



# State of the County's Health Report

OKLAHOMA STATE  
DEPARTMENT OF HEALTH

## Working Together For Health

### Pawnee County

Oklahoma ranks near the bottom in many key health status indicators. Most 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 associated risky health behaviors (low fruit/vegetable consumption, low physical activity, a high prevalence of smoking) all contribute to the poor health status of our citizens.

The vision of the Oklahoma Health Improvement Plan (OHIP) involves local partnerships and communities working together to improve and sustain the physical, social, and mental well-being of all people in Oklahoma. The targeted flagship initiatives of children's health improvement, tobacco use prevention, and obesity reduction will help to maximize opportunities for all Oklahomans to lead healthy lives. If you would like more information about OHIP, please visit the Oklahoma State Department of Health website at [http://www.ok.gov/health/Organization/Board\\_of\\_Health/OHIP.html](http://www.ok.gov/health/Organization/Board_of_Health/OHIP.html).

This report focuses on health factors and demographics in Pawnee County. Awareness and thoughtful application of this health data can assist us in our joint endeavors to improve the health status of our local citizens.



*Together We Can Move Forward*

### Inside This Issue

Table of Contents	1	Tobacco Use Prevention	7
County Demographics	2	Healthy People 2010 Table	8
Top 10 Leading Causes of Death	2	Health Care Costs Summary	9
Top 10 Leading Causes of Death Table	3	County Health Department Usage	10
Nutrition & Overweight	4	Health Education	11
Physical Activity & Fitness	4	Primary Care Map	11
Diabetes	5	Board of Health Map	12
Teen Births	5	Oklahoma Health Improvement Plan	12
Infant Mortality	6	Reference List	13
Low Birth Weight	6	Turning Point	14
Injury & Violence	7	Contact Information	14

# County Demographics

## Population estimates<sup>1</sup>

- 7.3% increase from 1990 to 2000 (15,552 to 16,687)
- 2.3% decrease from 2000 to 2008 (16,687 to 16,307)
- Ranked 51st for growth in state

## 2008 Census Estimates<sup>2</sup>

- Hispanic/Latino ethnicity = 1.8%
- Race
  - Whites = 84.2%
  - Native Americans = 14.2%
  - Blacks = 1.4%
- Age
  - Under 5 = 6.2%
  - 65 and over = 16.2%
  - Median age = 38.5 years

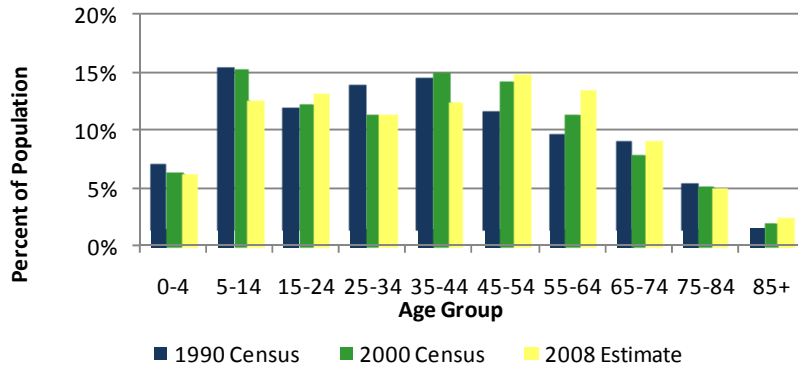
## 2000 Census<sup>3</sup>

- Housing units
  - Occupied = 6,383 (86%)
  - Vacant = 1,081 (14%)

- Disability (ages 21 to 64) = 23.1% state = 21.5% national = 19.2%
  - 51.1% of disabled (ages 21-64) are employed

- Individuals below poverty = 13.0% state = 14.7% national = 12.4%
- Families below poverty = 9.6% state = 11.2% national = 9.2%

**1990, 2000, & 2008 Population by Age Groups, Pawnee County**

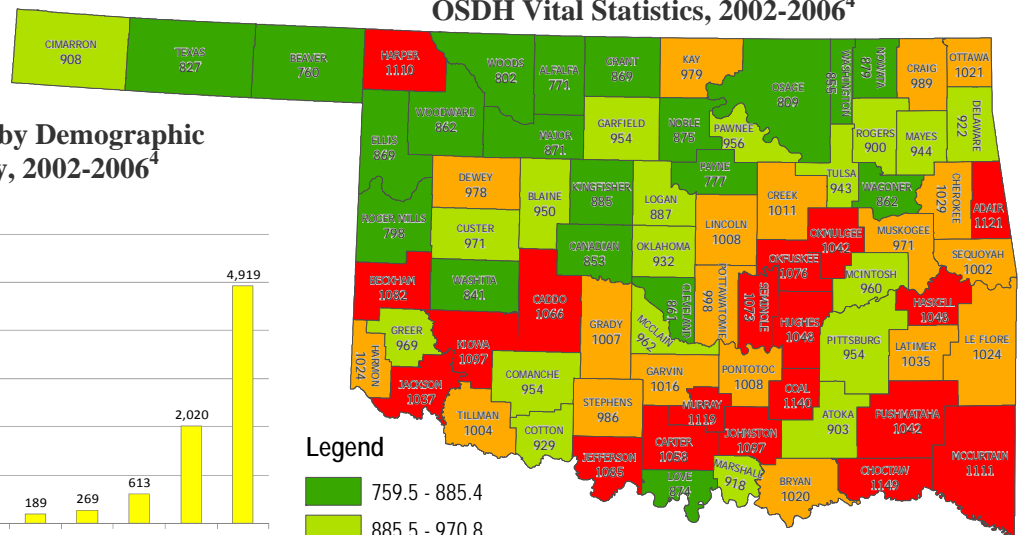


# Top 10 Leading Causes of Death

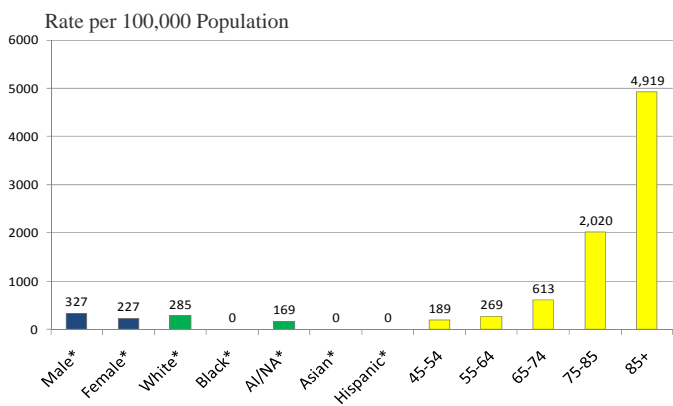
The top 10 leading causes of death<sup>4</sup> table on the next page displays a broad picture of the causes of death in Pawnee County. Since many health-related issues are unique to specific ages, this table provides causes of death by age group at a glance. The causes of death that are present across almost every age group have been highlighted. From 1983 to 1993 heart disease killed 1,129 people in Pawnee County and is still the leading cause of death with all age groups combined.

