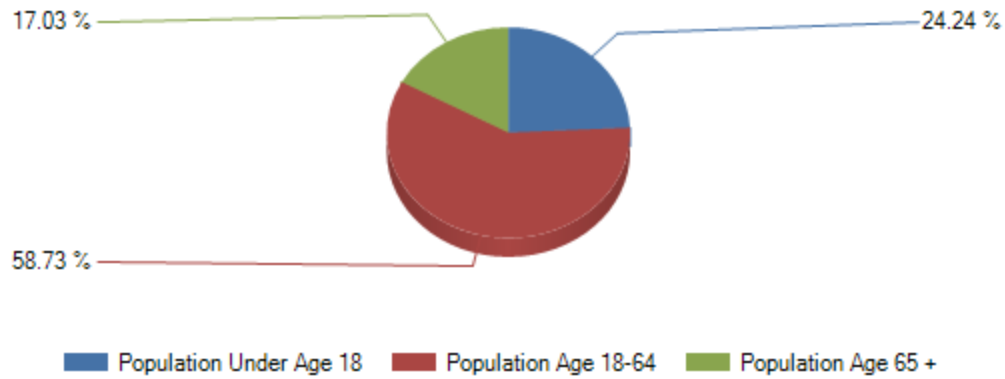


Rural Population, Total by Age Group

Report Area	Population Under Age 18	Population Age 18-64	Population Age 65
Ottawa County, OK	3,807	9,223	2,674
Oklahoma	307,320	762,155	196,847
United States	13,907,394	36,734,957	9,082,449

Rural Population, Total by Age Group

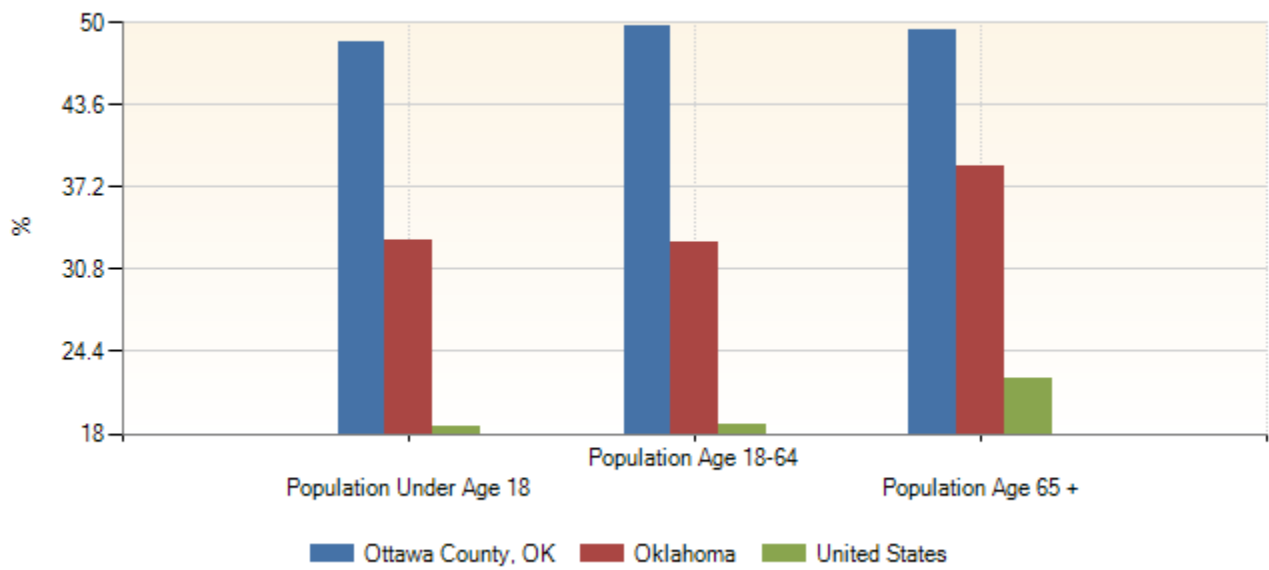
Ottawa County, OK



Rural Population, Percent by Age Group

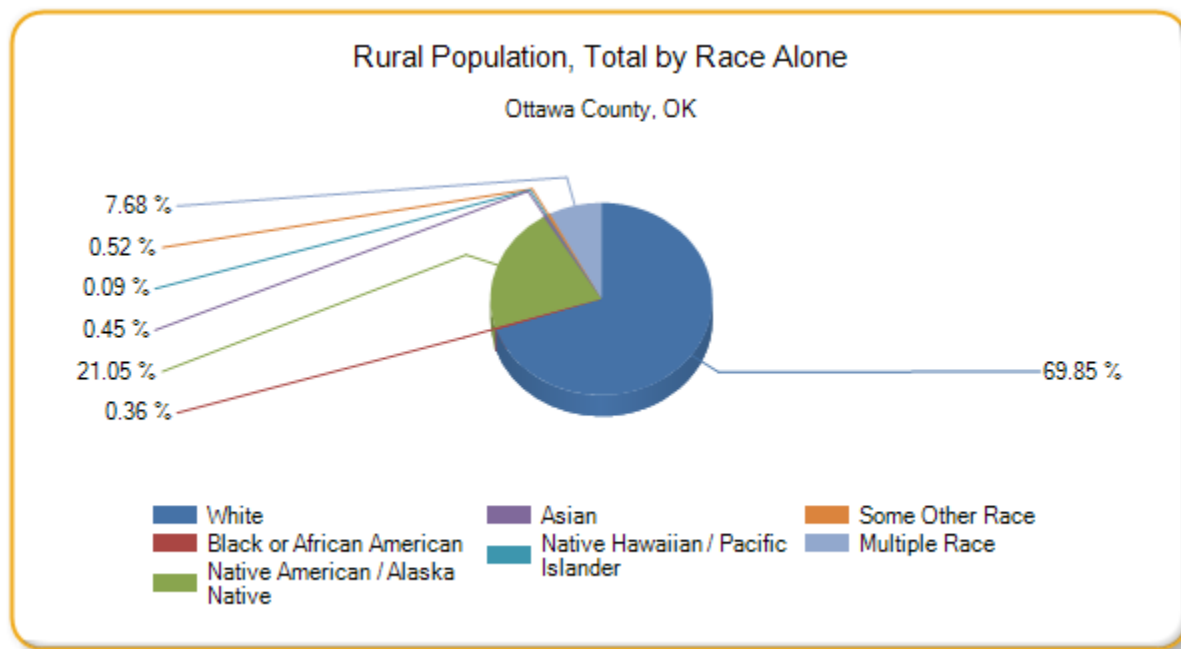
Report Area	Population Under Age 18	Population Age 18-64	Population Age 65
Ottawa County, OK	48.46%	49.66%	49.35%
Oklahoma	33.06%	32.92%	38.85%
United States	18.52%	18.69%	22.26%

Rural Population, Percent by Age Group



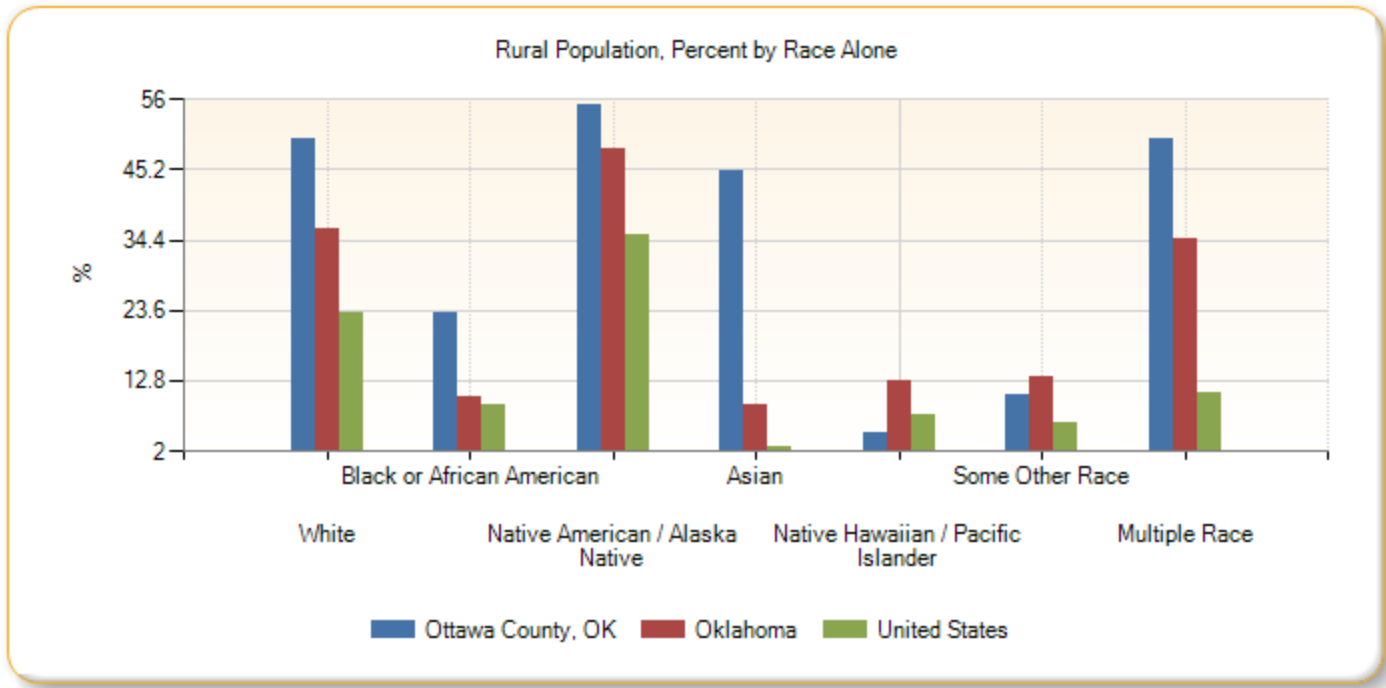
Rural Population, Total by Race Alone

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	10,969	57	3,306	71	14	81	1,206
Oklahoma	978,737	28,610	155,514	6,015	555	20,663	76,228
United States	52,457,879	3,533,008	1,043,048	399,200	40,683	1,242,870	1,008,112



Rural Population, Percent by Race Alone

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	49.93%	23.27%	55.04%	44.94%	4.68%	10.71%	49.96%
Oklahoma	36.16%	10.30%	48.34%	9.24%	12.70%	13.38%	34.44%
United States	23.17%	8.97%	35.33%	2.72%	7.53%	6.41%	11.04%

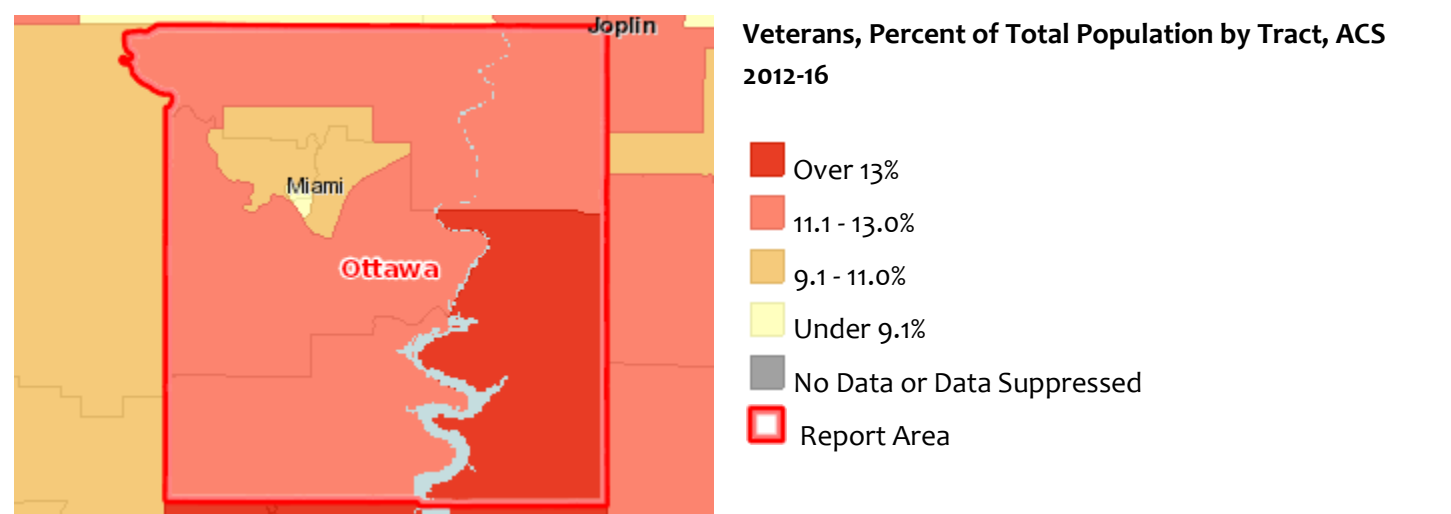


Veteran Population

This indicator reports the percentage of the population age 18 and older that served (even for a short time), but is not currently serving, on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard, or that served in the U.S. Merchant Marine during World War II.

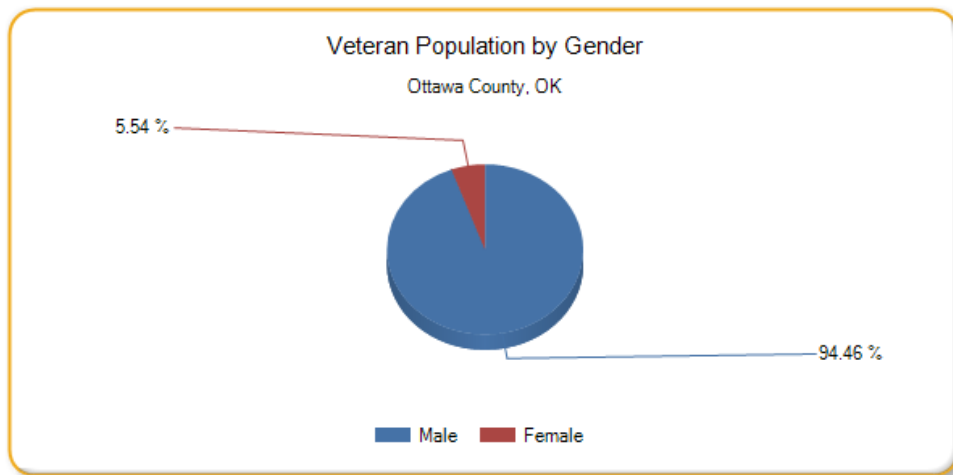
Report Area	Total Population Age 18	Total Veterans	Veterans, Percent of Total Population
Ottawa County, OK	24,075	2,435	10.11%
Oklahoma	2,905,409	286,926	9.88%
United States	243,935,157	19,535,341	8.01%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Retrieved from: www.communitycommons.org on October 1, 2018



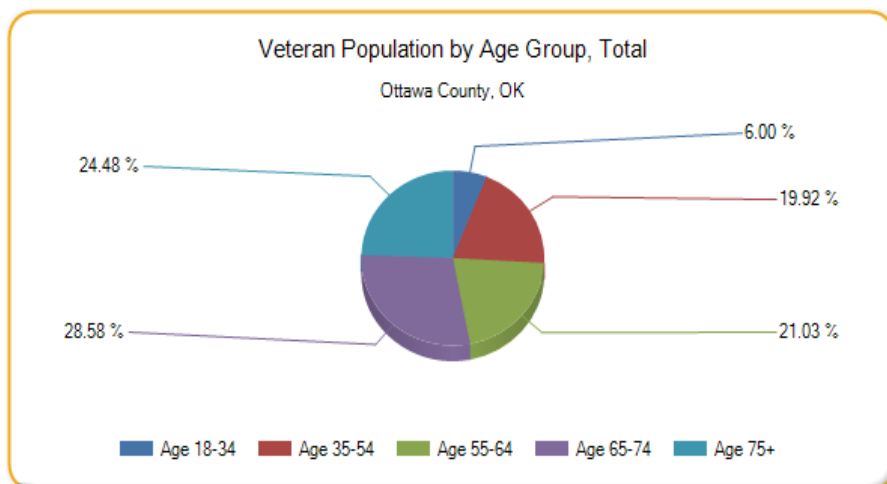
Veteran Population by Gender

Report Area	Male	Female	Percent Male	Percent Female
Ottawa County, OK	2,300	135	19.86%	1.08%
Oklahoma	263,517	23,409	18.59%	1.57%
United States	17,948,822	1,586,519	15.17%	1.26%



Veteran Population by Age Group, Total

Report Area	Age 18-34	Age 35-54	Age 55-64	Age 65-74	Age 75
Ottawa County, OK	146	485	512	696	596
Oklahoma	28,531	70,087	57,952	71,779	58,577
United States	1,679,762	4,700,786	3,785,123	4,869,962	4,499,708



Veteran Population by Age Group, Percent

Report Area	Age 18-34	Age 35-54	Age 55-64	Age 65-74	Age 75
Ottawa County, OK	2.14%	6.39%	12.98%	21.67%	23.84%
Oklahoma	3.14%	7.3%	12.21%	22.25%	24.48%
United States	2.27%	5.61%	9.45%	18.48%	22.7%

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 2018 County Health Rankings & Roadmaps courtesy of the University of Wisconsin Population Health Institute.

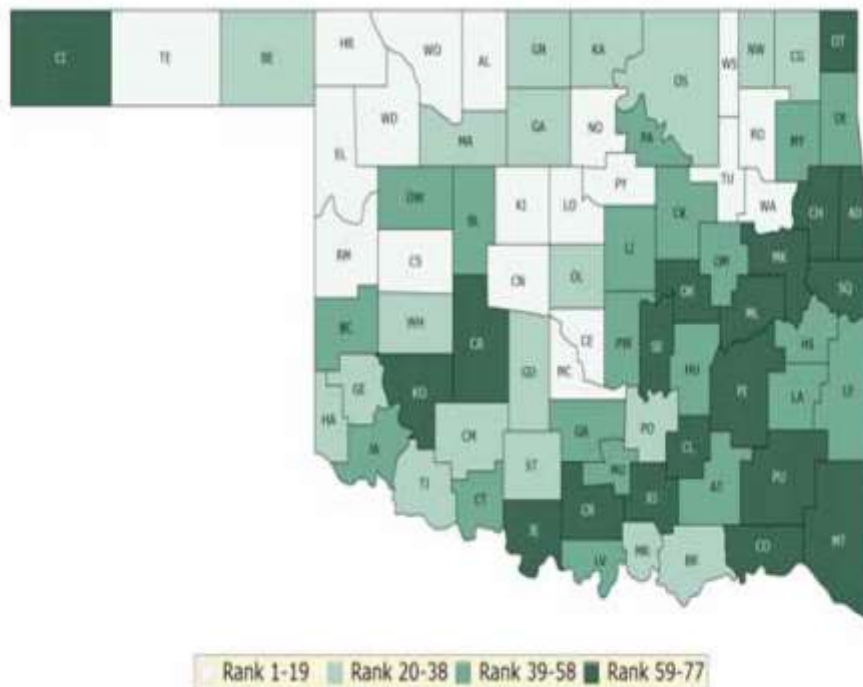
Why Is This Indicator Important?

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. Lighter shades indicate better performance in the respective summary rankings. In 2018, Ottawa County ranked 59th of 77 counties in Oklahoma in regard to health outcomes.⁷ According to the Oklahoma State Health Department's 2018 *State of the State's Health* report, almost one in seven Ottawa County adults reported four frequent poor physical health (13.1%) and one in five reported frequent poor mental health (21.3%) in the previous month.²⁶

2018 Oklahoma Health Outcomes Map



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

2018 Oklahoma Health Outcomes and Rankings

2018 County Health Rankings for the 77 Ranked Counties in Oklahoma

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

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

How Are We Doing?

Oklahoma had the 5th highest death rate from all causes in the nation in 2016.^{25 26} The total mortality rate in Oklahoma (888.4 per 100,000 population) was over 20 percent higher than the U.S. total mortality rate (844.0 deaths per 100,000 population) in 2016.^{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 Ottawa County in 2016 was 1108.7, a rate that was significantly higher than both Oklahoma and the U.S.^{23 24}

Total Mortality Rates (Age-Adjusted, Deaths per 100,000 Population) by Locality, 2016

Locality	Rate of Deaths per 100,000 Population
Ottawa County	1108.7
Oklahoma	888.4
U.S.	844.0

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2016. *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 2016. *National Vital Statistics Reports* (64)2.

As expected, older adults in Ottawa County and Oklahoma experience higher death rates per 100,000 population.^{24 27}

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/>.

²⁵ Centers for Disease Control and Prevention, National Center for Health Statistics. (2016). Deaths: Final Data for 2016. *National Vital Statistics Reports* (64)2.

²⁶ Oklahoma State Department of Health (OSDH). (2016). *2016 State of the State's Health*. Retrieved from: <https://www.ok.gov/health/pub/boh/statec/index.html>.

²⁷ Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2016. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: <http://www.health.ok.gov/ok2share>.

Total Mortality Rates (Deaths per 100,000 Population) by Age, Oklahoma 2016

Age in Years	Rate of Deaths per 100,000 Population, Oklahoma	Rate of Deaths per 100,000 Population, Ottawa County
15-24	-	-
25-34	158.4	-
35-44	278.2	339.5
45-54	575.7	793.4
55-64	1,215.1	1,566.4
65-74	2,342.6	2,881.7
75-84	5,318.6	6,720.9
85+	14,037.1	17,599.5

In Oklahoma, men had a percent higher death rate than women.^{28 30} This disparity was similarly evident among Ottawa County residents.

Total Mortality Rates (Age-Adjusted, Deaths per 100,000 Population) by Gender, 2016

Gender	Rate of Deaths per 100,000 Population, Oklahoma	Rate of Deaths per 100,000 Population, Ottawa County
Male	1,045.9	1,295.2
Female	963.9	1,940.3

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 Ottawa County residents. Hispanic Oklahomans had a death rate that was approximately half that of other racial/ethnic groups in Oklahoma.²⁴

Total Mortality Rates (Age- Adjusted, Deaths per 100,000 Population) by Race/Ethnicity, 201

Race/Ethnicity	Rate of Deaths per 100,000 Population, Oklahoma	Rate of Deaths per 100,000 Population, Ottawa County
White Non-Hispanic	1,204.0	1,076.2
Black Non-Hispanic	753.4	-
American Indian Non-Hispanic	801.4	1304.6
Asian/Pacific Islander	290.2	-
Hispanic	212.2	-

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>.

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 2017 State of County's Health Report the top five causes of death were heart disease, cancer, respiratory disease, unintentional injury, and stroke.

Table 11: Leading Causes of Death, Ottawa County 2011-2015

LEADING CAUSES OF DEATH (RATE PER 100,000)	
Heart Disease Deaths	583
Cancer	456
Stroke	138
Bronchitis/Emphysema/Asthma	134
Unintentional Injury	113

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

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.

