TULSA COUNTY HEALTH PROFILE

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TULSA HEALTH DEPARTMENT

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DIRECTOR'S MESSAGE

As we enter our sixth decade as Tulsa County's public health agency, I am excited by the many opportunities to improve our community's health.

The Tulsa Community Health Profile is intended to provide unique insight into the health and well-being of all Tulsa County residents. It is a resource for the community and to the Tulsa Health Department as we refine our programs to be more efficient and effective.

We will continue to focus on preventing disease, protecting the public's health and promoting healthy lifestyles for all. However, as we begin a new decade, we are striving to achieve a higher level of strategic planning, collaboration and service.

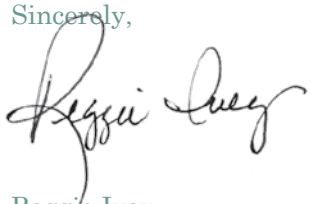
Perhaps, the most exciting development is the planned North Regional Health and Wellness Center which will serve as a new model for multi-disciplinary health care delivery and community driven best practices.

The North Regional Health and Wellness Center is a clear example of how data from the Community Health Profile directs decision making. The health disparities in Tulsa north provide powerful and compelling evidence in support of a new facility.

Public health impacts your daily life – making sure your food is safe, preventing influenza outbreaks and promoting healthy lifestyles and public health policy. We have over 30 major programs serving Tulsa County citizens everyday.

I hope the Tulsa Community Health Profile is a resource for you and for other public service agencies. Together, we can and will work for a better, brighter and healthier tomorrow for all.

Sincerely,



Reggie Ivey
Interim Director

METHODOLOGY

Zip Code Level

Many of the health indicators in this assessment are defined at the zip code level and are presented for the 38 zip codes located in Tulsa County. However, maps and tables in the profile display only 37 zip codes since data for two sparsely populated zip codes are combined (see the below section for more information on this topic). This more visual approach to data presentation is intended to promote easier identification of health concerns for specific areas of the county and therefore assist in targeting programs, resources and necessary intervention where they are most needed.

Border/Combined Zip Codes

Tulsa County has 14 zip codes that are shared with adjacent counties, but are primarily in Tulsa County. These zip codes are: 74008, 74021, 74033, 74047, 74055, 74063, 74070, 74073, 74106, 74108, 74116, 74126, 74127 and 74132. Data sets for these shared zip codes in some cases required mathematical distribution between the counties. This was accomplished, when needed, by dividing the data in proportion to the number of people living in the two counties.

Data for two zip codes that lie entirely within Tulsa County are combined in this profile due to the small populations residing in each. These zip codes are 74115 and 74117 and when viewed on the maps throughout the profile will be read as 74115/117.

In addition, Tulsa County includes small proportions of three zip codes that are shared but lie primarily in adjacent counties. The data for these partial zip codes (74015, 74050 and 74066) have been excluded as not meaningful because of their small resident populations and the instability of rates computed on the basis of small numbers of events.

Rates

This profile presents most of the information in the form of 'rates'. Rates allow for easier comparison to other populations and geographic areas. Rates are developed by taking the total number of events and dividing it by the total population (or population at risk of the event) in the same specific area. Rates in this profile are computed per 1,000 or 100,000 population. This report also contains both crude and age-adjusted death rates (see glossary for a definition).

In general, areas of larger population can be expected to support more reliable rate calculations. Note that zip codes 74047, 74070, 74073, 74103, 74116, 74119, 74120, 74130 and 74132 all have populations less than 5,000. Caution should be exercised in interpreting data for these less populated areas as they can potentially result in misleading comparisons with other zip codes. In addition, the calculation of rates is not recommended when there are less than five indicator deaths due to reliability concerns.

Data Breaks

When viewing a table or map, the data are grouped for presentation by natural breaks in the data sets. *Natural breaks* is also the name of the default computer-generated method of classifying data in the geographic information system software, ArcGIS, used to produce the maps presented in this report. This method of classification was developed by the cartographer George Jenks and creates classes according to clusters and gaps in the data. Use of natural breaks supports a user-friendly visual representation of the geographic distribution of risk factors and outcomes of health data in Tulsa County.

METHODOLOGY

Descriptive Statistics

This profile uses tables, graphs, charts, maps and narrative to statistically describe the factors that affect the health of the Tulsa County community. The information presented includes both risk factors and health outcomes. Geographic and demographic areas of public health concern can be identified by evaluating data presented for each of the Tulsa County zip codes.

Time Period

Data throughout the profile are generally included for the years 2005 – 2007 depending on the availability of data for the specific topic. Therefore, most data are average annual rates over a three year period. All zip code level population data is based on 2009 estimates.

Comparative Data for Oklahoma and U.S.

Where possible, this profile includes comparative data for Tulsa County, Oklahoma and the United States.

Overall Zip Code Rating

This profile looks at numerous risk/outcome measures that give an indication of the health status of the community. The profile often records the data by zip code. Zip codes are grouped into four data ranges using natural breaks in the overall data (see Data Breaks) and shaded accordingly in the presentation maps. Data groupings are assigned values 1 through 4 with *1* (lightest shading) being the most favorable and *5* (darkest shading) indicating areas of greatest potential concern from a public health perspective. An average zip code rating is also computed that collapses the individual risk/outcome measures into a single summary statistic for each zip code and the tables are sorted according to this average rating.

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DEMOGRAPHICS

TOTAL POPULATION

Tulsa County population estimates are based on the 2007 U.S. Census Bureau population estimates. Zip code-level population data is based on 2009 estimates from Claritas, Inc.

Why Is This Indicator Important?

The numeric size of the population is used as the basis for deriving many of the zip-code-specific rates for the community health indicators presented later in this report.

How Are We Doing?

Tulsa County had an estimated population of 585,068 individuals in 2007. Overall, the female population (51%) slightly exceeded the male population (49%). At lower age ranges, males outnumbered females; however, the opposite was true in older age groups. In fact, females comprised almost two-thirds of the population 75 and older. Tulsa County's median age (35.8 years) was slightly younger than the state's median age (36.0 years) and the median age of the nation (36.6 years).

Whites comprised 77 percent of the population and Blacks made up the largest minority race at 12%. Hispanics comprised nine percent of the population in 2007, although that is likely an underestimation because of potential undercounting of illegal Hispanic immigrants.

Race and ethnicity are separate concepts. Individuals of Hispanic origin are those who indicate that their country of origin is Mexico, Puerto Rico, Cuba, Central or South America, or some other Hispanic origin, and they can be of any race. Non-Hispanic refers to all people whose ethnicity is not Hispanic.

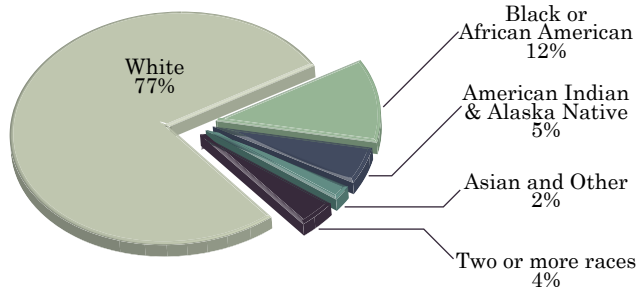
The zip codes with the highest population were 74012 in Broken Arrow and 74133 in southern Tulsa. Together, these two zip codes comprise 17 percent of the Tulsa County population.

Data Source:

U.S. Census Bureau 2007 Population Estimates.

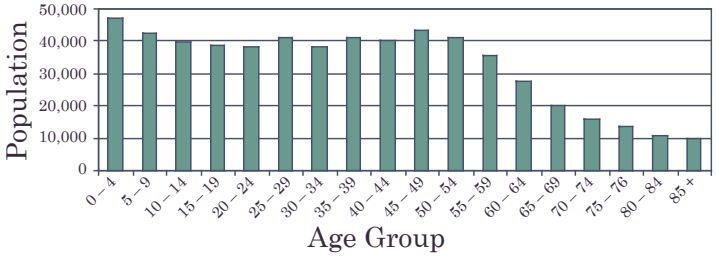
Bina Patel, MPH and Michael Lapolla, MHA, University of Oklahoma School of Community Medicine.

Total Population by Race
Tulsa County | 2007

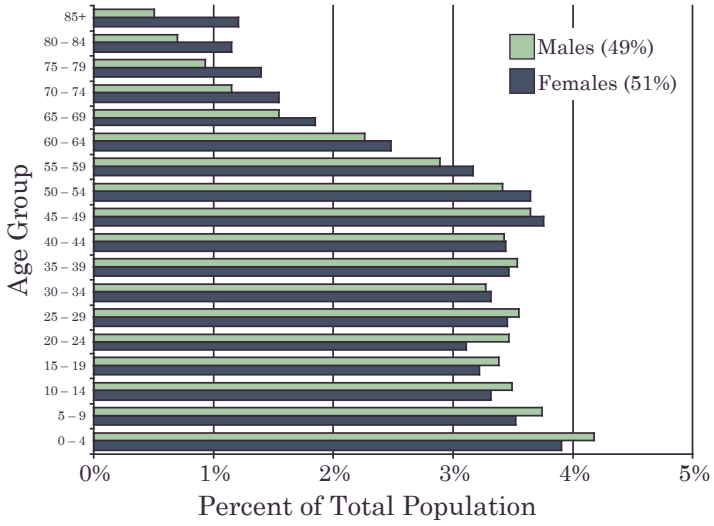


Hispanic 9%

Population Distribution by Age Group
Tulsa County | 2007



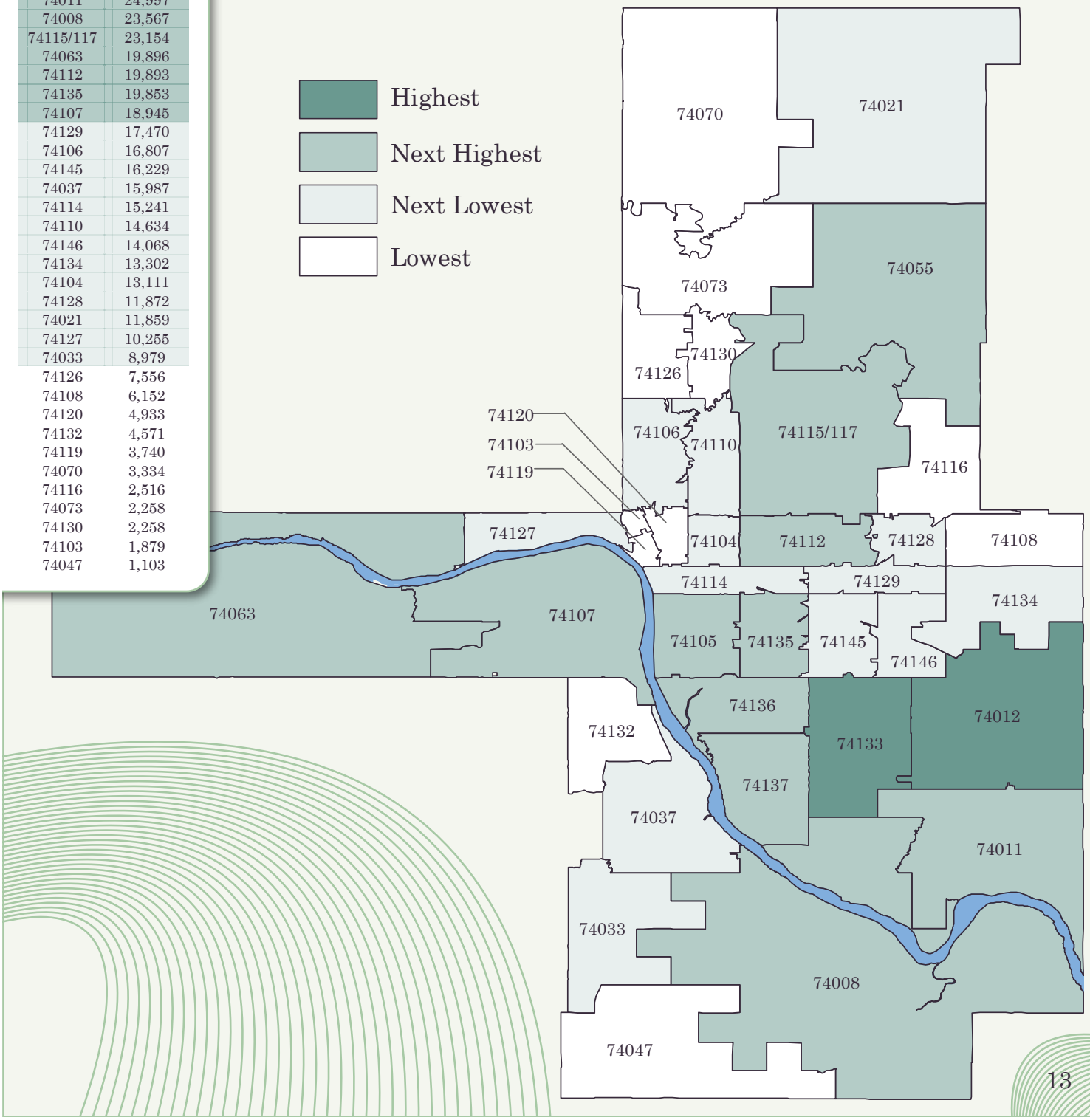
Estimated Population by Age and Gender
Tulsa County | 2007



TOTAL POPULATION

2009 Estimate

ZIP Code	2009 Estimate
74012	55,563
74133	43,349
74136	29,984
74055	26,620
74105	26,514
74137	26,156
74011	24,997
74008	23,567
74115/117	23,154
74063	19,896
74112	19,893
74135	19,853
74107	18,945
74129	17,470
74106	16,807
74145	16,229
74037	15,987
74114	15,241
74110	14,634
74146	14,068
74134	13,302
74104	13,111
74128	11,872
74021	11,859
74127	10,255
74033	8,979
74126	7,556
74108	6,152
74120	4,933
74132	4,571
74119	3,740
74070	3,334
74116	2,516
74073	2,258
74130	2,258
74103	1,879
74047	1,103



POPULATION CHANGE

This demographic indicator is presented as the percentage change in the population from the 2000 Census to the 2007 Census population estimates. The percentage change in the population within each zip code was calculated using the 2000 Census and 2009 zip code-level population estimate data. There was minimal change in zip code boundaries in this intervening period.

Why Is This Indicator Important?

The rate at which a population increases or decreases may be the most important demographic characteristic. Trends in general population growth and decline help target specific areas where public health efforts should be focused in order to ensure adequate access to community-based programs.

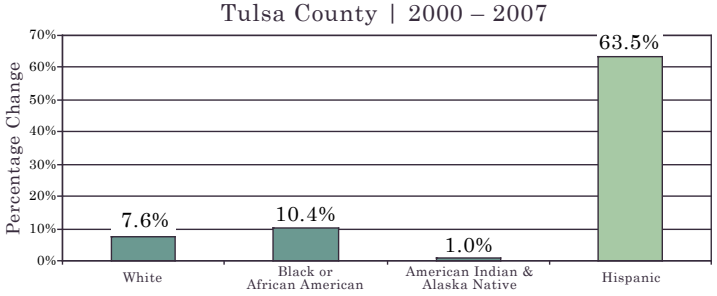
How Are We Doing?

While many cities in Tulsa County experienced significant growth from 2000 to 2007, the city of Tulsa decreased in population by 2.3%. Jenks is currently the fastest growing city, with a 55.7% increase in population from 2000 to 2007.

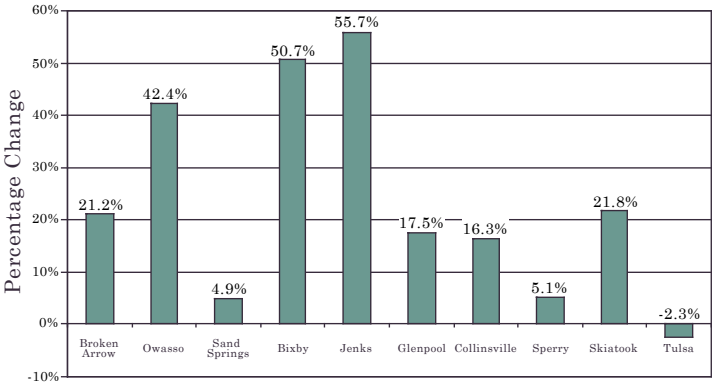
Although Tulsa County's population is predominately white, minority and ethnic populations are growing at substantial rates. The most striking growth has occurred in the Hispanic population, which is estimated to have increased by 63.5% from 2000-2007.

The following map outlines how the population has decreased in central portions of Tulsa County while the largest increases in population have occurred in northern and southern suburbs.

