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<tr>
<td>by the Institute for People, Place, and Possibility</td>
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Introduction

During the fall of 2011, the Cherokee County Health Coalition engaged the community to assess the health status of county residents. Using the Mobilizing for Action through Planning and Partnerships (MAPP) model, organizers gathered information for four (4) assessment categories; Community Health Status, Community Themes and Strengths, Local Public Health System, and Forces of Change. Using these broad assessment categories provided for a comprehensive view of the current health outcomes, as well as the factors, both real and perceived, that influence this community’s health.

After reviewing assessment data in the beginning months of 2014, 10 elements were identified for closer review and discussion. It is among these elements that priority areas for improvement are to be selected. They include:

- Alcohol use
- Cancer
- Cardiovascular health
- Child health
- Diabetes
- Obesity
- Poverty/access to care
- Substance abuse
- Teen Pregnancy
- Tobacco

This report will briefly discuss these elements and the factors that resulted in their consideration for targeted health improvement.
## Demographics

### 2010 Demographics

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Oklahoma</th>
<th>Cherokee County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Population</strong></td>
<td>3,751,351</td>
<td>46,987</td>
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**Age**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Oklahoma</th>
<th>Cherokee County</th>
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<tr>
<td>19 years and under</td>
<td>1,041,610</td>
<td>13,380</td>
</tr>
<tr>
<td>20 - 64 years</td>
<td>2,203,027</td>
<td>27,269</td>
</tr>
<tr>
<td>65 + years</td>
<td>506,714</td>
<td>6,338</td>
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**Gender**

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<thead>
<tr>
<th>Gender</th>
<th>Oklahoma</th>
<th>Cherokee County</th>
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<tr>
<td>Male</td>
<td>1,856,977</td>
<td>23,230</td>
</tr>
<tr>
<td>Female</td>
<td>1,894,374</td>
<td>23,757</td>
</tr>
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**Race/Ethnicity**

<table>
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<tr>
<th>Race/Ethnicity</th>
<th>Oklahoma</th>
<th>Cherokee County</th>
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</thead>
<tbody>
<tr>
<td>White</td>
<td>2,706,845</td>
<td>24,567</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>332,007</td>
<td>2,952</td>
</tr>
<tr>
<td>African American</td>
<td>277,644</td>
<td>598</td>
</tr>
<tr>
<td>Asian</td>
<td>65,076</td>
<td>272</td>
</tr>
<tr>
<td>American Indian &amp; Alaska Native</td>
<td>321,687</td>
<td>15,987</td>
</tr>
<tr>
<td>Native Hawaiian &amp; Pacific Islander</td>
<td>4,369</td>
<td>16</td>
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<tr>
<td>Other</td>
<td>154,409</td>
<td>1,248</td>
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<tr>
<td>Identified by two or more</td>
<td>221,321</td>
<td>4,299</td>
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**Selected Economic Characteristics**

<table>
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<tr>
<th>Economic Characteristic</th>
<th>Oklahoma</th>
<th>Cherokee County</th>
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<tbody>
<tr>
<td>Mean household income (dollars)</td>
<td>65,977</td>
<td>45,243</td>
</tr>
<tr>
<td>Median household income (dollars)</td>
<td>49,937</td>
<td>35,182</td>
</tr>
<tr>
<td>Mean travel time to work (minutes)</td>
<td>27.0</td>
<td>23.1</td>
</tr>
<tr>
<td>Percent unemployed</td>
<td>6.6</td>
<td>7.9</td>
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2010 Census Bureau Report
The MAPP Process

The following description of MAPP is taken from the NACCHO website, and can be found at: http://www.naccho.org/topics/infrastructure/mapp/framework/mappbasics.cfm

Mobilizing for Action through Planning and Partnerships (MAPP) is a strategic approach to community health improvement. This tool helps communities improve health and quality of life through community-wide strategic planning. Using MAPP, communities seek to achieve optimal health by identifying and using their resources wisely, taking into account their unique circumstances and needs, and forming effective partnerships for strategic action.

The MAPP tool was developed by NACCHO in cooperation with the Public Health Practice Program Office, Centers for Disease Control and Prevention (CDC). A work group composed of local health officials, CDC representatives, community representatives, and academicians developed MAPP between 1997 and 2000. The vision for implementing MAPP is:

“Communities achieving improved health and quality of life by mobilizing partnerships and taking strategic action.”