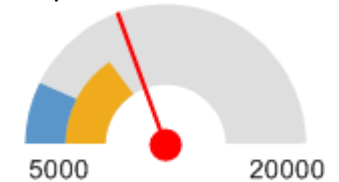
How Are We Doing?

The years of potential life lost per 100,000 population in Ottawa County was 10,852. This rate was higher than in Oklahoma (9,712) and the U.S. (7,222).^{7 28}

Report Area	Total Population	Total Premature Death, 2014-2016	Total Years of Potential Life Lost, 2014-2016 Average	Years of Potential Life Lost, Rate per 100,000 Population
Ottawa County, OK	108,985	639	11,827	10,852
Oklahoma	11,260,973	58,956	1,093,711	9,712
United States	896,379,917	3,642,755	64,739,406	7,222

Data Source: University of Wisconsin Population Health Institute, County Health Rankings. 2014-16. Source geography: County

Years of Potential Life Lost, Rate per 100,000 Population



■ Ottawa County, OK (10,852)
■ Oklahoma (9,712)
■ United States (7,222)

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.

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>.

How Are We Doing?

The life expectancy at birth for Oklahomans in 2014 was 75.7 years.^{23 24} This was lower than the United States (78.8 years).^{23 24} The U.S. has seen life expectancy increase while Oklahoma has also increased. 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 Ottawa County (76.4) was higher than in Oklahoma but lower than the United States at 78.38 years (Table 12).²⁴

In 2016, female life expectancy was in Oklahoma was 78.4 years, while male life expectancy was in the 73.4 years. This compares to the national average of 81 years for females and 76 years for males. Changes over the period from 1985 to 2013 were in the worst-performing 25% of all counties for females and in the worst-performing 10% of all counties for males, with females having an increase of 0.5 years and males having an increase of 2.1 years. The national average was an increase of 3.1 years for females and an increase of 5.5 years for males.^{23 24}

Life Expectancy by Locality, 2016

Locality	Life Expectancy
Ottawa County	73.8
Oklahoma	75.7
U.S.	78.8

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2016). Vital Statistics, 2016. *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 2016. *National Vital Statistics Reports (64)*2.

HOSPITAL UTILIZATION

Definition

This indicator is an estimate of the use of acute care hospitals by Ottawa 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 number of hospital discharges in Ottawa County in 2016 was 3,248. Females accounted for the majority of hospital discharges (55.1%) in the state. By race, whites made up the majority of discharges (74.9%), followed by American Indians (22.1%) in the state.²⁸

Hospital Discharges, 2016

Locality	Number of Discharges Population
Ottawa County	2,556
Oklahoma	456,532

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2018). Oklahoma Inpatient Data 2016. *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 followed by Medicaid and commercial (private insurance).

Primary Payer for Hospital Discharges, Ottawa County 2016

Payer Group	Number of Discharges
Workers Compensation	17
Other payers	83
Veterans Affairs/Military	37
Uninsured/Self-pay	120
Commercial	437
Medicaid	718
Medicare	1,144

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2018). Oklahoma Inpatient Data 2016. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: <http://www.health.ok.gov/ok2share>.

Diseases and disorders of the circulatory system made up the largest number of all Ottawa County hospital stays in 2016. Conditions related to the infection and parasitic diseases were the second most common reason for inpatient hospitalization in Ottawa County.²⁶

Inpatient Discharges by Medical Diagnosis Code, Ottawa County 2016

Principal Diagnosis	Number of Discharges
Disease of the circulatory system	336
Infectious and parasitic diseases	175
Diseases of the respiratory system	249
Complications of pregnancy, childbirth, and puerperium	286
Injury and poisoning	179
Mental illness	286
Certain conditions originating in perinatal period	281
Diseases of musculoskeletal system and connective tissue	156
Diseases of genitourinary system	135
Neoplasms	73
Endocrine, nutritional and metabolic diseases and immunity disorders	89

Diseases of nervous system and sense organs	50
Diseases of skin & subcutaneous tissue	46
Symptoms, signs, and ill-defined conditions and factors influencing health status	27
Diseases of blood and blood-forming organs	20

Data Source: Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information. (2018). Oklahoma Inpatient Data 2016. *Oklahoma Statistics on Health Available for Everyone (OK2SHARE)*. Retrieved from: <http://www.health.ok.gov/ok2share>.

The top ten inpatient cases by medical diagnosis (MDC) for INTEGRIS Miami Hospital discharges for FY 2017 were also reviewed.

CHRONIC DISEASE

DIABETES

Definition

This indicator is presented as the age-adjusted percentage of adult Ottawa County residents aged 20 and older who had ever been diagnosed with diabetes in 2013. 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.

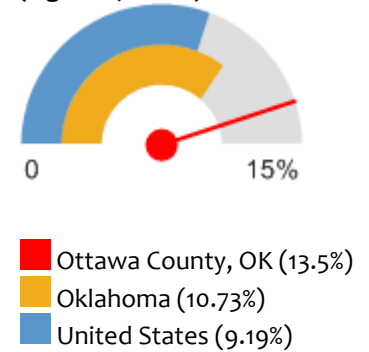
How Are We Doing?

In 2013, 13.5 percent of Ottawa County residents reported that they had been diagnosed with diabetes. This was similar to the rate in Oklahoma (10.73%) and was slightly higher than the rate in the U.S. (9.1%)³

Report Area	Total Population Age 20	Population with Diagnosed Diabetes	Population with Diagnosed Diabetes, Crude Rate	Population with Diagnosed Diabetes, Age-Adjusted Rate
Ottawa County, OK	23,199	3,619	15.6	13.5%
Oklahoma	2,798,712	326,404	11.66	10.73%
United States	236,919,508	23,685,417	10	9.19%

Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2013. Source geography: County Retrieved from chna.org October 1, 2018.

Percent Adults with Diagnosed Diabetes (Age-Adjusted)



Males had a higher prevalence of diabetes than females (13.8 percent compared to 13.2 percent) in Ottawa County.

Adults with Diagnosed Diabetes by Gender

Report Area	Total Males with Diabetes	Percent Males with Diabetes	Total Females with Diabetes	Percent Females with Diabetes
Ottawa County, OK	1,773	13.9%	1,846	13.2%
Oklahoma	165,808	11.44%	160,601	10.15%
United States	11,735,558	9.77%	11,518,723	8.6%

The rate of diabetes in Ottawa County increased from 2004-2012.

Percent Adults with Diagnosed Diabetes by Year, 2004 through 2012

Report Area	2004	2005	2006	2007	2008	2009	2010	2011
Ottawa County, OK	9.2%	9.9%	10.5%	12.3%	11.6%	11.2%	11.5%	12.3%
Oklahoma	8.1%	8.73%	9.21%	9.69%	9.89%	9.96%	10.51%	10.69%
United States	7.31%	7.58%	8.04%	8.33%	8.55%	8.72%	8.95%	9.09%

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.

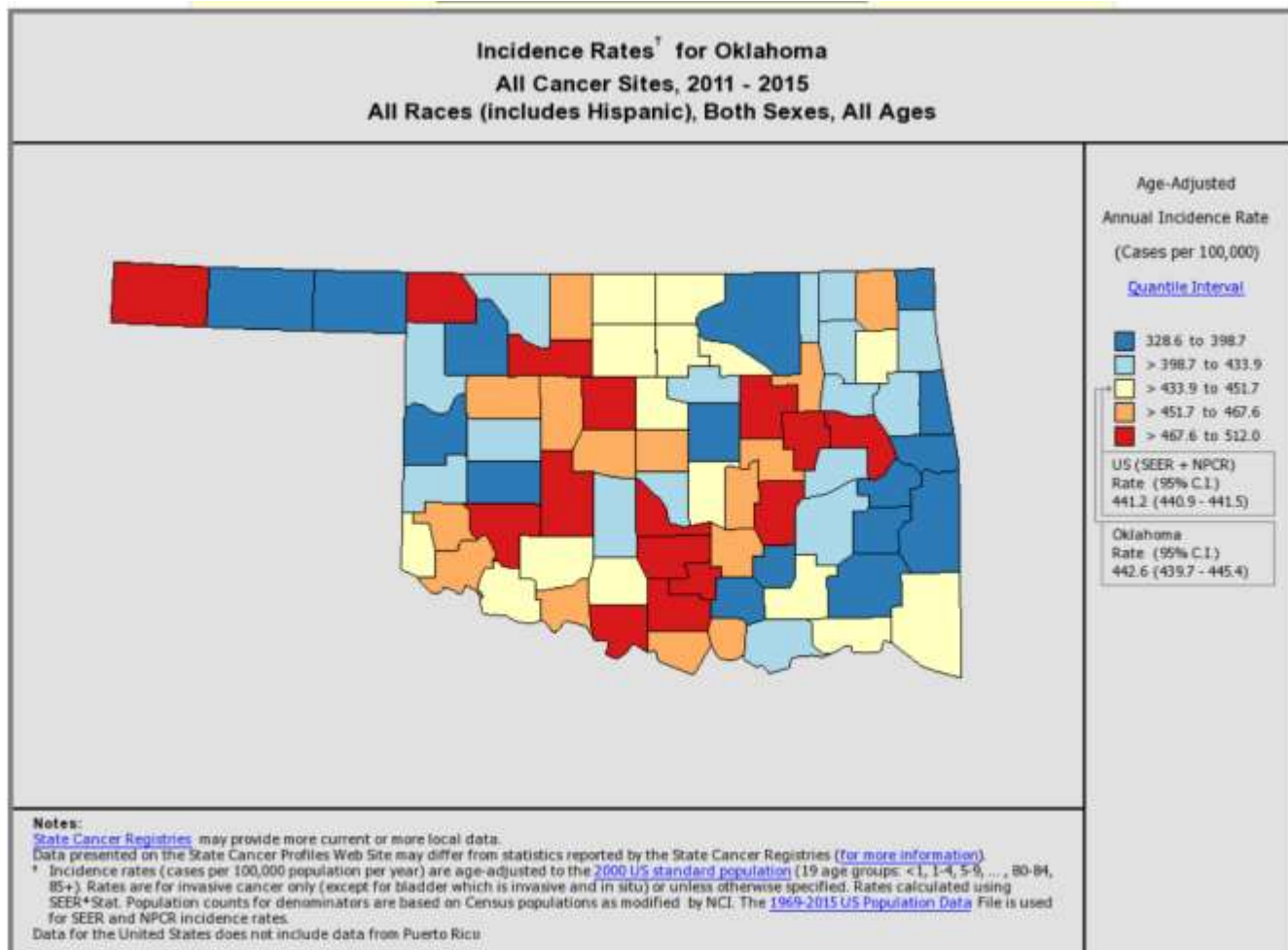
Why Is This Indicator Important?

Cancer was the second leading cause of death in 2016. 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 age-adjusted incidence rate in Ottawa County was 566.00 per 100,000. This rate was higher than the incidence rates in Oklahoma (442.6) and the U.S. (441.28).³¹

Cancer Incidence Rates for Oklahoma, All Sites 2011-2015



³¹ Centers for Disease Control and National Cancer Institute. (2018). 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 Ottawa 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.

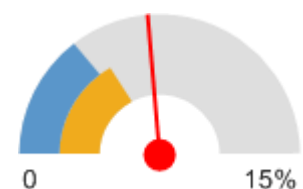
How Are We Doing?

2,196, or 7.1% of adults aged 18 and older have ever been told by a doctor that they have coronary heart disease or angina. This was higher than percentages of adults with heart disease in Oklahoma (5.1%) and the U.S. (4.4%).

Report Area	Survey Population (Adults Age 18)	Total Adults with Heart Disease	Percent Adults with Heart Disease
Ottawa County, OK	30,931	2,196	7.1%
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, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2011-12. Source geography: County Retrieved from chna.org October 1, 2018.

Percent Adults with Heart Disease



■ Ottawa County, OK (7.1%)
■ Oklahoma (5.1%)
■ United States (4.4%)

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.

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%

ASTHMA PREVALENCE

Definition

This indicator reports the 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.

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, 6,196 or 20 percent of Ottawa county adults aged 18 and older reported having ever been told by a doctor that they had asthma. This was higher than percentage of adults with asthma in Oklahoma (14.2% and the percentage of adults with asthma in the U.S. (13.4).

Percent of Adults with Asthma, 2011—2012

Report Area	Survey Population (Adults Age 18)	Total Adults with Asthma	Percent Adults with Asthma
Ottawa County, OK	30,931	6,196	20%
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, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2011-12. Source geography: County Retrieved from chna.org October 1, 2018.

Percent Adults with Asthma



■ Ottawa County, OK (20%)
■ Oklahoma (14.2%)
■ United States (13.4%)

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%).

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%

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 society³³. 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?

Ottawa County residents reported on average 5.1 mentally unhealthy days in the past 30 days (age-adjusted) in 2016. This number was higher than the average number of mentally unhealthy days reported in Oklahoma overall (4.5 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 (3.1 days).

Age-Adjusted Number of Self-Reported Mentally Unhealthy Days by Locality, 2016

Locality	Number of Self-Reported Mentally Unhealthy Days (Age-Adjusted)
United States	3.1
Oklahoma	4.5
Ottawa County	5.1

Data Source: University of Wisconsin Population Health Institute. (2018). *County Health Rankings & Roadmaps*. Retrieved from: www.countyhealthrankings.org.

³³ World Health Organization. (2018). *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. (2018). *Healthy People 2020: Mental Health and Mental Disorders*. Retrieved from: <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=28>.

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 was reported by the Kaiser Family Foundation and was 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.

Deaths from Suicide

Definition

This indicator reports the rate of death due to intentional self-harm (suicide) per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are summarized for report areas from county level data, only where data is available.

Why is this Indicator Important?

This indicator is relevant because suicide is an indicator of poor mental health. Suicide was the ninth leading cause of death in Ottawa County in 2016. 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 interventions and support for help seeking.³⁸ Prevention aims to address all levels of influence (individual, relationship, community, and societal).

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

³⁶ Oklahoma Department of Mental Health and Substance Abuse Services. (2018).

³⁷ Mental Health America. (2018). Prevalence Data. Retrieved from: <http://www.mentalhealthamerica.net/issues/mental-health-america-prevalence-data#AdultAMI>.

³⁸ Centers for Disease Control and Prevention, Injury Prevention and Control. (2018). *Suicide: Risk and Protective Factors*. Retrieved from: <http://www.cdc.gov/violenceprevention/suicide/riskprotectivefactors.html>.

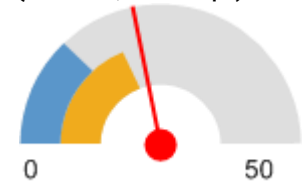
How Are We Doing?

Oklahoma is the 21st highest ranking state in the nation for deaths by suicide.³⁹ The 2010-2014 age-adjusted death rate in Ottawa County was 21.8 deaths per 100,000 individuals. This rate was higher than in Oklahoma (19.06) and the U.S. (13).^{23 25} None of these regions met the Healthy People 2020 goal of 10.2 suicide deaths or less per 100,000 population.

Report Area	Total Population	Average Annual Deaths, 2010-2014	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Ottawa County, OK	32,052	7	21.8	21.8
Oklahoma	3,875,668	737	19.01	19.06
United States	318,689,254	42,747	13.4	13
HP 2020 Target				<= 10.2

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2012-16. Source geography: County Source: Courtesy of Community Commons. Retrieved from: www.communitycommons.org on October 1, 2018.

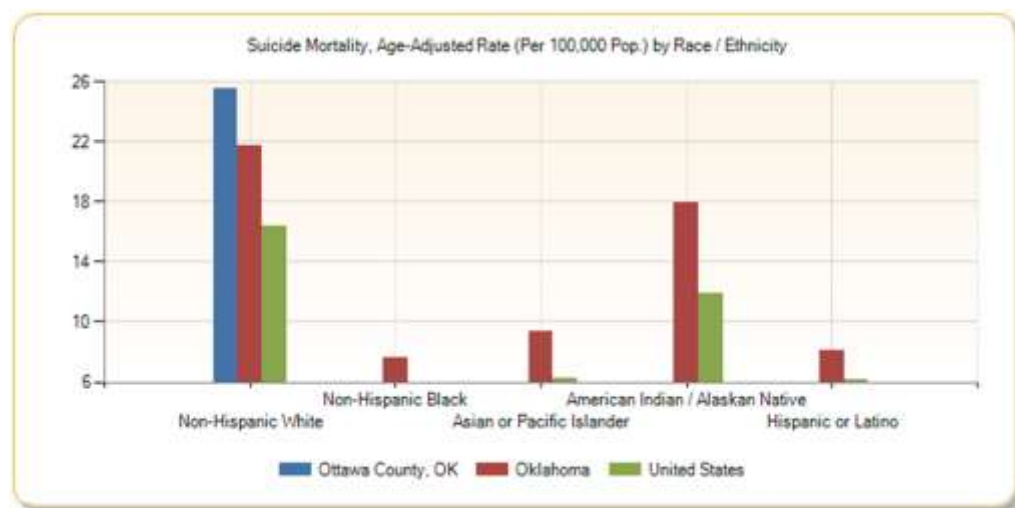
Suicide, Age-Adjusted Death Rate (Per 100,000 Pop.)



■ Ottawa County, OK (21.8)
■ Oklahoma (19.06)
■ United States (13)

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

Report Area	Male	Female
Ottawa County, OK	37.78	no data
Oklahoma	30.52	8.14
United States	20.76	5.75



³⁹ Centers for Disease Control and Prevention, Injury Prevention and Control. (2018). *Data and Statistics: Fatal Injury Reports*. Retrieved from: http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html.

Suicide Mortality, Age-Adjusted Rate (Per 100,000 Pop.) by Year, 2003 through 2014

Report Area	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Oklahoma	13.7	14.4	14.8	15	14.7	15.7	15.3	16.5	18.5	17.6	17.2	19.1
United States	10.8	11	10.9	11	11.3	11.6	11.8	12.1	12.3	12.6	12.6	13

Teens and Adults Reporting Substance Dependence 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 values 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), 2015 and 2016.

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 2015-2016, an estimated 21.3 million Americans age 12 and older needed treatment for alcohol use or illicit 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 40th in the nation with mental health substance abuse disorders.³⁴ Oklahoma ranks 33rd in the nation in youth mental health and substance abuse according to Mental Health America.³ In 2015-2016, 4.0 percent of teens and 7.9 percent of adults in Oklahoma reported dependence of illicit drugs or alcohol in the past year. Additionally, 2.9 percent of teens and 2.2 percent of adults in Oklahoma reported illicit drug dependence or abuse in the past year.

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 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 1968-2014. 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?

Ottawa County had on an estimated 22 all drug overdose deaths per 100,000 population (drug overdose mortality rate of 17) in 2014-2016. This was slightly higher 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.⁷

MATERNAL AND CHILD HEALTH

Infant Mortality

Definition

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

How Are We Doing?

Between 2006-2010, Ottawa County infants died before the age of one, which was a rate of 8.3 deaths per 1,000 live births. This rate was lower than both the Oklahoma rate of 7.8, and the U.S. rate of 6.5.

Report Area	Total Births	Total Infant Deaths	Infant Mortality Rate (Per 1,000 Births)
Ottawa County, OK	2,325	19	8.3
Oklahoma	272,495	2,125	7.8
United States	20,913,535	136,369	6.5
HP 2020 Target			<= 6.0

Data Source: US Department of Health Human Services, Health Resources and Services Administration, Area Health Resource File. 2006-10. Source geography: County Retrieved from: www.chna.org on October 1, 2018

Infant Mortality Rate (Per 1,000 Births)



■ Ottawa County, OK (8.3)
■ Oklahoma (7.8)
■ United States (6.5)

Low Birth Weight

Definition

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

Why Is This Indicator Important?

This indicator reports the percentage of total births that are low birth weight (Under 2500g). This indicator is relevant because low birth weight infants are at high risk for health problems. This indicator can also highlight the existence of health disparities.

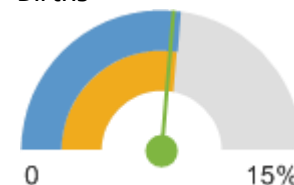
How Are We Doing?

Overall, 7.9% of Ottawa County infants were born weighing less than 2,500 grams from 2006-2012. This was lower than in Oklahoma and the United States (8.3 percent and 8.2 percent) Ottawa County is yet to meet the *Health People 2020* target of 7.8 percent.

Report Area	Total Live Births	Low Weight Births (Under 2500g)	Low Weight Births, Percent of Total
Ottawa County, OK	3,199	253	7.9%
Oklahoma	372,505	30,918	8.3%
United States	29,300,495	2,402,641	8.2%
HP 2020 Target			<= 7.8%

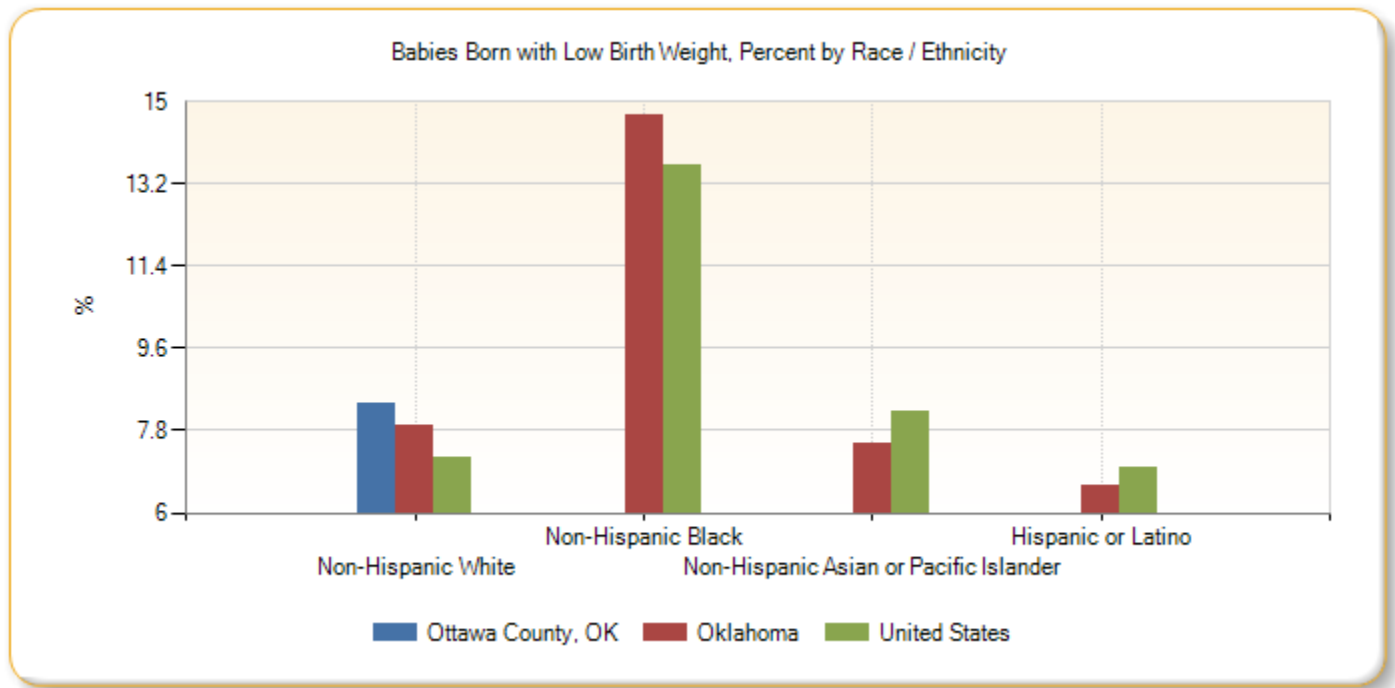
Data Source: US Department of Health Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2006-12. Source geography: County Retrieved from chna.org on October 1, 2018

Percent Low Birth Weight Births



■ Ottawa County, OK (7.9%)
■ Oklahoma (8.3%)
■ United States (8.2%)

Racial disparity with black mothers having more almost twice the percentage of low birth weight infants as white mothers 14.7 percent compared to 7.9 percent. The percentage of low birth weight infants was higher among non-Hispanic mother in Oklahoma.