Percentage Population Change by Race/Ethnicity
Tulsa County | 2000 – 2007



Percentage Population Change by Selected Cities
2000 – 2007



Data Source:

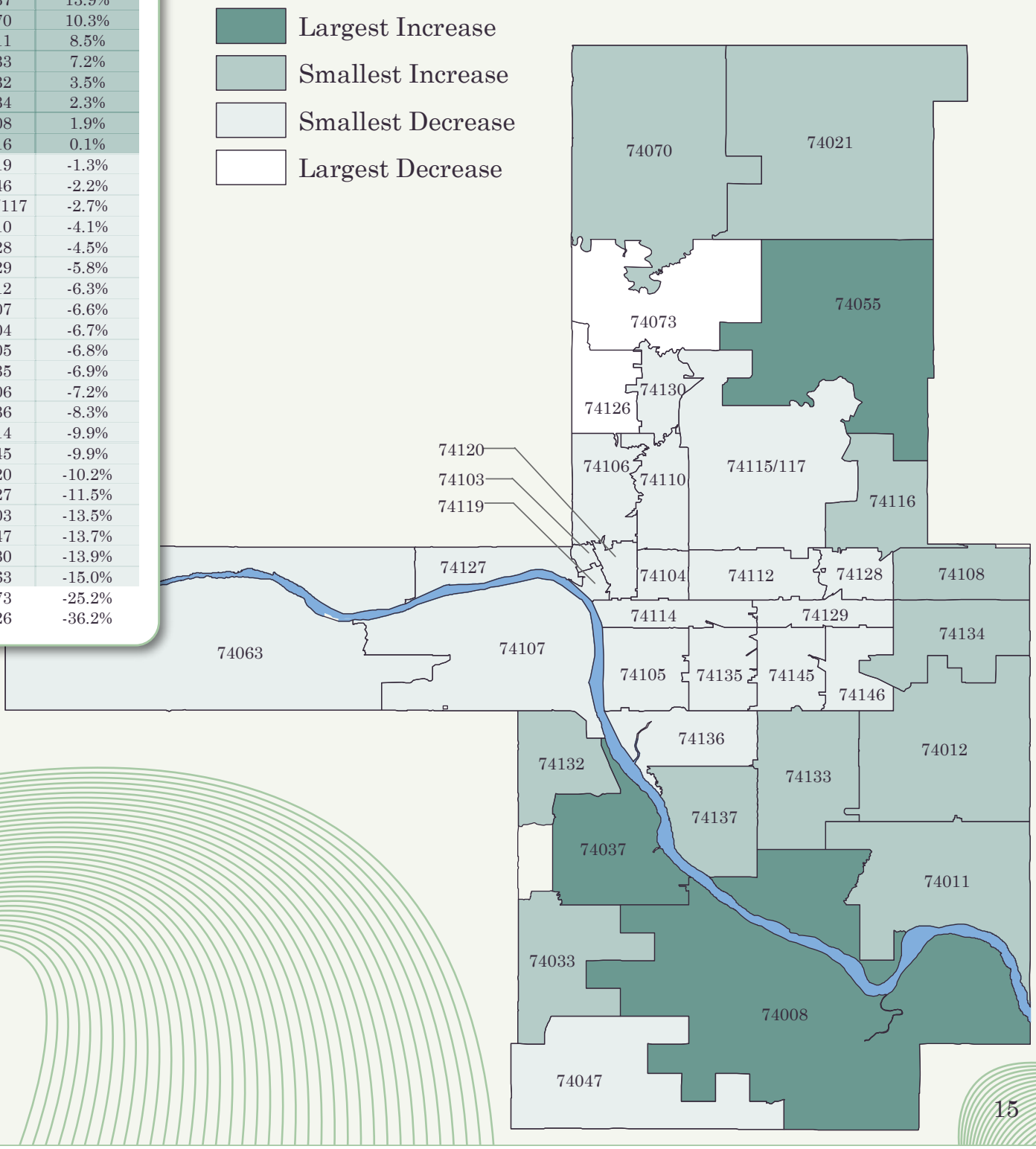
U.S. Census Bureau 2007 Population Estimates.

Bina Patel, MPH and Michael Lapolla, MHA, University of Oklahoma School of Community Medicine.

POPULATION CHANGE

Percentage Change in Population | 2000 – 2009

ZIP Code	Pecentage Change 2000 – 2009
74037	69.6%
74008	53.6%
74055	35.7%
74021	24.5%
74012	17.6%
74133	14.7%
74137	13.9%
74070	10.3%
74011	8.5%
74033	7.2%
74132	3.5%
74134	2.3%
74108	1.9%
74116	0.1%
74119	-1.3%
74146	-2.2%
74115/117	-2.7%
74110	-4.1%
74128	-4.5%
74129	-5.8%
74112	-6.3%
74107	-6.6%
74104	-6.7%
74105	-6.8%
74135	-6.9%
74106	-7.2%
74136	-8.3%
74114	-9.9%
74145	-9.9%
74120	-10.2%
74127	-11.5%
74103	-13.5%
74047	-13.7%
74130	-13.9%
74063	-15.0%
74073	-25.2%
74126	-36.2%



BLACK POPULATION

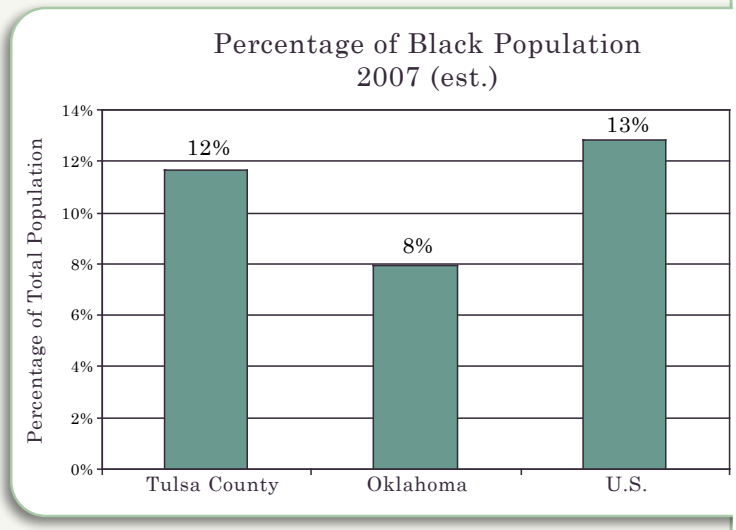
The Black population estimates are based on the 2007 U.S. Census Bureau population estimates.

Why Is This Indicator Important?

Minorities are often at increased risk for socioeconomic and health-related problems because they are exposed to more violence and poverty and have reduced access to quality health care.

How Are We Doing?

Blacks comprised the largest minority race in Tulsa County with a 2007 estimated population of 68,096. These estimates indicate that Blacks comprised 12 percent of Tulsa County's population, compared with 8 percent for Oklahoma and 13 percent for the nation.



Data Source:

U.S. Census Bureau 2007 Population Estimates.

HISPANIC POPULATION

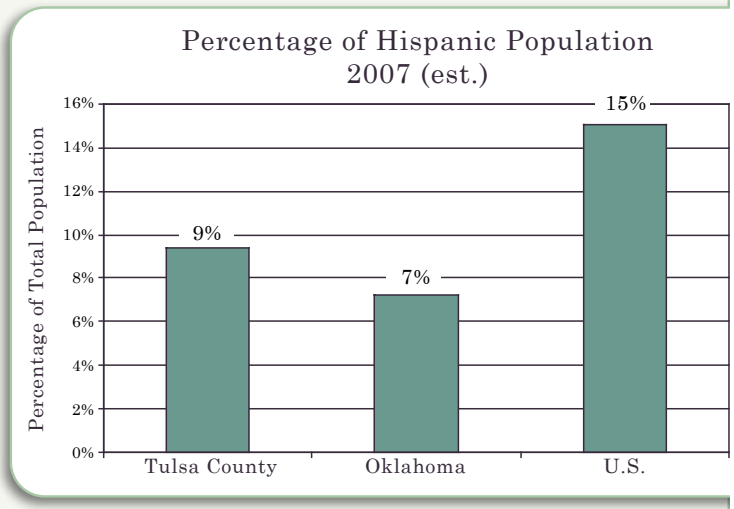
The Hispanic population estimates are based on the 2007 U.S. Census Bureau population estimates.

Why Is This Indicator Important?

Hispanics are the largest and fastest growing ethnic group in Tulsa County. They often encounter significant language and economic barriers when seeking health care and preventative services. This results in disparities in rates of disease and health among Hispanics compared to Non-Hispanics.

How Are We Doing?

According to 2007 population estimates, the Hispanic population numbered 54,967 in Tulsa County. In 2007, Hispanics were estimated to comprise 9 percent of the Tulsa County population, higher than the state value of 7 percent, but much lower than the U.S. percentage of 15 percent.



Data Source:

U.S. Census Bureau 2007 Population Estimates.

YOUNG CHILDREN AGED 0–4

This indicator is presented as the percentage of the total population aged 0 to 4 years, based on the 2007 U.S. Census population estimates. Zip code-level population data is based on 2009 population estimates.

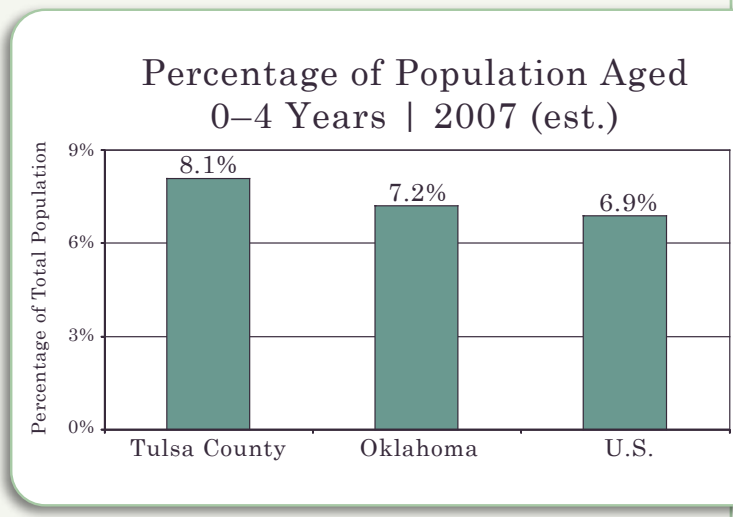
Why Is This Indicator Important?

Very young children are especially vulnerable to accidents, lead poisoning, infectious diseases, and abuse and neglect, conditions that are largely preventable and open to public health interventions.

How Are We Doing?

In 2007, approximately 47,269 children aged 0 to 4 years lived in Tulsa County. Estimates show that Tulsa County had a higher proportion of very young children (8.1 percent) than the state (7.2 percent) and the nation (6.9 percent).

Northern Tulsa tended to have the highest percentages of children aged 0 to 4 years. Note, five of the eight zip codes with the highest percentage of children aged 0 – 4 are in northern Tulsa County. The zip codes with the lowest percentage of young children aged 0 – 4 were downtown (74119 and 74103).



Data Source:

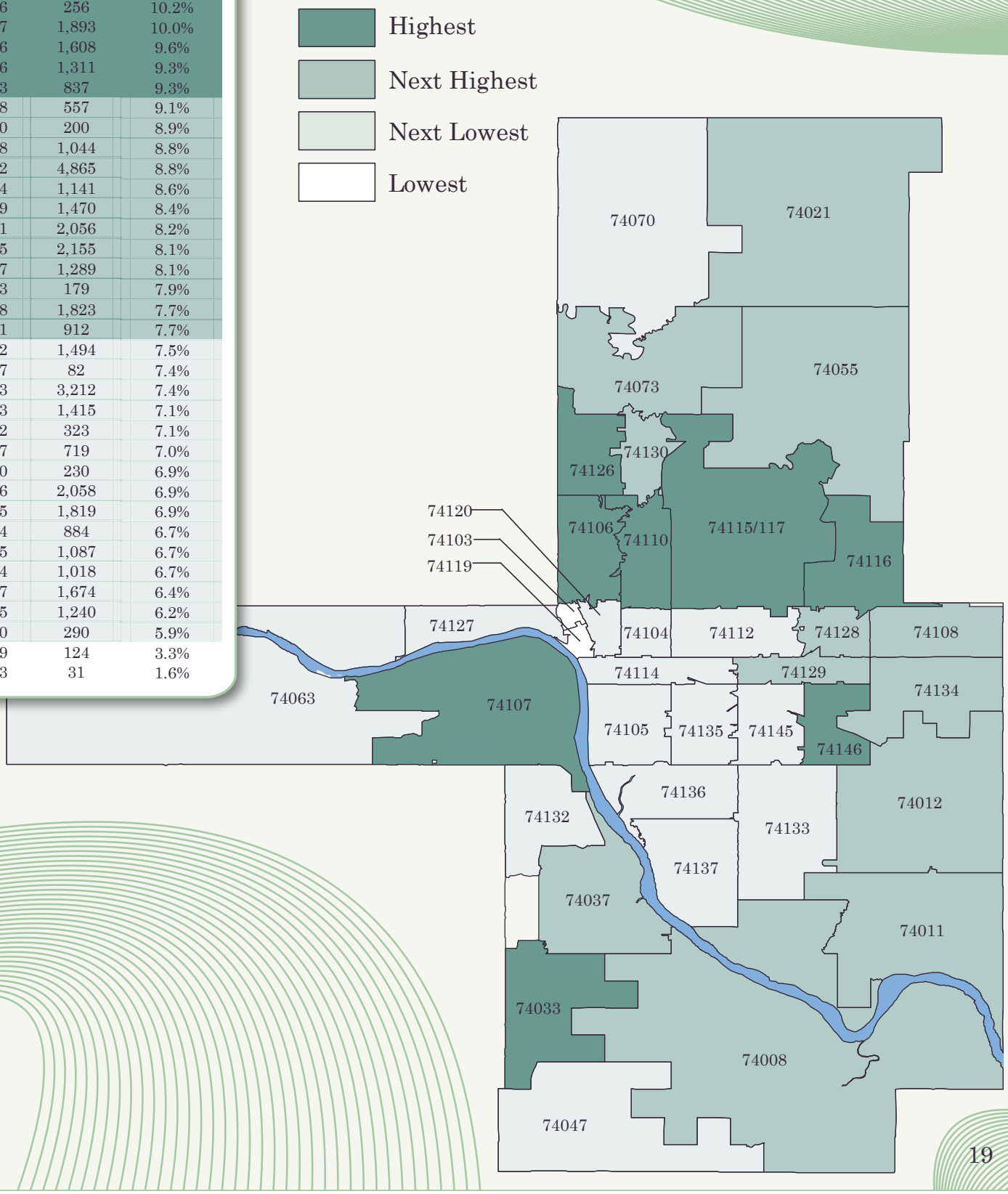
U.S. Census Bureau 2007 Population Estimates.

Bina Patel, MPH and Michael Lapolla, MHA, University of Oklahoma School of Community Medicine.

YOUNG CHILDREN AGED 0–4

2009 Estimate

ZIP Code	Children Aged 0 – 4	Percentage of Total Population
74110	1,533	10.5%
74115/117	2,378	10.3%
74126	772	10.2%
74116	256	10.2%
74107	1,893	10.0%
74106	1,608	9.6%
74146	1,311	9.3%
74033	837	9.3%
74108	557	9.1%
74130	200	8.9%
74128	1,044	8.8%
74012	4,865	8.8%
74134	1,141	8.6%
74129	1,470	8.4%
74011	2,056	8.2%
74055	2,155	8.1%
74037	1,289	8.1%
74073	179	7.9%
74008	1,823	7.7%
74021	912	7.7%
74112	1,494	7.5%
74047	82	7.4%
74133	3,212	7.4%
74063	1,415	7.1%
74132	323	7.1%
74127	719	7.0%
74070	230	6.9%
74136	2,058	6.9%
74105	1,819	6.9%
74104	884	6.7%
74145	1,087	6.7%
74114	1,018	6.7%
74137	1,674	6.4%
74135	1,240	6.2%
74120	290	5.9%
74119	124	3.3%
74103	31	1.6%



POPULATION AGED 15–24

This indicator represents the Tulsa County population that was aged 15 to 24 years, based on the 2007 U.S. Census population estimates. Zip code-level data is based on 2009 population estimates.

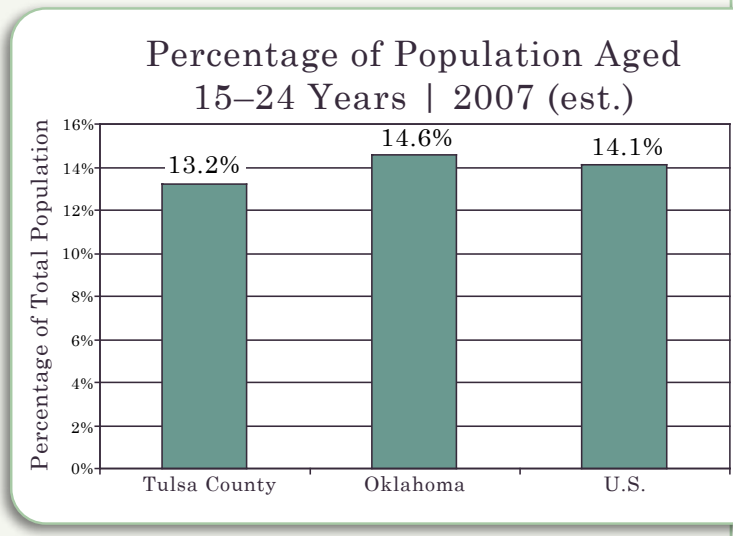
Why Is This Indicator Important?