The benefits of using the MAPP process, as identified by NACCHO, include:

- **Create a healthy community and a better quality of life.** The ultimate goal of MAPP is optimal community health - a community where residents are healthy, safe, and have a high quality of life. Here, a “healthy community” goes beyond physical health alone. According to the World Health Organization, “Health is a dynamic state of complete physical, mental, spiritual and social well-being and not merely the absence of disease or infirmity” (101st Session of the WHO Executive Board, Geneva, January 1998, Resolution EB101.R2). The Institute of Medicine echoes this definition and notes that “health is . . . a positive concept emphasizing social and personal resources as well as physical capabilities” (Improving Health in the Community, 1997, p. 41).

- **Increase the visibility of public health within the community.** By implementing a participatory and highly publicized process, increased awareness and knowledge of public health issues and greater appreciation for the local public health system as a whole may be achieved.
• **Anticipate and manage change.** Community strategic planning better prepares local public health systems to anticipate, manage, and respond to changes in the environment.

• **Create a stronger public health infrastructure.** The diverse network of partners within the local public health system is strengthened through the implementation of MAPP. This leads to better coordination of services and resources, a higher appreciation and awareness among partners, and less duplication of services.

• **Engage the community and create community ownership for public health issues.** Through participation in the MAPP process, community residents may gain a better awareness of the area in which they live and their own potential for improving their quality of life. Community-driven processes also lead to collective thinking and a sense of community ownership in initiatives, and, ultimately, may produce more innovative, effective, and sustainable solutions to complex problems. Community participation in the MAPP process may augment community involvement in other initiatives and/or have long-lasting effects on creating a stronger community spirit.
Community Themes and Strengths Assessment

The Community Themes and Strengths Assessment provides insight into the issues that residents perceive as important. This assessment delves into perceived quality of life issues in the community and looks into the assets and resources recognized by community members. Two assessment tools were used to make up the Cherokee County Community Themes and Strengths Assessment: the 2012 Cherokee County Community Health Survey (Attachment A), and the 2012 Oklahoma Prevention Needs Assessment Survey (Attachment B) which was conducted by the Oklahoma Department of Mental Health and Substance Abuse Service.

Local Public Health System Assessment

The Local Public Health System Assessment (Attachment C) focuses on the public health system within the county and includes any entity that contributes to the public’s health. The assessment breaks down the system into its individual components as they contribute to the 10 essential services of public health. Those components are then evaluated for their effectiveness within the public health system. The 10 essential services of public health include:
The Local Public Health System Assessment is a prescribed assessment created by the National Public Health Performance Standards Program, a collaborative effort of seven national partners including:

- Centers for Disease Control and Prevention, Office for State Local, Tribal and Territorial Support (CDC / OSTLTS)
- American Public Health Association (APHA)
- Association of State and Territorial Health Officials (ASTHO)
- National Association of County and City Health Officials (NACCHO)
- National Association of Local Boards of Health (NALBOH)
- National Network of Public Health Institutes (NNPHI)
- Public Health Foundation (PHF)

The report from this assessment is found in Attachment C.

### Community Health Status Assessment

The Community Health Status Assessment takes an objective look at the community’s health status and quality of life. The data within this assessment focuses on health outcomes and risk factors. This assessment provides a fundamentally objective overview of the community’s health.

Data for this assessment was taken from Oklahoma’s 2011 State of the State’s Health Report (Attachment D), Oklahoma’s 2011 Annual Summary of Infectious Diseases (Attachment E), the 2010 State of the County’s Health Report (Attachment F), Oklahoma Kids Count Data Center 2012 (Attachment G), 2012 County Rankings and Roadmaps (Attachment H), U.S. Census Data (Attachment I), and the Community Health Needs Assessment Report by the Institute for People, Place and Possibility (Attachment K).
Forces of Change Assessment

The Forces of Change Assessment is designed to identify external or internal forces that could impact the community and the public health system. These forces can include legislative or technology issues, but may also include economic impacts from changes in the business community. Of specific consideration for Cherokee County include access to health care including mental health services, budget cuts to the public health department, and substance abuse. The information source for this assessment included a focus group of community leaders. The findings of this focus group are included in Attachment J.

Priority Elements of the Assessment

While the comprehensive assessment identified a multitude of elements worthy of improvement, a focused approach to community health improvement is necessary to ensure an effective approach to the community’s health. As such, ten items were selected from the assessment for further consideration. Each item emerged as a significant issue based on one or more of the assessments. Following is a brief summary of each element and the data that supported its consideration.