Babies Born with Low Birth Weight, Percent by Time Period, 2002-2008 through 2006-2012

Report Area	2002-2008	2003-2009	2004-2010	2005-2011	2006-2012
Ottawa County, OK	7.9%	8.2%	7.7%	8.1%	7.9%
Oklahoma	8.1%	8.1%	8.2%	8.3%	8.3%
United States	8.1%	8.1%	8.2%	8.2%	8.2%

INFECTIOUS DISEASE

Chlamydia

Definition

This indicator reports incidence rate of chlamydia cases 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 Ottawa 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.

How Are We Doing?

In 2014, 160 case new cases of Chlamydia were reported in Ottawa County, which is a rate of 533.42 cases per 100,000 population. The Chlamydia incidence rate in Ottawa County was lower than the rate in Oklahoma (536.5 per 100,000 population) and in the United States 456.08 cases per 100,000 population.

Report Area	Total Population	Total Chlamydia Infections	Chlamydia Infection Rate (Per 100,000 Pop.)
Ottawa County, OK	32,245	172	533.42
Oklahoma	3,850,326	20,657	536.5
United States	316,128,839	1,441,789	456.08

Data Source: US Department of Health Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. 2014. Source geography: County Retrieved from chna.org on October 1, 2018

Chlamydia Infection Rate (Per 100,000 Pop.)



■ Ottawa County, OK (533.42)
 ■ Oklahoma (536.5)
 ■ United States (456.08)

With regard to race/ethnicity the highest rate of new Chlamydia cases was among black Oklahoman's (1,670.02 per 100,000) followed by Hispanic or Latinos. The incidence rate of Chlamydia in Ottawa County has steadily risen in recent years.

Chlamydia Incidence Rate (Per 100,000 Pop.) by Race / Ethnicity

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

Chlamydia Incidence Rate (Per 100,000 Pop.) by Year, 2005 through 2014

Report Area	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Ottawa County, OK	349.91	323.99	406.48	386.2	331.97	427.03	367.23	436.28	434.18	533.42
Oklahoma	379.8	363.76	347.18	406.65	407.61	380.45	385.57	441.4	474.7	536.5
United States	330.3	345.4	367.7	398	405.7	422.8	453.4	453.4	443.5	456.1

Gonorrhea

Definition

This indicator reports incidence rate of Gonorrhea cases 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*. Untreated gonorrhea

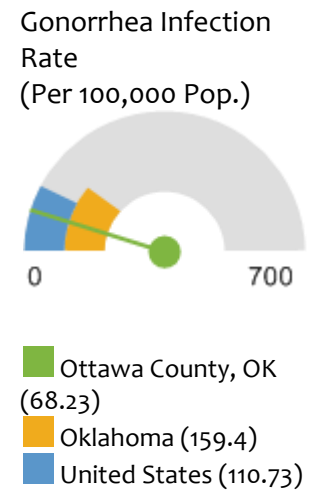
can lead to severe and painful infections, and infertility in both men and women. A pregnant woman risks possible blindness and/or life-threatening infections for her baby.

How Are We Doing?

In 2014, Ottawa County reported an incidence rate of 68.23 cases of gonorrhea per 100,000 population (22 total cases). Ottawa County's gonorrhea incidence rate was much lower than Oklahoma (159.4 cases per 100,000 population) and the United States (110.73 cases per 100,000 population)

Report Area	Total Population	Total Gonorrhea Infections	Gonorrhea Infection Rate (Per 100,000 Pop.)
Ottawa County, OK	32,245	22	68.23
Oklahoma	3,850,063	6,137	159.4
United States	316,128,839	350,062	110.73

Data Source: US Department of Health Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. 2014. Source geography: County Retrieved from chna.org on October 1, 2018



With regard to race/ethnicity, the majority of new gonorrhea cases in Oklahoma were Black (incidence rate of 857.8 per 100,000 population).

Gonorrhea Incidence Rate (Per 100,000 Pop.) by Race / Ethnicity

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

HIV

Definition

This indicator reports prevalence rate of HIV 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. 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..

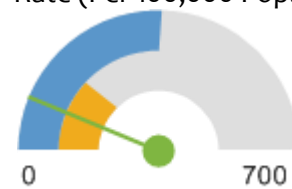
How Are We Doing?

In 2014, there were 13 cases of HIV/AIDS reported in Ottawa County, which is a rate of 86.81 cases per 100,000 population. The HIV/AIDS prevalence rate in Ottawa County was lower than the rate in Oklahoma (171.79 cases per 100,000 population) and the U.S. (353.16 cases per 100,000 population)

Report Area	Population Age 13	Population with HIV / AIDS	Population with HIV / AIDS, Rate (Per 100,000 Pop.)
Ottawa County, OK	26,494	23	86.81
Oklahoma	3,162,620	5,433	171.79
United States	263,765,822	931,526	353.16

Data Source: US Department of Health Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. 2013. Source geography: County Retrieved from chna.org on October 1, 2018

Population with HIV / AIDS, Rate (Per 100,000 Pop.)



■ Ottawa County, OK (86.81)
 ■ Oklahoma (171.79)
 ■ United States (353.16)

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 utilization of dental services.

How Are We Doing?

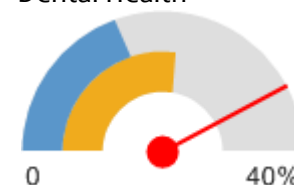
In 2006-2010, 10,642, or 33.8 percent of Ottawa County adults aged 18 and older reported having poor dental health. This was much higher than the percentage of adults with poor dental health Oklahoma (21.8%) and the percentage of adults with poor dental health in the U.S. (15.7%).

Report Area	Total Population (Age 18)	Total Adults with Poor Dental Health	Percent Adults with Poor Dental Health
Ottawa County, OK	24,282	8,197	33.8%
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, Behavioral Risk Factor Surveillance System.

Additional data analysis by CARES. 2006-10. Source geography: County Retrieved from chna.org on October 1, 2018

Percent Adults with Poor Dental Health

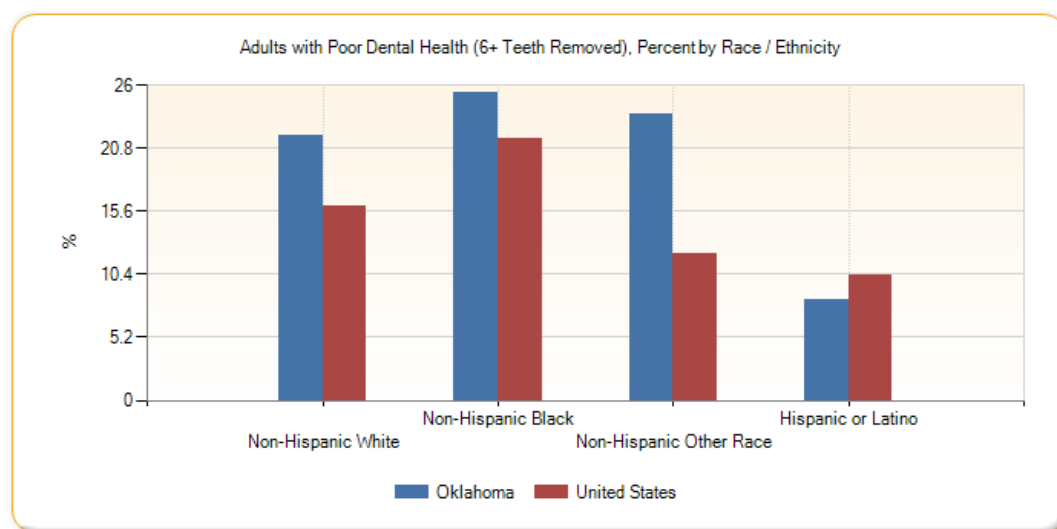


■ Ottawa County, OK (33.8%)
■ Oklahoma (21.8%)
■ United States (15.7%)

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 (8.3%)

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%



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

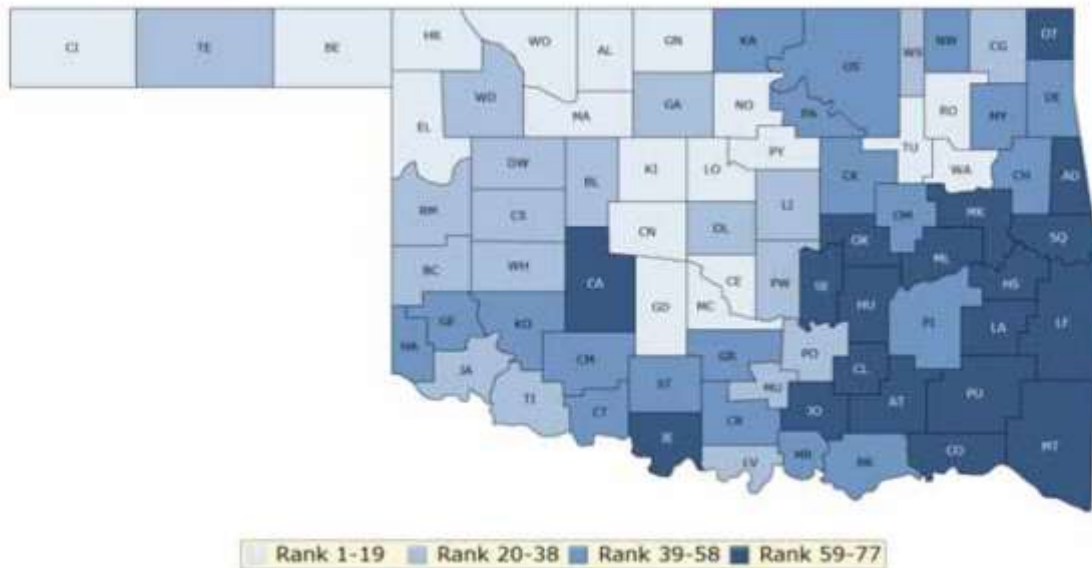
This indicator demonstrates the overall rankings in health factors for counties throughout the state. The ranks are based on weighted scores four types of measures: health behaviors, clinical care, social and economic, and physical environment factors. The healthiest county in the state is ranked #1. This information is based on the 2018 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 following map, displays Oklahoma's summary rankings for health factors. Lighter shades indicate better performance in the respective summary rankings. In 2018, Ottawa County ranked 61st out of 77 counties in Oklahoma in regard to health factors.



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

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.

Income - Per Capita 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 2016 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.

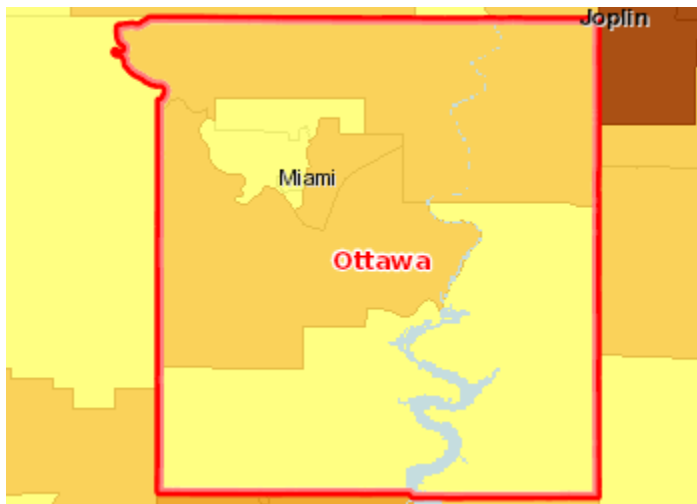
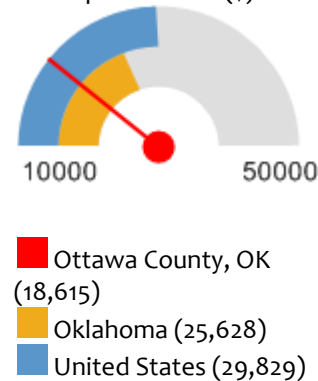
How Are We Doing?

The per capita income for Ottawa County was \$18,615. This includes all reported income from wages and salaries as well as income from self-employment, interest or dividends, public assistance, retirement, and other sources. The per capita income in this report area is the average (mean) income computed for every man, woman, and child in the specified area.

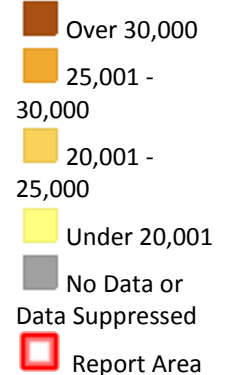
Report Area	Total Population	Total Income (\$)	Per Capita Income (\$)
Ottawa County, OK	32,022	\$596,107,900	\$18,615
Oklahoma	3,875,589	\$99,323,689,000	\$25,628
United States	318,558,162	\$9,502,305,741,900	\$29,829

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Retrieved from chna.org on October 1, 2018

Per Capita Income (\$)



Per Capita Income by Tract, ACS 2012-16



Geographically, Southern Ottawa County and the area around Miami have a lower per capita income than other portions of the county as indicated by the map above. Additionally, clear racial inequality among per capita incomes, with Black, Asian, Native Hawaiian/Pacific Islanders, and 'Some Other Race', and 'Multiple Race', having significantly less income than whites and Native American/Alaskan Native.

Per Capita Income by Race Alone

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	\$20,421	\$7,200	\$22,475	\$16,086	\$14,926	\$9,629	\$13,868
Oklahoma	\$28,606	\$18,064	\$24,911	\$18,226	\$20,210	\$14,652	\$15,764
United States	\$32,770	\$20,087	\$34,318	\$17,917	\$21,421	\$16,099	\$16,883

Per Capita Income by Ethnicity Alone

Report Area	Hispanic / Latino	Not Hispanic / Latino
Ottawa County, OK	\$8,905	\$19,152
Oklahoma	\$13,812	\$26,918
United States	\$17,323	\$32,450

Poverty - Population Below 100% FPL

Definition

This indicator is the percentage of persons living 100 percent below the federal poverty level and is taken from the 2016 American Community Survey. The Census Bureau determines poverty levels using a set of income thresholds that vary by family size and composition.

Why Is This Indicator Important?

Poverty is considered a *key driver* of health status. 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.

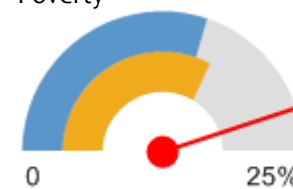
How Are We Doing?

Within the report area 22.51% or 6,957 individuals are living in households with income below the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

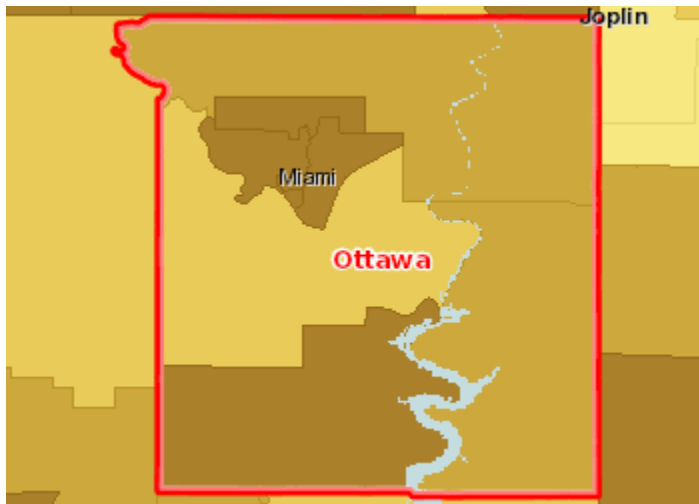
Report Area	Total Population	Population in Poverty	Percent Population in Poverty
Ottawa County, OK	30,901	6,957	22.51%
Oklahoma	3,760,050	621,155	16.52%
United States	310,629,645	46,932,225	15.11%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Retrieved from chna.org on October 1, 2018

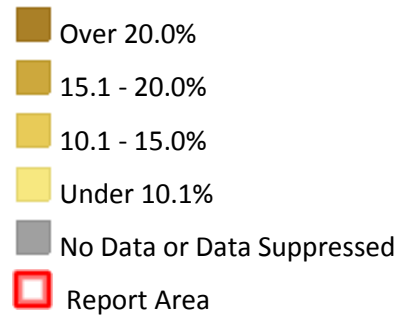
Percent Population in Poverty



■ Ottawa County, OK (22.51%)
■ Oklahoma (16.52%)
■ United States (15.11%)



Population Below the Poverty Level, Percent by Tract, ACS 2012-16



Population in Poverty by Gender

Report Area	Total Male	Total Female	Percent Male	Percent Female
Ottawa County, OK	3,298	3,659	21.8%	23.19%
Oklahoma	275,531	345,624	14.91%	18.07%
United States	21,012,839	25,919,386	13.82%	16.34%

Approximately 1/3 of the Hispanic population lived below the poverty level.

Population in Poverty by Ethnicity Alone

Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Ottawa County, OK	497	6,460	31.46%	22.03%
Oklahoma	97,168	523,987	26.2%	15.46%
United States	12,653,597	34,278,628	23.4%	13.36%

Population in Poverty Race Alone, Percent

Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	20.99%	53.45%	22.98%	21.33%	41.9%	33.4%	26.64%
Oklahoma	13.84%	28.98%	22.21%	15.77%	18.8%	25.37%	22.24%
United States	12.44%	26.22%	27.59%	12.33%	20.07%	25.37%	19.27%

Educational Attainment

Population with No High School Diploma

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 2016 American Community Survey 5-year estimates.

Why Is This Indicator Important?

This indicator is relevant because educational attainment is linked to positive health outcomes ([Freudenberg Ruglis, 2007](#)).

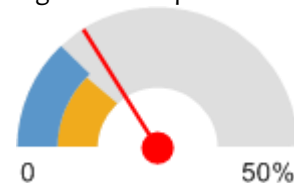
How Are We Doing?

Within the report area there are 4,607 persons aged 25 and older without a high school diploma (or equivalency) or higher. This represents 15.53% of the total population aged 25 and older. This percentage was higher than both Oklahoma (12.74%) and the U.S. (13.02%)

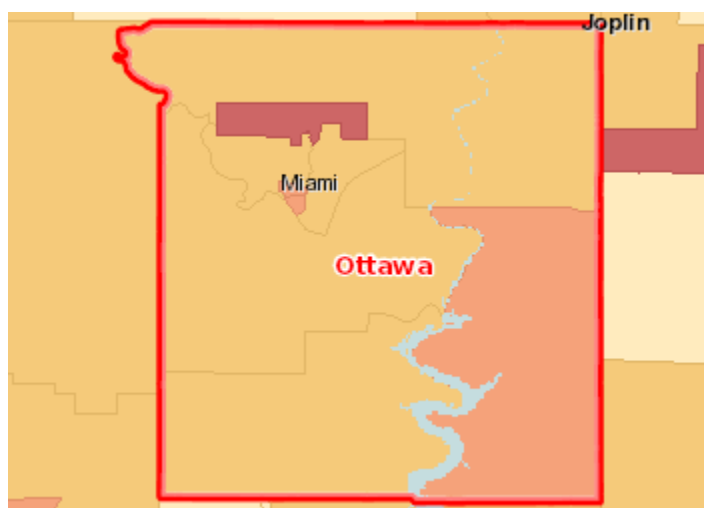
Report Area	Total Population Age 25	Population Age 25 with No High School Diploma	Percent Population Age 25 with No High School Diploma
Ottawa County, OK	20,815	3,363	16.16%
Oklahoma	2,534,278	322,890	12.74%
United States	213,649,147	27,818,380	13.02%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract
Retrieved from [chna.org](#) on October 1, 2018.

Percent Population Age 25 with No High School Diploma



■ Ottawa County, OK (16.16%)
■ Oklahoma (12.74%)
■ United States (13.02%)



Population with No High School Diploma (Age 25),
Percent by Tract, ACS 2012-16

■ Over 21.0%
■ 16.1 - 21.0%
■ 11.1 - 16.0%
■ Under 11.1%
■ No Data or Data Suppressed
□ Report Area

Population with No High School Diploma by Gender

Report Area	Total Male	Total Female	Percent Male	Percent Female
Ottawa County, OK	1,717	1,646	17.38%	15.05%
Oklahoma	166,934	155,956	13.55%	11.98%
United States	14,145,422	13,672,958	13.72%	12.37%

Population with No High School Diploma by Ethnicity Alone

Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic / Latino
Ottawa County, OK	313	3,050	46.65%	15.14%
Oklahoma	74,632	248,258	41.13%	10.55%
United States	10,507,971	17,310,409	34.27%	9.46%

Population with No High School Diploma by Race Alone, Percent

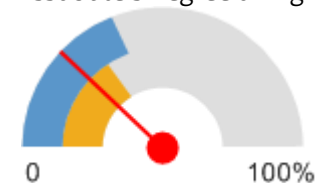
Report Area	White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	16.12%	8.7%	14.18%	28.07%	41.6%	54.76%	12.44%
Oklahoma	11.5%	11.62%	15.09%	17.7%	19.38%	48.17%	13.04%
United States	11.06%	15.66%	20.69%	13.73%	13.61%	39.83%	13.31%

Population with Associate's Level Degree or Higher

24.21% of the population aged 25 and older, or 5,039 have obtained an Associate's level degree or higher. This indicator is relevant because educational attainment has been linked to positive health outcomes.