From 2006-2008, the total charges for all heart disease-related hospitalizations for Pawnee County residents was \$25,959,100.00, which translated to an average of \$31,126.02 per discharge.<sup>5</sup> Total charges are an indicator of community health, however, these are hospital-based charges and not payments or costs of actual illness. The direct and indirect costs of disease are actually much higher (i.e., loss of employee wages, loss of tax revenue, loss of years of life).

**Age-Adjusted Death Rates by County, OSDH Vital Statistics, 2002-2006<sup>4</sup>**



**Heart Disease Death Rates by Demographic Groups, Pawnee County, 2002-2006<sup>4</sup>**



\* Age-Adjusted Death Rate per 100,000 Population

### Legend

- 759.5 - 885.4
- 885.5 - 970.8
- 970.9 - 1034.6
- 1034.7 - 1149.9
- Missing

State = 945.6  
National = 810.1  
\* Note: Data classified by Quartiles

## Top 10 Causes of Death by Age Group Pawnee County 2002-2006

Rank	0-4	05-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	CONGENITAL ANOMALIES < 4	UNINTENT. INJURY < 4	UNINTENT. INJURY 9	UNINTENT. INJURY 8	UNINTENT. INJURY 13	HEART DISEASE 23	CANCER 46	HEART DISEASE 206	HEART DISEASE 263
2	UNINTENT. INJURY < 4	HOMICIDE < 4	CONGENITAL ANOMALIES < 4	INFLUENZA/PNEUMONIA < 4	HEART DISEASE 6	CANCER 17	HEART DISEASE 28	CANCER 147	CANCER 214
3	PERINATAL PERIOD < 4		SUICIDE < 4	CANCER < 4	SUICIDE 4	UNINTENT. INJURY 9	DIABETES MELLITUS 9	STROKE 55	UNINTENT. INJURY 70
4			VIRAL HEPATITIS < 4	COMPLICATIONS OF PREGNANCY/CHILD BIRTH < 4	CANCER < 4	LIVER DISEASE 5	BRONCHITIS/EMPHYSEMA/ASTHMA 8	BRONCHITIS/EMPHYSEMA/ASTHMA 43	STROKE 64
5				CONGENITAL ANOMALIES < 4	DIABETES MELLITUS < 4	HYPERTENSION < 4	STROKE 5	ALZHEIMER'S DISEASE 27	BRONCHITIS/EMPHYSEMA/ASTHMA 52
6				LEGAL INTERVENTION < 4	LIVER DISEASE < 4	STROKE < 4	UNINTENT. INJURY < 4	UNINTENT. INJURY 23	DIABETES MELLITUS 31
7					STROKE < 4	SUICIDE < 4	LIVER DISEASE < 4	DIABETES MELLITUS 19	ALZHEIMER'S DISEASE 27
8					HIV < 4	SIX CAUSES TIED < 4	SEPTICEMIA (BLOOD POISONING) < 4	SEPTICEMIA (BLOOD POISONING) 14	SEPTICEMIA (BLOOD POISONING) 17
9					INFLUENZA/PNEUMONIA < 4		SIX CAUSES TIED < 4	INFLUENZA/PNEUMONIA 12	INFLUENZA/PNEUMONIA 16
10					VIRAL HEPATITIS < 4			ATHEROSCLEROSIS 10	LIVER DISEASE 13

Note: The numbers less than 4 have been shown as "< 4" to protect the privacy of the subjects

Data source: Vital Statistics, Health Care Information Division, Oklahoma State Department of Health

Produced by: Community Development Service, Oklahoma State Department of Health

March 2009

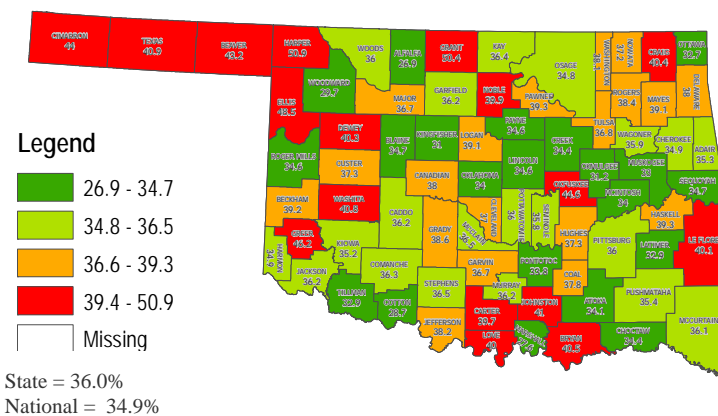
# Nutrition & Overweight

With obesity at epidemic levels, steps need to be taken to control this issue. Surveillance systems have improved and been expanded to obtain more accurate county-level data. While efforts continue on this front, communities must utilize this information to improve the problem itself. With health care costs being, on average, \$395 more for a person under the age of 65 who is obese than a person of the same age who is not obese<sup>6</sup>, estimated health care costs related to obesity for Pawnee County soar to almost \$1.6 million. These costs only go up when the 65 and over population are included.

The Youth Risk Behavior Surveillance System (YRBS)<sup>7</sup>, while not producing county-level data, shows that in 2005, 2007, and 2009 combined, 15.8% of high school children participating in the survey classified themselves as overweight. Further, 14.7% classified themselves as obese. Interestingly, 8.9% of the males said they were obese compared to 5.8% of females. This trend was reversed in the overweight category with 8.0% of females and 7.8% of males, statewide. Although, neither weight category is statistically significant by gender.

