A Look Back To Move Forward
Lincoln County

The state of Oklahoma has been in a downward health trend since the 1990’s, until recently. Through the efforts of the state and county health departments, state and local governments and the individual communities the health of Oklahomans is looking up. However, we could do more to improve the health of the citizens of Oklahoma.

This report focuses on the health factors for the citizens of Lincoln County. We will take a look back to discover what has been affecting the health of the citizens in order to move forward and make healthy, effective and safe changes for all.
Demographics

- Population estimates
  - 10% increase from 1990 to 2000 (29,216 to 32,080)
  - 1% increase from 2000 to 2004
  - Ranked 32nd for growth in state 2000 Census
- Hispanic/Latino ethnicity = 2%
- Race
  - Whites = 86%
  - Native Americans = 7%
  - Blacks = 2%
  - Other/Multiple = 5%
- Age
  - Under 5 = 7%
  - Over 64 = 14%
  - Median age = 37.5 years
- Housing units
  - Occupied = 12,178 (89%)
  - Vacant = 1,534 (11%)
- Disability (ages 21 to 64) = 24.4%
  - National = 19.2%  State = 21.5%
- Individuals below poverty = 14.5%
  - National = 12.4%  State = 14.7%

Top 10 Leading Causes of Death

The top 10 leading causes of death table on the next page displays a broad picture of the causes of death in Lincoln County. Since many health-related issues are unique to specific ages, this table provides causes of death by age group at a glance. The causes of death that are present across almost every age group have been highlighted. From 1983 to 1993 heart disease killed 1,251 people in Lincoln County and is still the leading cause of death among all age groups. According to the Centers for Disease Control, almost $400,000 is spent on each heart disease-related death. With an average of 111.8 deaths a year, heart disease accounts for over $41 million a year in medical costs in Lincoln County.

Alzheimer’s disease and the complications associated with it have increased from the 16th ranked cause of death (1983-1993) to the 12th ranked cause of death in persons 65 and older accounting for a 217% increase in deaths.

Nutrition and Obesity

With the United States coming in as the most obese country in the world, health care costs related to obesity and poor nutrition are on the rise.

Of the 292 million people in the United States, 129 million are overweight or obese according to their body mass index (BMI). The number of obese (BMI > 29) and overweight (BMI 25-29) Oklahomans has been increasing at the same rate as the nation, and health care costs are reflecting this downward spiral of health. For persons under the age of 65, on average, health care costs are $395 more for obese individuals and are even greater for persons over the age of 65.

In 2002-2004, 34% (10,969) of people in Lincoln County were considered obese which accounted for an additional $4,332,755 in medical costs for the county. These costs are underestimated because they do not take into account the percentage of obese or overweight persons who are over the age of 65.
## Top 10 Causes of Death by Age Group