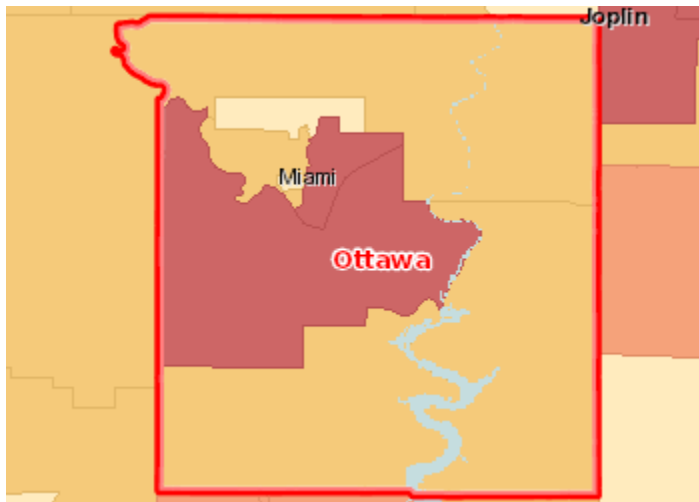
Report Area	Total Population Age 25	Population Age 25 with Associate's Degree or Higher	Percent Population Age 25 with Associate's Degree or Higher
Ottawa County, OK	20,815	5,039	24.21%
Oklahoma	2,534,278	808,078	31.89%
United States	213,649,147	82,237,511	38.49%

Percent Population Age 25 with Associate's Degree or Higher

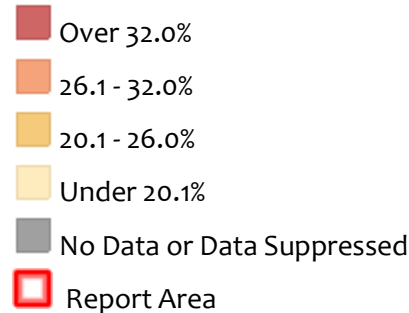


■ Ottawa County, OK (24.21%)
■ Oklahoma (31.89%)
■ United States (38.49%)

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract
Retrieved from chna.org on October 1, 2018.



Population with an Associate Level Degree or Higher, Percent by Tract, ACS 2012-16



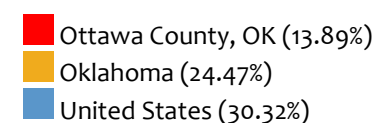
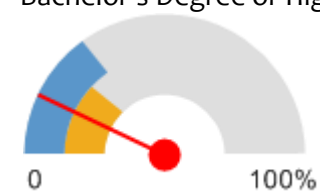
Population with Bachelor's Degree or Higher

13.89% of the population aged 25 and older, or 2,892 have obtained an Bachelor's level degree or higher. This indicator is relevant because educational attainment has been linked to positive health outcomes.

Report Area	Total Population Age 25	Population Age 25 with Bachelor's Degree or Higher	Percent Population Age 25 with Bachelor's Degree or Higher
Ottawa County, OK	20,815	2,892	13.89%
Oklahoma	2,534,278	620,115	24.47%
United States	213,649,147	64,767,787	30.32%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

Percent Population Age 25 with Bachelor's Degree or Higher



Unemployment Rate

Definition

This indicator is presented as the percentage of the total civilian labor force (age 16 and older) that was unemployed in June 2018, 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.

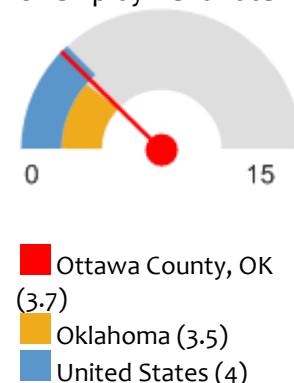
How Are We Doing?

Total unemployment in the report area for the current month was 533 or 3.7% of the civilian non-institutionalized population age 16 and older (non-seasonally adjusted). The unemployment rate in Ottawa County has been decreasing each year since peaking in 2010.

Report Area	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
Ottawa County, OK	14,281	13,748	533	3.7
Oklahoma	1,855,540	1,791,225	64,315	3.5
United States	162,996,774	156,527,318	6,469,456	4

Data Source: US Department of Labor, Bureau of Labor Statistics. 2018 - August. Source geography: County

Unemployment Rate



Average Monthly Unemployment Rate, March 2017 - March 2018

Report Area	Mar. 2017	Apr. 2017	May 2017	Jun. 2017	Jul. 2017	Aug. 2017	Sep. 2017	Oct. 2017	Nov. 2017	Dec. 2017	Jan. 2018	Feb. 2018	Mar. 2018
Ottawa County, OK	4.4	4.1	4.5	4.8	4.5	4.5	4.3	4.1	4	4	4.3	4.1	3.9
Oklahoma	4.4	4	4.4	4.7	4.3	4.3	4.1	4	3.9	3.9	4.3	4	3.9
United States	4.6	4.1	4.1	4.5	4.6	4.5	4.1	3.9	3.9	3.9	4.5	4.4	4.1

Average Annual Unemployment Rate, 2006-2016

Report Area	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Ottawa County, OK	4.8	4.9	4.2	6.5	8.1	7.5	7.9	8	6.8	5.1	5
Oklahoma	4.1	4.1	3.7	6.7	6.8	5.9	5.2	5.3	4.5	4.4	4.8
United States	4.7	4.7	5.8	9.3	9.7	9	8.1	7.4	6.2	5.3	4.9

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.

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 2012-2014. 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.

How Are We Doing?

The violent crime rate in 2012-2014 for Ottawa County was 224.9 per 100,000 population. This was lower than Oklahoma (440.5) and the United States (379.7)

Report Area	Total Population	Violent Crimes	Violent Crime Rate (Per 100,000 Pop.)
Ottawa County, OK	32,312	73	224.9
Oklahoma	3,847,536	16,951	440.5
United States	311,082,592	1,181,036	379.7

Data Source: Federal Bureau of Investigation, FBI Uniform Crime Reports. Additional analysis by the National Archive of Criminal Justice Data. Accessed via the Inter-university Consortium for Political and Social Research. 2012-14. Source geography: County Retrieved from chna.org on October 1, 2018.

Violent Crime Rate (Per 100,000 Pop.)



■ Ottawa County, OK (224.9)
■ Oklahoma (440.5)
■ United States (379.7)

Deaths from All Accidents

Definition

This indicator reports the rate of death due to unintentional injury (accident) per 100,000 population. Figures are reported as crude rates, and as rates age-adjusted to year 2000 standard. Rates are summarized for report areas from county level data, only where data is available.

Why Is This Indicator Important?

This indicator is relevant because accidents are a leading cause of death in the U.S. Accidents were the fourth leading cause of death in Ottawa County from 2011-2015. Motor vehicle accidents accounted for a large portion of 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.

Report Area	Total Population	Average Annual Deaths, 2010-2014	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Ottawa County, OK	32,052	23	70.5	67.4
Oklahoma	3,875,668	2,459	63.46	61.78
United States	318,689,254	140,444	44.1	41.9
HP 2020 Target				<= 36.0

Unintentional Injury (Accident) Mortality, Age-Adjusted Death Rate (Per 100,000 Pop.)



■ Ottawa County, OK (67.4)
■ Oklahoma (61.78)
■ United States (41.9)

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2012-16. Source geography: County Retrieved from chna.org on October 1, 2018.

Males had a higher rate of accident mortality than females (86.59 compared to 49.58 per 100,000 population)

Unintentional Injury (Accident) Mortality, Age-Adjusted Rate (Per 100,000 Pop.) by Gender

Report Area	Male	Female
Ottawa County, OK	86.59	49.58
Oklahoma	79.04	45.56
United States	56.87	27.98

Available data with regard to all races and ethnicities was limited. However, with the data provided American Indian/Alaskan Native had the highest rate of unintentional injury.

Unintentional Injury (Accident) Mortality, Age-Adjusted Rate (Per 100,000 Pop.) by Race / Ethnicity

Report Area	Non-Hispanic White	Non-Hispanic Black	Asian or Pacific Islander	American Indian / Alaskan Native	Hispanic or Latino
Ottawa County, OK	56.37	suppressed	suppressed	115.98	suppressed
Oklahoma	64.64	47.35	26.33	73.5	37.04
United States	47.36	36.81	15.71	50.19	28.07

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?

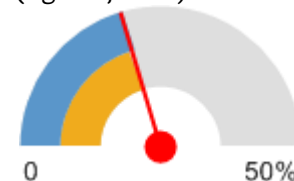
This indicator is relevant because social and emotional support is critical for navigating the challenge of daily life as well as for good physical and mental health. Socially isolated individuals have an increased risk for poor health outcomes. Individuals who lack adequate social support are particularly vulnerable to the effects of stress, which has been linked to cardiovascular disease and unhealthy behaviors such as overeating and smoking in adults, and obesity in children and adolescents. 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 Ottawa County was 20.5 percent. This was higher than percentages in Oklahoma (20.1) and equal to that of the United States (20.7)

Report Area	Total Population Age 18	Estimated Population Without Adequate Social / Emotional Support	Crude Percentage	Age-Adjusted Percentage
Ottawa County, OK	24,142	4,828	20%	20.5%
Oklahoma	2,793,624	561,518	20.1%	20.1%
United States	232,556,016	48,104,656	20.7%	20.7%

Percent Adults Without Adequate Social / Emotional Support (Age-Adjusted)



■ Ottawa County, OK (20.5%)
■ Oklahoma (20.1%)
■ United States (20.7%)

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2006-12. Source geography: County Retrieved from chna.org on October 1, 2018.

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.

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.

Child Abuse and Neglect: State of Oklahoma and Ottawa County, FY2018

	Oklahoma	Ottawa County
<i>Alleged Victims (reports accepted for investigation or assessment)</i>	65,172	694
<i>Substantiated</i>	15,951	130
<i>Victims of Abuse</i>	1,407	11
<i>Victims of Neglect</i>	13,394	111
<i>Victims of both Abuse & Neglect</i>	1,150	9

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?

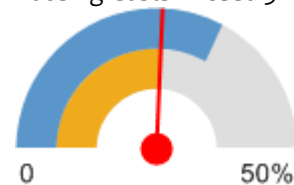
Where we live is at the very core of our daily lives. Housing is generally an American family's greatest single expenditure, and for homeowners, their most significant source of wealth. Given its importance, it is not surprising that factors related to housing have the potential to help-or harm-our health in major ways. The information offers a measure of housing affordability and excessive shelter costs. The data also serve to aid in the development of housing programs to meet the needs of people at different economic levels.

How Are We Doing?

In 2012-2016, the percentage of cost burdened households (over 30% of income) was 25.78. This percentage was higher than in Oklahoma (25.76%) but lower than in the U.S. overall (32.89%).

Report Area	Total Households	Cost Burdened Households (Housing Costs Exceed 30% of Income)	Percentage of Cost Burdened Households (Over 30% of Income)
Ottawa County, OK	11,982	3,089	25.78%
Oklahoma	1,461,500	376,490	25.76%
United States	117,716,237	38,719,430	32.89%

Percentage of Households where Housing Costs Exceed 30% of Income



■ Ottawa County, OK (25.78%)
■ Oklahoma (25.76%)
■ United States (32.89%)

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract
Retrieved from chna.org on October 1, 2018.



Cost Burdened Households (Housing Costs Exceed 30% of Household Income), Percent by Tract, ACS 2012-16

■ Over 35.1%
■ 28.1 - 35.0%
■ 21.1 - 28.0%
■ Under 21.1%
■ No Data or Data Suppressed
□ Report Area

Food Insecurity Rate

Definition

This indicator reports the estimated percentage of the population that experience food insecurity at some point during the report year. Food insecurity is the household-level economic and social condition of limited or uncertain access to adequate food.

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.

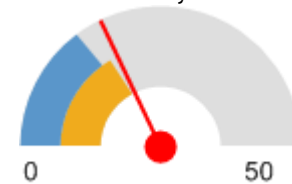
How Are We Doing?

In 2013, the percentage of the population in Ottawa County with experiencing food insecurity was 17.89%. This was slightly higher than the percentage in Oklahoma (16.8%) and also higher than the percentage in the U.S (14.91%). The child food insecurity rate in Ottawa County was 29.95% which was higher than the rate in Oklahoma (25.64%) and higher than the rate in the U.S. (23.49%).

Report Area	Total Population	Food Insecure Population, Total	Food Insecurity Rate
Ottawa County, OK	32,086	5,740	17.89%
Oklahoma	3,878,051	652,090	16.8%
United States	318,857,056	47,539,790	14.91%

Data Source: Feeding America. 2014. Source geography: County Retrieved from chna.org on October 1, 2018. Retrieved from chna.org on October 1, 2018.

Percentage of Total Population with Food Insecurity



■ Ottawa County, OK (17.89)
■ Oklahoma (16.8)
■ United States (14.91)

Report Area	Population Under Age 18	Food Insecure Children, Total	Child Food Insecurity Rate
Ottawa County, OK	7,880	2,360	29.95%
Oklahoma	947,832	242,990	25.64%
United States	73,580,326	17,284,530	23.49%

Food Insecurity - Food Insecure Population Ineligible for Assistance

This indicator reports 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).

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
Ottawa County, OK	5,640	18%	2,360	20%
Oklahoma	654,640	31%	242,990	31%
United States	48,770,990	29%	17,284,530	31%

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?

Ottawa County is a designated Primary Care and Mental Health Population Group HPSA according to the 2014-2015 Oklahoma Workforce Data Book.

Facilities Designated as Health Professional Shortage Areas

Definition

This indicator reports the number and location of health care facilities designated as "Health Professional Shortage Areas" (HPSAs), defined as having shortages of primary medical care, dental or mental health providers.

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 ten primary care, eight mental health care, and one dental health care facilities designated as HPSA facilities in Ottawa County according to the U.S. Health Resources and Services Administration (HRSA).

Report Area	Primary Care Facilities	Mental Health Care Facilities	Dental Health Care Facilities	Total HPSA Facility Designations
Ottawa County, OK	10	8	9	27
Oklahoma	106	103	96	305
United States	3,599	3,171	3,071	9,836

Data Source: US Department of Health Human Services, Health Resources and Services Administration, Health Resources and Services Administration. April 2016. Source geography: Address Retrieved from chna.org on October 1, 2018.



Facilities Designated as HPSAs , HRSA HPSA Database April 2016

- Primary Care
- Mental Health
- Dental Health
- Report Area

Facilities Designated as Federally Qualified Health Centers

Definition

This indicator reports the number of Federally Qualified Health Centers (FQHCs) in the community.

Why Is This Important?

This indicator is relevant because FQHCs are community assets that provide health care to vulnerable populations; they receive extra funding from the federal government to promote access to ambulatory care in areas designated as medically underserved.

How Are We Doing?

Ottawa County currently has 2 Federally Qualified Health Centers located in the central and southern parts of the county.

Report Area	Total Population	Number of Federally Qualified Health Centers	Rate of Federally Qualified Health Centers per 100,000 Population
Ottawa County, OK	31,848	2	6.28
Oklahoma	3,751,351	104	2.77
United States	312,471,327	8,329	2.67

Note: This indicator is compared with the state average.

Data Source: US Department of Health Human Services, Center for Medicare Medicaid Services, Provider of Services File. March 2018. Source geography: Address Retrieved from chna.org on October 1, 2018.



- Federally Qualified Health Centers, POS March 2018
- Report Area

Medically Underserved Areas

Definition

A Medically Underserved Area designation identifies areas with a shortage of healthcare services.

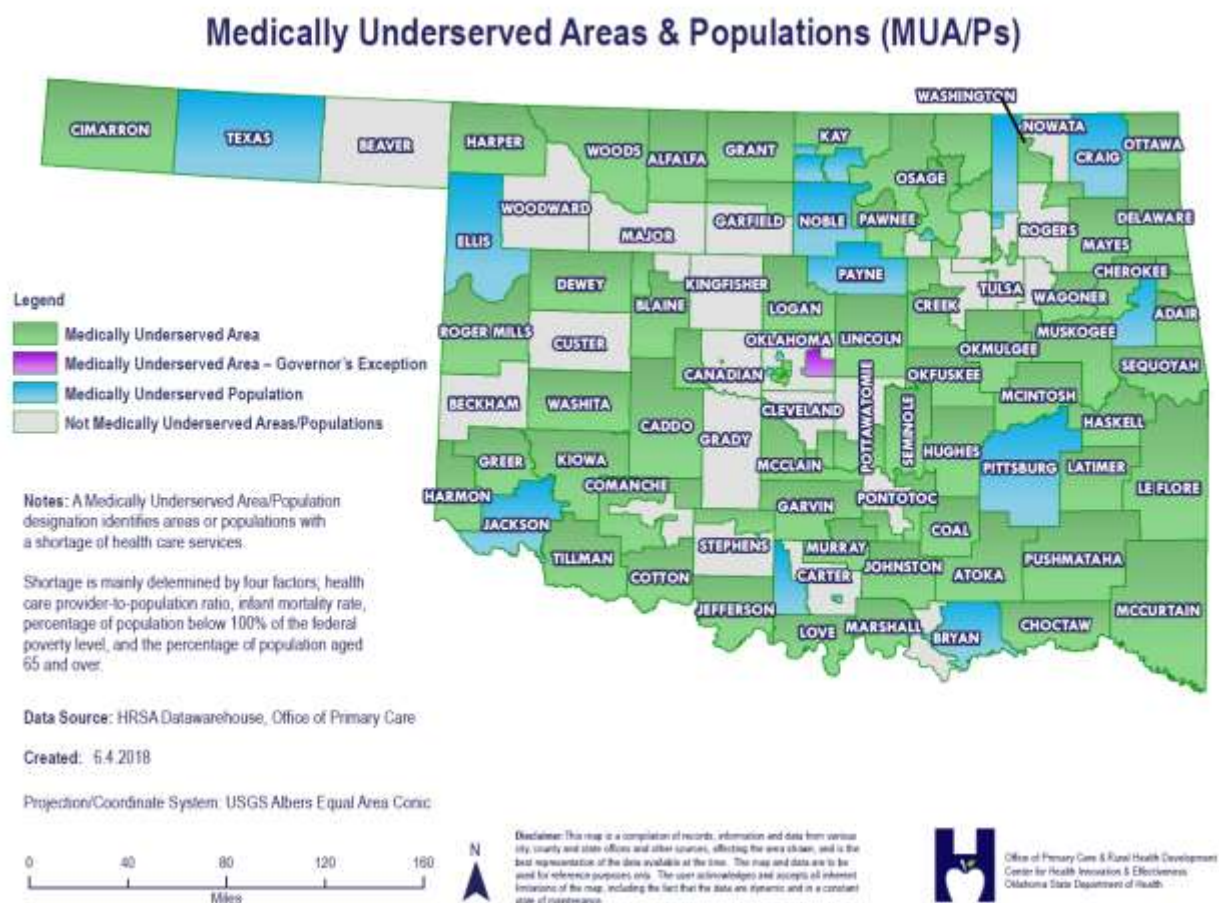
Designation is based on the explanation as to why the area in question is rational (similar to the HPSA process) and the documentation of four factors; health care provider-to-population ratio, infant mortality rate, percentage of population below 100% of the federal poverty level, and the percentage 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, the entire area of Ottawa County was designated as a Medically Underserved Area in 2018. Ottawa County is considered a complete Medically Underserved Area.



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.

Why is This Important?

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

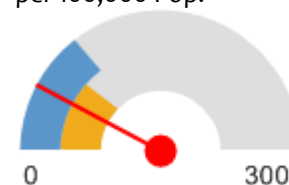
How Are We Doing?

In 2014, there was a rate of 46.72 primary care physicians per 100,000 population in Ottawa County. The rate of primary care physicians per 100,000 population is lower in Ottawa County than in Oklahoma (71.3) and the United States (87.8).

Report Area	Total Population, 2014	Primary Care Physicians, 2014	Primary Care Physicians, Rate per 100,000 Pop.
Ottawa County, OK	32,105	15	46.72
Oklahoma	3,878,051	2,764	71.3
United States	318,857,056	279,871	87.8

Data Source: US Department of Health Human Services, Health Resources and Services Administration, Area Health Resource File. 2014. Source geography: County Retrieved from chna.org on October 1, 2018.

Primary Care Physicians, Rate per 100,000 Pop.



■ Ottawa County, OK (46.72)
■ Oklahoma (71.3)
■ United States (87.8)

Access to Primary Care, Rate (Per 100,000 Pop.) by Year, 2004 through 2014

This indicator reports the rate of primary care physicians per 100,000 population by year.

Report Area	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Ottawa County, OK	36.66	36.51	33.31	36.95	37.68	44.26	47.1	47.08	49.63	49.62	46.72
Oklahoma	54.24	54.65	54.01	53.85	53.87	62.22	69.97	70.9	71.3	71.42	71.27
United States	80.76	80.94	80.54	80.38	80.16	82.22	84.57	85.83	86.66	87.76	87.77

Access to Dentists

Definition

This indicator reports the number of dentists per 100,000 population. This indicator includes all dentists - qualified as having a doctorate in dental surgery (D.D.S.) or dental medicine (D.M.D.), who are licensed by the state to practice dentistry and who are practicing within the scope of that license.

Why is This Important?

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

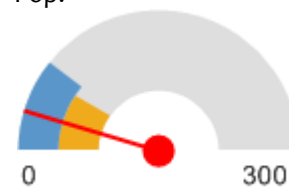
How Are We Doing?

In 2015, there was a rate of 28.14 dentists per 100,000 population in Ottawa County according. The rate of dentists per 100,000 population is lower in Ottawa County than in Oklahoma (57.5) and the United States (65.6)

Report Area	Total Population, 2015	Dentists, 2015	Dentists, Rate per 100,000 Pop.
Ottawa County, OK	31,981	9	28.14
Oklahoma	3,911,338	2,250	57.5
United States	321,418,820	210,832	65.6

Data Source: US Department of Health Human Services, Health Resources and Services Administration, Area Health Resource File. 2015. Source geography: County

Dentists, Rate per 100,000 Pop.



■ Ottawa County, OK (28.14)
■ Oklahoma (57.5)
■ United States (65.6)

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.

Why is This Important?

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

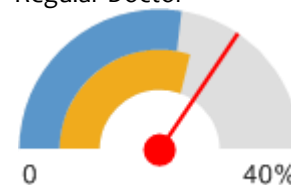
How Are We Doing?

In 2011-2012, the percentage of adults without a consistent source of primary care (by self-report) in Ottawa County was 27.44 percent which was higher than in Oklahoma (24.13%) and the U.S. (22.07%).

Report Area	Survey Population (Adults Age 18)	Total Adults Without Any Regular Doctor	Percent Adults Without Any Regular Doctor
Ottawa County, OK	30,931	8,489	27.44%
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, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2011-12. Source geography: County Retrieved from chna.org on October 1, 2018.

Percent Adults Without Any Regular Doctor



■ Ottawa County, OK (27.44%)
■ Oklahoma (24.13%)
■ United States (22.07%)

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%

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 Ottawa County and Oklahoma. In 2015, Ottawa County had 1 psychiatrist and a rate of .62 mental and behavioral health professionals per 10,000 population. Oklahoma had 341 psychiatrists and a rate of .89 psychiatrists per 10,000 population. Many 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.