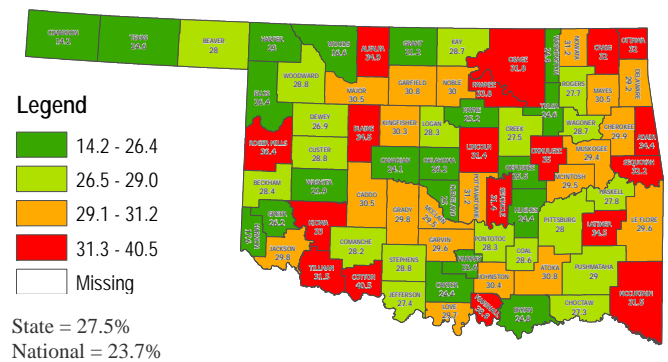
According to the Behavioral Risk Factor Surveillance System (BRFSS, 2003 & 2005)<sup>8</sup>, 79.1% of Pawnee County adults did not eat the recommended 5 servings of fruits and vegetables a day. Increasing fruit and vegetable consumption is an economical way to control many health-related issues such as obesity and diabetes.

**Percent of Adults who are Overweight, BRFSS, 2003-2008<sup>8</sup>**



\* Note: Data classified by Quartiles

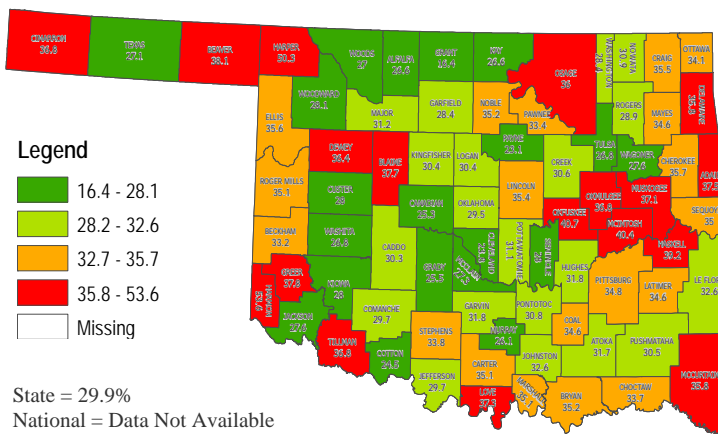
**Percent of Adults who are Obese, BRFSS, 2003-2008<sup>8</sup>**



\* Note: Data classified by Quartiles

# Physical Activity & Fitness

**Percent of Adults with No Physical Activity Within Past Month, BRFSS, 2003-2008<sup>8</sup>**



\* Note: Data classified by Quartiles

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 2003-2008 BRFSS<sup>8</sup>, it is estimated that 33.4% (4,041) of people in Pawnee County had no leisure activity in the past month (at the time they were surveyed) and three-quarters of the adults (78.9%) did not reach the recommended physical activity level.

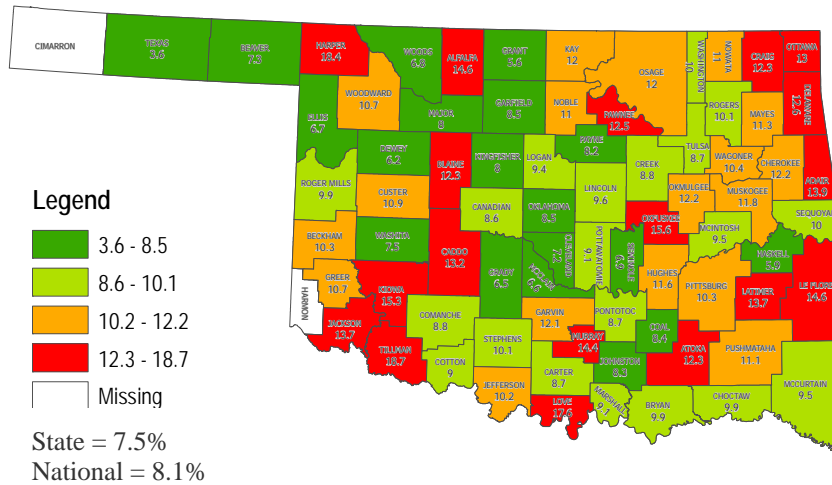
Statewide, 55% of high school students did not participate in physical activity for at least 60 minutes per day on five or more days in a week.<sup>7</sup> Efforts need to be made to increase physical activity for our youth to build long-term healthy habits.

# Diabetes

As stated previously, poor nutrition and lack of physical activity are linked to many chronic issues including diabetes. It is often hard to distinguish between Type I and Type II diabetes in large datasets but looking at the overall impact of diabetes is necessary to examine a community's health.

From 2006 to 2008, there were 101 hospital discharges for diabetes among Pawnee County residents.<sup>5</sup> This accounted for a total of 515 days in the hospital and \$1,963,248.00 in total charges.<sup>5</sup> This was an average of 5.1 days and \$19,438.10 in charges.<sup>5</sup>

**Percent of Adults Who Have Ever Been Told They Have Diabetes, BRFSS, 2004-2008<sup>8</sup>**



According to the 2004-2008 BRFSS, it is estimated that 12.5% (1,512) of Pawnee County citizens have been diagnosed by a health professional as having diabetes.

In 2007, the per capita annual healthcare costs for people with diabetes was \$11,744 compared to \$5,106 for people without diabetes.<sup>9</sup> Persons with diabetes accumulate an estimated \$20,026,726.75 in health care costs in one year for Pawnee County. Actual hospital charges account for only 3.8% of the total health care impact of diabetes.