This age group is predisposed to experimentation and risky behavior, making them susceptible to drug abuse, alcohol and tobacco dependence, violence, sexually transmitted disease, motor vehicle accidents, teen pregnancy and HIV/AIDS.

How Are We Doing?

In 2007, this age group comprised 13.2 percent of the total population, or 77,127 individuals. In comparison, 14.6 percent of Oklahomans and 14.1 percent of the nation's population were aged 15 – 24 years.

The University of Tulsa is located in zip code 74104, which has the highest percentage of youths in Tulsa County.



Data Source:

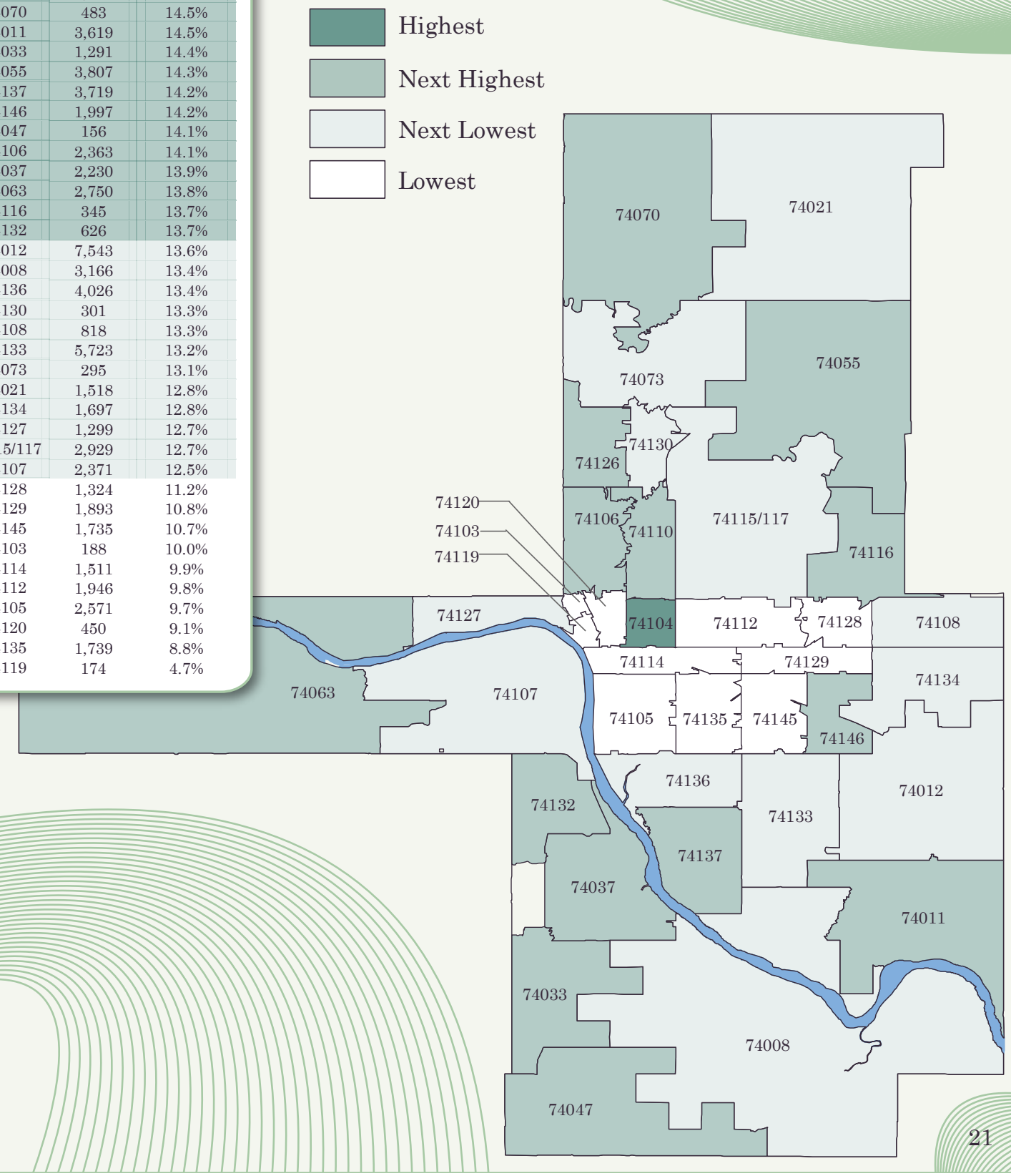
U.S. Census Bureau 2007 Population Estimates.

Bina Patel, MPH and Michael Lapolla, MHA, University of Oklahoma School of Community Medicine.

POPULATION AGED 15–24

2009 Estimate

ZIP Code	Youths Aged 15 – 24	Percentage of Total Population
74104	2,619	20.0%
74126	1,143	15.1%
74110	2,151	14.7%
74070	483	14.5%
74011	3,619	14.5%
74033	1,291	14.4%
74055	3,807	14.3%
74137	3,719	14.2%
74146	1,997	14.2%
74047	156	14.1%
74106	2,363	14.1%
74037	2,230	13.9%
74063	2,750	13.8%
74116	345	13.7%
74132	626	13.7%
74012	7,543	13.6%
74008	3,166	13.4%
74136	4,026	13.4%
74130	301	13.3%
74108	818	13.3%
74133	5,723	13.2%
74073	295	13.1%
74021	1,518	12.8%
74134	1,697	12.8%
74127	1,299	12.7%
74115/117	2,929	12.7%
74107	2,371	12.5%
74128	1,324	11.2%
74129	1,893	10.8%
74145	1,735	10.7%
74103	188	10.0%
74114	1,511	9.9%
74112	1,946	9.8%
74105	2,571	9.7%
74120	450	9.1%
74135	1,739	8.8%
74119	174	4.7%



POPULATION AGED 25–64

This indicator is the Tulsa County population that was aged 25 to 64 years, based on the 2007 U.S. Census population estimates. Zip code-level population data is based on 2009 population estimates.

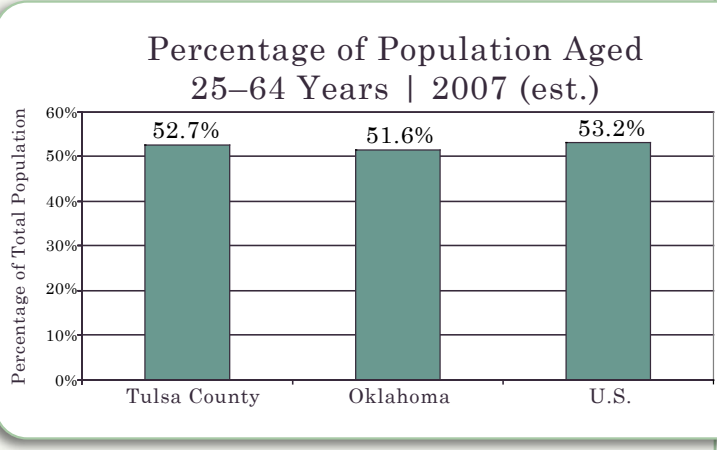
Why Is This Indicator Important?

This age group represents working-age adults that significantly contribute to the work force and the economy.

How Are We Doing?

In 2007, this age group numbered approximately 308,341. An estimated 52.7 percent of Tulsa County residents were aged 25 to 64 years, compared to 51.6 percent of Oklahomans and 53.2 percent of the nation's population.

The zip code with the highest percentage of individuals in this age group was 74103 in the downtown Tulsa area. More specifically, 80.9% of this zip code's population was between the ages of 25 and 64.



Data Source:

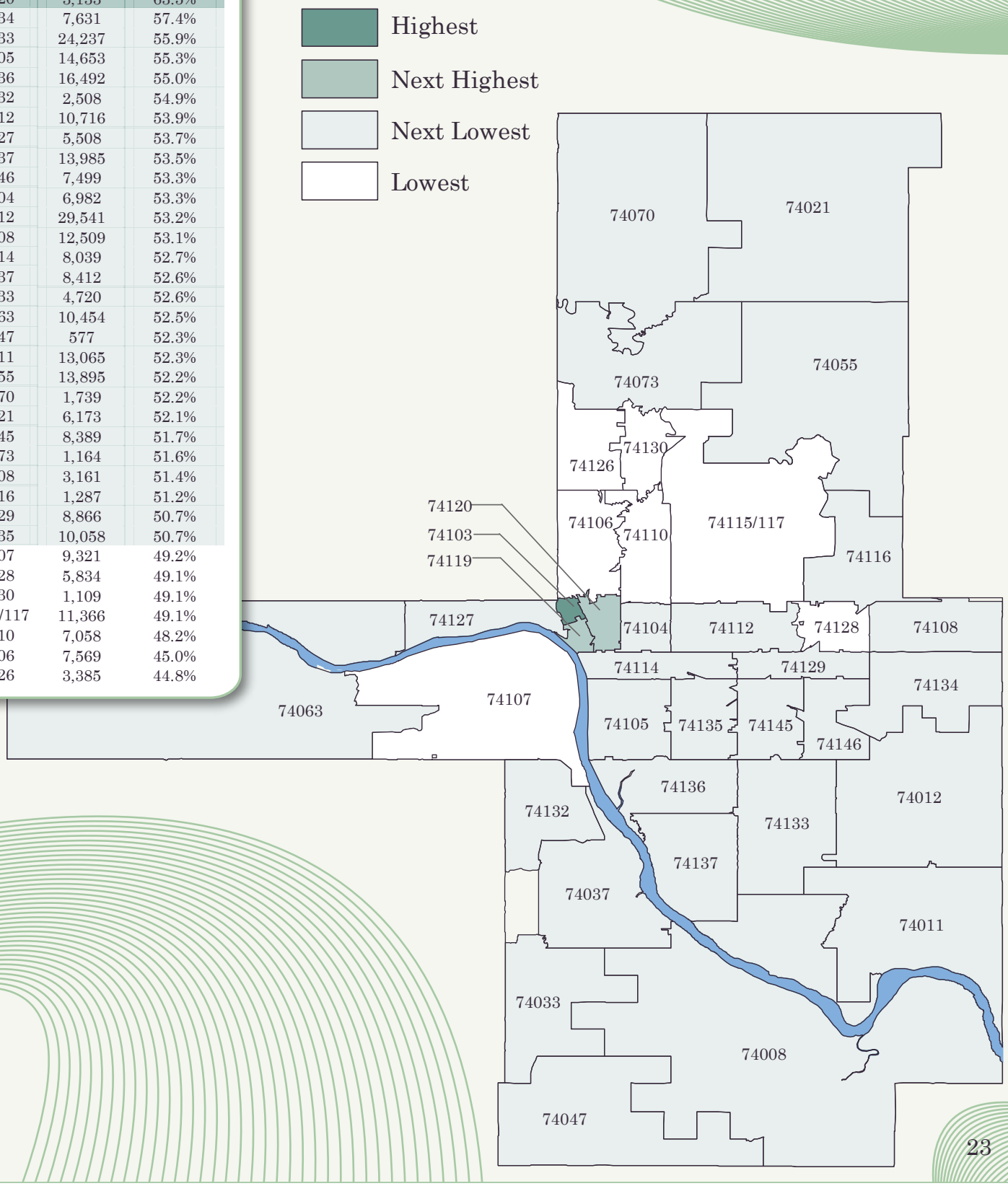
U.S. Census Bureau 2007 Population Estimates.

Bina Patel, MPH and Michael Lapolla, MHA, University of Oklahoma School of Community Medicine.

POPULATION AGED 25–64

2009 Estimate

ZIP Code	Adults Aged 25 – 64	Percentage of Total Population
74103	1,521	80.9%
74119	2,463	65.9%
74120	3,133	63.5%
74134	7,631	57.4%
74133	24,237	55.9%
74105	14,653	55.3%
74136	16,492	55.0%
74132	2,508	54.9%
74112	10,716	53.9%
74127	5,508	53.7%
74137	13,985	53.5%
74146	7,499	53.3%
74104	6,982	53.3%
74012	29,541	53.2%
74008	12,509	53.1%
74114	8,039	52.7%
74037	8,412	52.6%
74033	4,720	52.6%
74063	10,454	52.5%
74047	577	52.3%
74011	13,065	52.3%
74055	13,895	52.2%
74070	1,739	52.2%
74021	6,173	52.1%
74145	8,389	51.7%
74073	1,164	51.6%
74108	3,161	51.4%
74116	1,287	51.2%
74129	8,866	50.7%
74135	10,058	50.7%
74107	9,321	49.2%
74128	5,834	49.1%
74130	1,109	49.1%
74115/117	11,366	49.1%
74110	7,058	48.2%
74106	7,569	45.0%
74126	3,385	44.8%



POPULATION AGED 65 & OLDER

This indicator is the Tulsa County population that was aged 65 years and older, based on the 2007 U.S. Census population estimates. The zip code-level population data is based on 2009 population estimates.

Why Is This Indicator Important?

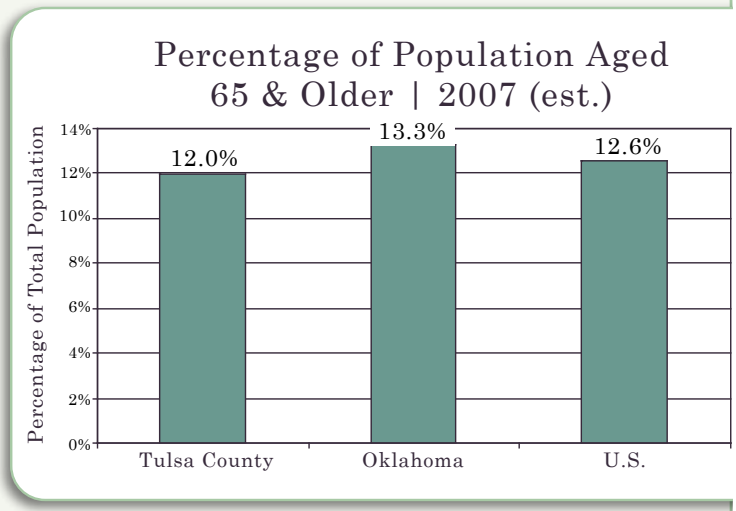
Because of increasing life expectancy, persons aged 65 years and older are comprising higher percentages of the total population than ever before. This age cohort is expected to grow considerably as the Baby Boomer Generation starts turning 65 and will double by 2030. This aging of the population will challenge social service agencies and health care providers who support the special needs of this population.

How Are We Doing?

In 2007, Tulsa County had an estimated 70,081 residents aged 65 years and over. The ratio of females to males was 60 percent to 40 percent.

In 2007, an estimated 12.0 percent of Tulsa County was 65 years of age and older, compared with 13.3 percent of Oklahoma's population and 12.6 percent of the population of the United States.

The Tulsa County zip codes with the highest percentages of adults 65 years of age and older were generally in the older, more established neighborhoods of midtown Tulsa.



Data Source:

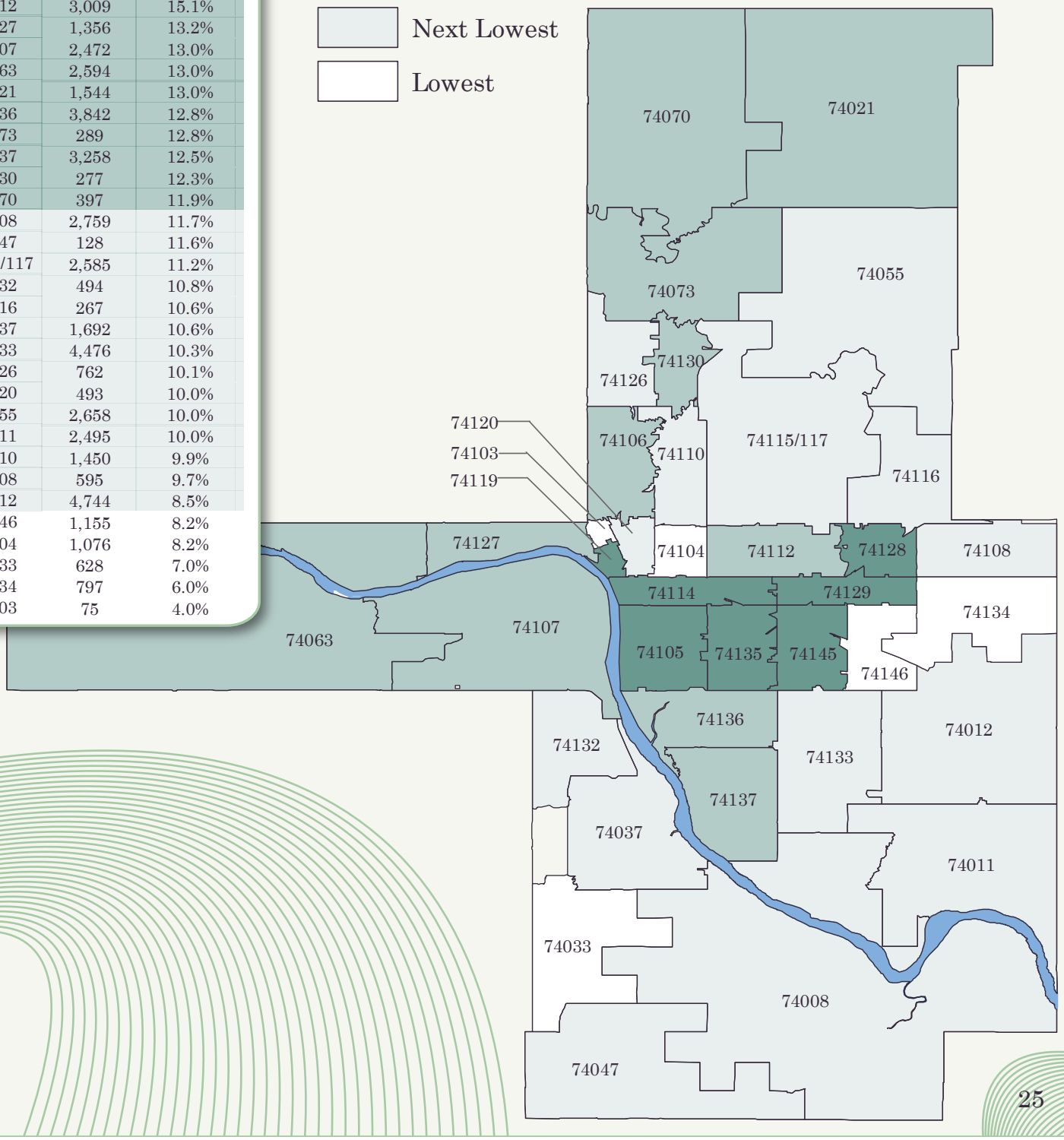
U.S. Census Bureau 2007 Population Estimates.