**Lincoln County 1993-2003**

<table>
<thead>
<tr>
<th>Rank</th>
<th>0-4</th>
<th>05-14</th>
<th>15-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65+</th>
<th>All Ages</th>
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<tbody>
<tr>
<td>1</td>
<td>CONGENITAL ANOMALIES</td>
<td>UNINTENT. INJURY</td>
<td>UNINTENT. INJURY</td>
<td>UNINTENT. INJURY</td>
<td>CANCER</td>
<td>HEART DISEASE</td>
<td>HEART DISEASE</td>
<td>HEART DISEASE</td>
<td>11 92 8 2 5 2 9 73 139 996 1230</td>
</tr>
<tr>
<td>2</td>
<td>PERINATAL PERIOD</td>
<td>HOMICIDE/LEGAL</td>
<td>SUICIDE</td>
<td>SUICIDE</td>
<td>HEART DISEASE</td>
<td>HEART DISEASE</td>
<td>CANCER</td>
<td>CANCER</td>
<td>11 1 9 10 24 67 123 547 774</td>
</tr>
<tr>
<td>3</td>
<td>UNINTENT. INJURY</td>
<td>SUICIDE</td>
<td>HOMICIDE/LEGAL</td>
<td>HIV</td>
<td>CANCER</td>
<td>UNINTENT. INJURY</td>
<td>UNINTENT. INJURY</td>
<td>STROKE</td>
<td>6 145 24 13 22 223 250</td>
</tr>
<tr>
<td>4</td>
<td>SIDS</td>
<td>OTHER</td>
<td>CANCER</td>
<td>HOMICIDE/LEGAL</td>
<td>SUICIDE</td>
<td>STROKE</td>
<td>DIABETES MELLITUS</td>
<td>BRONCHITIS/EMPHYSEMA/ASTHMA</td>
<td>160 198</td>
</tr>
<tr>
<td>5</td>
<td>HEART DISEASE</td>
<td>SEPTICEMIA (BLOOD POISONING)</td>
<td>CANCER</td>
<td>LIVER DISEASE</td>
<td>DIABETES MELLITUS</td>
<td>BRONCHITIS/EMPHYSEMA/ASTHMA</td>
<td>INFLUENZA</td>
<td>BRONCHITIS/EMPHYSEMA/ASTHMA</td>
<td>2 1 4 4 6 19 148 186</td>
</tr>
<tr>
<td>6</td>
<td>BRONCHITIS/EMPHYSEMA/ASTHMA</td>
<td>OTHER</td>
<td>STROKE</td>
<td>HIV</td>
<td>BRONCHITIS/EMPHYSEMA/ASTHMA</td>
<td>STROKE</td>
<td>UNINTENT. INJURY</td>
<td>INFLUENZA/PNEUMONIA</td>
<td>1 2 2 5 7 44 51</td>
</tr>
<tr>
<td>7</td>
<td>INFLUENZA/PNEUMONIA</td>
<td>DIABETES MELLITUS</td>
<td>SEPTICEMIA (BLOOD POISONING)</td>
<td>SEPTICEMIA (BLOOD POISONING)</td>
<td>LIVER DISEASE</td>
<td>KIDNEY DISEASE</td>
<td>DIABETES MELLITUS</td>
<td>2 1 45 39 81</td>
<td></td>
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<tr>
<td>8</td>
<td>CANCER</td>
<td>HEART DISEASE</td>
<td>STROKE</td>
<td>SUICIDE</td>
<td>INFLUENZA/PNEUMONIA</td>
<td>DIABETES MELLITUS</td>
<td>KIDNEY DISEASE</td>
<td>1 2 2 5 7 44 51</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>KIDNEY DISEASE</td>
<td>NON-CANCEROUS TUMOR</td>
<td>DIABETES MELLITUS</td>
<td>LIVER DISEASE</td>
<td>SUICIDE</td>
<td>SEPTICEMIA (BLOOD POISONING)</td>
<td>1 2 2 4 5 39 8 4</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>OTHER</td>
<td>OTHER</td>
<td>TWO CAUSES TIED</td>
<td>FOUR CAUSES TIED</td>
<td>KIDNEY DISEASE</td>
<td>Atherosclerosis</td>
<td>SEPTICEMIA (BLOOD POISONING)</td>
<td>36</td>
<td></td>
</tr>
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</table>

Data source: Vital Statistics, Health Care Information Division, Oklahoma State Department of Health
Produced by: Community Development Service, Community Health Service, Oklahoma State Department of Health
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Injury and Violence

Across the nation and the state of Oklahoma, unintentional and violence-related injuries are on the rise. Unintentional injuries account for the 4th leading cause of death in the United States and the 5th leading cause of death in Oklahoma from 1999-2002. For persons ages 1 to 44 in Oklahoma, unintentional injuries are the leading cause of death.

This trend does not change much in Lincoln County. Unintentional injuries are the leading cause of death from ages 5 to 44.

It is estimated that for every motor vehicle-related death $1.1 million in economic costs are incurred. For Lincoln County which has an average of 8.2 motor vehicle-related deaths a year, that translates to over $9 million a year.

Violence-related injuries (homicide and suicide) in Lincoln County are ranked in the top 10 in six of the eight age groups (see Top 10 list on page 3).

Tobacco Use

According to the 2005 State of the State’s Health Report, tobacco use among Oklahomans has remained fairly stable from 1990 to 2002. Oklahoma has been consistently higher in its tobacco use than the nation and is 30% higher than the nation on the amount of tobacco consumed per capita (103 packs vs. 79 packs).

Tobacco use is no longer just the problem of the individual but also the community as a whole. With health care costs on the rise, targeting areas such as tobacco use is an effective way to control those costs.

In 2002, the CDC estimated that a person that used tobacco accrued over $3,300 in health care costs per year. According to the Behavioral Risk Factor Surveillance System, it is estimated that 22% (7,098) of people in Lincoln County use tobacco of some sort. Medical costs accumulated by those persons are over $23 million a year for Lincoln County.

Physical Activity, Wellness and Diabetes

The increasing inactivity of the U.S. population is contributing to an increase in numerous poor health-related outcomes. Physical inactivity robs the body of precious energy needed to function properly, in turn health declines and rates of various chronic diseases escalate.

According to the 2002-2004 Behavioral Risk Factor Surveillance System (BRFSS), it is estimated that 36.1% (11,647) of people in Lincoln County had no leisure activity in the past month at the time they were surveyed.

The BRFSS also indicated that 6.5% (2,097) of Lincoln County citizens have been diagnosed by a health professional as having diabetes. In 2002, the per capita annual healthcare costs for people with diabetes was $13,243 compared to $2,560 for people without diabetes. Persons with diabetes accumulated health care costs of $27,770,571.00 in one year for Lincoln County.