Alcohol Use

The 2012 Cherokee County Community Health Survey indicated that Cherokee County residents ranked alcohol abuse as the third most important risky behavior in their communities.

The 2012 Oklahoma Prevention Needs Assessment Survey indicated that, of students in Grade 12 that responded to the survey:

- 74% had used alcohol in their lifetime
- 44% had used alcohol in the past 30 days
- 27.7% had participated in binge drinking
- 10.5% had driven a vehicle while drinking, 22.8% had ridden with a drinking driver

However, according to the Community Health Needs Assessment Report by the Institute for People, Place and Possibility, Cherokee County’s rate of heavy alcohol consumption was 13%, compared to a state rate of 12.8% and a U.S. rate of 15.02%.
Cancer
The 2011 State of the State’s Health Report listed cancer as the second leading cause of death in Cherokee County with a rate of 194.4 per 100,000, compared to a state rate of 198.3 and a U.S. rate of 178.4, earning a grade of “D.”

The 2010 State of the County’s Health Report for Cherokee County showed cancer as the leading cause of death for the 55-64 age groups. It was the second leading cause of death for age groups 45-54, 65+, and for all age groups combined. It was the third leading cause of death for the age group 35-44.

The Community Health Needs Assessment Report by the Institute for People, Place and Possibility indicated a cancer mortality rate of 210.85 per 100,000, compared to a state rate of 193.41 and a U.S. rate of 176.66.

Cardiovascular Health
According to the 2011 State of the State’s Health Report, heart disease is the leading cause of death in Cherokee County with a rate of 291.8 per 100,000 compared to a state rate of 242.1 and a U.S. rate of 190.9. This rate was given a grade of “F” for the county. The 2010 State of the County’s Health Report for Cherokee County showed cardiovascular disease as the leading cause of death for age groups 45-54, 65+, and for all age groups combined. It was the second leading cause of death for age groups 35-44 and 55-64. It was the third leading cause of death for age group 25-34.

The 2012 Cherokee County Community Themes and Strengths Assessment indicated that Cherokee County residents identified cardiovascular health as being the second most important health problems.

The Community Health Needs Assessment Report by the Institute for People, Place and Possibility indicated a heart disease mortality rate of 186.23 per 100,000 compared to a state rate of 176.07 and a U.S. rate of 134.65.

Child Health
According to U.S. Census data, 28.5% of the population of Cherokee County is at or under the age of 19. The 2013 Community Themes and Strengths Assessment indicated that child abuse and neglect was the fourth most import health problem in Cherokee County.

According to the 2011 State of the State’s Health Report, infant mortality in Cherokee County was 8.9 per 1,000, compared to a state rate of 8.6 and a U.S. rate of 6.8, earning Cherokee County a grade of “D.” The same report indicated that 7.7% of babies were born with a low birth weight, compared to a state rate of 8.2% and a U.S. rate of 8.2%, earning Cherokee County a grade of “C.”

The Community Health Needs Assessment Report by the Institute for People, Place and Possibility indicated an infant mortality rate of 7.65 per 1,000, compared to a state rate of 7.92 and a U.S. rate of 6.71.

According to the Kids Count Data Center, Cherokee County’s high school drop out rate decreased from 16.5% in 2006 to 9.7% in 2010, an improvement of 41.2%.

Also according to the Kids Count Data Center, Cherokee County’s rate of juvenile arrests for violent crimes decreased from 30.6 per 100,000 in 2007 to 5.8 per 100,000 in 2009, representing an 81% improvement.
The Community Health Needs Assessment Report by the Institute for People, Place and Possibility indicated a rate for ‘free and reduced price school lunch eligibility’ of 75.63%, compared to a state rate of 60.54% and a U.S. rate of 48.34%.

The Community Health Needs Assessment Report by the Institute for People, Place and Possibility reported a rate of 2.13 recreation and fitness facilities per 100,000 population, compared to a state rate of 6.66 and a U.S. rate of 9.99, placing Cherokee County well below the national average.

**Diabetes**

In the 2012 Cherokee County Community Themes and Strengths Assessment, the Cherokee County community indicated diabetes as the most important health problem in the county.