Bina Patel, MPH and Michael Lapolla, MHA, University of Oklahoma School of Community Medicine.

POPULATION AGED 65 & OLDER

2009 Estimate

ZIP Code	Adults Aged 65+	Percentage of Total Population
74135	4,521	22.8%
74119	745	19.9%
74145	3,052	18.8%
74114	2,765	18.1%
74105	4,293	16.2%
74128	1,922	16.2%
74129	2,798	16.0%
74106	2,592	15.4%
74112	3,009	15.1%
74127	1,356	13.2%
74107	2,472	13.0%
74063	2,594	13.0%
74021	1,544	13.0%
74136	3,842	12.8%
74073	289	12.8%
74137	3,258	12.5%
74130	277	12.3%
74070	397	11.9%
74008	2,759	11.7%
74047	128	11.6%
74115/117	2,585	11.2%
74132	494	10.8%
74116	267	10.6%
74037	1,692	10.6%
74133	4,476	10.3%
74126	762	10.1%
74120	493	10.0%
74055	2,658	10.0%
74011	2,495	10.0%
74110	1,450	9.9%
74108	595	9.7%
74012	4,744	8.5%
74146	1,155	8.2%
74104	1,076	8.2%
74033	628	7.0%
74134	797	6.0%
74103	75	4.0%



SOCIOECONOMIC

MEDIAN HOUSEHOLD INCOME

The median household income is the mid-point in the range of household incomes. Half of households reported incomes above the median income and half of the households reported incomes below the median income.

Why Is This Indicator Important?

Household income is a measure of economic health and is related to a variety of social indicators. Lower incomes are often associated with poor health outcomes at all ages, increased reliance on community-based health services, and lower levels of education.

How Are We Doing?

The estimated median household income for Tulsa County in 2007 was $45,313. In the 2007 American Community Survey, racial income inequality was evident, with White and Asian households having a median income of more than $50,000 compared with a median household income of less than $25,000 for Black households. Hispanic households had a median income of $35,389.

Another measure of economic health, per capita personal income, showed that in 2007 Tulsa County had a higher per capita income than Oklahoma and the nation as a whole. In 2007, Tulsa County was ranked No. 1 out of all Oklahoma counties for this indicator.

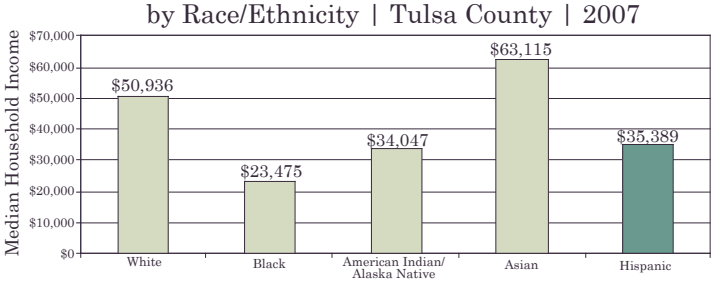
Data Source:

U.S. Census Bureau Small Area Income and Poverty Estimates (SAIPE) 2007.

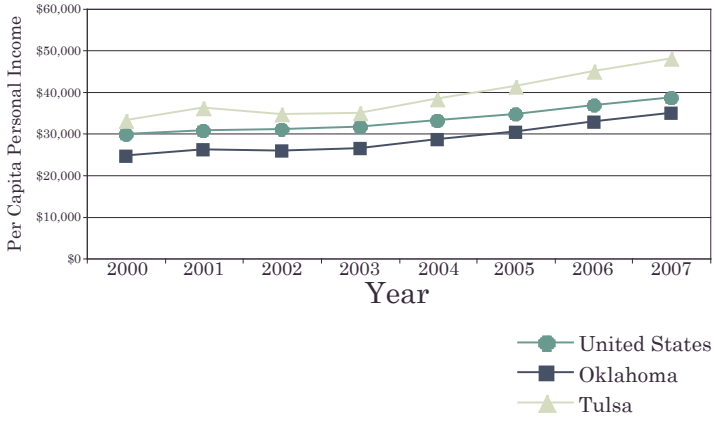
American Community Survey 2007.

Oklahoma Department of Commerce: 2000 – 2007 County and MSA per Capita Personal Income.

Median Household Income in the Past 12 Months by Race/Ethnicity | Tulsa County | 2007



Per Capita Personal Income by Region 2000 – 2007



POPULATION BELOW POVERTY

This indicator is the percentage of persons living below the federal poverty level *in the past 12 months* and is taken from the 2007 American Community Survey. The Census Bureau determines poverty levels using a set of income thresholds that vary by family size and composition. In 2006, the weighted averaged poverty threshold for a family of four was $20,614.

Why Is This Indicator Important?

Poverty is one of the most important measures of well-being—it is a predictor of many poor behavioral choices and health outcomes. In addition, poverty is associated with an increased need of public health and other social services.

How Are We Doing?

In Tulsa County, there was racial disparity in the percentage of the population living below poverty. According to the 2007 American Community Survey, over 30 percent of the Black population lived below the poverty level, three times that of the White population. Twenty-two percent of both the American Indian and Hispanic population lived below the poverty level.

Estimates for 2007 put the poverty rate of Tulsa County (14.2 percent) below that of the state (15.8 percent), but above the national rate (13.0 percent). Of Tulsa County residents living below the poverty level, 53 percent are 18 – 64 years of age. Furthermore, of Tulsa County residents below the age of 18, 21.3 percent lived below the poverty level.

Data Source:

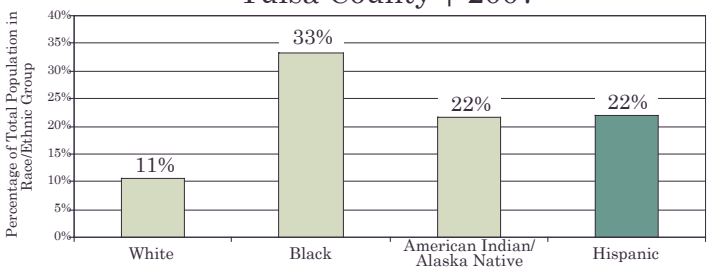
U.S. Census Poverty Thresholds 2006.

American Community Survey 2007.

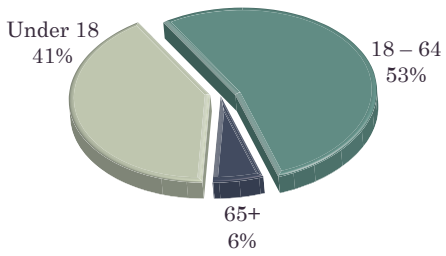
American Community Survey 2005 – 2007.

U.S. Census Bureau Small Area Income and Poverty Estimates (SAIPE) 2007.

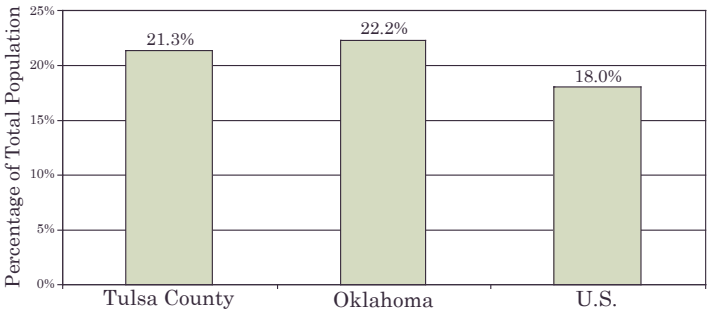
Percentage of Population in Poverty in the Past 12 Months by Race/Ethnicity
Tulsa County | 2007



Population in Poverty in the Past 12 Months by Age Group
Tulsa County | 2005 – 2007



Percentage of Population Below Poverty by Region
(<18 Years of Age) | 2007



FEMALE HEADED HOUSEHOLD

This indicator is defined as a household headed by a female with her own children less than 18 years of age, with no husband present. It is presented as the percentage of all households.

Why Is This Indicator Important?

Female-headed households with children are especially vulnerable. They are more likely than male-headed households to live in poverty and have a greater reliance on welfare, food assistance and other social and health services.

How Are We Doing?

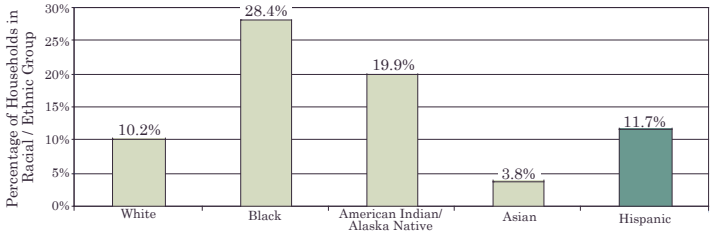
In the 2007 American Community Survey, the percentage of households headed by a female without a husband, living with her own children under the age of 18, was 12.5 percent. A significant proportion (28.4 percent) of Black households were headed by females with children. Asian households had a much lower percentage of female-headed households (3.8 percent).

According to the 2007 American Community Survey, Tulsa County had 12.5 percent of households headed by a female with her own children. This is similar to both the state (12.1 percent) and national (12.5 percent) rates.

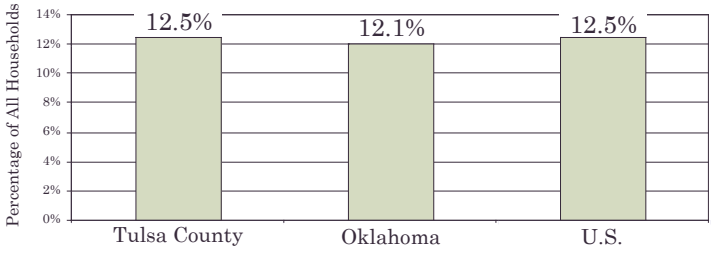
Data Source:

American Community Survey 2007.

Percentage of Female-Headed Households by Race/Ethnicity | Tulsa County | 2007



Percentage of Female-Headed Households by Region | 2007



EDUCATIONAL ATTAINMENT

Educational attainment is defined as completion of at least a high school education by the population aged 25 and older. It is presented as a percentage of the total population 25 and older, based on the 2007 American Community Survey.

Why Is This Indicator Important?

Education is an important indicator of social well-being. Higher levels of education mean higher employability and earning potential for individuals, who in turn provide the skills needed to sustain a strong local economy.

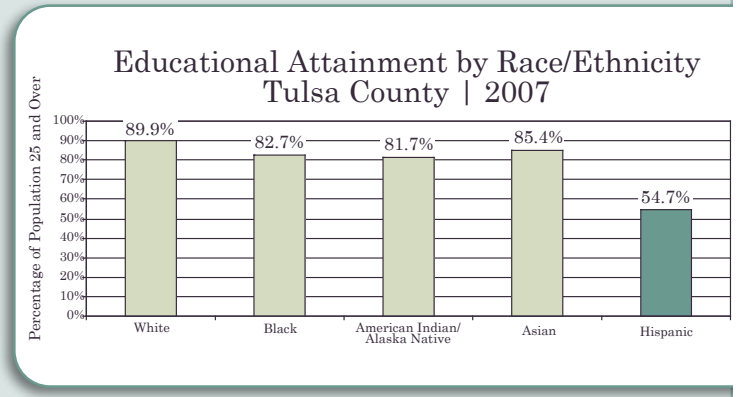
How Are We Doing?

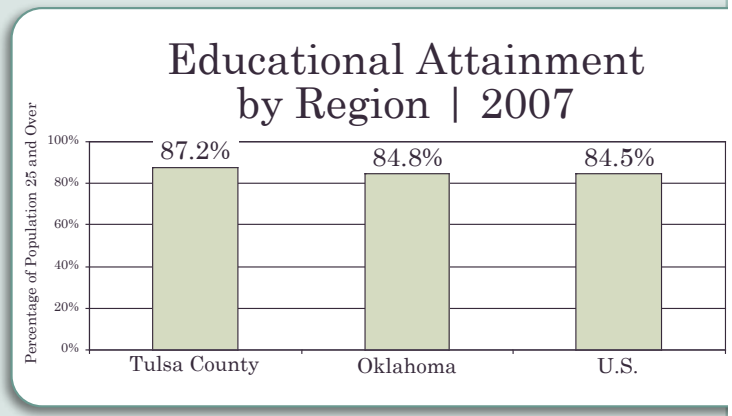
Tulsa County had an overall education attainment of 87 percent according to the 2007 American Community Survey. Educational attainment was highest for the White population (89.9 percent), followed by Asians (85.4 percent), Blacks (82.7 percent), and American Indians (81.7 percent). About 55 percent of Hispanics had achieved a high school education.

Estimates for 2007 put the educational attainment of Tulsa County at 87.2 percent, higher than both the state and nation with rates of 84.8 and 84.5 percent, respectively.

Data Source:

American Community Survey 2007.





UNEMPLOYMENT RATE

This indicator is presented as the percentage of the total civilian labor force that was unemployed in 2007, based on information obtained through the U.S. Department of Labor.

Why Is This Indicator Important?

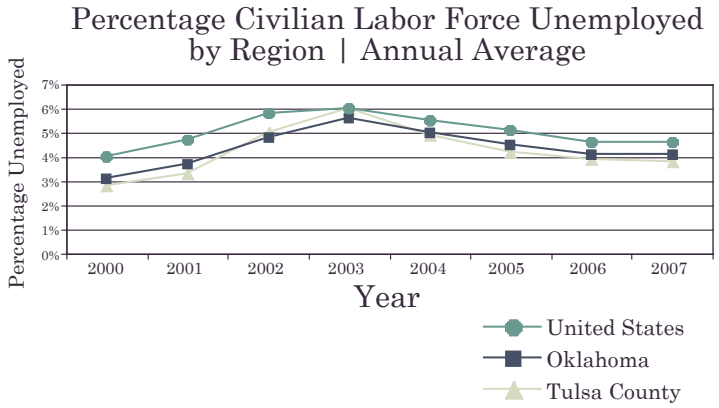
Unemployment rates are one of several indicators of the economic strength of a community. Areas with higher rates of unemployment may have more poverty and associated social and health care access disadvantages.

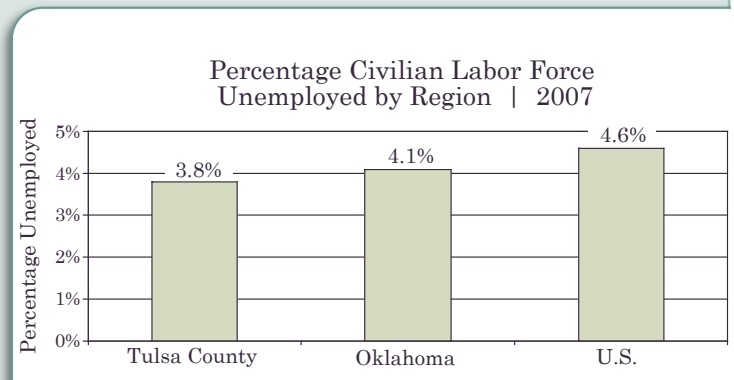
How Are We Doing?

The overall unemployment rate for Tulsa County in 2007, according to the U.S. Department of Labor, was 3.8%. Unemployment statistics indicate that Tulsa County had a lower unemployment rate (3.8 percent) than Oklahoma (4.1 percent) and the United States (4.6 percent).

Data Source:

U.S. Department of Labor Bureau of Labor Statistics (BLS) Local Area Unemployment Statistics (LAUS). www.bls.gov.