\* Note: Data classified by Quartiles

# Teen Births

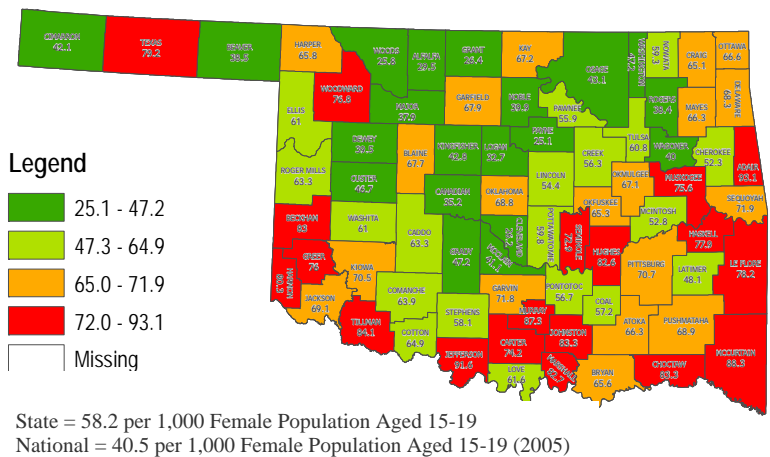
While births to teen mothers (age 15 to 19) have been on the decline in both the U.S. and Oklahoma, Oklahoma has moved down in the rankings according to the United Health Foundation.<sup>10</sup> In 1993, the rate for teen births in the U.S. was 60.3 per 1,000 15-19 year old females and 67.1 in Oklahoma, ranking 35th in the country.<sup>10</sup> In 2003, the rate decreased to 47.7 in the U.S. and 59.7 in Oklahoma, accounting for a decrease of 21% and 11%, respectively.<sup>10</sup> However, while the rate decreased, Oklahoma continued to fall in the rankings (41st). In 2009, the rate of teen births stayed the same for Oklahoma (59.6) but the state ranked 45th in the country.<sup>10</sup>

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 are more likely to go into foster care or do poorly in school.<sup>11</sup>

According to Oklahoma Vital Statistics, Pawnee County had a teen birth rate of 59.3 in 2007, which accounted for a 2% increase from 2003 (58.2) and a 8% decrease from 1993 (64.5)<sup>12</sup>. The map represents a five-year average of teen birth rates, 2003-2007.<sup>12</sup>

On average in Oklahoma, births to teen mothers accumulate \$3,807 a year for each teenage birth<sup>13</sup>, which is often passed on to citizens. With an average of 32.4 births per year (2003-2007)<sup>12</sup>, teen pregnancy costs the citizens of Pawnee County \$103,680.00 a year.

**Rate of Births to Teen Mothers (Age 15-19), OSDH Vital Statistics, 2003-2007<sup>12</sup>**

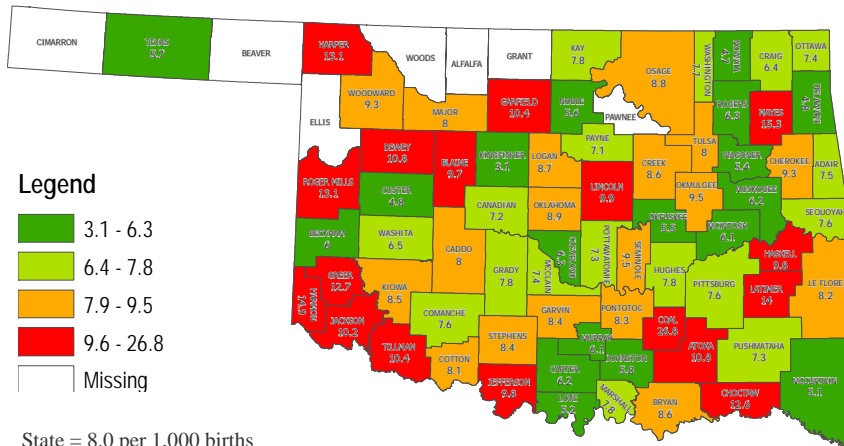


\* Note: Data classified by Quartiles

# Infant Mortality

Protecting the most vulnerable populations is a task for every Oklahoman, socio-demographic variables have repeatedly been shown to affect infant mortality and birth weight. Income, education, race/ethnicity, access to medical care and social services, and social support are just a few of the characteristics that alter these rates, both positively and negatively.<sup>16</sup> Differences in infant mortality rates are most apparent within racial categories. From 2003-2005 within the U.S., the infant mortality rate among white mothers was 5.7 deaths per 1,000 live births, while black or African American mothers had an infant mortality rate of 13.3 and American Indian mothers a rate of 8.4. Interestingly, Hispanic mothers had rates similar to white mothers.<sup>15</sup>

**Infant Mortality Rate, Oklahoma Vital Statistics, 2002-2006<sup>4</sup>**



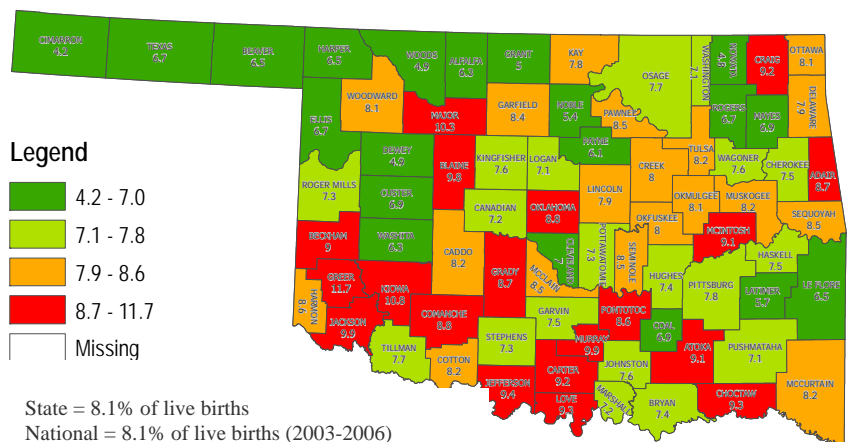
Within Oklahoma, this trend continues. From 2002-2006, the infant mortality rate was highest for black or African American mothers (16.0), followed by American Indian (8.4), White (7.1), and Asian (5).<sup>4</sup> The Hispanic infant mortality rate was 7.9.<sup>4</sup>

With an average of 412 infant deaths a year across Oklahoma<sup>4</sup>, it is difficult to obtain stable county-level data by race. From 2002-2006, the overall infant mortality rate for Pawnee County was missing.