In addition, there were zero child and adolescent psychiatrists and only one clinical/counseling psychologist in Ottawa County in 2015. In Oklahoma there were 26 child and adolescent psychiatrists and 512 clinical/counseling psychologists in 2015. According to the University of Wisconsin Population Health Institute's 2018 *County Rankings and Roadmaps*, the ratio of the population in Ottawa County to mental health providers was 230:1 in 2018. This ratio was better than both Oklahoma (270:1) and the top U.S. performing counties (330:1).

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.

Inpatient psychiatric beds in Oklahoma are full all of the time because the outpatient system is not able to prevent and limit psychiatric emergencies. 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 emergencies. 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, zero Critical Access Hospitals, zero free clinics, two Tribal Indian Health Services facility, zero Veterans Affairs facilities, zero, urgent care centers, two inpatient mental health centers, zero adult crisis centers, two community mental health center, and nine retail pharmacies in Ottawa County. Additionally, there were an estimated 117 hospital beds and 377 nursing home

Number of Healthcare Facilities and Beds Ottawa 2015

FACILITIES	NUM.
GENERAL MEDICAL / SURGICAL HOSPITALS	1
CRITICAL ACCESS HOSPITALS	0
RURAL HEALTH CLINICS	1
FEDERALLY QUALIFIED HEALTH CENTER SITES	1
FREE CLINICS	0
INDIAN HEALTH SERVICES (FEDERAL)	0
INDIAN HEALTH SERVICES (TRIBAL)	2
VETERANS AFFAIRS FACILITIES	0
URGENT CARE CENTERS	0
INPATIENT MENTAL HEALTH FACILITIES	2
COMMUNITY MENTAL HEALTH CENTERS	2
ADULT CRISIS CENTERS	0
RETAIL PHARMACIES	9
NUMBER OF HOSPITAL BEDS	117
NUMBER OF NURSING HOME BEDS	377

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/>

Rate of Uninsured

Definition

This indicator reports the percentage of adults age 18 to 64 without health insurance coverage. 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.

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.

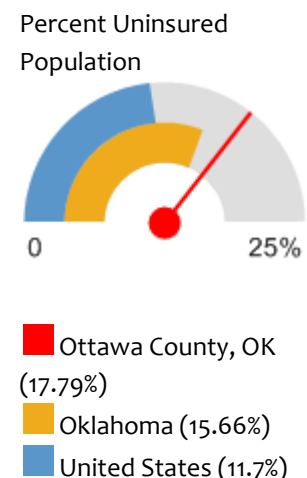
How Are We Doing?

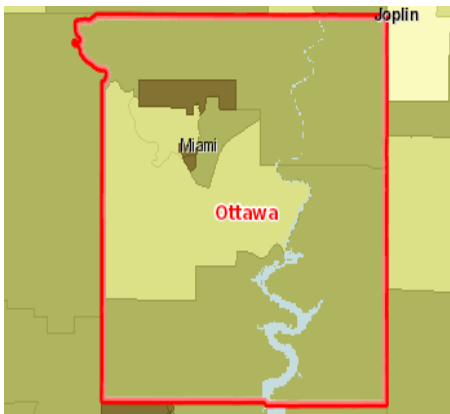
In the 2016, the uninsured population for Ottawa County was 17.79%, which was much higher than the United States rate of 11.7% and that of Oklahoma 15.66%. 18.71% of males in Ottawa County are uninsured compared to 16.92% of females. Ages 18-64 in Ottawa County represent the highest number of uninsured related to age. Geographically, areas in Miami and north of Miami have the highest rate of uninsured.

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.

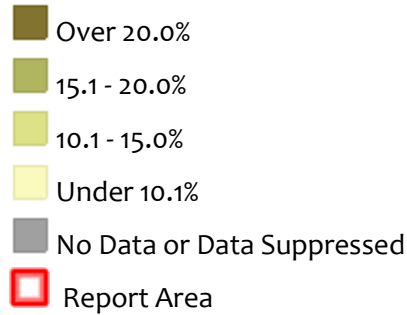
Report Area	Total Population (For Whom Insurance Status is Determined)	Total Uninsured Population	Percent Uninsured Population
Ottawa County, OK	31,578	5,619	17.79%
Oklahoma	3,794,815	594,148	15.66%
United States	313,576,137	36,700,246	11.7%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract
Retrieved from chna.org on October 1, 2018.





Uninsured Population, Percent by Tract, ACS 2012-16



Uninsured Population by Gender

Report Area	Total Male	Total Female	Percent Male	Percent Female
Ottawa County, OK	2,898	2,721	18.71%	16.92%
Oklahoma	308,561	285,587	16.58%	14.77%
United States	19,759,421	16,940,825	12.9%	10.56%

Uninsured Population by Age Group, Percent

Report Area	Under Age 18	Age 18 - 64	Age 65
Ottawa County, OK	7.98%	27.41%	0.25%
Oklahoma	8.56%	22.14%	0.6%
United States	5.9%	16.37%	0.91%

Uninsured Population by Ethnicity Alone

Report Area	Total Hispanic / Latino	Total Not Hispanic / Latino	Percent Hispanic / Latino	Percent Not Hispanic or Latino
Ottawa County, OK	438	5,181	26.47%	17.31%
Oklahoma	114,569	479,579	30.65%	14.02%
United States	12,756,229	23,944,017	23.42%	9.24%

Uninsured Population by Race Alone, Percent

Report Area	Non-Hispanic White	Black or African American	Native American / Alaska Native	Asian	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Race
Ottawa County, OK	14.55%	31.78%	19.9%	36.4%	61.43%	30.65%	23.63%
Oklahoma	11.56%	17.64%	28.53%	14.93%	31.07%	35.11%	19.23%

United States	8.06%	13.72%	23.32%	10.8%	13.63%	26%	10.46%
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Uninsured Children

Definition

This indicator reports the percentage of children under age 19 without health insurance coverage.

Why Is This Indicator Important?

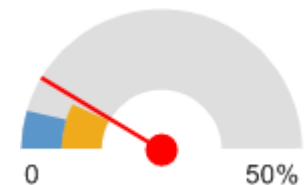
This indicator is relevant because lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status.

How Are We Doing?

The rate of uninsured children in Ottawa County is much higher than both the national rate (4.67%) and that of the state of Oklahoma (7.73%). Uninsured rates have been steadily declining since peaking in 2011.

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
Ottawa County, OK	8,127	7,425	91.36%	702	8.64%
Oklahoma	992,568	915,879	92.27%	76,689	7.73%
United States	76,219,054	72,659,457	95.33%	3,559,597	4.67%

Percent Population Under Age 19 Without Medical Insurance



■ Ottawa County, OK (8.64%)
■ Oklahoma (7.73%)
■ United States (4.67%)

Data Source: US Census Bureau, Small Area Health Insurance Estimates. 2016. Source geography: County
Retrieved from chna.org on October 1, 2018.

Uninsured Population Under Age 18, Percent by Year, 2010 through 2015

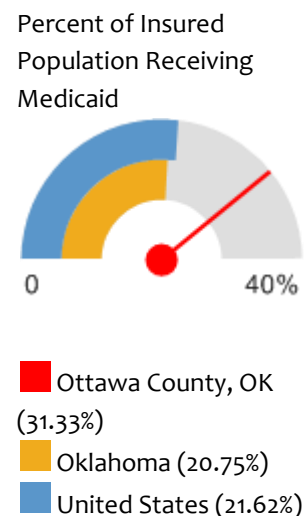
Report Area	2010	2011	2012	2013	2014	2015	2016
Ottawa County, OK	30.5%	30.2%	30.4%	27.6%	26.20%	24.9%	23.1%
Oklahoma	26.72%	26.3%	26%	24.89%	21.69%	19.74%	19.53%
United States	21.52%	21.11%	20.76%	20.44%	16.37%	13.21%	12.08%

Medicaid Enrollment

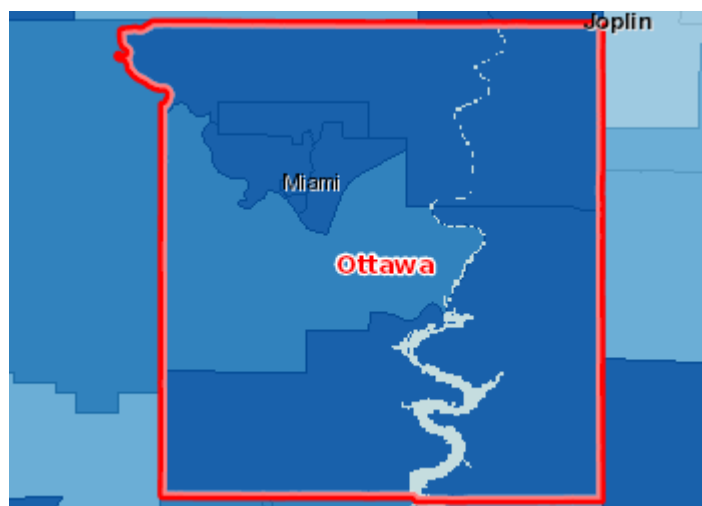
Insurance - Population Receiving Medicaid

This indicator reports the percentage of the population with insurance enrolled in Medicaid (or other means-tested public health insurance). 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.

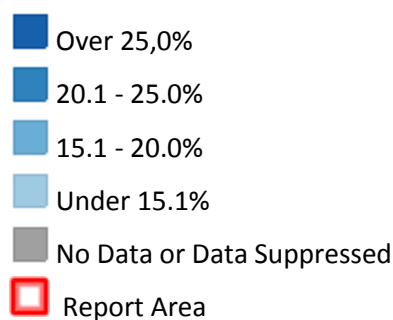
Report Area	Total Population (For Whom Insurance Status is Determined)	Population with Any Health Insurance	Population Receiving Medicaid	Percent of Insured Population Receiving Medicaid
Ottawa County, OK	31,578	25,959	8,134	31.33%
Oklahoma	3,794,815	3,200,667	664,227	20.75%
United States	313,576,137	276,875,891	59,874,221	21.62%



Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract Retrieved from chna.org on October 1, 2018.



Insured, Medicaid / Means-Tested Coverage, Percent by Tract, ACS 2012-16



Population Receiving Medicaid by Age Group, Percent

Report Area	Under Age 18	Age 18 - 64	Age 65
Ottawa County, OK	58.91%	14.75%	14.32%
Oklahoma	42.18%	8.84%	11.05%
United States	38.48%	12.99%	13.92%

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 2018. Medicare enrollment is based on CMS administrative enrollment data and is 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 7,909 individuals enrolled in Medicare (90% Original Medicare and 10% Medicare Advantage plans) in Ottawa County.

There were a total of 721,416 individuals enrolled in Medicare (81% Original Medicare and 19% Medicare Advantage and other plans) in Oklahoma in October 2018. An estimated 30,002,236 individuals were enrolled in Medicare (66% Original Medicare and 34% Medicare Advantage plans) in the U.S in September 2018. 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.

Late or No Prenatal Care

Definition

This indicator reports the percentage of women who do not obtain prenatal care during their first trimester of pregnancy.

Why Is This Important?

This indicator is relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. 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.

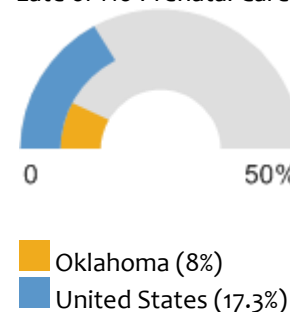
How Are We Doing

According to the CDC 8% of Oklahoma mothers received late or no prenatal care. This Oklahoma rate is dramatically less than the national rate of 17.3%.

Report Area	Total Births	Mothers Starting Prenatal Care in First Semester	Mothers with Late or No Prenatal Care	Prenatal Care Not Reported	Percentage Mothers with Late or No Prenatal Care
Ottawa County, OK	no data	no data	no data	no data	suppressed
Oklahoma	217,637	33,170	17,443	167,024	8%
United States	16,693,978	7,349,554	2,880,098	6,464,326	17.3%

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. Centers for Disease Control and Prevention, Wide-Ranging Online Data for Epidemiologic Research. 2007-10. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Percentage Mothers with Late or No Prenatal Care



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.

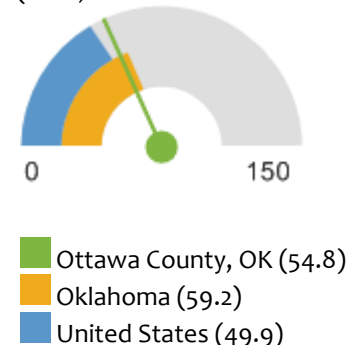
How Are We Doing?

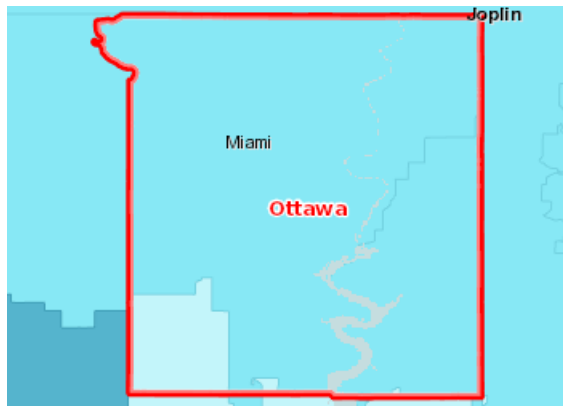
In 2014, the age-adjusted ambulatory care sensitive condition discharge rate per 1,000 Medicare enrollees was 54.8 for Ottawa County, 59.2 in Oklahoma, and 49.9 in the United States.

Report Area	Total Medicare Part A Enrollees	Ambulatory Care Sensitive Condition Hospital Discharges	Ambulatory Care Sensitive Condition Discharge Rate
Ottawa County, OK	4,838	264	54.8
Oklahoma	437,663	25,928	59.2
United States	29,649,023	1,479,545	49.9

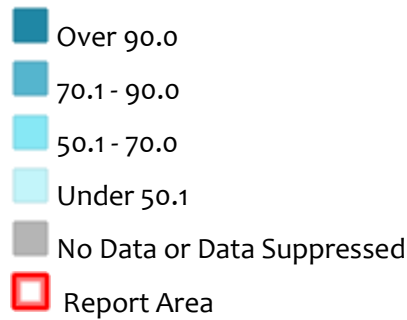
Data Source: Dartmouth College Institute for Health Policy Clinical Practice, Dartmouth Atlas of Health Care. 2014. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Preventable Hospital Events, Age-Adjusted Discharge Rate (Per 1,000 Medicare Enrollees)





Ambulatory Care Sensitive Conditions, Rate (Per 1,000 Medicare Enrollees) by Hospital Service Area, Dartmouth Atlas 2014



Preventable Hospital Events by Year, 2008 through 2012

Rate of Ambulatory Care Sensitive Condition Discharges (per 1,000 Medicare Part A Beneficiaries)

Report Area	2008	2009	2010	2011	2012
Ottawa County, OK	128.8	122.45	102.72	107.3	84.71
Oklahoma	88.95	81.77	80.96	76.93	71.37
United States	70.5	68.16	66.58	64.92	59.29

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.

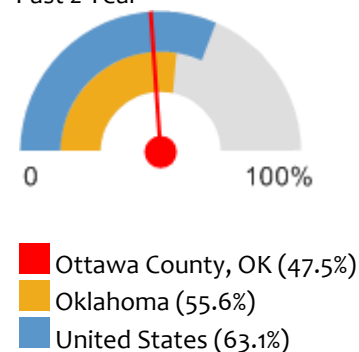
How Are We Doing?

In 2014, the percentage of female Medicare enrollees who have received one or more mammograms in the past two years was 47.5 percent in Ottawa County, 55.6 percent in Oklahoma, and 63.1 percent in the United States.

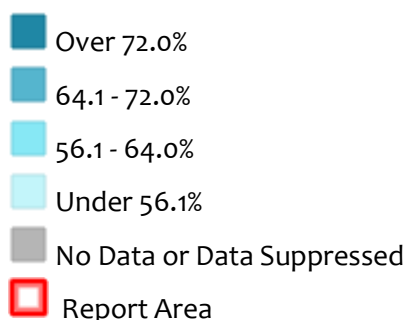
Report Area	Total Medicare Enrollees	Female Medicare Enrollees Age 67-69	Female Medicare Enrollees with Mammogram in Past 2 Years	Percent Female Medicare Enrollees with Mammogram in Past 2 Year
Ottawa County, OK	4,587	423	200	47.5%
Oklahoma	405,789	38,135	21,211	55.6%
United States	26,753,396	2,395,946	1,510,847	63.1%

Data Source: Dartmouth College Institute for Health Policy Clinical Practice, Dartmouth Atlas of Health Care. 2014. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Percent Female Medicare Enrollees with Mammogram in Past 2 Year



Mammogram (Past 2 Years), Percent of Female Medicare Enrollees, Age 67-69 by Hospital Service Area, Dartmouth Atlas 2014



Diabetes Monitoring- Hemoglobin A1C Test

Definition

This indicator reports the percentage of diabetic Medicare patients 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?

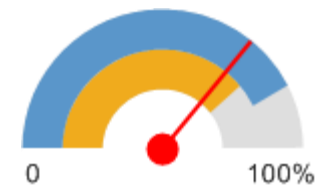
This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

How Are We Doing?

In the report area, 520 Medicare enrollees with diabetes have had an annual exam out of 723 Medicare enrollees in the report area with diabetes, or 71.9%. The percentage of Ottawa County residents receiving an annual exam is much less than that of the state of Oklahoma 78.4% and the U.S. percentage of 85.2%.

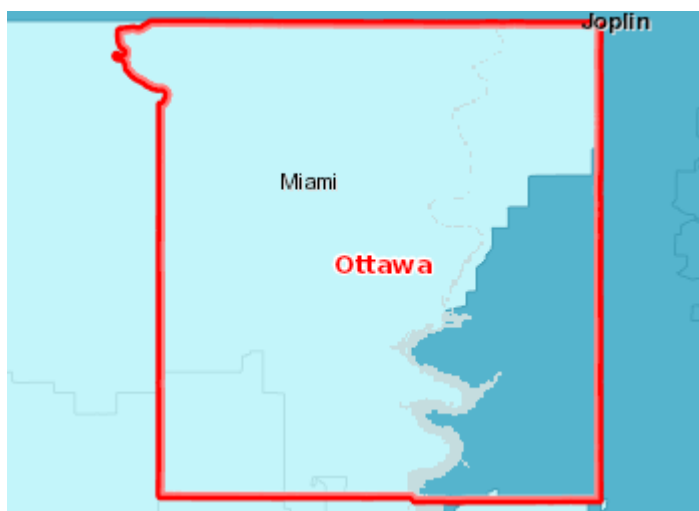
Percent Medicare Enrollees with Diabetes with Annual Exam

Report Area	Total Medicare Enrollees	Medicare Enrollees with Diabetes	Medicare Enrollees with Diabetes with Annual Exam	Percent Medicare Enrollees with Diabetes with Annual Exam
Ottawa County, OK	4,587	723	520	71.9%
Oklahoma	405,789	56,401	44,194	78.4%
United States	26,753,396	3,314,834	2,822,996	85.2%



■ Ottawa County, OK (71.9%)
■ Oklahoma (78.4%)
■ United States (85.2%)

Data Source: Dartmouth College Institute for Health Policy Clinical Practice, Dartmouth Atlas of Health Care. 2014. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018



Patients with Annual HA1C Test (Diabetes), Percent of Medicare Enrollees with Diabetes by Hospital Service Area, Dartmouth Atlas 2014

■ Over 88.0%
■ 84.1 - 88.0%
■ 80.1 - 84.0%
■ Under 80.1%
■ No Data or Data Suppressed
■ Report Area

HEALTH BEHAVIORS AND RISK FACTORS

Health behaviors such as poor diet, 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

This indicator is the percentage of Ottawa County residents who reported that they had consumed less than five servings of fruit and vegetables daily.

Definition

Why Is This Indicator Important?

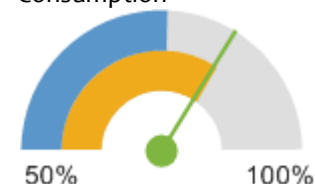
This indicator is relevant because current behaviors are determinants of future health, and because unhealthy eating habits may cause of significant health issues, such as obesity and diabetes.

How Are We Doing?

In the report area an estimated 20,306 or 88.5% of adults over the age of 18 are consuming less than 5 servings of fruits and vegetables each day. Only 16.2% of Ottawa County residents are reaching adequate consumption of fruits and vegetables, compared to 15.5% in Oklahoma residents and 24.3% in the U.S.

Report Area	Total Population (Age 18)	Total Adults with Inadequate Fruit / Vegetable Consumption	Percent Adults with Inadequate Fruit / Vegetable Consumption
Ottawa County, OK	24,231	20,306	83.8%
Oklahoma	2,709,105	2,289,194	84.5%
United States	227,279,010	171,972,118	75.7%

Percent Adults with Inadequate Fruit / Vegetable Consumption



■ Ottawa County, OK (83.8%)
■ Oklahoma (84.5%)
■ United States (75.7%)

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2005-09. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Physical Activity

Definition

Within the report area, 10,495 or 30.6% of adults aged 20 and older self-report no leisure time for activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"

Why Is This Indicator Important?

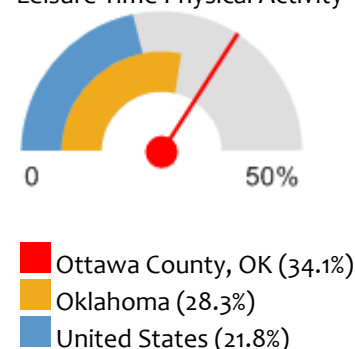
This indicator is relevant because current behaviors are determinants of future health and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.

How Are We Doing?

Overall, 34.1% of Ottawa County adults reported no leisure time physical activity in the previous month in 2013. This was higher than in Oklahoma 28.3% and the U.S. 21.8%. Males were less likely than females to have no leisure time physical activity (33% compared to 35.1%).

Report Area	Total Population Age 20	Population with no Leisure Time Physical Activity	Percent Population with no Leisure Time Physical Activity
Ottawa County, OK	23,204	8,307	34.1%
Oklahoma	2,801,368	814,440	28.3%
United States	234,207,619	52,147,893	21.8%

Percent Population with no Leisure Time Physical Activity



Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2013. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

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
Ottawa County, OK	3,838	33%	4,469	35.1%
Oklahoma	372,201	26.7%	442,235	29.8%
United States	23,209,824	20.13%	28,938,104	23.22%

Weight Status

Overweight and Obese

Definition

This indicator is the percentage of Ottawa County residents who were overweight or obese. Overweight is defined as individuals who have a body mass index (BMI) greater than or equal to 25. Obesity refers to individuals who have 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.

Why Is This Indicator Important?

Excess weight may indicate an unhealthy lifestyle and puts individuals at risk for further health issues.

How Are We Doing?

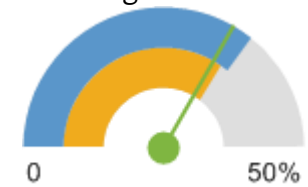
According to the CDC 33.3% of Ottawa County adults were overweight compared to 34.9% of Oklahomans and 35.8% of residents of the United States.