MATERNAL & CHILD HEALTH

CRUDE BIRTH RATE

The crude birth rate is the number of live births divided by the total population and multiplied by 1,000. It is called crude because it does not take into account sex or age differences in the populations being compared. The crude birth rate is presented as the number of live births to Tulsa County residents per 1,000 persons, averaged over the years 2005 – 2007. The number of persons per zip code is based on 2009 estimates.

Why Is This Indicator Important?

The crude birth rate indicates where population growth is occurring naturally through reproduction.

How Are We Doing?

There were 28,794 live births to Tulsa County residents during the years spanning 2005 – 2007. Males comprised 51.1 percent of the births and females 48.9 percent. Racial minorities had higher birth rates than Whites. The Hispanic birth rate (32.1) was twice that of non-Hispanics (15.0).

In 2007, Tulsa County's birth rate of 16.7 live births per 1,000 population was higher than Oklahoma's (15.2) and that of the United States (14.3).

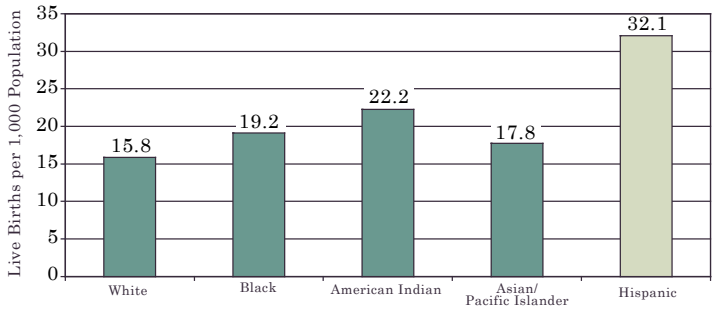
The zip code with the highest crude birth rate was 74116, and zip codes with the lowest birth rates were 74137, 74119 and 74103.

Data Source:

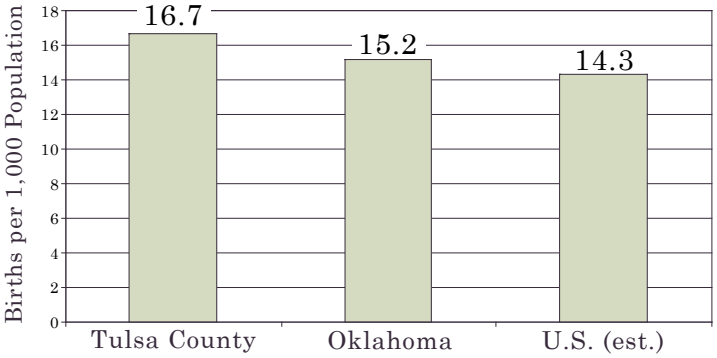
Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary Data for 2007. National Vital Statistics Reports, Web Release; Vol 57 No 12. Hyattsville, MD: National Center for Health Statistics. Released March 18, 2009.

Birth Rates by Race/Ethnicity of Mother
Tulsa County | 2005 – 2007



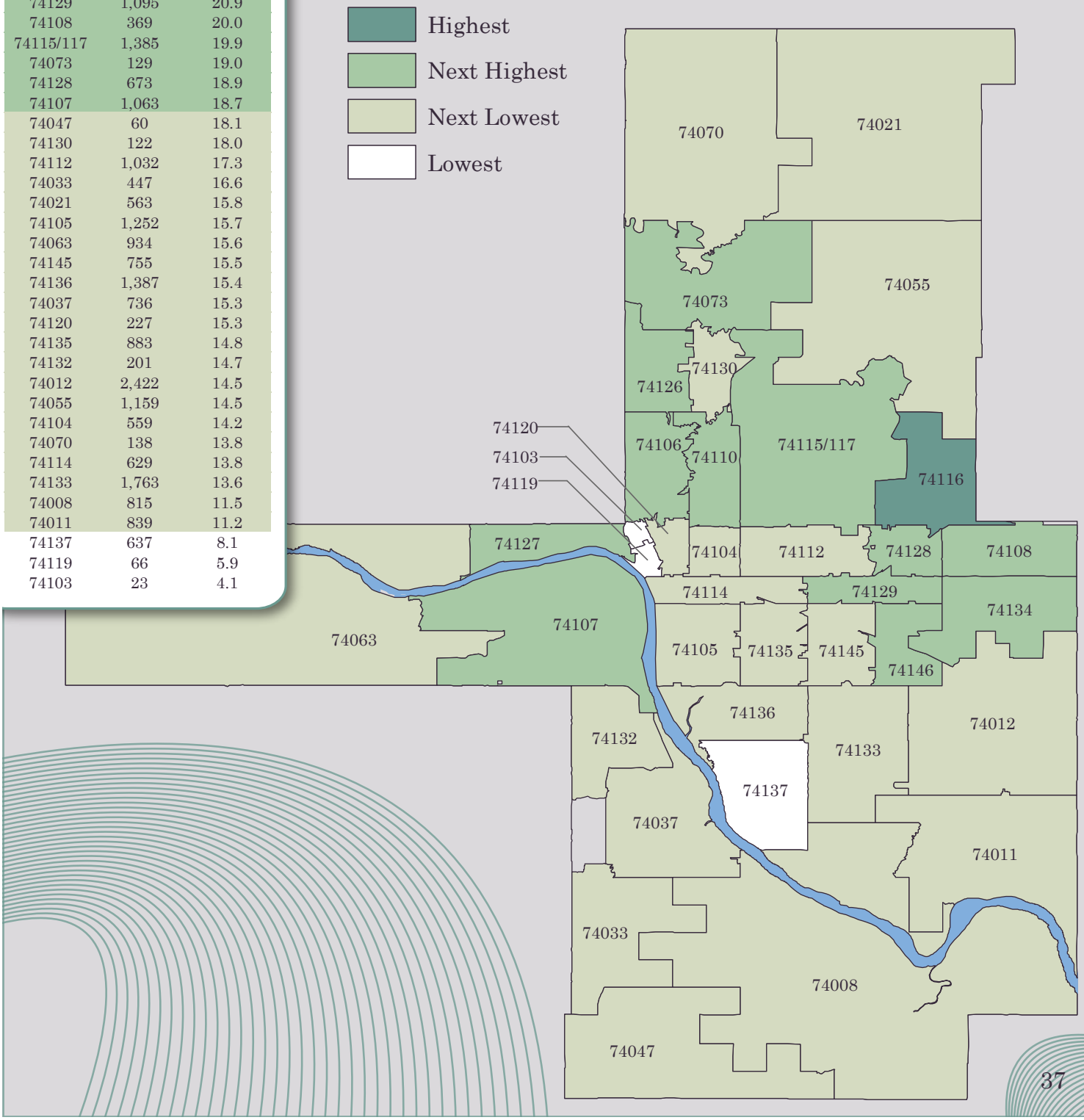
Crude Birth Rates by Region | 2007



CRUDE BIRTH RATE

2005 – 2007

ZIP Code	Number of Live Births	Crude Birth Rate
74116	297	39.4
74126	628	27.7
74110	1,098	25.0
74146	1,015	24.0
74134	914	22.9
74127	701	22.8
74106	1,073	21.3
74129	1,095	20.9
74108	369	20.0
74115/117	1,385	19.9
74073	129	19.0
74128	673	18.9
74107	1,063	18.7
74047	60	18.1
74130	122	18.0
74112	1,032	17.3
74033	447	16.6
74021	563	15.8
74105	1,252	15.7
74063	934	15.6
74145	755	15.5
74136	1,387	15.4
74037	736	15.3
74120	227	15.3
74135	883	14.8
74132	201	14.7
74012	2,422	14.5
74055	1,159	14.5
74104	559	14.2
74070	138	13.8
74114	629	13.8
74133	1,763	13.6
74008	815	11.5
74011	839	11.2
74137	637	8.1
74119	66	5.9
74103	23	4.1



BIRTHS TO TEENS 17 AND YOUNGER

This indicator is presented as births to Tulsa County teenagers 17 and younger as a percentage of total births, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Teen mothers are especially vulnerable to economic and health-related problems. Furthermore, their infants are more likely to die and to experience problems later in life.

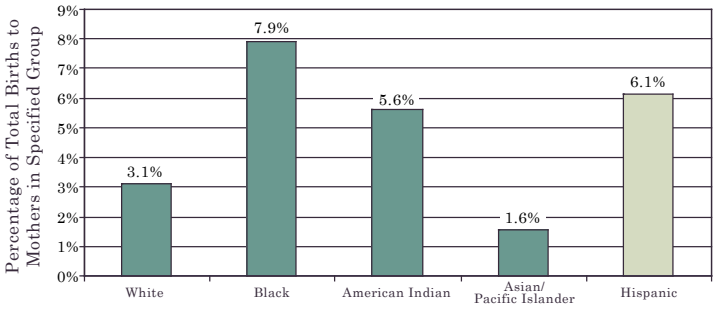
How Are We Doing?

There were 1,135 births to Tulsa County teens 17 and younger during 2005 – 2007, comprising 3.9 percent of all births during this time frame. Overall, the percentage of births to teens aged 17 and younger decreased from 2000 to 2007 from 4.6 to 3.8 percent. Among births to White mothers, 3.1 percent were to teens aged 17 and younger, compared with 7.9 percent of births to Black mothers and 5.6 percent of births to American Indian mothers. Six percent of births to Hispanic women were to teens aged 17 and younger.

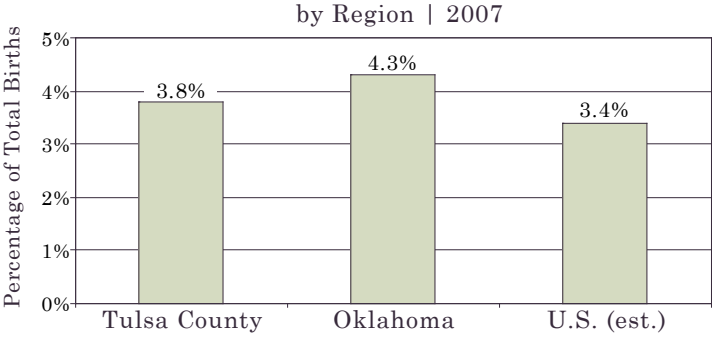
In 2007, the percentage of births to teens 17 and younger in Oklahoma and the United States was 4.3 and 3.4 percent, respectively.

Zip codes 74126, 74110, 74116 and 74106 in northern Tulsa County had the highest percentage of births to teens 17 and younger.

Percentage of Births to Teens <18 by Race/Ethnicity of Mother | Tulsa County | 2005 – 2007



Percentage of Births to Teens <18 by Region | 2007



Data Source:

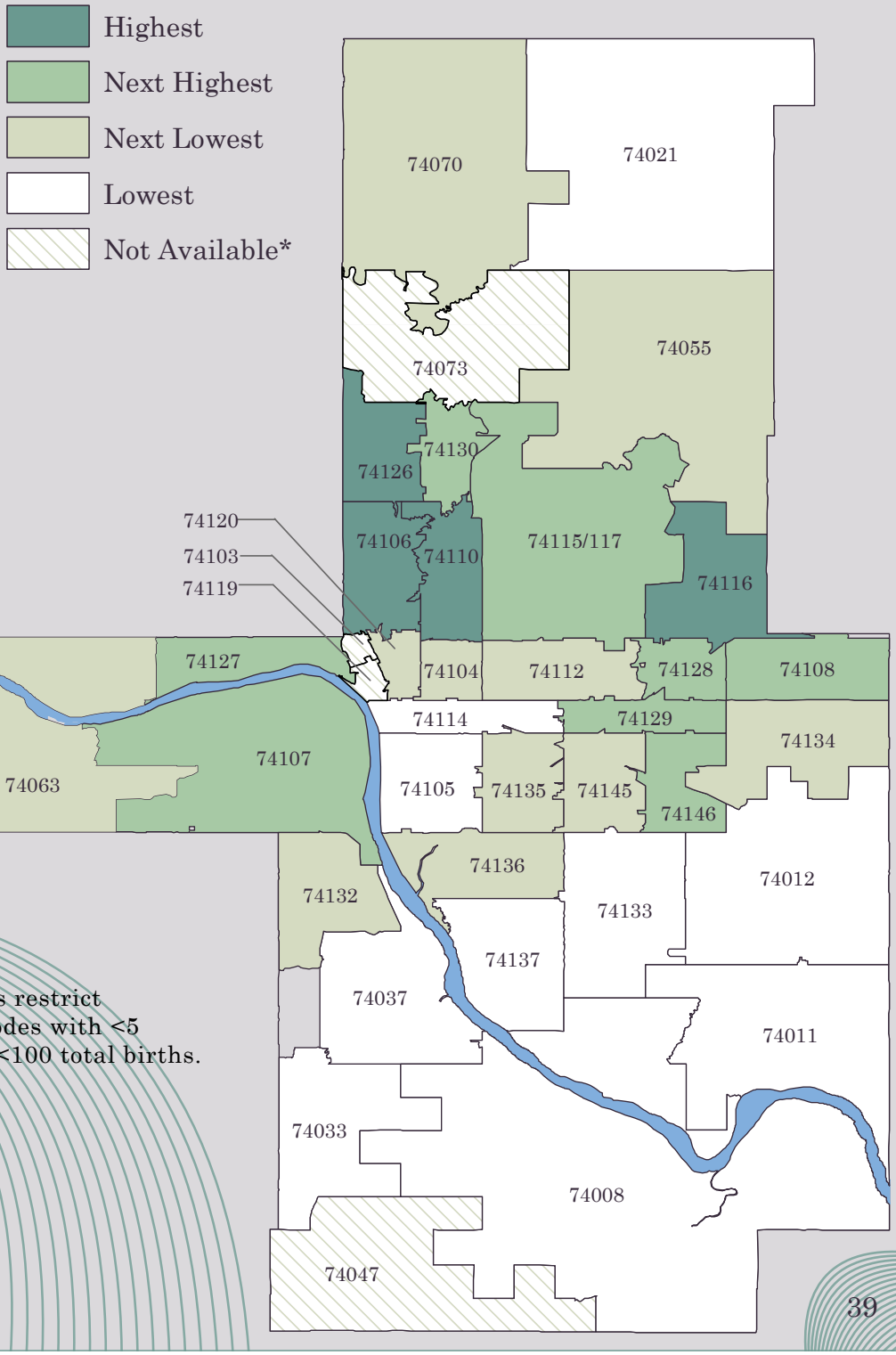
Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary Data for 2007. National Vital Statistics Reports, Web Release; Vol 57 No 12. Hyattsville, MD: National Center for Health Statistics. Released March 18, 2009.

BIRTHS TO TEENS 17 AND YOUNGER

Percentage of Births to Teens <18
2005 – 2007

ZIP Code	Number of Births to Teens <18	Percent of All Births
74126	62	9.9%
74110	106	9.7%
74116	28	9.4%
74106	100	9.3%
74115/117	96	6.9%
74146	61	6.0%
74107	63	5.9%
74128	39	5.8%
74130	7	5.7%
74127	40	5.7%
74129	58	5.3%
74108	18	4.9%
74134	39	4.3%
74112	43	4.2%
74070	5	3.6%
74120	8	3.5%
74132	7	3.5%
74063	29	3.1%
74055	31	2.7%
74136	37	2.7%
74135	23	2.6%
74104	14	2.5%
74145	18	2.4%
74105	27	2.2%
74011	17	2.0%
74012	48	2.0%
74033	8	1.8%
74133	30	1.7%
74008	12	1.5%
74021	8	1.4%
74137	6	0.9%
74114	5	0.8%
74037	5	0.7%
74047		
74073		
74103		
74119		



*Confidentiality concerns restrict releasing data for zip codes with <5 indicator births and/or <100 total births.

BIRTHS TO TEENS 19 AND YOUNGER

This indicator is presented as births to Tulsa County teenagers ages 19 and younger as a percentage of total births, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Teen mothers are more likely to suffer from poverty and inadequate health care. Their newborns are at higher risk of dying in infancy, and are more likely to have low birth weights and health and behavioral problems during childhood. Families of teen mothers intensify the demands on health care and welfare systems.

How Are We Doing?

Of the 28,794 live births to Tulsa County mothers during 2005 – 2007, 3,454 (12.0 percent) were to teens 19 or younger. Among births to White mothers, 10.2 percent were to teens 19 and younger, compared with 20.1 percent of births to Black mothers and 16.6 percent of births to American Indian mothers. Sixteen percent of births to Hispanic women were to teenage mothers.

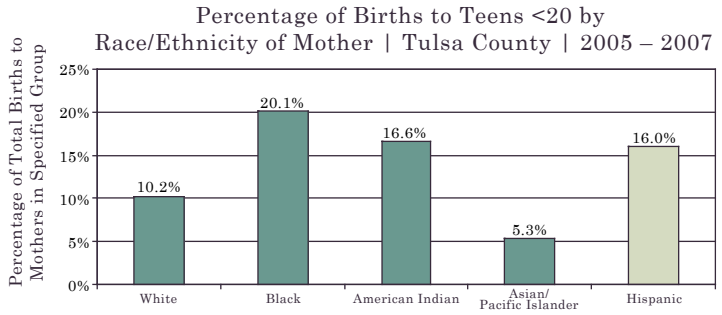
The overall trend of teen pregnancy has declined from 2000 to 2007, from 13.8 percent to 12.1 percent of all births. The percentage of births to teens in Tulsa County (12.1 percent) was lower than the state (13.9 percent), but higher than the nation (10.5 percent).