# Low Birth Weight

Birth weight has been a long standing indicator of long-term health outcomes as birth weight has been linked to certain adult chronic conditions such as high blood pressure, Type II diabetes, and heart disease.<sup>17</sup> Low birth weight is defined as any baby born weighing less than 2,500 grams or 5 pounds and 8 ounces (including very low birth weight = less than 1,500 grams/3 pounds, 5 ounces).<sup>17</sup> Low birth weight is associated with premature births, multiple births, birth defects, chronic health problems or infections in the mother, smoking, alcohol or drug use, placental problems, inadequate maternal weight gain or socioeconomic factors.<sup>17</sup> Understanding the trends behind low birth weight can assist in pinpointing causes specific to a community.

**Percent of Live Births with Low and Very Low Birth Weight, OSDH Vital Statistics, 2003-2007<sup>12</sup>**



In Oklahoma from 2003-2007, 8.1% of the live births were less than 2,500 grams. As with infant mortality, babies born to black or African American mothers have the highest rates of low birth weight (14.1%), followed by White (7.5%), American Indian and Asian (6.9% each).<sup>18</sup> This trend is similar to the national data.

In Pawnee County, from 2003-2007 the low birth weight rate was 8.5%.<sup>12</sup> This was a 5% increase from the state and national low birth weight rate. Because of the small numbers that occur in this category, county level data by race is unavailable.

# Injury and Violence

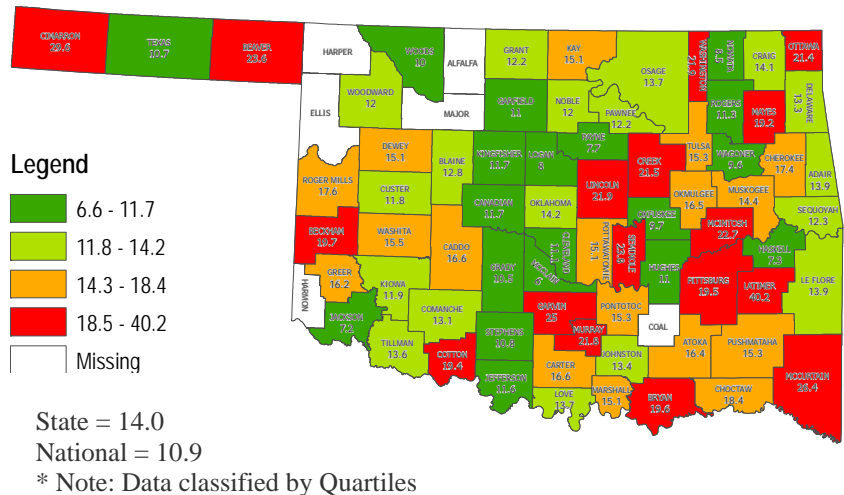
Across the nation and the state of Oklahoma, unintentional and violence-related injuries are on the rise. Unintentional injuries account for the 5th leading cause of death in the United States and Oklahoma for 2002-2006. For persons ages 1 to 44 in Oklahoma, unintentional injuries are the leading cause of death.<sup>4</sup>

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

It is estimated that for every motor vehicle-related death \$1.3 million in economic costs are incurred (2008 data).<sup>16</sup> For Pawnee County, which has an average of 5.0 motor vehicle-related deaths a year<sup>4</sup>, the estimated economic costs are almost \$6.5 million a year.

Violence-related injuries (homicide and suicide) in Pawnee County are ranked in the top 10 causes of death for persons from 5 to age 54 and suicide is the 3rd leading cause of death for ages 15 to 24 and 35 to 44.<sup>4</sup>

**Age-Adjusted Suicide Rate by County, OSDH Vital Statistics, 2002-2006<sup>4</sup>**

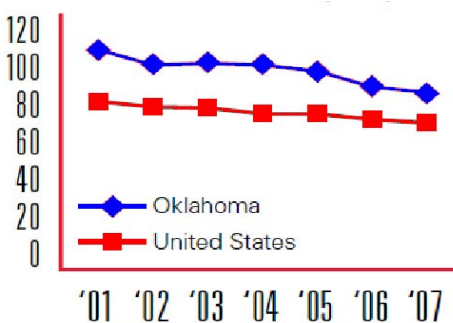


# Tobacco Use Prevention

According to the 2005 State of the State's Health Report<sup>19</sup>, tobacco use among Oklahomans has remained fairly stable from 1990 to 2002. The good news is that total cigarette sales in Oklahoma (tribal and non-tribal combined) have dropped from 98.2 packs per capita in fiscal year 2005 to 86.7 packs per capita during fiscal year 2008. The national average dropped during this same time period.<sup>20</sup>

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.

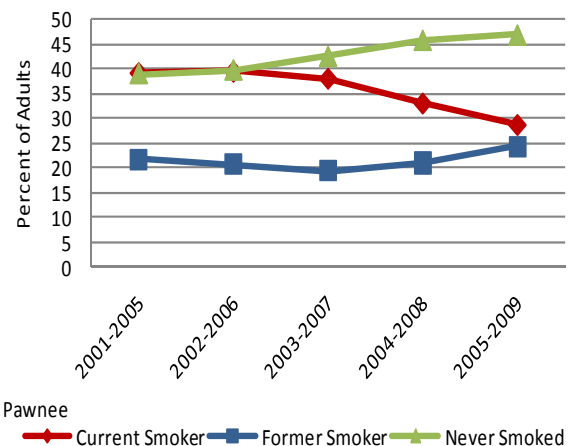
**Per Capita Cigarette Sales: Oklahoma & United States<sup>20</sup>**



The Oklahoma Tobacco Helpline (1-800-QUIT-NOW), supported jointly by the Oklahoma Tobacco Settlement Endowment Trust and the Oklahoma State Department of Health, continues to experience high call volume. Over 37,800 Oklahomans received free cessation assistance through the Helpline in fiscal year 2009.<sup>20</sup> Since inception of the Helpline in August 2003, over 110,000 Oklahomans have received free cessation assistance.<sup>20</sup>

The CDC estimated that a person who used tobacco accrued over \$3,300 in health care costs per year.<sup>21</sup> According to the BRFSS (2005-2009)<sup>8</sup>, it is estimated that 28.7% (3,472) of adults in Pawnee County use tobacco of some sort. Medical costs accumulated by those persons are over \$11.5 million a year for Pawnee County.