The 2011 State of the State’s Health Report listed diabetes as the sixth leading cause of death in Cherokee County with a rate of 35.7 per 100,000, compared to a state rate of 29.4 and a U.S. rate of 22.5, earning a grade of “F” for the county. The same report identified the prevalence rate for diabetes at 13.5%, compared to a state rate of 11.0% and a U.S. rate of 8.3%, earning a grade of “F” for the county.

The Community Health Needs Assessment Report by the Institute for People, Place and Possibility indicated a diabetes prevalence rate of 10.6%, compared to a state rate of 9.96% and a U.S. rate of 8.72%. This report further indicated that Cherokee County had a rate of 50.39% for diabetic Medicare patients who had a hemoglobin A1c test, compared to a state rate of 77.36% and a U.S. rate of 83.81%.

**Obesity**

The 2012 Cherokee County Community Themes and Strengths Assessment indicated that Cherokee County residents identified obesity as the second most important risky behavior in their communities.

The 2011 State of the State’s Health Report indicated an obesity rate for Cherokee County of 32.3%, compared to a state rate of 32.0% and a U.S. rate of 26.9%, earning a grade of “F.” The same report also indicated rates for the following contributing risk factors and behaviors: fruit/vegetable consumption - 13.6%, no physical activity - 34.3%. Both of these rates were also graded as “F.”

The 2010 State of the County’s Health Report indicated that 82.9% of Cherokee County adults did not eat the recommended five servings of fruits and vegetables a day. It further estimated that 35.7% of residents had no leisure activity in the past month and 63.1% did not reach the recommended physical activity level.

The Community Health Needs Assessment Report by the Institute for People, Place and Possibility indicated an obesity rate of 36.4%, compared to a state rate of 31.56% and a U.S. rate of 27.35%. It also reported an overweight rate of 35.87%, compared to a state rate of 35.84% and a U.S. rate of 36.31%. The same report also indicated rates for the following contributing risk factors and behaviors: inadequate fruit/vegetable consumption - 86.4%, physical inactivity (adult) - 31.1%, grocery store access - 14.9 establishments per 100,000 population, WIC-authorized food stores - 14.63 stores per 100,000 population.
Poverty / Access to Care

The Forces of Change Assessment indicated a threat to the health and wellness of the community. This threat was identified as a loss of funding for health related programs within the county which included mental health services and the reduction of and increased cost of public health services at the Cherokee County Health Department.

The Kids Count Data Center indicated an increase in the child poverty level for Cherokee County from 2006 to 2010. The annual estimated rate for child poverty for 2010 was 31.3%.

The 2011 State of the State’s Health Report indicated that 20% of Cherokee County had no insurance, compared to a state rate of 19.8% and a U.S. rate of 14.3%, earning a grade of “D” for the county. The same report indicated a poverty rate of 25.3%, compared to a state rate of 15.7% and a U.S. rate of 13.2%, earning a grade of “F.” The report also states 1 in 5 Cherokee County adults was without health care coverage and 1 in 4 residents lived in poverty.

According to U.S. Census data, 16.6% of Cherokee County’s population is under the poverty level.

Substance Abuse

The 2012 Cherokee County Community Themes and Strengths Assessment indicated that Cherokee County residents identified drug abuse as the most important risk behavior in their communities.

The Forces of Change Assessment also identified an increase in drug abuse including synthetic drugs as a threat to the health and wellness of the county.

The 2012 Oklahoma Prevention Needs Assessment Survey indicated that, of students in Grade 12 that responded to the survey:
- 39.7% had used marijuana in their lifetime, 17.8% within the last 30 days
- 18.0% had used sedatives in their lifetime
- 22.6% had used prescription drugs in their lifetime

Teen Pregnancy

The 2012 Cherokee County Community Themes and Strengths Assessment indicated that Cherokee County residents identified teenage pregnancy as one of the ten most important health problems in their communities. The same report indicated that residents also considered ‘not using birth control’ among the most important risky behaviors in the community. The 2011 State of the State’s Health Report indicated teenage fertility at a rate of 33.7 per 1,000, compared to a state rate of 30.4 and a U.S. rate of 22.1, earning a grade of “D.”

The Community Health Needs Assessment Report by the Institute for People, Place and Possibility indicated a teen birth rate of 53.20 per 1,000, compared to a state rate of 58.30 and a U.S. rate of 41.20.