With regard to race/ethnicity, percent overweight was most prevalent among white, non-Hispanic and Hispanic individuals in Oklahoma.

Report Area	Survey Population (Adults Age 18)	Total Adults Overweight	Percent Adults Overweight
Ottawa County, OK	28,267	9,402	33.3%
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, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2011-12. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Percent Adults Overweight



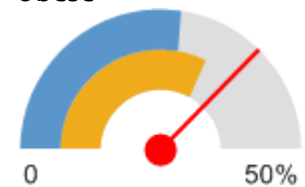
■ Ottawa County, OK (33.3%)
■ Oklahoma (34.9%)
■ United States (35.8%)

In 2013, 37.4% of Ottawa County residents were obese compared to 32.6% of Oklahomans and 27.5% of the United States.

Report Area	Total Population Age 20	Adults with BMI > 30.0 (Obese)	Percent Adults with BMI > 30.0 (Obese)
Ottawa County, OK	23,205	8,609	37.4%
Oklahoma	2,801,466	916,887	32.6%
United States	234,188,203	64,884,915	27.5%

Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2013. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Percentage of Adults Obese



■ Ottawa County, OK (37.4%)
■ Oklahoma (32.6%)
■ United States (27.5%)

Adults Obese (BMI > 30.0) by Gender

Report Area	Total Males Obese	Percent Males Obese	Total Females Obese	Percent Females Obese
Ottawa County, OK	4,193	37.6%	4,416	37.2%
Oklahoma	459,871	33.33%	457,017	32.03%
United States	32,051,606	27.92%	32,833,321	27.06%

Hypertension

High Blood Pressure

Definition

This indicator is presented as the percentage of adult Ottawa County residents age 18 and older that had ever been diagnosed with high blood pressure.

Why Is This Indicator Important?

Uncontrolled high blood pressure can lead to serious health consequences if untreated.

How Are We Doing?

6,977 or 28.9% of Ottawa County adults aged 18 and older have ever been told by a doctor that they have high blood pressure or hypertension. This percentage is higher than that of Oklahomans 32.3% and the United States.

Report Area	Total Population (Age 18)	Total Adults with High Blood Pressure	Percent Adults with High Blood Pressure
Ottawa County, OK	24,142	6,977	28.9%
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, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2006-12. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Percent Adults with High Blood Pressure



■ Ottawa County, OK (28.9%)
■ Oklahoma (32.3%)
■ United States (28.16%)

High Blood Pressure Management Definition

This indicator is presented as the percentage of adult Ottawa County residents age 18 and older who self-reported that they are not taking medication for their high blood pressure according to the CHD's Behavior Risk Factor Surveillance System.

Why Is This Indicator Important?

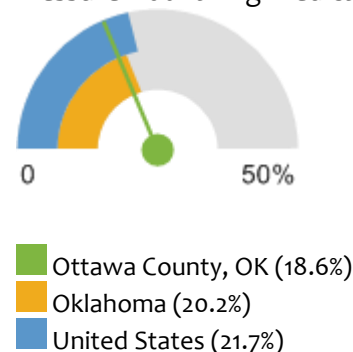
This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. When considered with other indicators of poor health, this indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

How Are We Doing?

In the report area, 18.6% of adults, or 4,520, self-reported that they are not taking medication for their high blood pressure. This percentage is better than that of Oklahomans 20.2% and the U.S. 21.7%.

Report Area	Total Population (Age 18)	Total Adults Not Taking Blood Pressure Medication (When Needed)	Percent Adults Not Taking Medication
Ottawa County, OK	24,282	4,520	18.6%
Oklahoma	2,793,624	565,511	20.2%
United States	235,375,690	51,175,402	21.7%

Percent Adults with High Blood Pressure Not Taking Medication



Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2006-10. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

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?

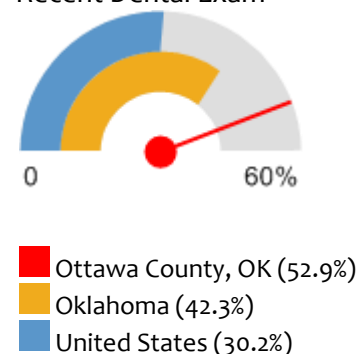
In the report area 52.9% of adults or 12,841, self-reported that they had not visited a dental provider or clinic within the past year according to the CDC's Behavioral Risk Factor Surveillance System. This was higher than in Oklahoma (42.3%) and the U.S. (30.2%).

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%).

Report Area	Total Population (Age 18)	Total Adults Without Recent Dental Exam	Percent Adults with No Dental Exam
Ottawa County, OK	24,282	12,841	52.9%
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, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2006-10. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Percent Adults Without Recent Dental Exam



Adults Without Recent Dental Exam by Gender

Report Area	Total Male	Total Female	Percent Male	Percent Female
Oklahoma	603,193	570,106	44.82%	39.92%
United States	36,311,042	34,083,921	32.3%	28.12%

Adults Without Recent Dental Exam by Race / Ethnicity, Percent

Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Oklahoma	39.63%	50.89%	44.79%	50.29%
United States	26.96%	38.11%	29.23%	38.33%

Teen Births

Teen Birth Rate Ages 15-19

Definition

This indicator reports the rate of total births to women age of 15 - 19 per 1,000 female population age 15 - 19.

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.

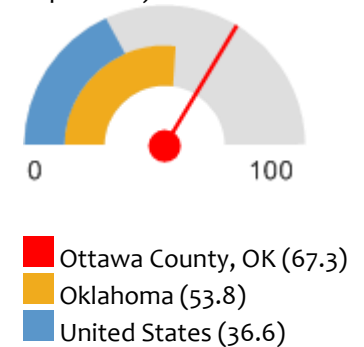
How Are We Doing?

There were 82 births to Ottawa County teens ages 15-19, for a birth rate of 67.3 live births per 1,00 females ages 15-19. This was significantly higher than Oklahoma (53.8) and the U.S. (36.6). The trend data shows a small decline in the teen birth rate since 2002.

Report Area	Female Population Age 15 - 19	Births to Mothers Age 15 - 19	Teen Birth Rate (Per 1,000 Population)
Ottawa County, OK	1,223	82	67.3
Oklahoma	128,840	6,932	53.8
United States	10,736,677	392,962	36.6

Data Source: US Department of Health Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2006-12. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Teen Birth Rate (Per 1,000 Population)



The trend data shows an increase in the teen birth rate since 2002.

Births to Women Age 15-19, Rate (per 1,000 Pop.) by Time Period, 2002-2008 through 2006-2012

Report Area	2002-2008	2003-2009	2004-2010	2005-2011	2006-2012
Ottawa County, OK	63.2	65.9	66	68.2	67.3
Oklahoma	56.2	56.1	55.4	54.5	53.8
United States	41	40.3	39.3	38	36.6

Hispanic or Latinos in Ottawa County (72.5) and Oklahoma (82.4) had the highest birth rate for teenagers age 15-19. The teen birth rate of Hispanic women was higher than that of non-Hispanic women in Ottawa County.

Births to Women Age 15-19, Rate (per 1,000 Pop.) by Race / Ethnicity

Report Area	Non-Hispanic White	Non-Hispanic Black	Hispanic or Latino
Ottawa County, OK	62.1	no data	72.5
Oklahoma	45.6	65.4	82.4
United States	24.6	54.9	62

Tobacco Use

Definition

This indicator is the percentage of Ottawa County residents who self-reported currently smoking cigarettes.

Why Is This Indicator Important?

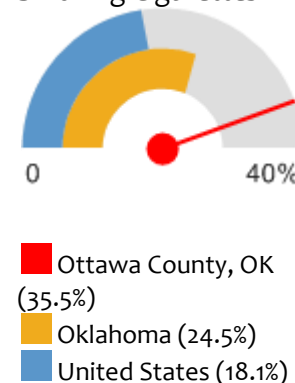
This indicator is relevant because tobacco use is linked to leading causes of death such as cancer and cardiovascular disease.

How Are We Doing?

In the report area an estimated 8,112, or 35.5% of adults age 18 or older self-report currently smoking cigarettes some days or every day.

Report Area	Total Population Age 18	Total Adults Regularly Smoking Cigarettes	Percent Population Smoking Cigarettes (Crude)	Percent Population Smoking Cigarettes (Age-Adjusted)
Ottawa County, OK	24,142	8,112	33.6%	35.5%
Oklahoma	2,793,624	673,263	24.1%	24.5%
United States	232,556,016	41,491,223	17.8%	18.1%

Percentage of Adults Smoking Cigarettes



Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2006-12. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Substance Abuse

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.

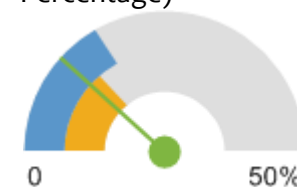
How Are We Doing?

In Ottawa County, an estimated 11.6% of adults reported drinking excessively (age-adjusted). This was lower than in Oklahoma (13.9%) and the U.S. (16.9%).

Report Area	Total Population Age 18	Estimated Adults Drinking Excessively	Estimated Adults Drinking Excessively (Crude Percentage)	Estimated Adults Drinking Excessively (Age-Adjusted Percentage)
Ottawa County, OK	24,142	2,511	10.4%	11.6%
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, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2006-12. Source geography: County Retrieved from: www.communitycommons.org on October 1, 2018

Estimated Adults Drinking Excessively (Age-Adjusted Percentage)



■ Ottawa County, OK (11.6%)
■ Oklahoma (13.9%)
■ United States (16.9%)

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

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, 7.78, or 2.14% of days exceeded the emission standard of 75 parts per billion (ppb). This measure was higher than in Oklahoma (2.27%) and the U.S. (1.24%).

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 (PM_{2.5}) 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?

According to the 2018 County Health Rankings the average daily density of fine particulate matter in micrograms per cubic meter in Ottawa County was 9.8 which was higher than Oklahoma (9.2) and higher as the top 90th percentile or top 10 percent of the counties in the U.S. (6.7).

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?

Ottawa County measured positive (“YES”) for drinking water violations according to the 2018 County Health Rankings.

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 Ottawa County was 15 percent according to the 2018 County Health Rankings. This was equal to Oklahoma (15%) and higher than the top 90th percentile, or top 10 percent of the counties in the U.S. (9%).

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

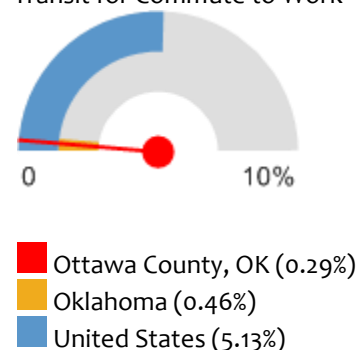
How Are We Doing?

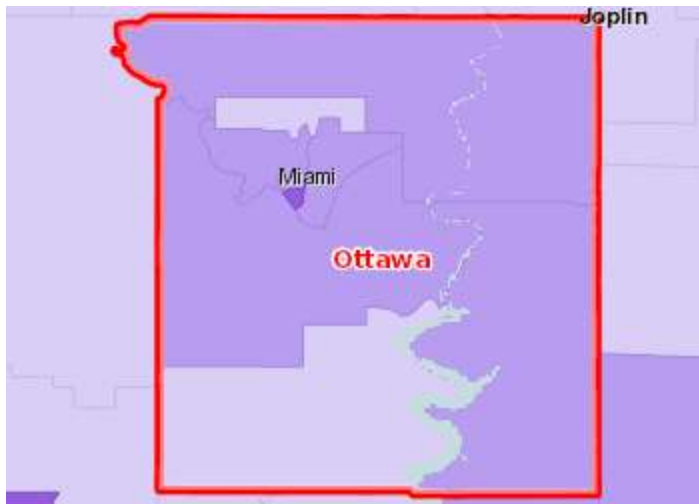
The percentage of the population in Ottawa County using public transit for commuting to work was .29 percent in 2012-2016. This was lower than in Oklahoma (.46%) and significantly lower than in the U.S. (5.13%)

Report Area	Total Population Employed Age 16	Population Using Public Transit for Commute to Work	Percent Population Using Public Transit for Commute to Work
Ottawa County, OK	12,653	37	0.29%
Oklahoma	1,720,575	7,924	0.46%
United States	145,861,221	7,476,312	5.13%

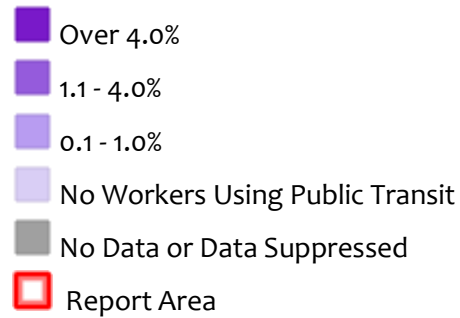
Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract
Retrieved from: www.communitycommons.org on October 1, 2018

Percent Population Using Public Transit for Commute to Work





Workers Traveling to Work Using Public Transit, Percent by Tract, ACS 2012-16



Food Access

Food Access – Low Food Access

Definition

This indicator reports the percentage of the population with low food access. Low food access is defined as living more than ½ mile from the nearest supermarket, supercenter, or large grocery store. Data are from the 2017 report, Low-Income and Low-Supermarket-Access Census Tracts, 2010-2015.

Why Is This Indicator Important?

This indicator is relevant because it highlights populations and geographies facing food insecurity.

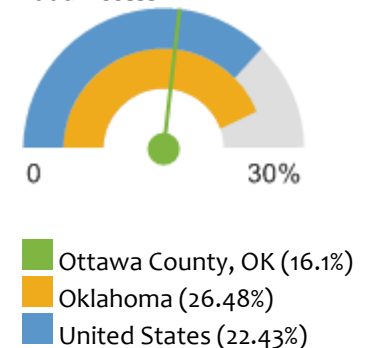
How Are We Doing?

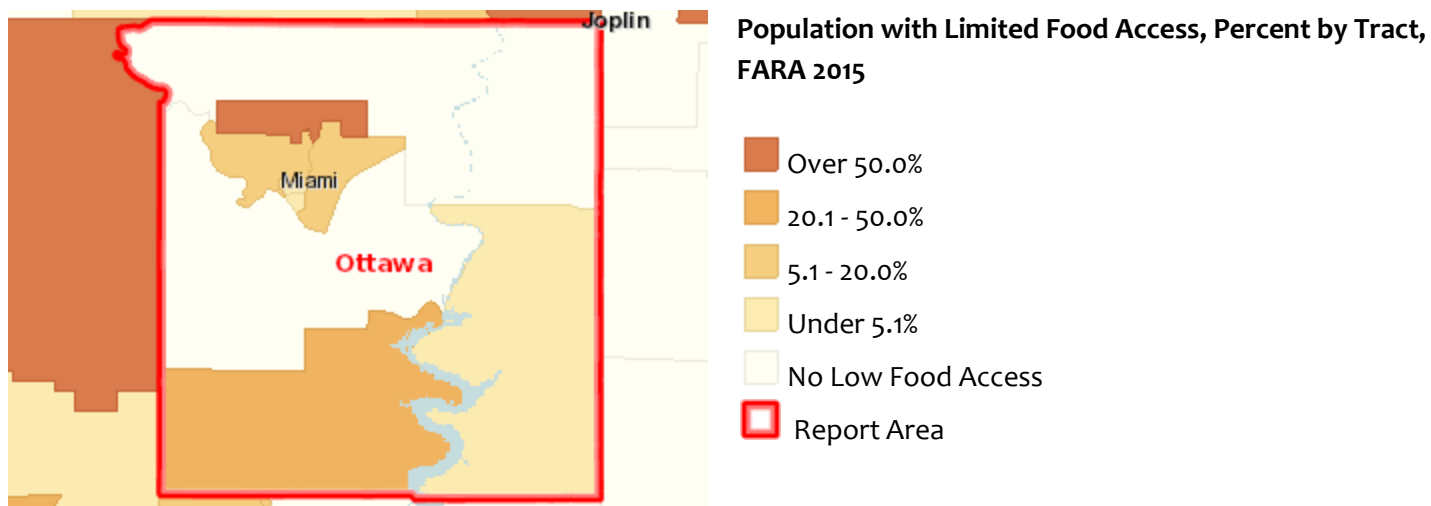
The percentage of the population in Ottawa County with low food access was 16.1 in 2015. This was lower than Oklahoma (26.48%) and the U.S. (22.43%). .

Report Area	Total Population	Population with Low Food Access	Percent Population with Low Food Access
Ottawa County, OK	31,848	5,127	16.1%
Oklahoma	3,751,351	993,419	26.48%
United States	308,745,538	69,266,771	22.43%

Data Source: US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas. 2015. Source geography: Tract Retrieved from: www.communitycommons.org on October 1, 2018

Percent Population with Low Food Access





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?

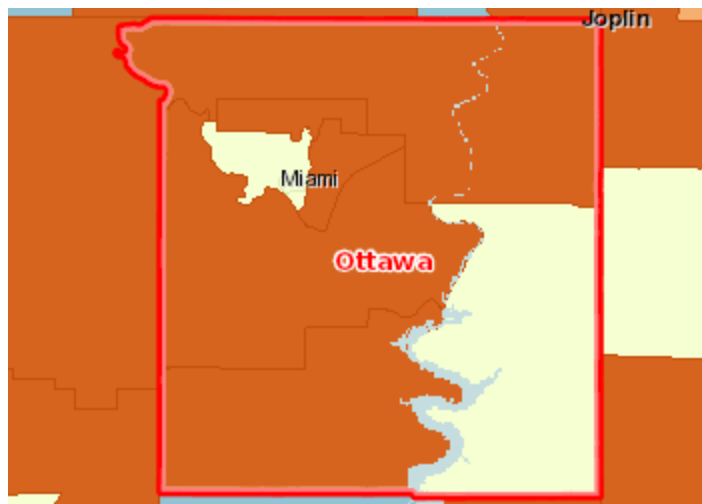
There is strong evidence that residing in a food desert is correlated with a high prevalence of overweight, obesity, and premature death. Supermarkets traditionally provide healthier options than convenience stores or smaller grocery stores. Additionally, lack of access to fresh fruits and vegetables is a substantial barrier to consumption and is related to premature mortality.⁷

How Are We Doing?

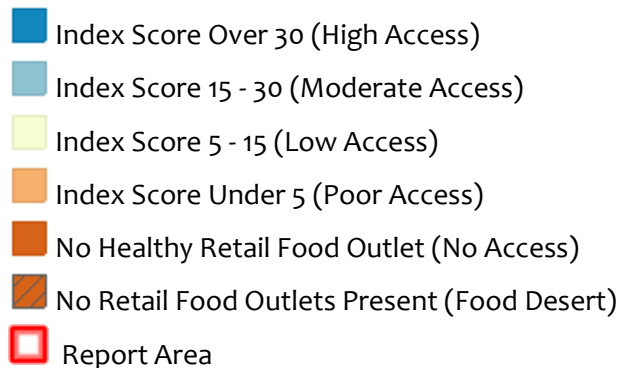
The percentage of the population in tracts with no healthy food outlet was 64.46%. This was higher than in Oklahoma (37.41%) and significantly higher than in the U.S. (18.63%). An estimated 0 percent of the population in Ottawa County resides in tracts with high healthy food access which is lower than in Oklahoma (3.51%) and in the U.S. (5.02%). The disparities in healthy food access are evident by the population map below.

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
Ottawa County, OK	31,848	0%	64.46%	16.82%	18.73%	0%
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 geography: Tract
Retrieved from: www.communitycommons.org on October 1, 2018



Modified Retail Food Environmental Index Score by Tract, DNPAO 2011



Population with Low or No Healthy Food Access by Race/Ethnicity, Total

Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Asian	Non-Hispanic American Indian / Alaska Native	Non-Hispanic Other	Multiple Race	Hispanic or Latino
Ottawa County, OK	19,990	178	80	4,323	5	1,815	961
Oklahoma	1,738,126	202,963	34,296	170,645	1,724	96,252	132,657
United States	95,978,903	21,776,320	5,189,224	1,128,698	270,921	2,468,453	19,410,660

Access to Physical Activity Opportunities

Access to Exercise Opportunities

Definition

This measures the percentage of individuals who live reasonable close to a location for physical activity. Locations for physical activity are defined as parks or recreational facilities.

Why is This Indicator Important?

This indicator is relevant because access to recreation and fitness facilities encourages physical activity and other healthy behaviors.

How Are We Doing?

In 2016, 57% of Ottawa County residents had access to physical activity opportunities which is significantly less than 74% of Oklahomans and 91% of the top performing U.S. states.

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 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 Ottawa County residents
- A community input meeting with community members, leaders, and representatives
- A survey of Partners of Ottawa County, Inc. workgroup members
- Input from the public health workforce and local coalitions/partnerships

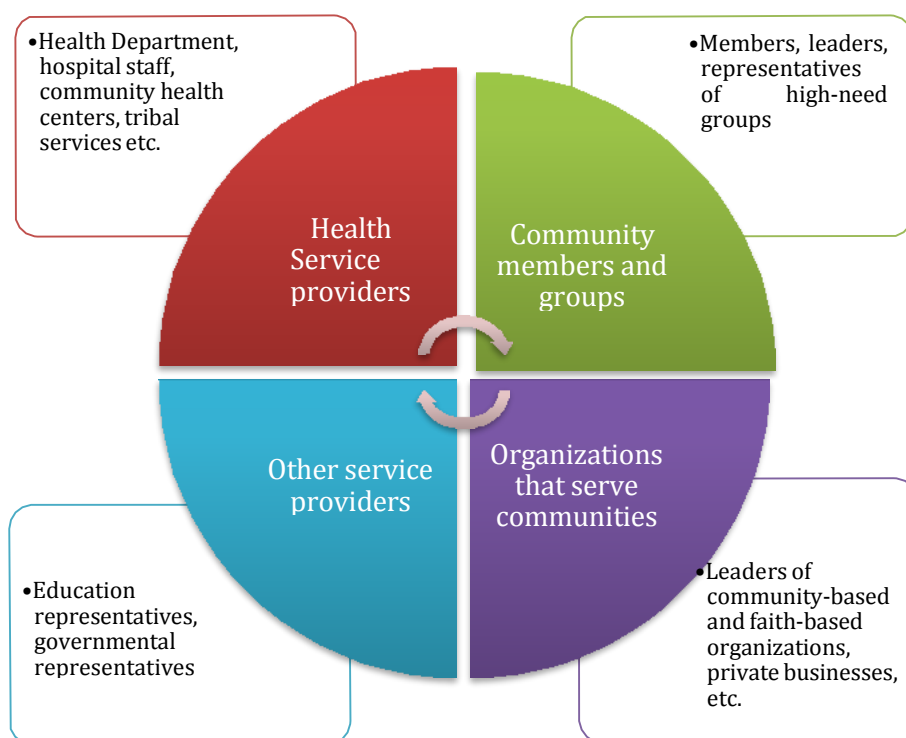
COMMUNITY INPUT SOURCES

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:

- Ottawa County residents who participated in the 2018 Ottawa County Community Health Needs 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

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:



Source: Adapted from Ascension Health. (2015). *Community Engagement, Community Input Guide*.