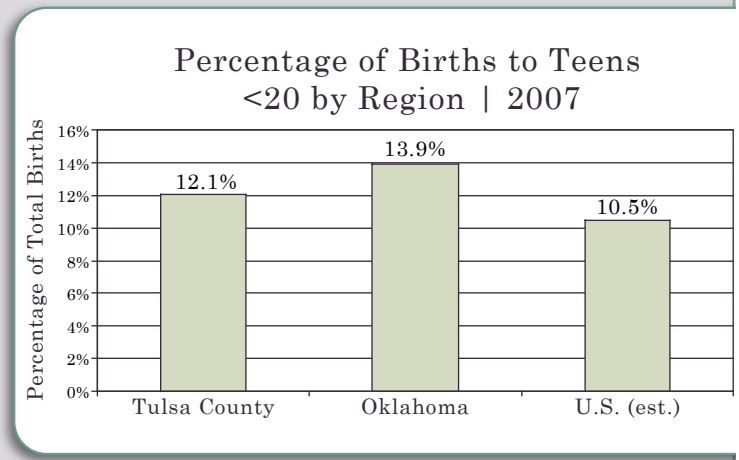
The zip codes with the highest percentage of teen births were 74116, 74126, 74106 and 74110 in northern Tulsa County.

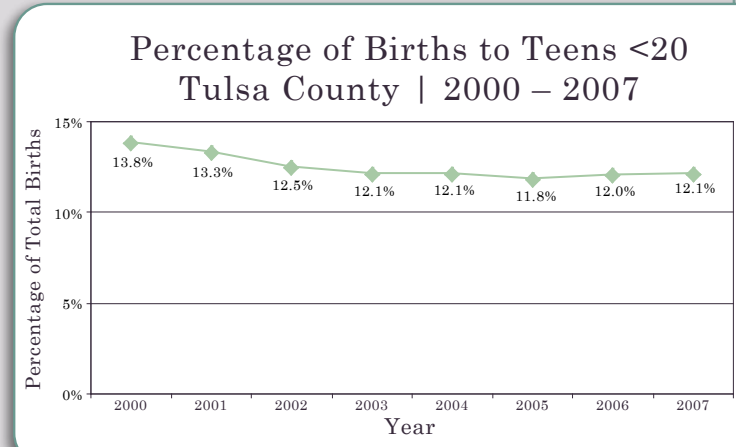
Data Source:

Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary Data for 2007. National Vital Statistics Reports, Web Release; Vol 57 No 12. Hyattsville, MD: National Center for Health Statistics. Released March 18, 2009.



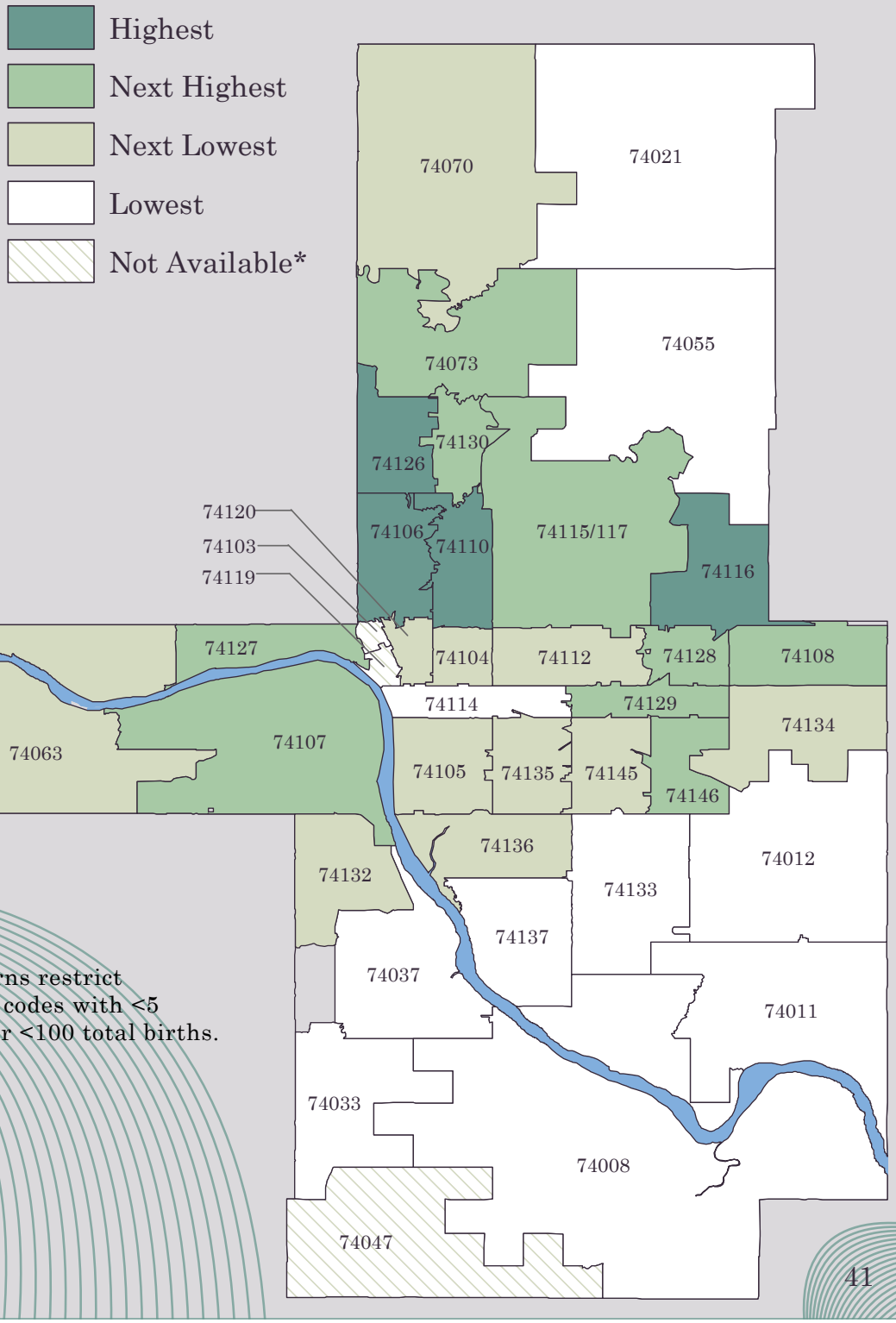




BIRTHS TO TEENS 19 AND YOUNGER

Percentage of Births to Teens <20
2005 – 2007

ZIP Code	Number of Births to Teens <20	Percent of All Births
74116	71	23.9%
74126	145	23.1%
74106	238	22.2%
74110	229	20.9%
74146	187	18.4%
74115/117	252	18.2%
74130	21	17.2%
74107	182	17.1%
74127	118	16.8%
74129	169	15.4%
74108	53	14.4%
74128	95	14.1%
74073	18	14.0%
74063	117	12.5%
74134	112	12.3%
74145	92	12.2%
74112	120	11.6%
74070	16	11.6%
74136	155	11.2%
74120	25	11.0%
74105	133	10.6%
74132	21	10.4%
74135	88	10.0%
74104	55	9.8%
74055	94	8.1%
74133	133	7.5%
74008	57	7.0%
74033	31	6.9%
74012	159	6.6%
74011	54	6.4%
74137	34	5.3%
74021	30	5.3%
74114	21	3.3%
74037	19	2.6%
74047		
74103		
74119		



*Confidentiality concerns restrict releasing data for zip codes with <5 indicator births and/or <100 total births.

LATE OR NO PRENATAL CARE

This indicator is defined as births to Tulsa County mothers who had no prenatal care or who did not begin prenatal care until after the first trimester (months 1 through 3). It is presented as a percentage of all births, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

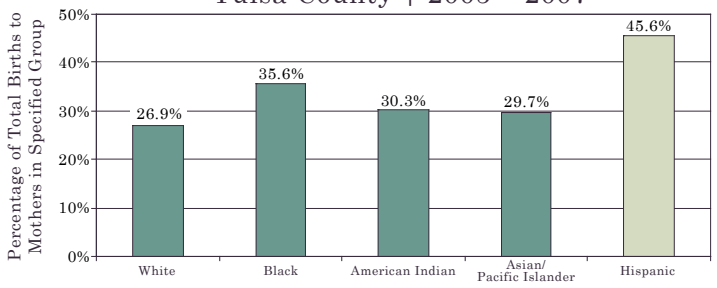
Late or no prenatal care has been linked to poor birth outcomes, including low birth weight and preterm births, and to prenatal and maternal mortality.

How Are We Doing?

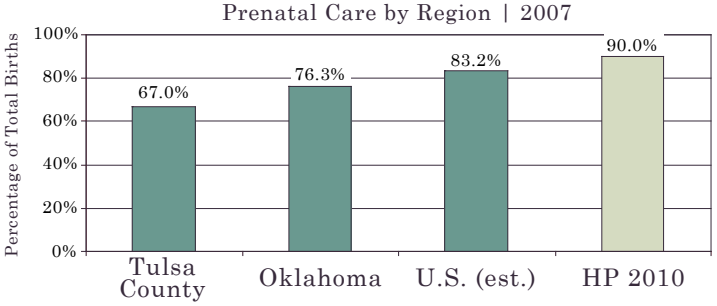
During 2005 – 2007, 28.4 percent of all Tulsa County birth mothers did not receive prenatal care or delayed receiving care until after the first trimester. The percentage of White, Black, American Indian, and Asian/Pacific Islander mothers not receiving early prenatal care was 26.9, 35.6, 30.3, and 29.7 percent, respectively. Among Hispanic birth mothers, 45.6 percent did not receive prenatal care or delayed receiving prenatal care until after the first trimester.

In 2007, 67.0 percent of Tulsa County birth mothers received prenatal care during the first trimester compared to 76.3 percent of Oklahoma birth mothers. In 2006, the most recent data available, 83.2 percent of U.S. birth mothers received prenatal care in the first trimester. Tulsa County, Oklahoma, and the nation all fell short of the Healthy People 2010 first trimester prenatal care goal of 90 percent.

Percentage of Births with No First Trimester Care by Race/Ethnicity of Mother
Tulsa County | 2005 – 2007



Percentage of Births with First Trimester Prenatal Care by Region | 2007



Data Source:

Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

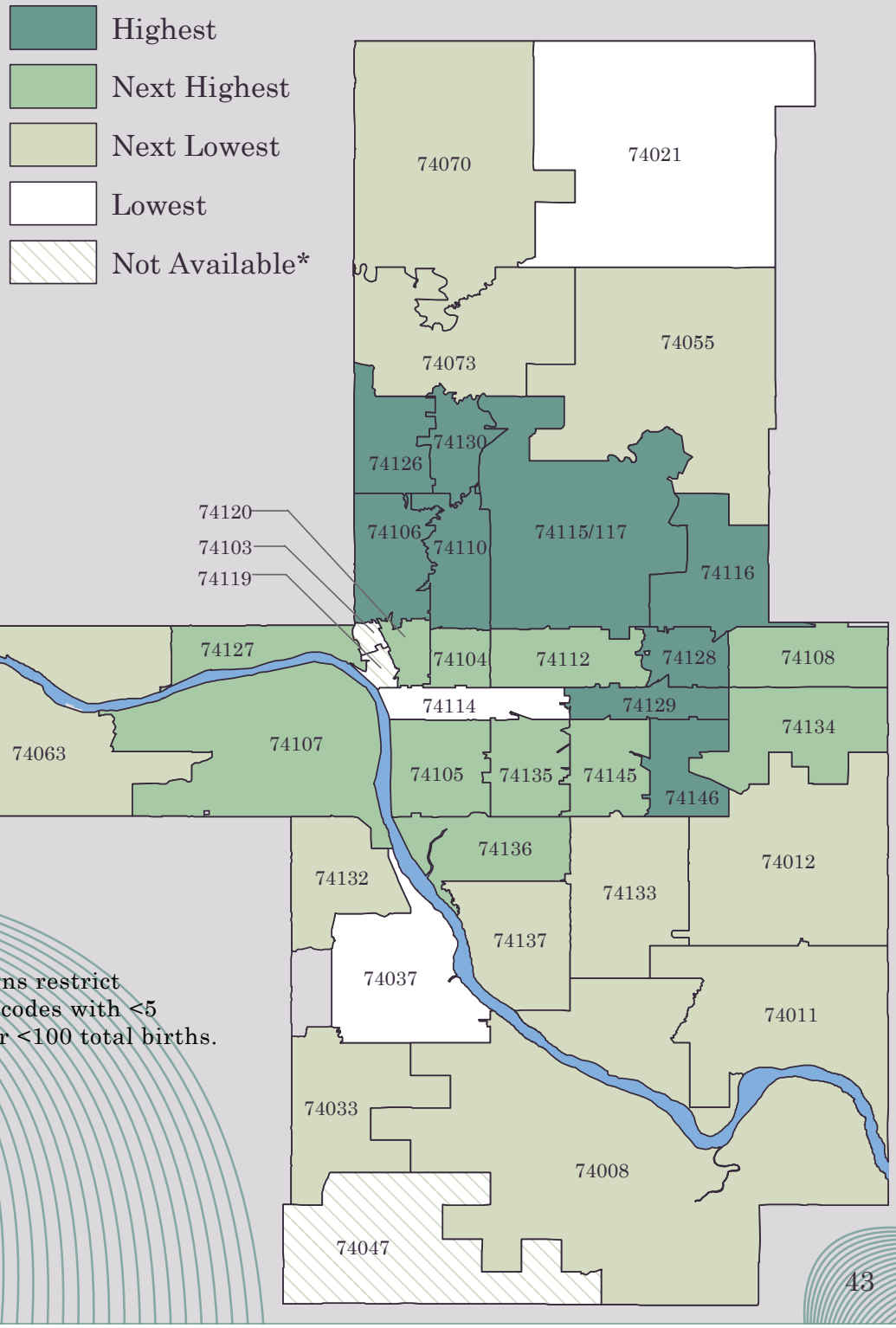
Martin JA, Hamilton BE, Sutton PD, Ventura SJ, et al. Births: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 7. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

LATE OR NO PRENATAL CARE

2005 – 2007

ZIP Code	Number of Births with No First Trimester Care	Percent of All Births
74110	510	46.4%
74116	132	44.4%
74146	450	44.3%
74126	276	43.9%
74106	466	43.4%
74130	51	41.8%
74115/117	567	40.9%
74128	265	39.4%
74129	419	38.3%
74107	383	36.0%
74145	272	36.0%
74136	486	35.0%
74134	310	33.9%
74112	348	33.7%
74120	74	32.6%
74127	227	32.4%
74135	284	32.2%
74108	117	31.7%
74104	173	30.9%
74105	384	30.7%
74070	35	25.4%
74063	227	24.3%
74073	31	24.0%
74033	105	23.5%
74133	405	23.0%
74008	183	22.5%
74132	45	22.4%
74137	138	21.7%
74012	503	20.8%
74011	173	20.6%
74055	235	20.3%
74114	109	17.3%
74021	92	16.3%
74037	114	15.5%
74047		
74103		
74119		



*Confidentiality concerns restrict releasing data for zip codes with <5 indicator births and/or <100 total births.

TOBACCO USE DURING PREGNANCY

Maternal smoking is defined simply as tobacco use during pregnancy, regardless of how much was used or during what trimester(s). This information was obtained from birth certificates. Tobacco use during pregnancy is expressed as a percentage of all Tulsa County resident births averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Prenatal tobacco use has been linked to pregnancy complications and poor birth outcomes, including low birth weight and preterm delivery, stillbirth, SIDS, and respiratory problems in newborns. These conditions contribute greatly to the human and economic cost of health care for infants.

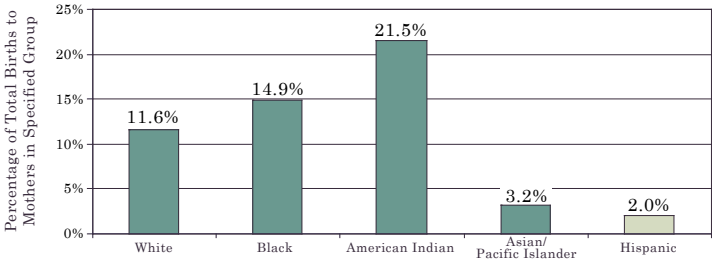
How Are We Doing?

From 2005 to 2007, there were 3,626 births to mothers who reported smoking during pregnancy, which is equivalent to almost 13 percent of all births. Tulsa County American Indian mothers had the highest rate of tobacco use during pregnancy at 21.5 percent. White and Black mothers had lower rates (11.6 and 14.9 percent, respectively). The prenatal smoking rate was low among births to Hispanic women (2.0 percent).