Increase activity gradually. Moderate exercise for 30 minutes 5 days a week.
Teen Pregnancy

While births to teen mothers (age 15 to 19) are on the decline in both the U.S. and Oklahoma, Oklahoma has moved up in rank from 13th to 8th in the country. In 1993 the rate of teen births was 60.0 (per 1,000 15-19 year old females) in the U.S. and 66.6 in Oklahoma. In 2003, the rate decreased to 41.7 in the U.S. and 55.8 in Oklahoma, a decrease of 31% and 7%, respectively.

Children of teen mothers are more likely to display poor health and social outcomes than those of older mothers, such as premature birth, low birth weight, higher rates of abuse and neglect, and more likely to go to foster care or do poorly in school. Additionally, births to teen mothers accumulate $3,200 a year for each teenage birth, which is passed on to citizens.

According to Oklahoma Vital Statistics, Lincoln County had a teen birth rate of 49.3 in 2003 which was a 11% decrease from 2002 (55.6) but a 29% decrease since 1993 (69.3).

With an average of 69 births per year, teen pregnancy costs the citizens of Lincoln County $220,800.00 a year.

Poverty

As the nation advances in technology and the ability to detect and prevent disease at an earlier stage, persons that are impoverished carry a large burden of poor health outcomes. Higher incidences of unplanned or unwanted pregnancies, teen pregnancy, inadequate prenatal care, higher rates of low-birth-weight babies, infant deaths and low immunization rates are all associated with poverty along with a myriad of other adverse health outcomes.

According to the 2000 census, 14.5% of persons in Lincoln County for whom poverty status was known had an income below what was needed to live at the federal poverty level. Lincoln County is similar to the state (14.7%) and 17% above the nation (12.4%) for persons with incomes below the federal poverty level.

| Income to Poverty Ratio, Lincoln County, 2000 Census |
|----------------------------------|----------------|----------------|----------------|----------------|----------------|
| Poverty level                   | Total | 50% below | 51% to 99% below | poverty level to 149% above | 150% to 199% above | 200% and above |
| Population                      | 31,675 | 1,736 | 2,855 | 4,012 | 4,175 | 18,897 |
| Cumulative Population           | 1,736 | 4,591 | 8,603 | 12,778 | 31,675 |
| % of Total                      | 100.0% | 5.5% | 9.0% | 12.7% | 13.2% | 59.7% |
| Cumulative %                   | 5.5% | 14.5% | 27.2% | 40.3% | 100.0% |

* U.S. Census Bureau

Note: 7 births to a mother 10-14 years of age occurred during the 11 year period.
**OK By One - State Immunization Data**

2003-04 Immunization Coverage Rates

![Immunization Coverage Rates Map]

4:3:1:3:3 Coverage by Location of Shots, Oklahoma, 2004

![Coverage by Location of Shots Chart]

Oklahoma Children On Schedule by Antigen, 2004

![Children On Schedule Chart]

**Note: County level data will be available soon.**
Health Care Costs Summary

**Cardiovascular Disease (Heart Disease)**
- Average 112 deaths a year
- $369,476.69 per death
- Total—$41,381,389.28 a year

**Obesity**
- 34% of population (10,969)
- $395.00 in additional medical costs per person
- Total—$4,332,755.00

**Motor Vehicle-Related Injury Death**
- Average 8.2 deaths per year
- $1,120,000.00 in economic costs per death
- Total—$9,184,000.00 a year

**Tobacco Use**
- 22% of population (7,098)
- $3,300.00 in health care costs
- Total—$23,423,400.00 a year

**Diabetes**
- 6.5% of population (2,097)
- $13,243.00 in healthcare costs a year
- Total—$27,770,571.00 a year

**Teen Pregnancy**
- Average of 69 births to teen mothers per year
- $3,200.00 in costs for each birth a year
- Total—$220,800.00 a year

**Grand Total for Lincoln County:**

$106,312,915.28
Looking Back to Move Forward

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The Oklahoma Turning Point Initiative is public health improvement in action. The success of the Turning Point process involves a partnership between the state and county departments of health, local communities, and policy-makers. The Oklahoma Turning point engine is fueled by a community-based decision making process whereby local communities tap into the capacities, strengths, and vision of their citizens to create and promote positive, sustainable changes in the public health system, and the public’s health.

Lincoln County Community Health Advisory Board

We want to say thank you to all the members of the Lincoln County Community Health Advisory Board.

- Central Oklahoma Community Action Agency, Inc.
- Chandler City Government
- Chandler Food Pantry
- Community Representatives
- Faith Groups
- Langston University (Families First Nutrition Ed.)

- Lincoln County Department of Human Service
- Lincoln County Health Department
- Lincoln County News
- OSU Extension
- OU College of Nursing
- Sac and Fox Nation