2018 OTTAWA COUNTY COMMUNITY HEALTH NEEDS SURVEY

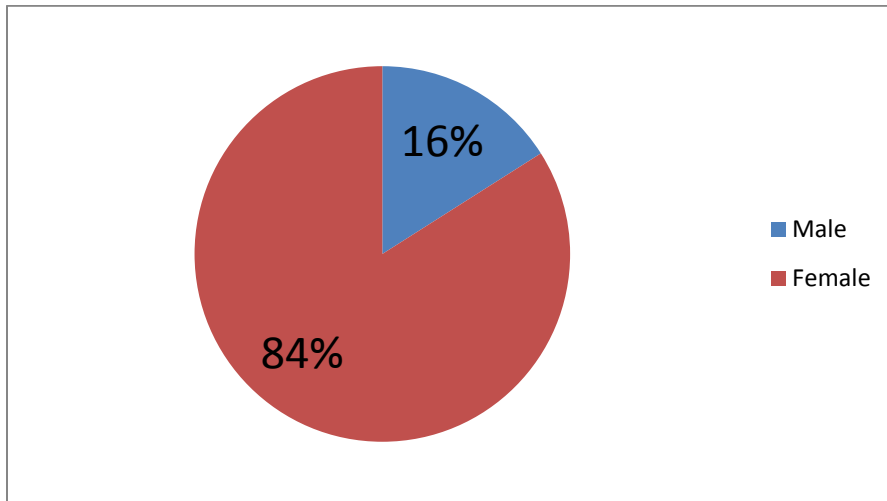
Survey Results

Information Gaps

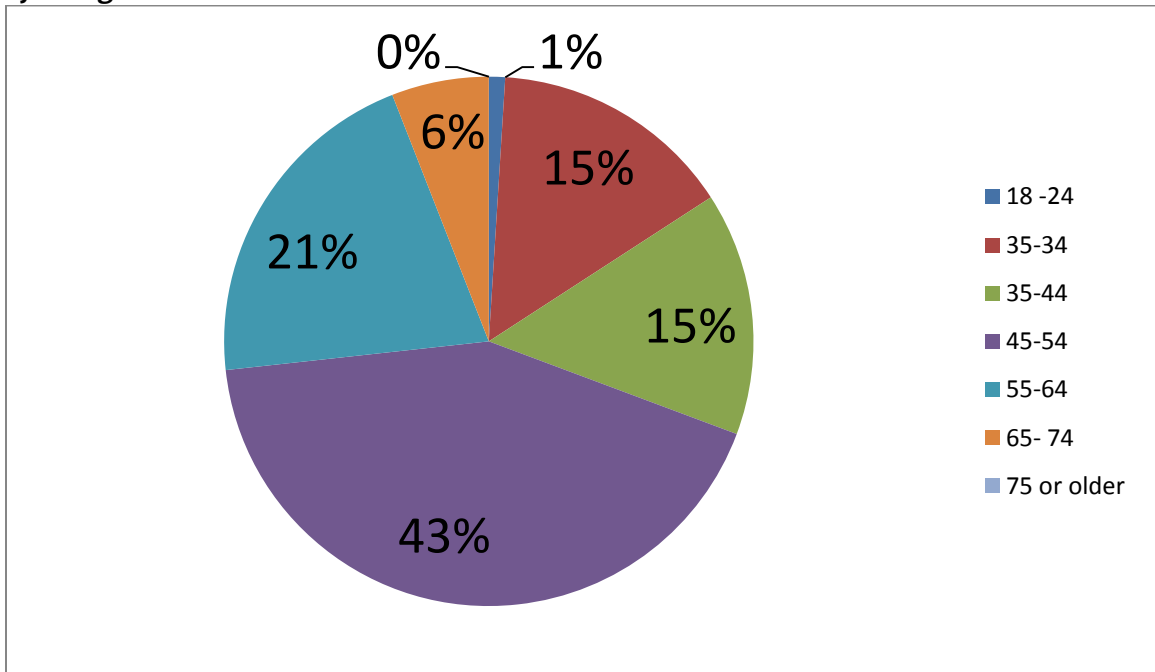
Although it is quite comprehensive, this assessment and survey cannot measure all possible aspects of health and also cannot represent every possible population in Ottawa County. These gaps might in some ways limit the ability to assess all of the community's health needs.

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.

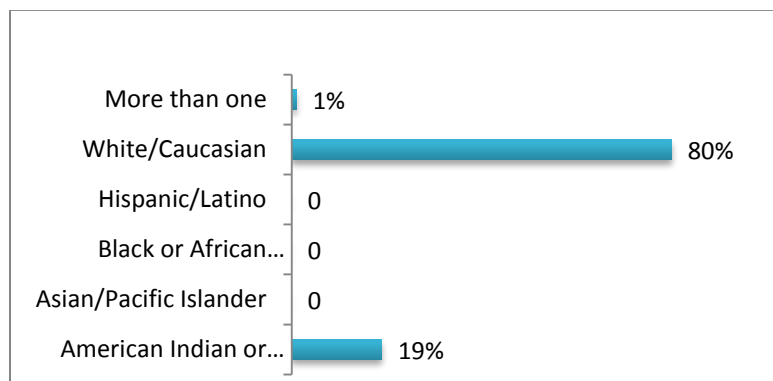
1. Are you male or female?



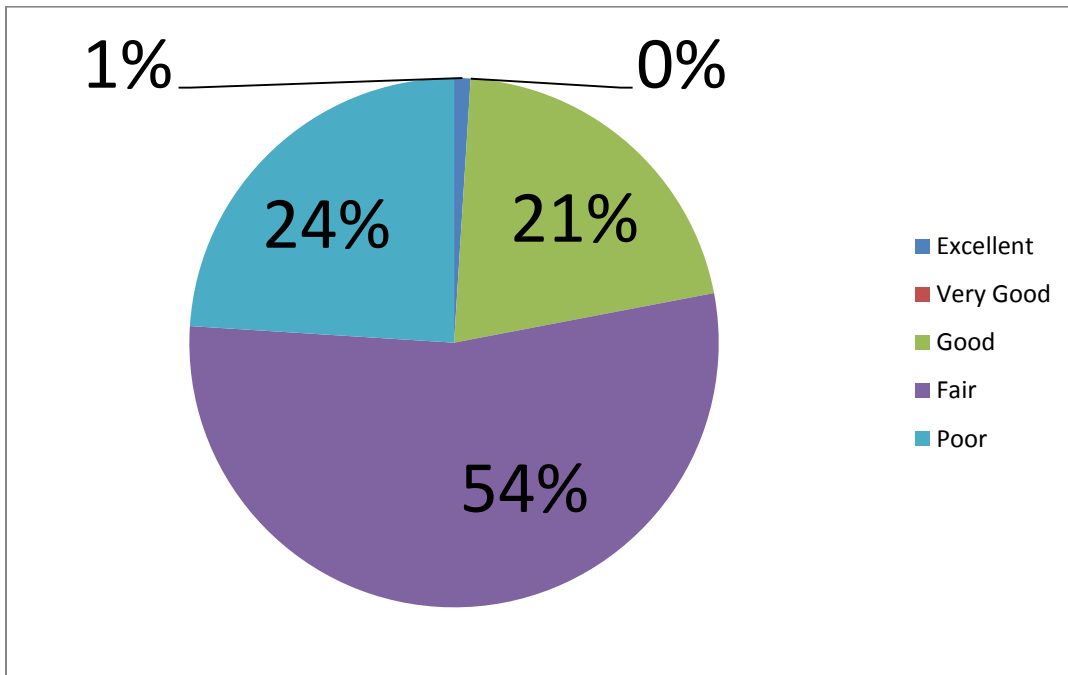
2. What is your age?



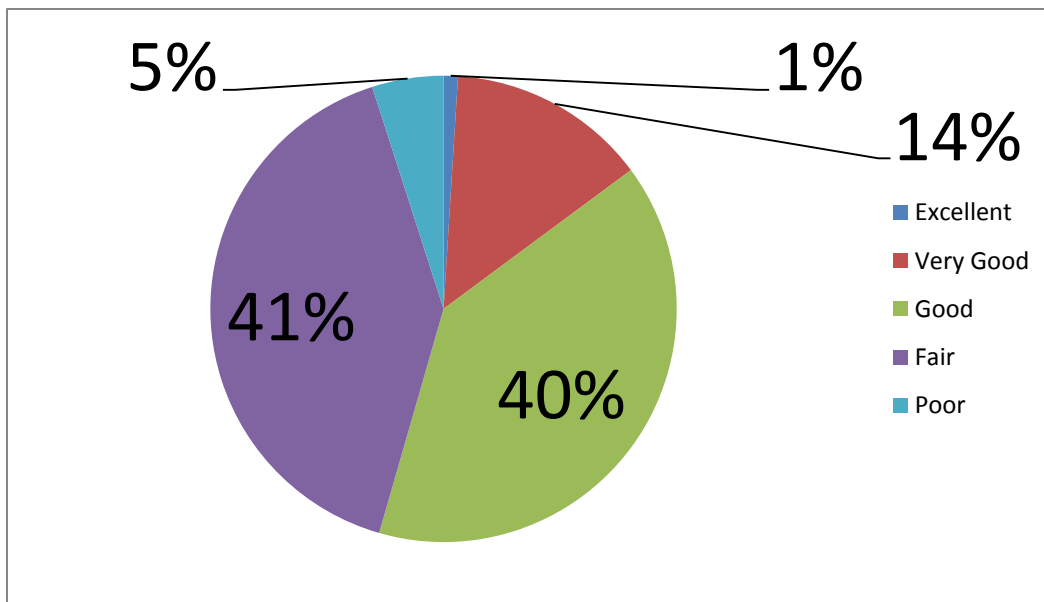
3. Which race/ethnic best describes you? (Please choose only one.)



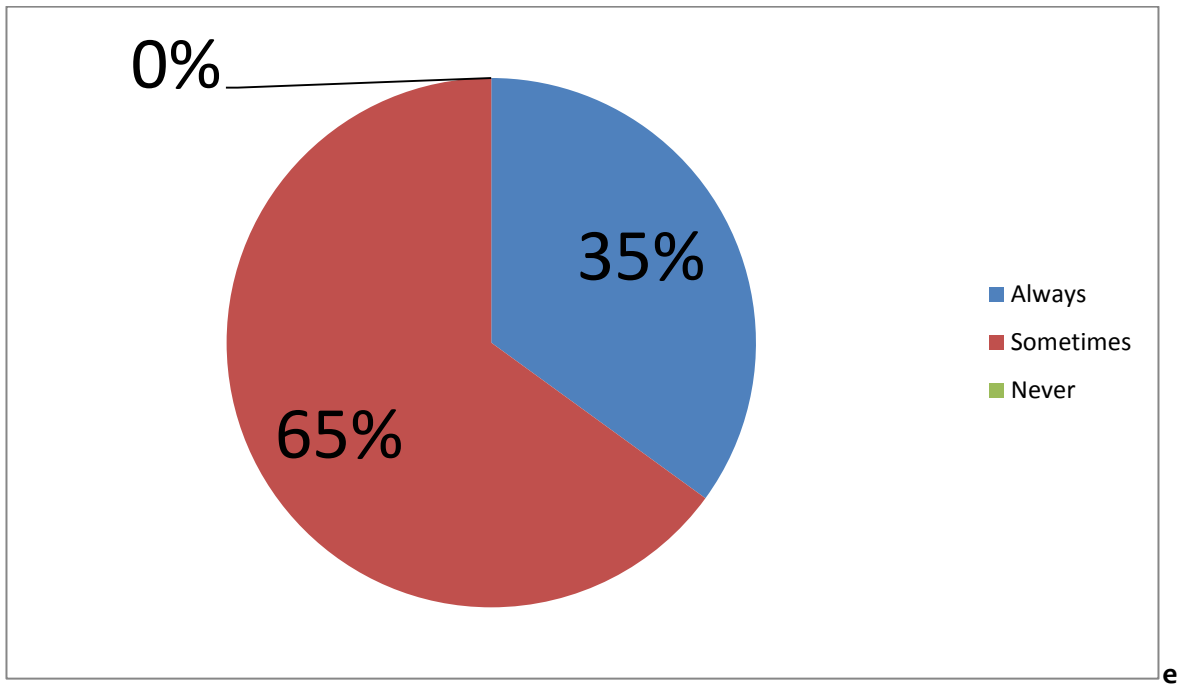
4. How do you rate your county as a HEALTHY community?



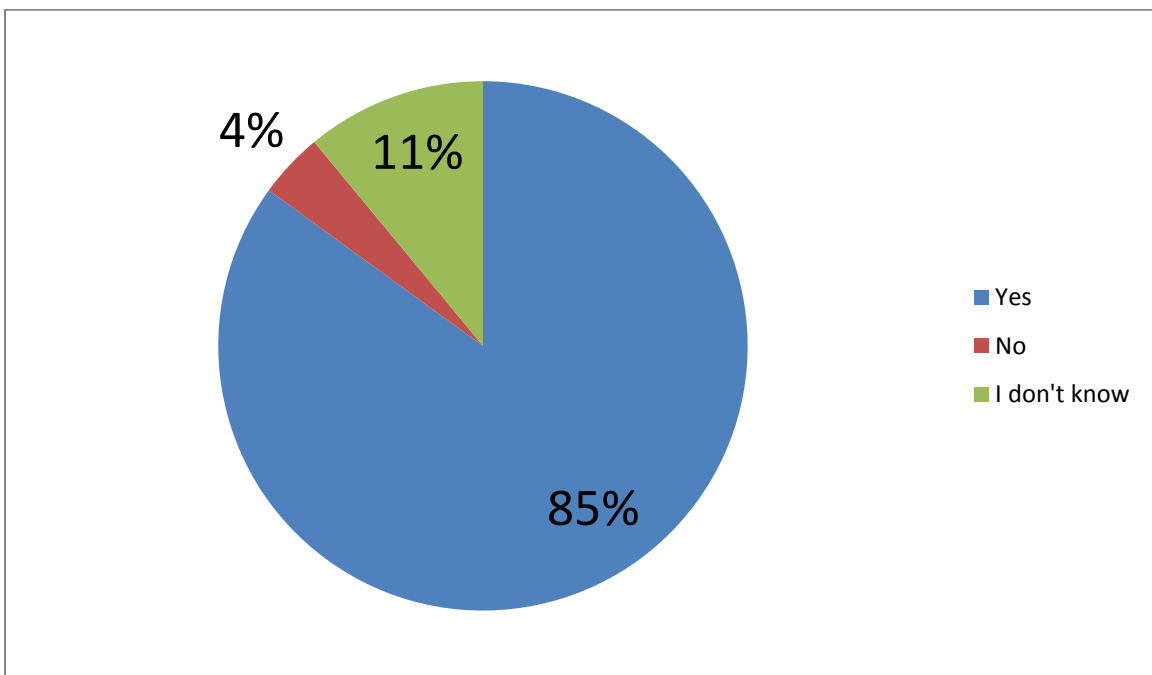
5. How would you rate your county as a SAFE county?



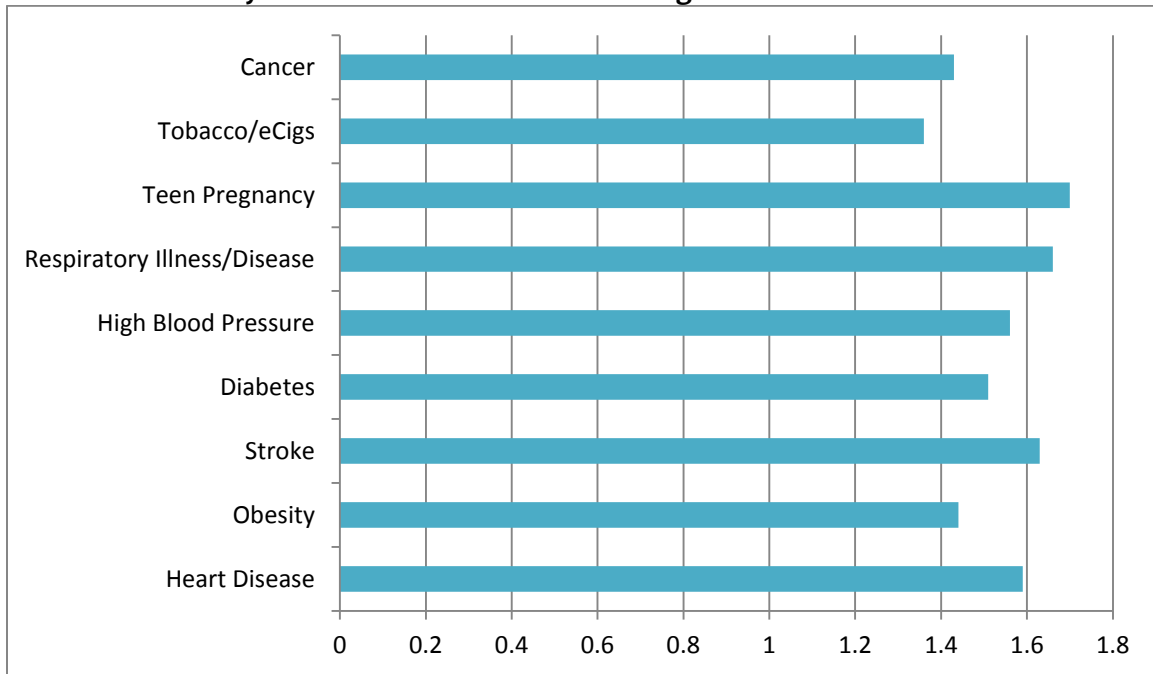
6. Do you have a sense of community pride in your county?



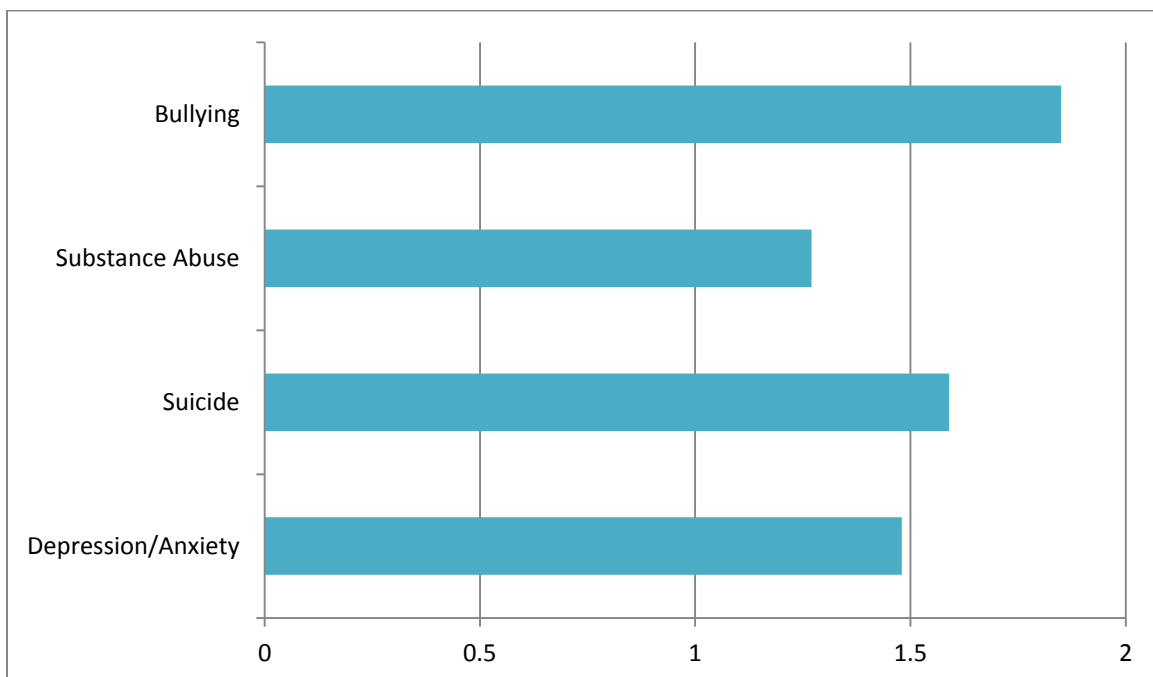
7. As a citizen, do you feel a responsibility to help improve the health status for your county?



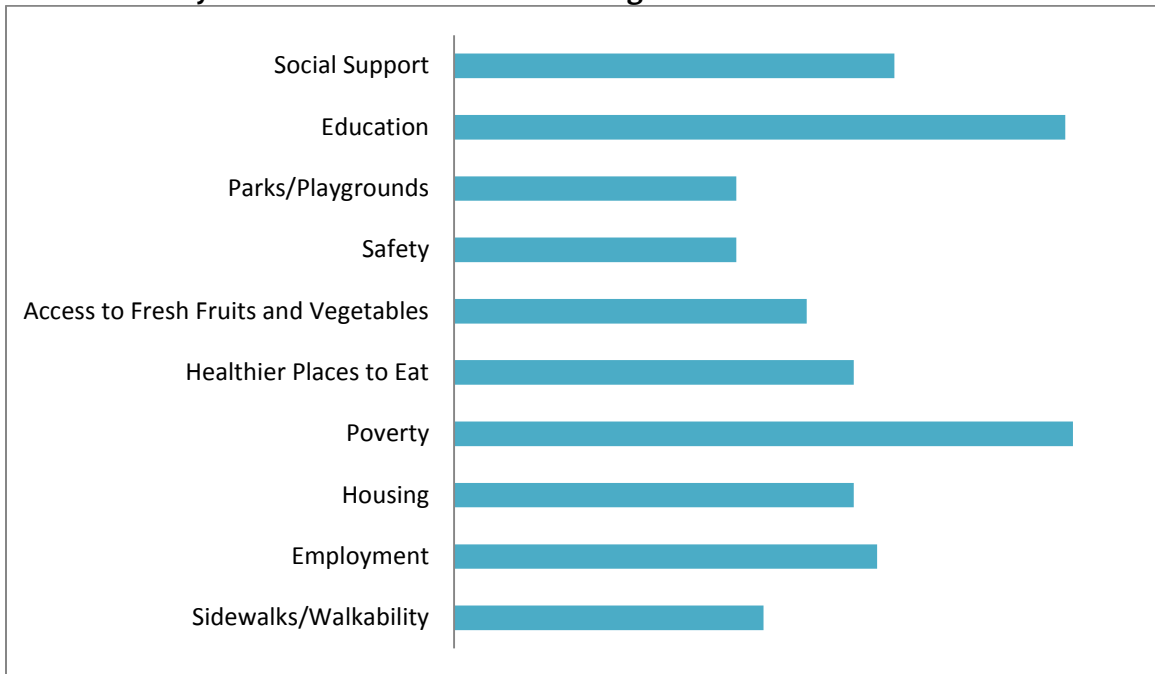
8. Select how concerned you are about each of the following PHYSICAL issues?