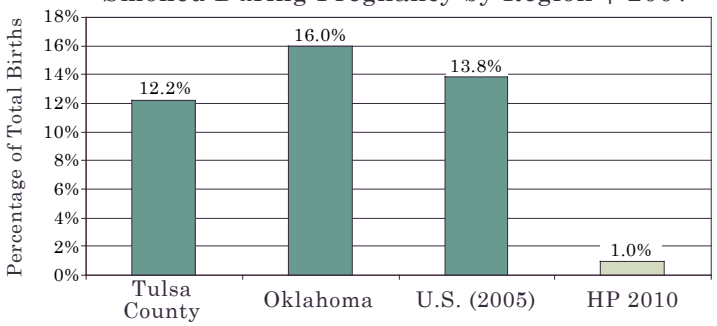
In 2007, 12.2 percent of Tulsa County births were to mothers that smoked during pregnancy. This was similar to the nation's prenatal smoking rate of 13.8 percent. Smoking during pregnancy was more prevalent in the state of Oklahoma (16.0 percent). The Healthy People 2010 national goal is for 99 percent of women to abstain from cigarette smoking during pregnancy (or to reduce the percentage of women who smoke during pregnancy to 1 percent).

Zip codes in southern Tulsa and the Owasso area (74055) reported the lowest rates of tobacco use during pregnancy.

Percentage of Births to Mothers Who Smoked During Pregnancy by Race/Ethnicity of Mother | Tulsa County | 2005 – 2007



Percentage of Births to Mothers Who Smoked During Pregnancy by Region | 2007



Data Source:

Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

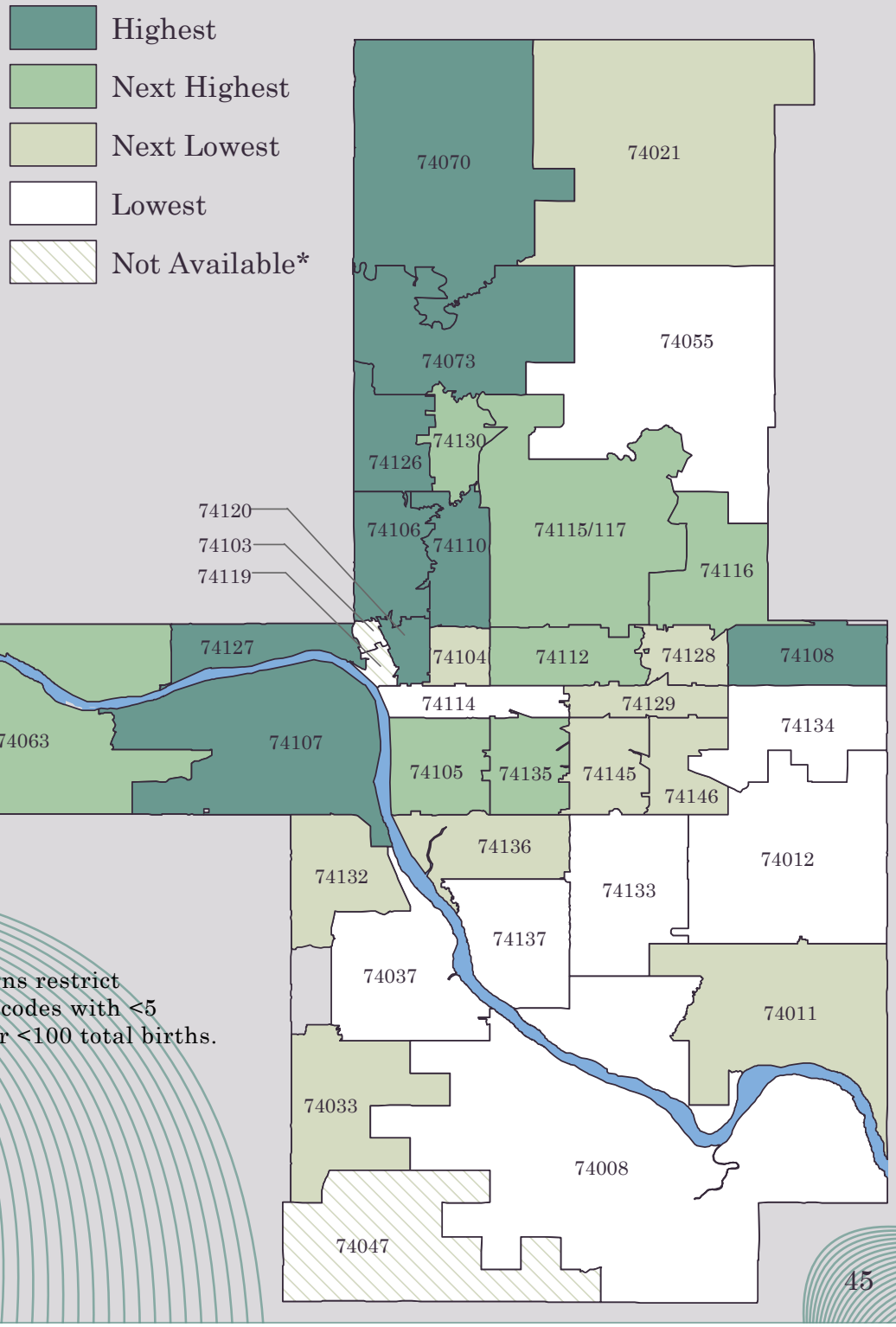
Centers for Disease Control and Prevention. Trends in Smoking Before, During and After Pregnancy — Pregnancy Risk Assessment Moitoring System (PRAMS), United States, 31 Sites, 2000 – 2005. Surveillance Summaries, May 29, 2009. MMWR 2009;58(S S04);1 – 29.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

TOBACCO USE DURING PREGNANCY

Percentage of Mothers Who Smoked During Pregnancy | 2005 – 2007

ZIP Code	Number of Mothers Who Smoked	Percent of All Births
74107	270	25.4%
74073	30	23.3%
74127	163	23.3%
74108	83	22.5%
74110	233	21.2%
74106	225	21.0%
74070	28	20.3%
74120	45	19.8%
74126	120	19.1%
74130	22	18.0%
74115/117	235	17.0%
74116	48	16.2%
74063	147	15.7%
74112	158	15.3%
74105	178	14.2%
74135	124	14.0%
74104	71	12.7%
74136	174	12.5%
74128	83	12.3%
74129	132	12.1%
74033	53	11.9%
74021	63	11.2%
74146	101	10.0%
74011	78	9.3%
74145	68	9.0%
74132	18	9.0%
74008	62	7.6%
74055	79	6.8%
74012	163	6.7%
74114	42	6.7%
74134	52	5.7%
74133	84	4.8%
74137	30	4.7%
74037	34	4.6%
74047		
74103		
74119		



*Confidentiality concerns restrict releasing data for zip codes with <5 indicator births and/or <100 total births.

PREMATURE BIRTHS

This indicator is defined as births that occur before the 37th week of pregnancy. It is presented as a percentage of all births to Tulsa County mothers, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Premature (preterm) birth is a leading cause of infant mortality, especially in the first month, and is a predictor for increased risk of illness and disability in all stages of life. Nationally, the preterm birth rate has increased since 1990. However, there was a slight decline from 2006 to 2007. Although the causes of preterm delivery are complex, risk factors include maternal age, marital status, smoking, and obesity.

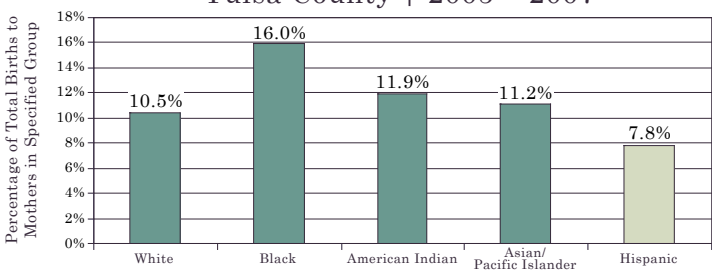
How Are We Doing?

Approximately 1 of every 9 infants (11.4 percent) born to Tulsa County mothers during the years 2005 – 2007 were premature. The highest percentage occurred among Black mothers (16.0 percent). The percentage among White mothers was 10.5 percent and among American Indian mothers was 11.9 percent. Among Hispanic mothers, 7.8 percent of births were premature.

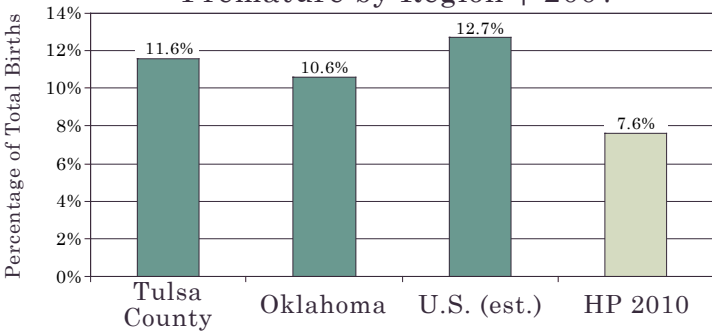
In 2007, 11.6 percent of births to Tulsa County mothers were premature, compared with 10.6 for Oklahoma and 12.7 percent for the nation. Healthy People 2010 set a national target goal for premature births at 7.6 percent.

The zip codes with the highest percentages of premature births were in 74126, 74106, 74073 and 74107.

Percentage of Births That Were Premature by Race/Ethnicity of Mother
Tulsa County | 2005 – 2007



Percentage of Births That Were Premature by Region | 2007



Data Source:

Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

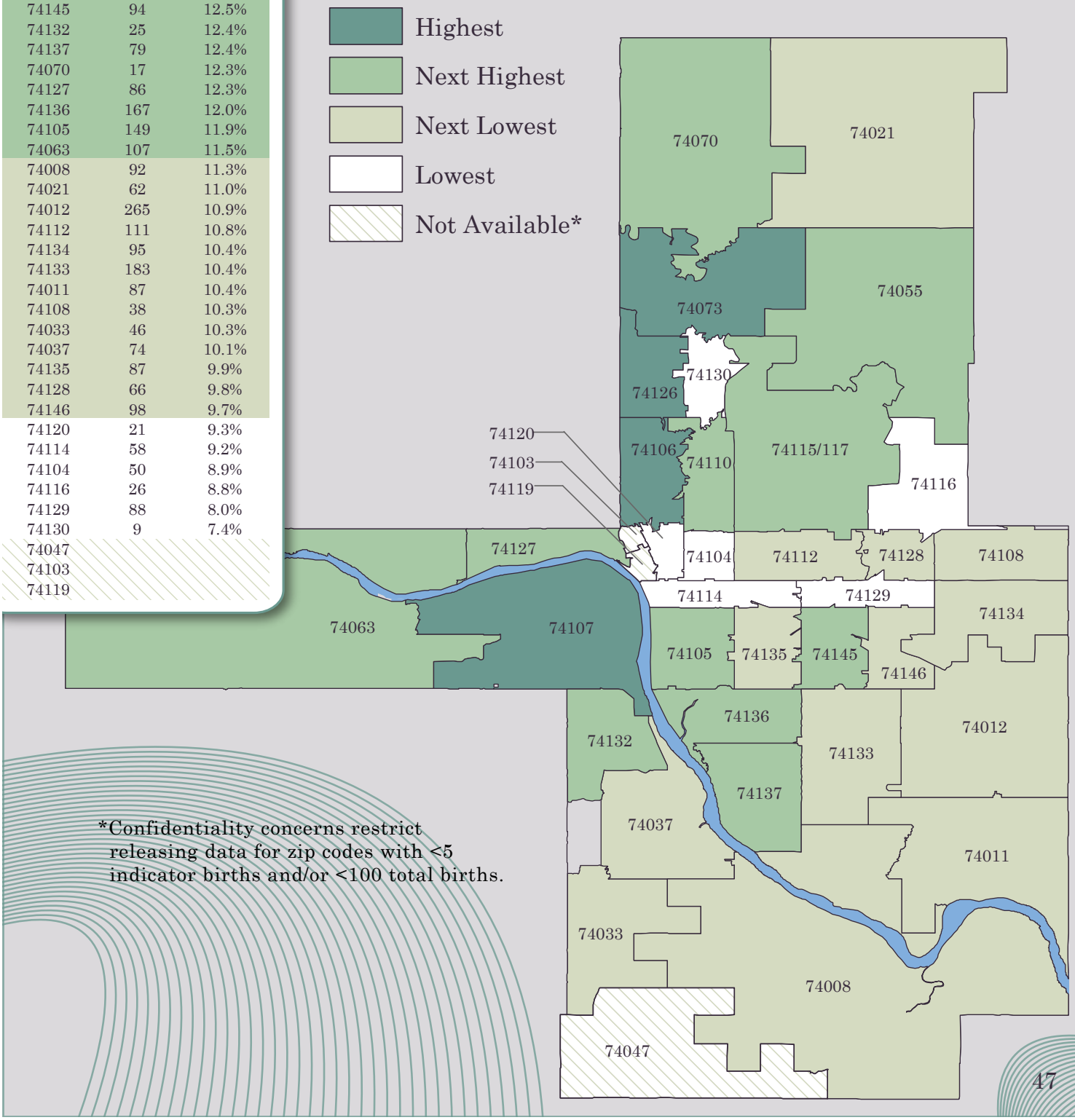
Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary Data for 2007. National Vital Statistics Reports, Web Release; Vol 57 No 12. Hyattsville, MD: National Center for Health Statistics. Released March 18, 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

PREMATURE BIRTHS

2005 – 2007

ZIP Code	Number of Preterm Births	Percent of All Births
74126	108	17.2%
74106	155	14.4%
74073	18	14.0%
74107	146	13.7%
74115/117	182	13.1%
74055	149	12.9%
74110	137	12.5%
74145	94	12.5%
74132	25	12.4%
74137	79	12.4%
74070	17	12.3%
74127	86	12.3%
74136	167	12.0%
74105	149	11.9%
74063	107	11.5%
74008	92	11.3%
74021	62	11.0%
74012	265	10.9%
74112	111	10.8%
74134	95	10.4%
74133	183	10.4%
74011	87	10.4%
74108	38	10.3%
74033	46	10.3%
74037	74	10.1%
74135	87	9.9%
74128	66	9.8%
74146	98	9.7%
74120	21	9.3%
74114	58	9.2%
74104	50	8.9%
74116	26	8.8%
74129	88	8.0%
74130	9	7.4%
74047		
74103		
74119		



*Confidentiality concerns restrict releasing data for zip codes with <5 indicator births and/or <100 total births.

LOW BIRTH WEIGHT

This indicator is defined as babies that weigh less than 2500 grams (5 pounds, 8 ounces) at birth. It is expressed as a percentage of all births to Tulsa County mothers averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Low birth weight is one of the leading causes of infant deaths and accounts for a disproportionate amount of the health care spending for newborns. Low birth weight infants are also at higher risk for developing long-term disabilities and behavioral problems.

How Are We Doing?

From 2005 to 2007, an average of 8.2 percent of Tulsa County infants were born weighing less than 5.5 pounds. The percentage of very low birth weight (less than 3.25 pounds) was 1.8 percent. Racial disparity was apparent, with Black mothers having twice the percentage of low birth weight infants as White mothers (14.8 percent and 7.1 percent, respectively). The percentage among Hispanic mothers was 6.1 percent.

The percentage of low weight births in 2007 was the same for Tulsa County, Oklahoma, and the United States (8.2 percent). However, this is higher than the Healthy People 2010 goal of 5 percent.

The two zip codes with the highest percentages of low birth weight infants, 74126 and 74106, have predominantly Black populations.