**Percent of Adults by Smoking Status, Pawnee County, 2001-2009, Five-Year Averages<sup>8</sup>**



# Healthy People 2010 Table

Healthy People 2010 Indicators	Most Recent Data: Year(s)						2010 Target
	Pawnee County		Oklahoma		United States		
Prevalence of Obese (Aged 18+)	2002-2008	31.7%	2008	31.0%	2008	26.7%	15%
No Leisure-Time Physical Activity (Aged 18+)	2002-2008	34.1%	2008	31.5%	2008	24.6%	20%
Prevalence of Smoking (Aged 18+)	2002-2008	35.8%	2008	24.7%	2008	18.4%	12%
Infant Mortality (Per 1,000 of births)	2002-2006	0	2006	8.1	2006	6.8	4.5
Low Birth Weight Infants (Percent of live births)	2002-2007	8.0%	2006	8.3%	2006	8.3%	5%
Very Low Birth Weight Infants (Percent of live births)	2002-2007	1.0%	2006	1.6%	2006	1.5%	0.9%
First Trimester Prenatal Care (Percent of births)	2002-2007	67.8%	2006	75.6%	2006	83.2%	90%
Prevalence of Diabetes (Aged 18+)	2002-2008	10.8%	2008	11.3%	2008	9.2%	2.5%
Lack of Health Insurance (Aged 18-64)	2002-2008	20.3%	2008	22.8%	2008	17.1%	0%
Prevalence of Binge Drinking (Aged 18+)	2002-2008	12.1%	2008	12.2%	2008	15.6%	6%
Coronary Heart Disease Death *	2002-2006	197.4	2006	184.5	2006	144.4	166.0
Cancer Death *	2002-2006	211.9	2006	194.9	2006	180.8	159.9
Unintentional Injury Death *	2002-2006	84	2006	55.6	2006	39.3	17.5
Transportation-Related Death *	2002-2006	36.2	2006	21.0	2006	14.5	9.2

Note: \* means (Age-adjusted death per 100,000 to the 2000 U.S. standard population).

Reference:

- [1] Healthy People 2010 volume I and II, U.S. Department of Health and Human Services, November 2000.
- [2] Centers for Disease Control and Prevention (CDC), Wide-Ranging Online Data for Epidemiologic Research: Data for Oklahoma and United States.
- [3] CDC, National Center for Chronic Disease Prevention and Health Promotion, the Behavioral Risk Factor Surveillance System (BRFSS): Data for Oklahoma and United States.
- [4] Oklahoma State Department of Health (OSDH), OK2SHARE, BRFSS: Data for Oklahoma Counties.
- [5] OSDH, OK2SHARE, Vital Statistics: Data for Oklahoma Counties.



# Health Care Cost Summary

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## Cardiovascular Disease (Heart Disease)

- Average hospital discharges per year<sup>5</sup> = 278
- Average charges<sup>5</sup> = \$31,126.02
- Total—\$8,653,033.33 a year

## Obesity

- 33.8% of population<sup>8</sup> (4,089)
- \$395 in additional medical costs per person aged 18-64<sup>6</sup>
- Total—\$1,615,155.00

## Diabetes

- Average hospital discharges per year<sup>5</sup> = 33.7
- Average charges<sup>5</sup> = \$19,438.10
- Total—\$654,416.00 a year

## Teen Pregnancy

- Average 32 births to females aged 15-19 a year<sup>12</sup>
- \$3,200 in costs a year<sup>13</sup>
- Total—\$103,680.00 a year

## Motor Vehicle-Related Injury Death

- Average 5.0 deaths per year<sup>4</sup>
- \$1,300,000.00 in economic costs per death<sup>16</sup>
- Total—\$6,500,000.00 a year

## Tobacco Use

- 28.7% of population<sup>8</sup> (3,472)
- \$3,300 in health care costs<sup>21</sup>
- Total—\$11,457,600.00 a year

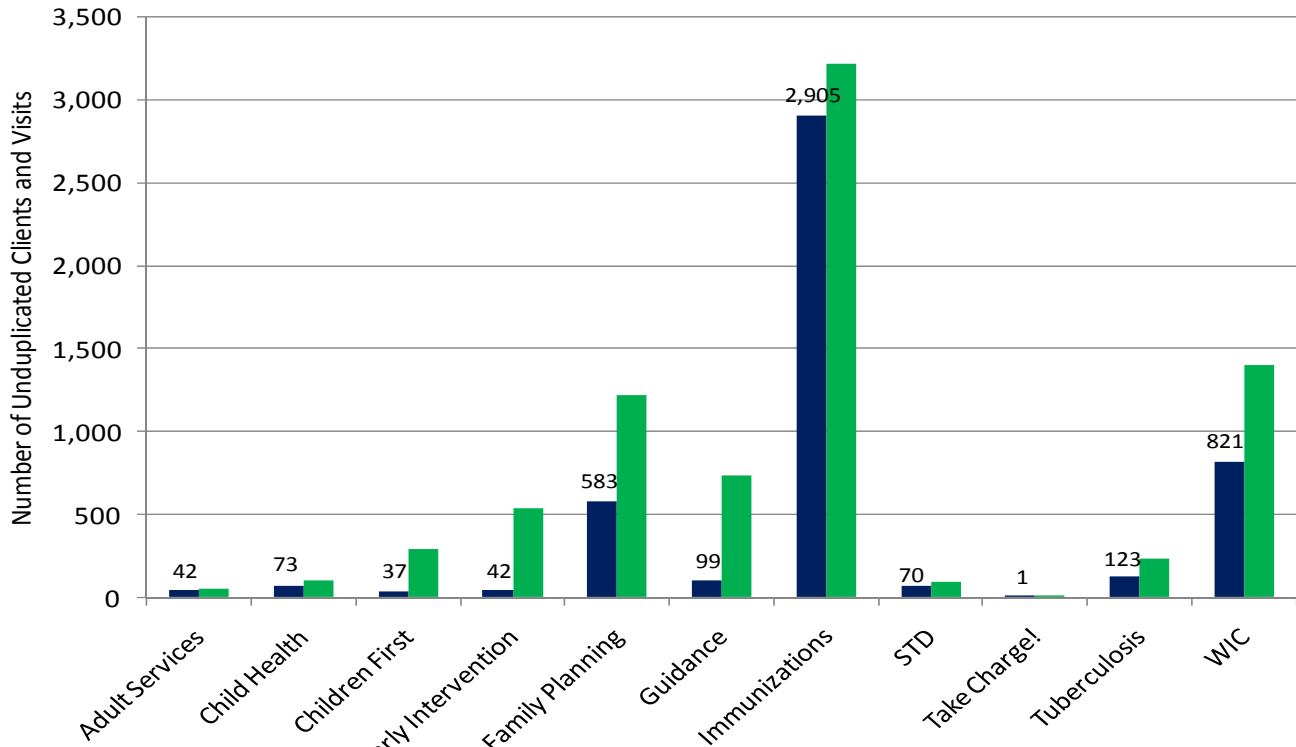
Grand Total for  
Pawnee County:

**\$28,983,884.33**



# County Health Department Usage

## County Health Department Unduplicated Clients, and Visits by Program, Pawnee County, State Fiscal Year 2009



Data Note: Data is reflective of all services offered in a county, including county health departments and contracts.

■ Unduplicated Clients ■ Visits

PAWNEE

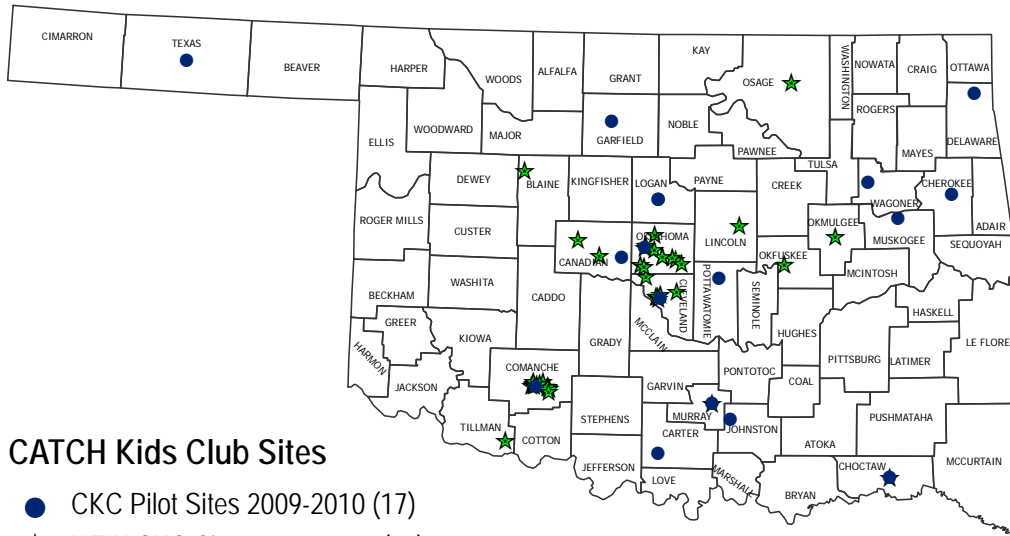
### Population-Based Services by Event Type, Pawnee County, SFY09

Event Type	Number of Events	Total Attendees
Group Screening	7	72
Health Fair	1	350
Surveys/Assessment	1	1
<b>Grand Total</b>	<b>9</b>	<b>423</b>

### Population-Based Services by Main Topic, Pawnee County, SFY09

Topic	Number of Events	Total Attendees
Developmental Stages	2	14
General Health Department Services	7	409
<b>Grand Total</b>	<b>9</b>	<b>423</b>

# Health Education



## CATCH Kids Club Sites

- CKC Pilot Sites 2009-2010 (17)
- ★ NEW CKC Sites 2009-2010 (40)

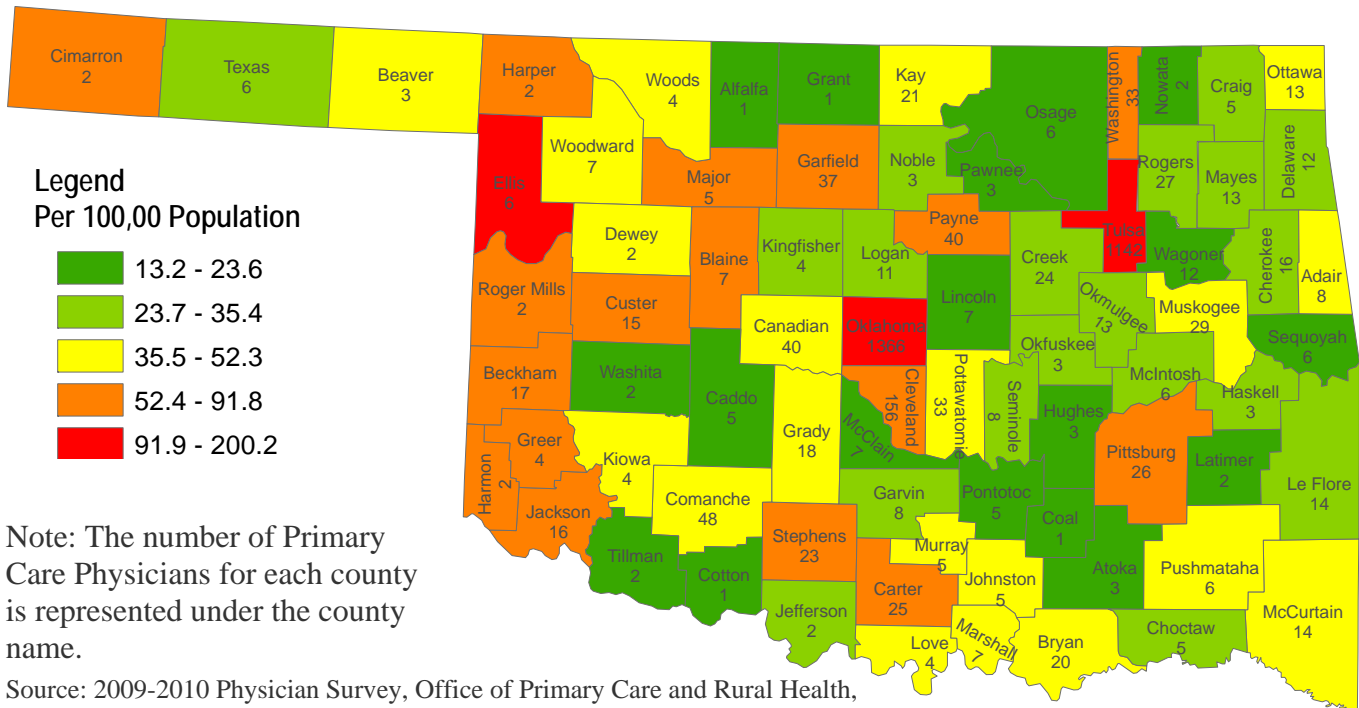
## OSDH Health Education

Kathy Payne, Director  
 1000 NE 10th St, room 506  
 Oklahoma City, OK 73117  
 405-271-6127  
 KPayne@health.ok.gov

If you have an after-school program that is interested in learning more about CATCH Kids Club, a physical activity and nutrition program for children grades K-5, please contact the local health educator or Kathy Payne for information.