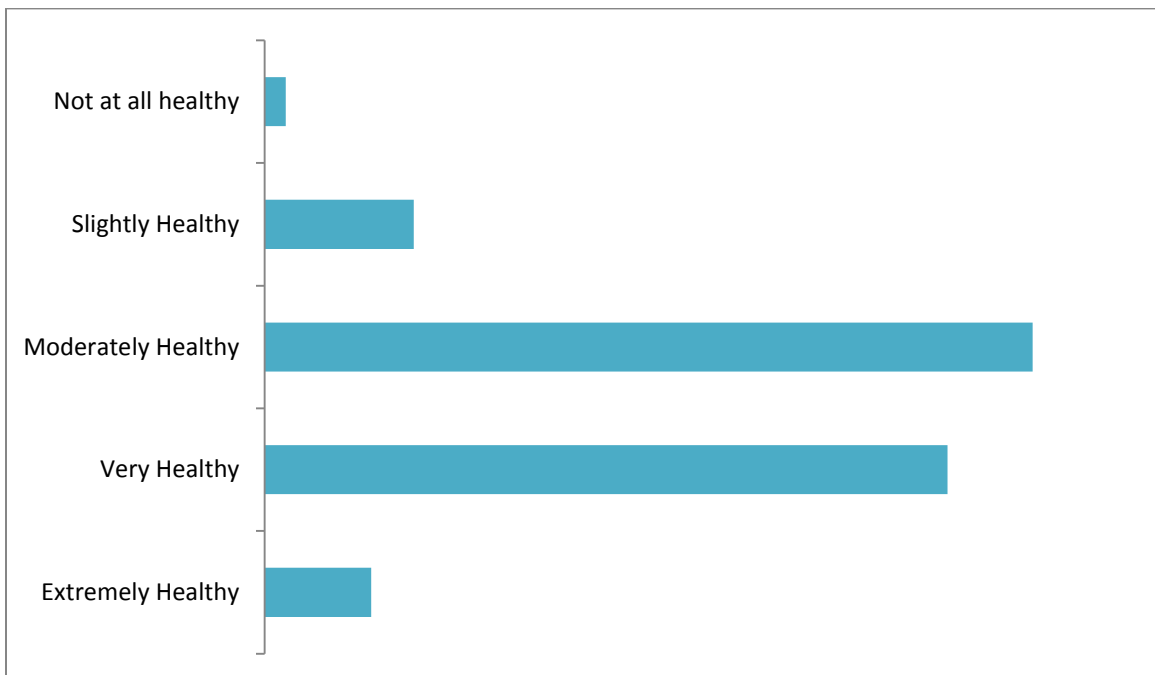
9. Select how concerned you are about each of the following MENTAL health issues.



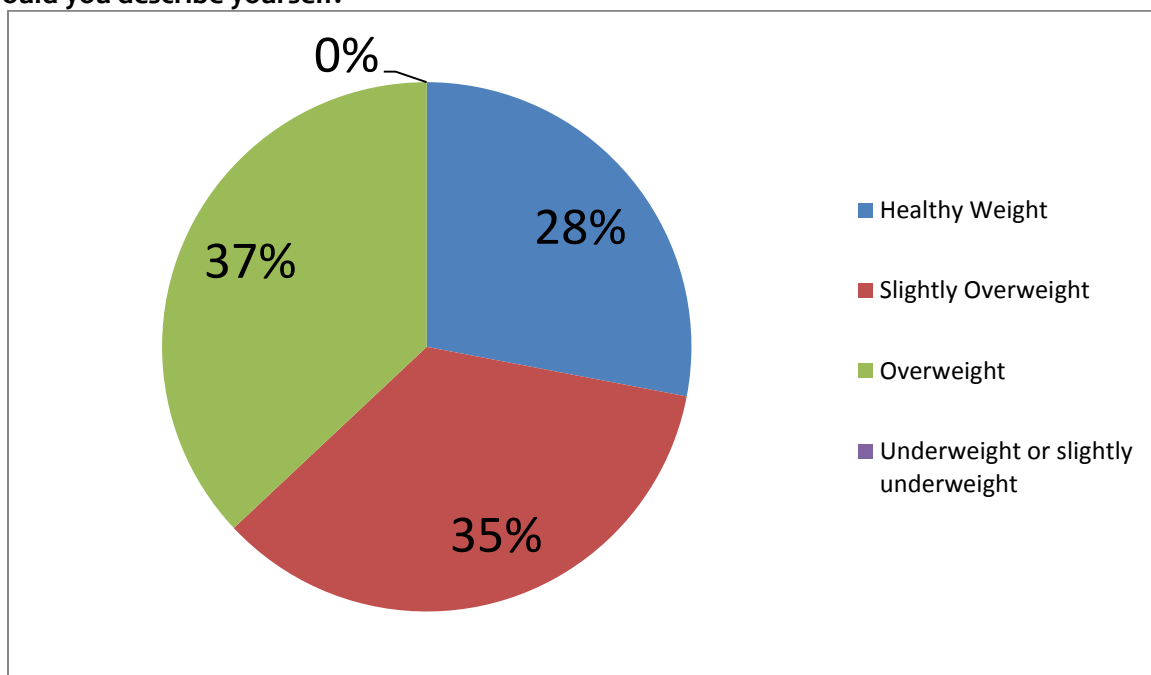
10. Select how concerned you are about each of the following WELL-BEING issues:



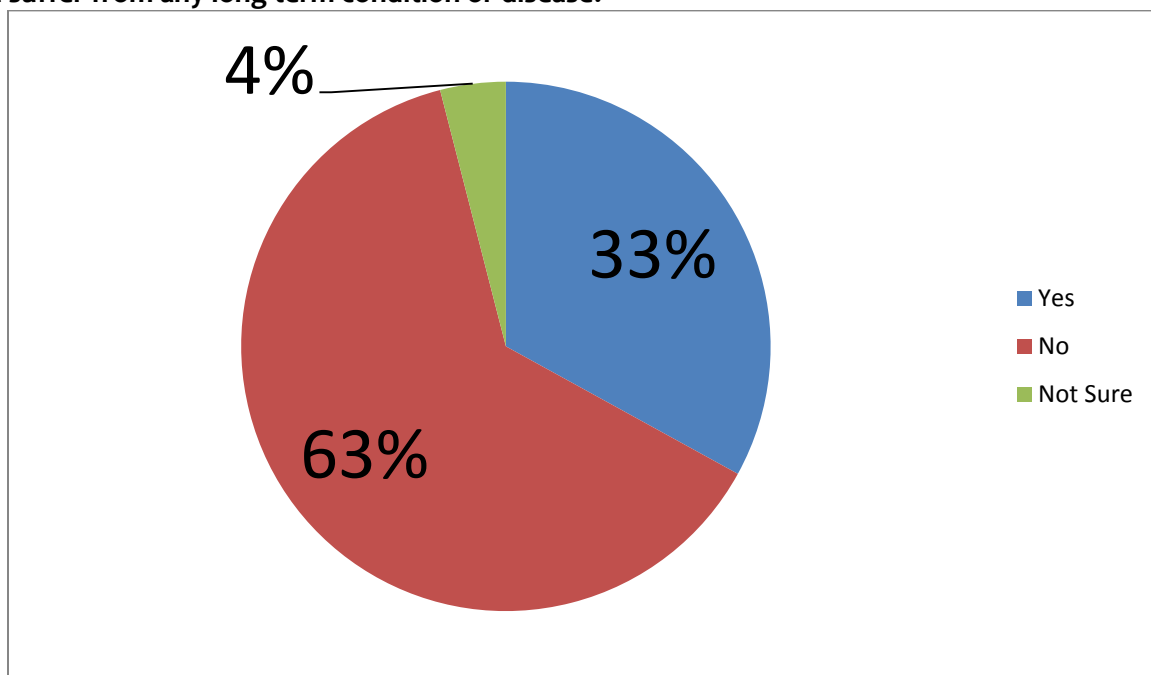
11. How physically healthy are you?



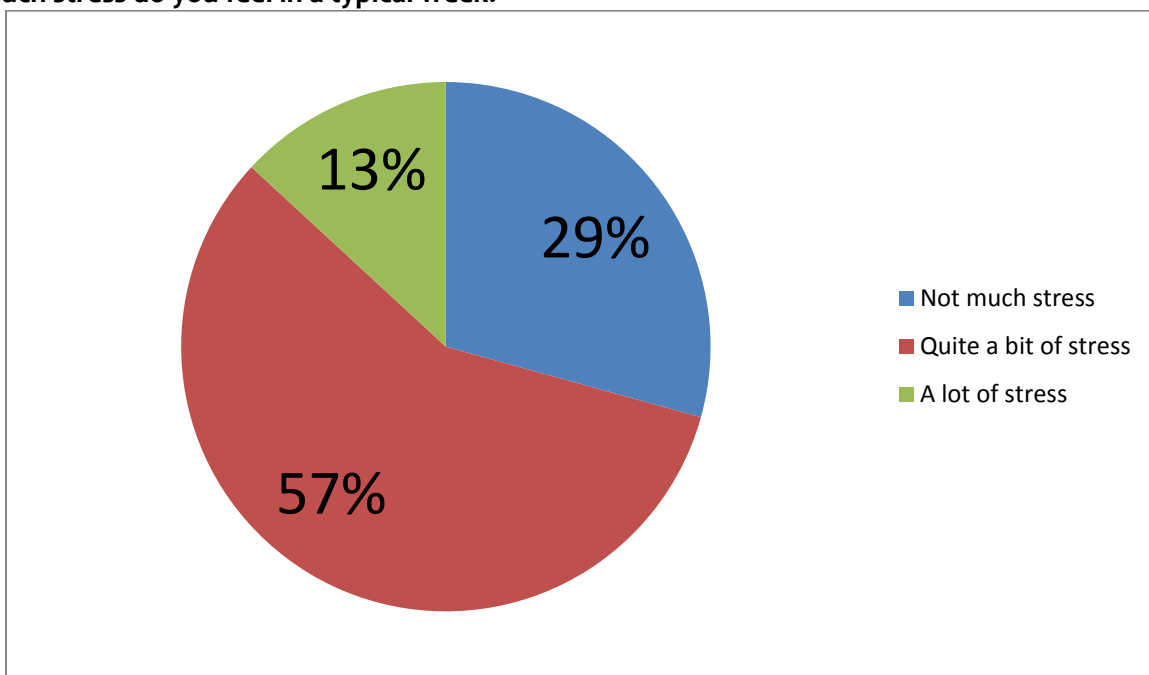
12. How would you describe yourself?



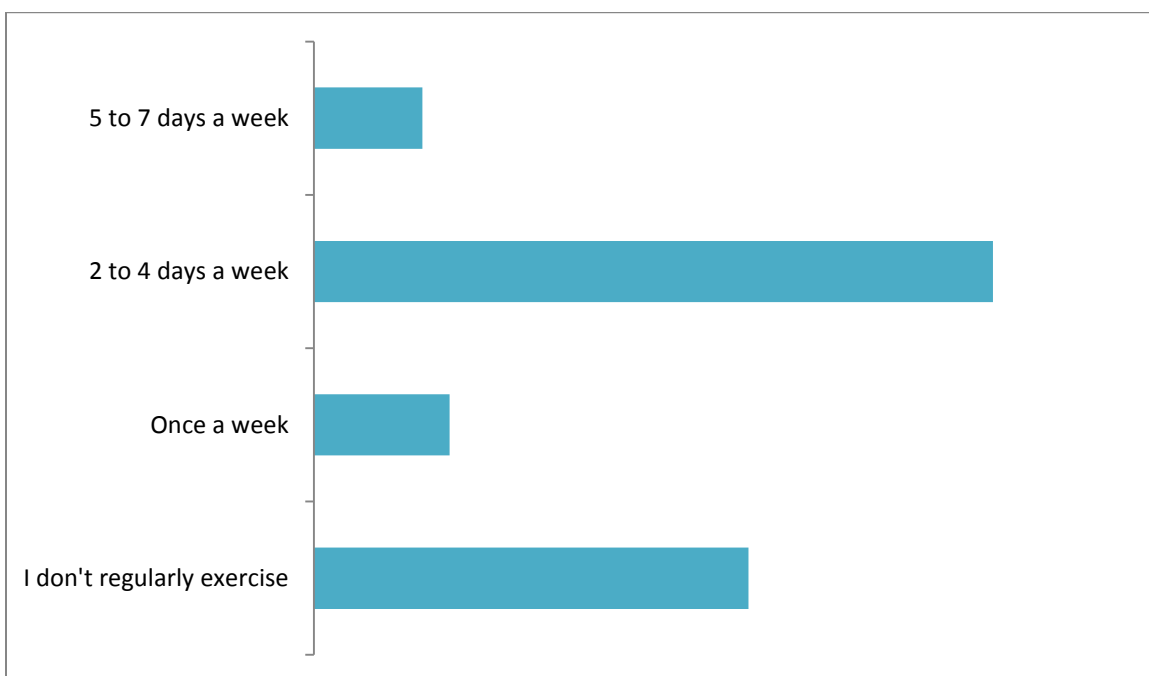
13. Do you suffer from any long term condition or disease?



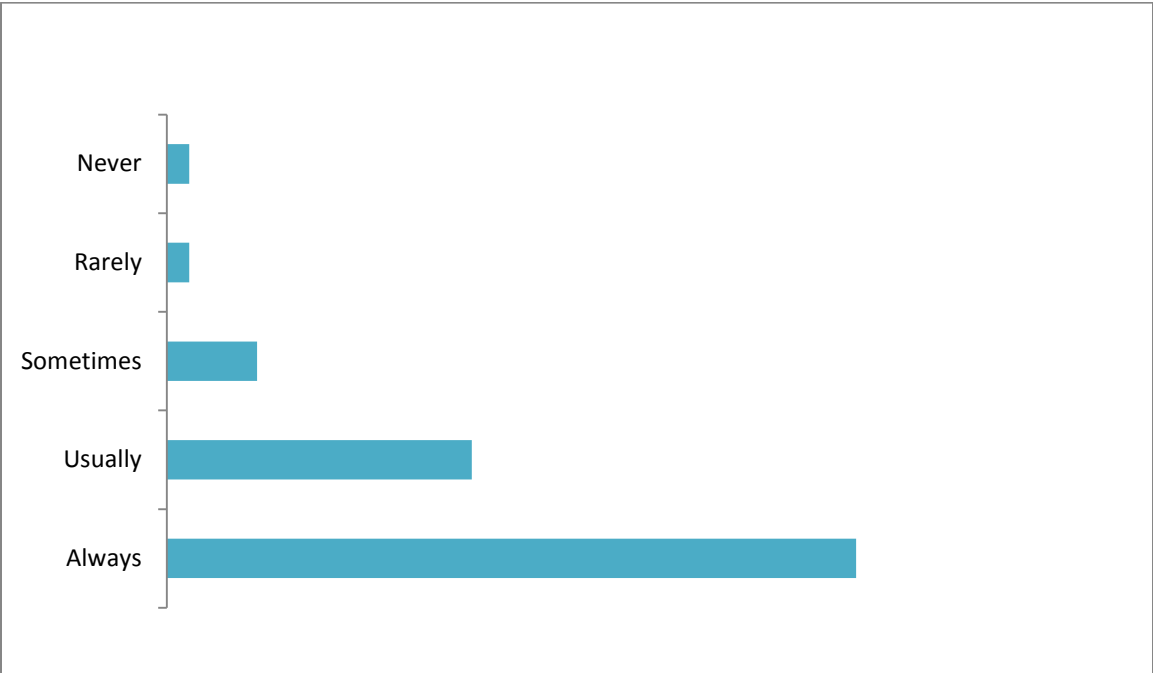
14. How much stress do you feel in a typical week?



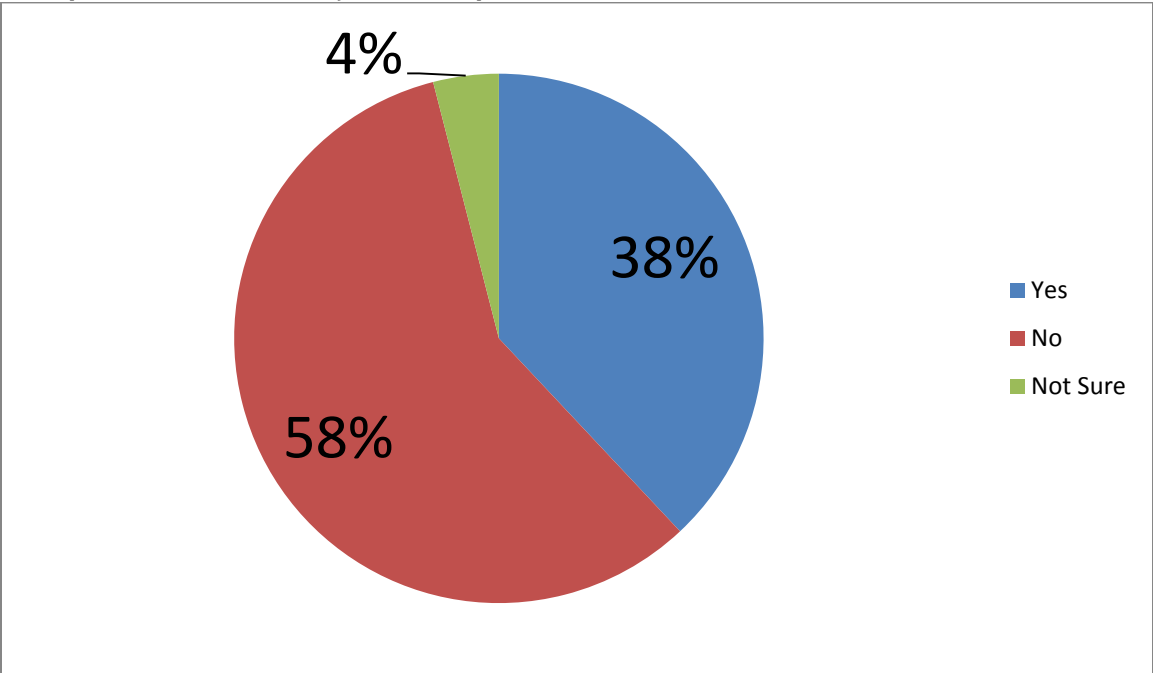
15. In a typical week, how many days do you exercise?



16. Do you have enough money to pay for essentials such as food, transportation, clothing, housing, and medicine?



17. Do you have problems with anxiety and or depression?



COMMUNITY CHATS

Community Input sessions were held in locations throughout Ottawa County. The purpose of the meetings 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 Ottawa County.

Community Chat Sessions

Below includes a summary of all responses to each question addressed at the community chat sessions. Responses are listed in order.

Tell us what a healthy community looks like to you?

- Walking and bike paths
- Everyone working together for the good of the community
- Affordable health care for all
- Free classes on health eating and exercise

What is preventing you or your neighbors from achieving a healthy community?

- Time
- Infrastructure: lack of sidewalks/bike lanes, poor policies, traffic, community activities
- Poverty, Individual & Family

What do you see as the priority needs in your community?

- Healthier food options
- Drug Awareness/assistance
- Poverty
- Stress management
- Parenting classes
- Male role models/mentoring
- Childhood obesity
- Clean neighborhoods

What resources are available to meet your current priority needs?

- Gyms
- Running Groups
- Cycle Groups

What resources do you wish were available to help meet your priority needs?

- Health education: nutrition
- Urgent Care –extended hours
- Improved outreach from existing providers

COMMUNITY INPUT MEETING PRIORITIZATION OF HEALTH NEEDS

Health Needs	x7 pts	x6 pts	x5 pts	x4 pts	x3 pts	x2 pts	x1 pts	Total Points
Obesity	0	1	1	0	2	1	0	18
Mental Health	1	1	2	1	0	0	0	27
Chronic Disease	1	1	0	0	1	1	1	19
Access to Healthcare	1	0	1	0	0	2	1	17
Tobacco Use	0	0	0	3	1	1	0	17
Alcohol/Drug Use	1	1	1	1	1	0	0	25
Teen Pregnancy	0	1	0	0	0	1	3	11

OTTAWA COUNTY RESOURCES & ASSETS

COMMUNITY CAPACITY ASSESSMENT

Diet, Nutrition, Physical Activity, Weight, Obesity

Partners for Ottawa County, Inc.

INTEGRIS Miami Hospital

Ottawa County Health Department

TSET Healthy Living Program

NE Tribal Health Education Programs

Miami Farmer's Market

DOCS- Delaware, Ottawa, Craig Senior Nutrition Site

Grand Gateway Area Agency on Aging

Inter-tribal Food Program

Area Food Pantries

Community Education & Fitness classes

Inter-Tribal Council WIC

Ottawa County Health Department WIC

Ottawa County Nutrition Coalition, Inc.

City Parks, Pools

Multiple 5K runs

Cherokee Nation Health Education Programs

Chronic Disease

INTEGRIS Miami Hospital

Bearskin Health & Wellness Center

NE Tribal Health System

Dayspring Community Services

Area Home Health Agencies

Grand Gateway Area Agency on Aging

VA Health Services

Community Health Center of Northeast Oklahoma

Various Health Education Programs

Alcohol/Drug Abuse

AA/NA Support Groups

Inter-Tribal Council Substance Abuse Outreach & Counseling

NE Tribal Health System

Northeast Oklahoma Council on Alcoholism

VA Health Services

Celebrate Recover

ROCMND

VA Health Services

Community Crisis Center

Numerous Counseling Services

Youth Care of Oklahoma

Rehabilitation facilities

Access to Care

Ottawa County Health Department

NE Tribal Health System

INTEGRIS Miami Hospital

VA Health Services

Route 66 Health Clinic

Medicare Helpline

SoonerRide

SoonerCare
Community Action
Oklahoma Health Care Authority
Ottawa County Department of Human Services
Abundant Blessing Center
Gabriel Project (Pregnancy Support)
Multiple health fairs
INTEGRIS Physicians
Bearskin Health & Wellness Center
L.E.A.D. Agency

Tobacco Use
TSET Advertising
Oklahoma Tobacco Helpline
Ottawa County Health Department
Cherokee Nation
VA Health Services
INTEGRIS Miami Hospital
NE Tribal Health System

Mental Health
Grand Lake Mental Health Center
NE Tribal Health System
Community Crisis Center
Dayspring Behavioral Health
Oasis Counseling Center, Inc.
ROCMND
Suicide Hotline
Youth Care of Oklahoma
Counseling & Educational Services
Counseling Resource Services
Creoks Behavioral Health Counseling Services
Inter-Tribal Council Substance Abuse Outreach & Counseling

Northeast Oklahoma Council on Alcoholism
Tri-County Wraparound -GLMHC
Willow Crest Hospital