According to the 2010 State of the County’s Health Report on average in Oklahoma, births to teen mothers accumulate $3,807 a year for each teenage birth, which is often passed on to citizens. With an average of 100.8 births per year (2003-2007), teen pregnancy costs the citizens of Cherokee County $322,560.00 a year.
Tobacco

According to the 2011 State of the State’s Health Report, Cherokee County’s smoking rate was 31.4%, compared with a state rate of 25.5% and a U.S. rate of 17.9%. Cherokee County had one of the highest rates of adult smoking in the state, with almost 1 in 3 adults smoking. This earned Cherokee County a grade of “F.”

The 2012 Oklahoma Prevention Needs Assessment Survey indicated that, of students in Grade 12 that responded to the survey:

- 50.6% had smoked cigarettes in their lifetime, 19.4% within the last 30 days
- 25.4% had used smokeless tobacco, 15.0% within the last 30 days
- 4.7% were smoking 1/2 pack or more of cigarettes per day

The Community Health Needs Assessment Report by the Institute for People, Place and Possibility indicated a smoking rate of 27.90%, compared with a state rate of 24.90% and a U.S. rate of 10.00%.

The 2012 Cherokee County Community Themes and Strengths Assessment indicated that Cherokee County residents identified tobacco use as the fourth most important risky behavior in their communities.

Next Steps

The four assessments combine to form a comprehensive review of Cherokee County’s health status. This information will be shared with community partners and leaders in an effort to narrow the focus to priority areas targeted for improvement. Once the priorities are established, work will begin to create and implement a community health improvement plan.

Resources

The Cherokee County Health Coalition has access to resources to help address the public health issues identified in this community health assessment. These resources include, but are not limited to:

For all public health issues
- Cherokee County Health Department
  [www.ok.gov/health/County_Health_Departments/Cherokee_County_Health_Department/](http://www.ok.gov/health/County_Health_Departments/Cherokee_County_Health_Department/)
- Cherokee Nation
  [www.cherokee.org](http://www.cherokee.org)
- Center for Disease Control and Prevention
  [www.cdc.gov](http://www.cdc.gov)

Alcohol use
- Oklahoma Department of Mental Health and Substance Abuse Services (ODMHSAS), Strategic Prevention Framework State Incentive Grant
  [http://www.ok.gov/odmhsas](http://www.ok.gov/odmhsas)
Cancer

- American Cancer Society
  www.cancer.org

- Tahlequah City Hospital
  http://www.tch-ok.org/

Cardiovascular health

- American Heart Association
  www.heart.org/HEARTORG/

- Tahlequah City Hospital
  http://www.tch-ok.org/

Child health

- CATCH (Coordinated Approach to Child Health) Kids Club

- Safe Kids USA
  www.safekids.org

- Oklahoma Department of Human Services
  http://www.okdhs.org/

- Sooner Success
  www.okddc.ok.gov/current_project_pages/sooner_success.html

- ODMHSAS Systems of Care
  http://ok.gov/odmhsas/Mental_Health/Children,_Youth,_and_Family_Services/Systems_of_Care/index.html

- Oklahoma Partnership for School Readiness (OPSR) - Smart Start Oklahoma
  www.smartstartok.org/

- Oklahoma Health Care Authority (OHCA) – SoonerCare
  http://www.okhca.org/individuals.aspx?id=94&menu=42

- Oklahoma Office of Juvenile Affairs
  www.ok.gov/oja/
Diabetes
- American Diabetes Association
  www.diabetes.org/

Poverty/Access to care
- Oklahoma Health Care Authority (OHCA) – SoonerCare
  http://www.okhca.org/individuals.aspx?id=94&menu=42
- Ki Bois Community Action
  http://www.kibois.org/
- NEO Health
  http://neochc.org/
- NEO Community Action

Obesity
- A Foundation for a Fit Future
- Cherokee Nation Healthy Nation
  http://www.cherokee.org/Services/Health/HealthyNation.aspx

Sexual health
- Public school mandate for 7th and 9th graders
  70 OS 11-103.3 - AIDS Prevention Education
- Northeastern State University Health Services
  http://www.nsuok.edu/CampusLife/HealthServices.aspx
- Tahlequah City Hospital
  http://www.tch-ok.org/

Substance abuse
Oklahoma Office of Juvenile Affairs
www.ok.gov/oja/

Tobacco
- Tobacco Settlement Endowment Trust
  http://www.ok.gov/tset/