# Primary Care Coverage Map

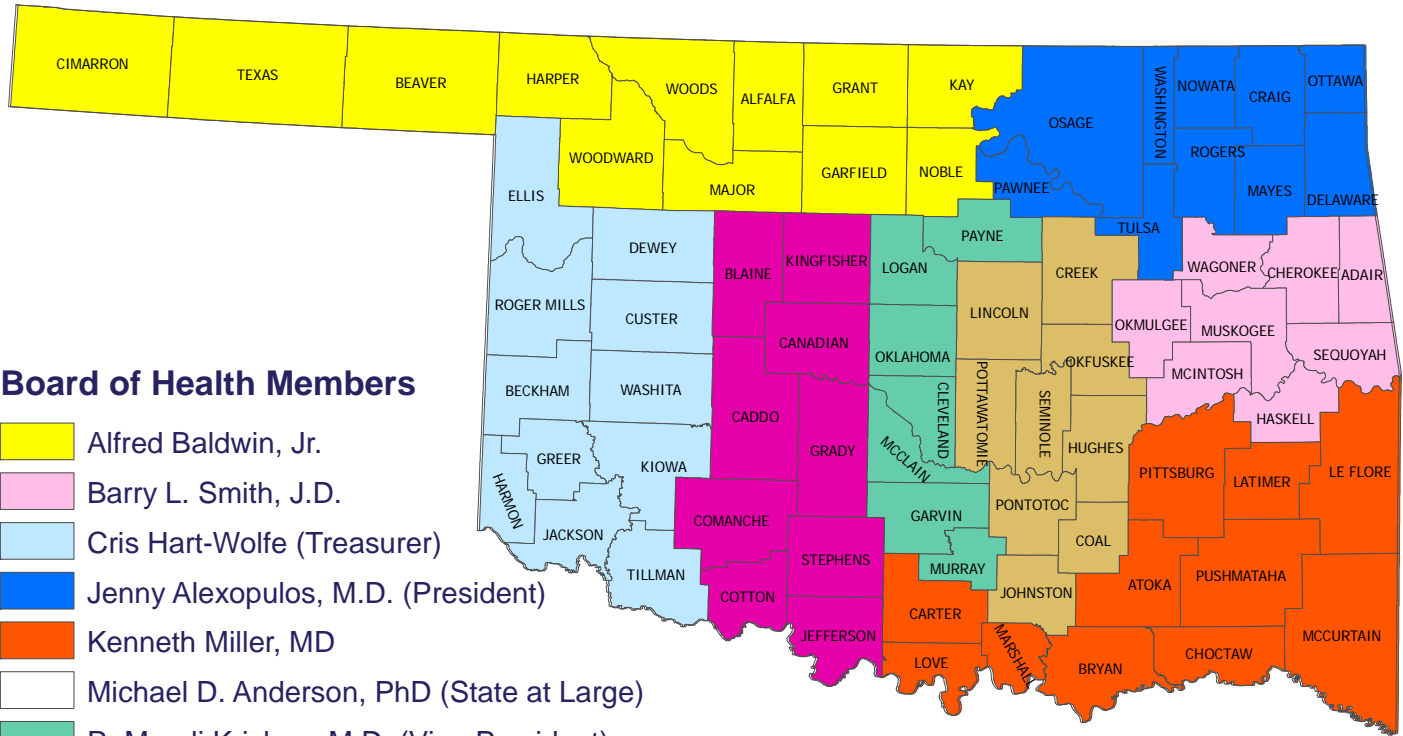
### Rate of Primary Care Physicians per 100,000 Population, 2009 - 2010



Note: The number of Primary Care Physicians for each county is represented under the county name.

Source: 2009-2010 Physician Survey, Office of Primary Care and Rural Health, Community Development Service, Oklahoma State Department of Health

# OSDH Board of Health Map



## Board of Health Members

- Alfred Baldwin, Jr.
- Barry L. Smith, J.D.
- Cris Hart-Wolfe (Treasurer)
- Jenny Alexopoulos, M.D. (President)
- Kenneth Miller, MD
- Michael D. Anderson, PhD (State at Large)
- R. Murali Krishna, M.D. (Vice-President)
- Richard G. Davis, DDS
- Ronald Woodson, MD

Created: 11.03.2010  
Source: Oklahoma State Department of Health

# Oklahoma Health Improvement Plan



For the complete OHIP, including a full list of partners, visit [www.ok.gov/health](http://www.ok.gov/health) and click the "Oklahoma Health Improvement Plan" link.



### [STRATEGIC PLANNING]

#### FLAGSHIP GOALS

- Tobacco Use Prevention
- Obesity Reduction
- Children's Health

#### INFRASTRUCTURE GOALS

- Public Health Finance
- Workforce Development
- Access to Care
- Health Systems Effectiveness

#### SOCIETAL & POLICY INTEGRATION

- Policies and Legislation
- Social Determinants of Health & Health Equity

OKLAHOMA HEALTH IMPROVEMENT PLAN

## Reference List

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The Oklahoma Turning Point Initiative is public health improvement in action involving partnerships 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.

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**We are at a cross roads in our state and in Pawnee County. Please come and be part of the solutions that will lead Oklahoma and Pawnee County to becoming a healthy place to live, work and learn.**

*Working Together For Health*

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“If we are together nothing is impossible.  
If we are divided all will fail.” - [Winston Churchill](#)

## Turning Point Contact Information

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