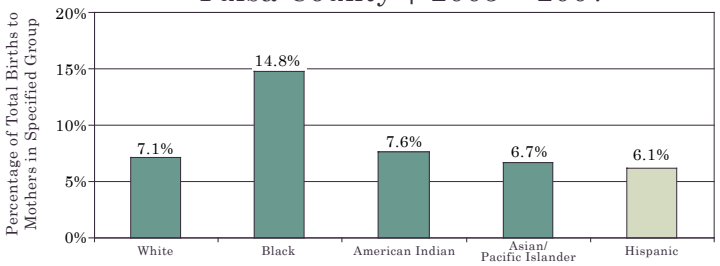
Data Source:

Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

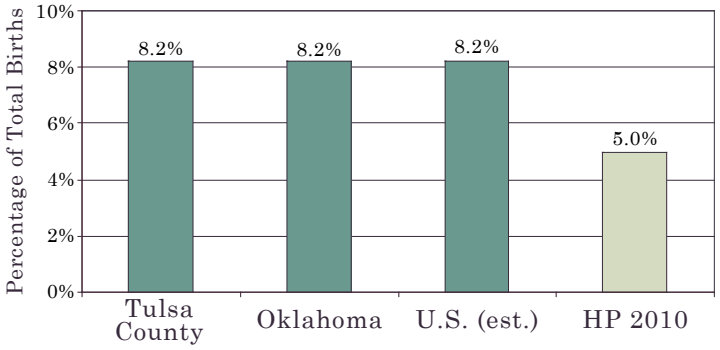
Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary Data for 2007. National Vital Statistics Reports, Web Release; Vol 57 No 12. Hyattsville, MD: National Center for Health Statistics. Released March 18, 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

Percentage of Births with Low Weight by Race/Ethnicity of Mother
Tulsa County | 2005 – 2007



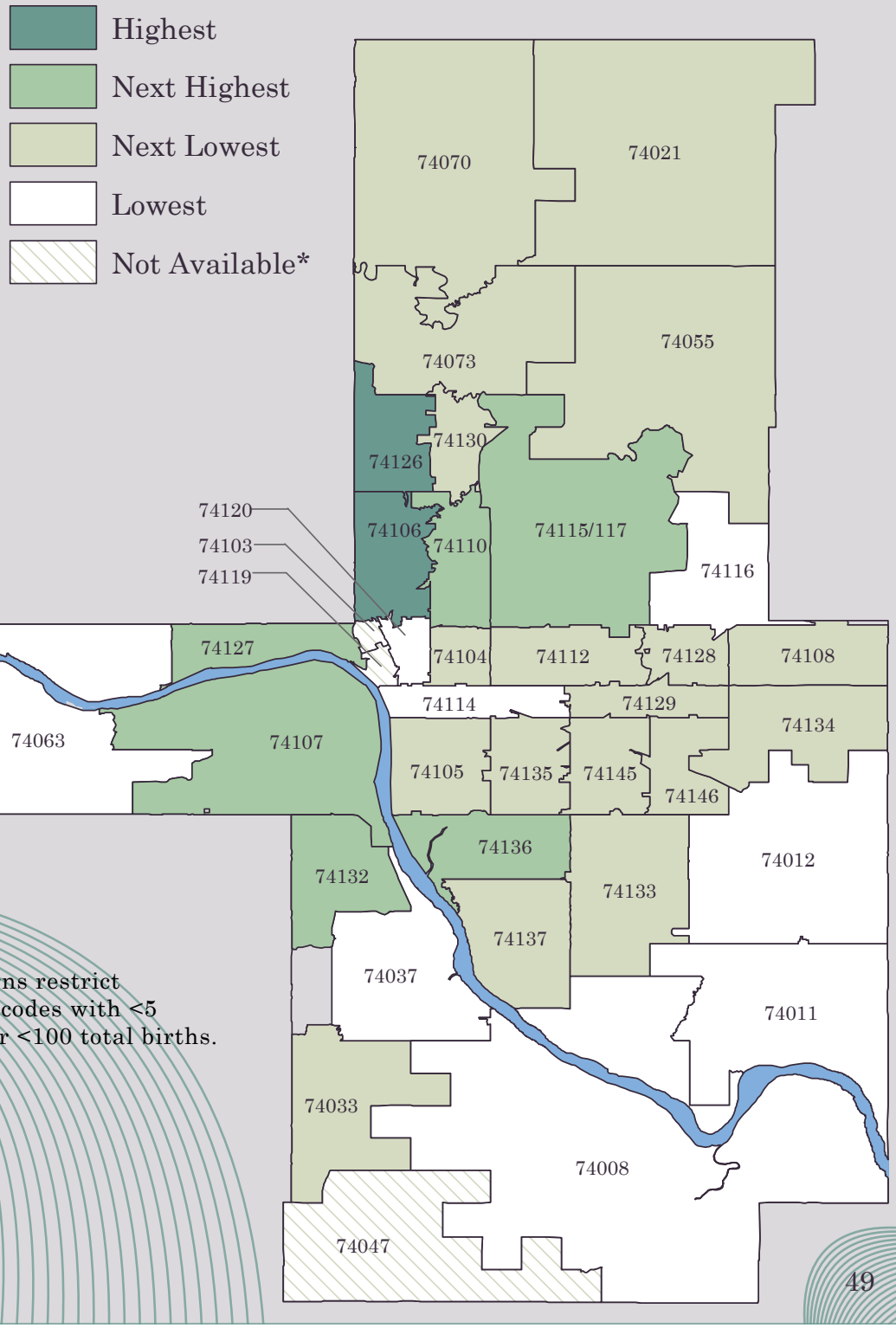
Percentage of Births with Low Weight by Region | 2007



LOW BIRTH WEIGHT

2005 – 2007

ZIP Code	Number of Low Weight Births	Percent of All Births
74126	91	14.5%
74106	144	13.4%
74127	80	11.4%
74107	112	10.5%
74110	113	10.3%
74115/117	135	9.7%
74132	19	9.5%
74136	131	9.4%
74105	109	8.7%
74073	11	8.5%
74135	75	8.5%
74134	75	8.2%
74108	29	7.9%
74055	89	7.7%
74128	50	7.4%
74033	33	7.4%
74130	9	7.4%
74104	41	7.3%
74146	74	7.3%
74112	75	7.3%
74070	10	7.2%
74137	46	7.2%
74129	79	7.2%
74021	40	7.1%
74133	124	7.0%
74145	53	7.0%
74063	63	6.7%
74116	20	6.7%
74011	56	6.7%
74012	159	6.6%
74008	53	6.5%
74120	14	6.2%
74037	45	6.1%
74114	37	5.9%
74047		
74103		
74119		



*Confidentiality concerns restrict releasing data for zip codes with <5 indicator births and/or <100 total births.

MATERNAL EDUCATION

This indicator is presented as births to Tulsa County mothers with less than a 12th grade education as a percentage of all births, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Birth mothers without a 12th grade education are less likely to receive early and adequate prenatal care and are at higher risk for poor pregnancy outcomes, including premature births, low birth weight infants and infant deaths.

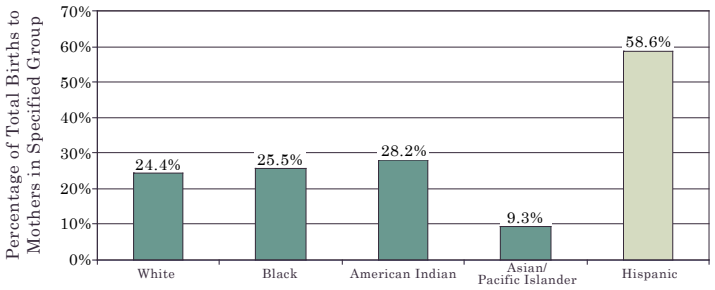
How Are We Doing?

From 2005 – 2007, the average percentage of birth mothers in Tulsa County with less than a 12th grade education was 24.4 percent. Twenty-eight percent of American Indian mothers had less than a high school education. Approximately 60 percent of Hispanic birth mothers did not have a 12th grade education.

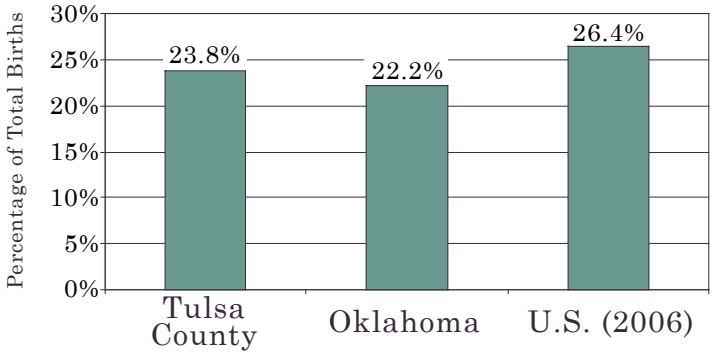
In 2007, 23.8 percent of Tulsa County birth mothers had less than a 12th grade education, compared to 22.2 percent in Oklahoma. In 2006, the most recent year for which data are available, the national percentage was 26.4.

The zip codes with the highest percentage of birth mothers with less than a 12th grade education included: 74110, 74116, 74128, 74115/117 and 74146.

Percentage of Birth Mothers with <12th Grade Education by Race/Ethnicity of Mother
Tulsa County | 2005 – 2007



Percentage of Birth Mothers with <12th Grade Education by Region | 2007



Data Source:

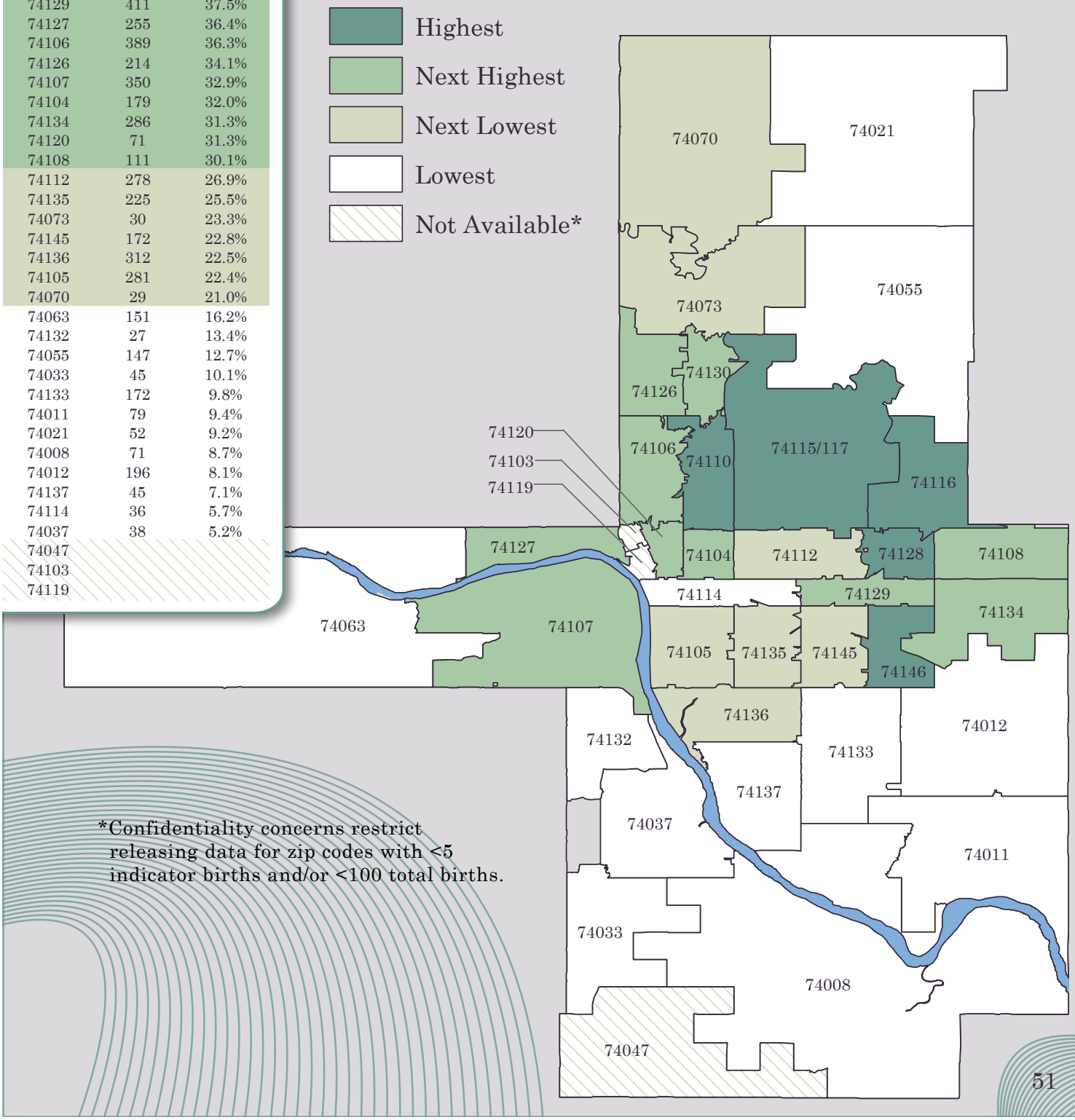
Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

Martin JA, Hamilton BE, Sutton PD, Ventura SJ, et al. Births: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 7. Hyattsville, MD: National Center for Health Statistics. 2009.

MATERNAL EDUCATION

Percentage of Mothers with Less Than a Twelfth Grade Education | 2005 - 2007

ZIP Code	Number of Mothers with <High School Education	Percent of All Births
74110	596	54.3%
74116	156	52.5%
74128	309	45.9%
74115/117	632	45.6%
74146	428	42.2%
74130	47	38.5%
74129	411	37.5%
74127	255	36.4%
74106	389	36.3%
74126	214	34.1%
74107	350	32.9%
74104	179	32.0%
74134	286	31.3%
74120	71	31.3%
74108	111	30.1%
74112	278	26.9%
74135	225	25.5%
74073	30	23.3%
74145	172	22.8%
74136	312	22.5%
74105	281	22.4%
74070	29	21.0%
74063	151	16.2%
74132	27	13.4%
74055	147	12.7%
74033	45	10.1%
74133	172	9.8%
74011	79	9.4%
74021	52	9.2%
74008	71	8.7%
74012	196	8.1%
74137	45	7.1%
74114	36	5.7%
74037	38	5.2%
74047		
74103		
74119		



*Confidentiality concerns restrict releasing data for zip codes with <5 indicator births and/or <100 total births.

BIRTHS TO UNMARRIED WOMEN

Unmarried birth mothers include those who have never been married, are widowed, or are divorced. This indicator is presented as births to unmarried Tulsa County mothers, expressed as a percentage of all births averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Single mothers are more likely than married mothers to face hardships such as poverty. Their children have higher rates of infant mortality and other negative birth outcomes and are at increased risk of being physically and educationally disadvantaged.

How Are We Doing?

An average of 41.7 percent of births in Tulsa County were to unmarried mothers during the years 2005 – 2007. Births to unmarried women were highest among Black mothers at 77.4 percent, compared to 34.6 percent of White mothers and 54.6 percent of American Indian mothers. Forty-six percent of Hispanic births were to unmarried women.

Following the national trend, Tulsa County has experienced a steady increase in the percentage of births to unmarried mothers, with the proportion of all births to unmarried women at 42.5 percent in 2007. The estimated national percentage for 2007 was 39.7 percent.

The zip codes with the highest percentage of total births to unmarried women included: 74106, 74126, 74116, 74110 and 74127.

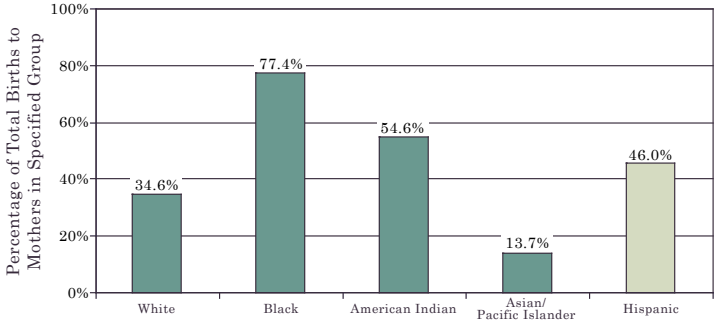
Data Source:

Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

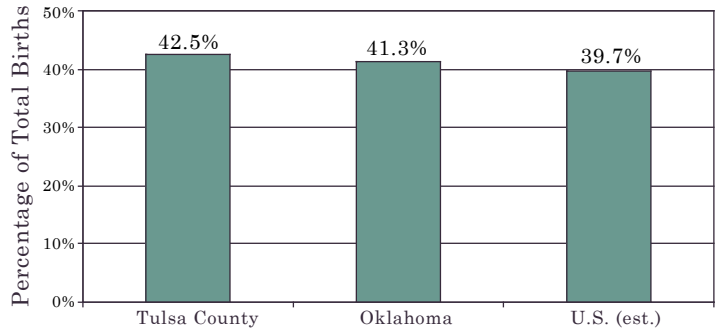
Martin JA, Hamilton BE, Sutton PD, Ventura SJ, et al. Births: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 7. Hyattsville, MD: National Center for Health Statistics. 2009.

Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary Data for 2007. National Vital Statistics Reports, Web Release; Vol 57 No 12. Hyattsville, MD: National Center for Health Statistics. Released March 18, 2009.

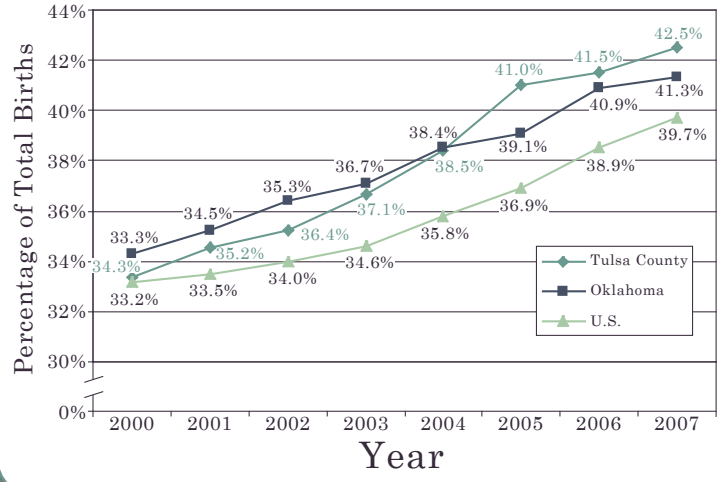
Percentage of Births to Unmarried Mothers by Race/Ethnicity of Mother | Tulsa County | 2005 – 2007



Percentage of Total Births to Unmarried Mothers by Region | 2007



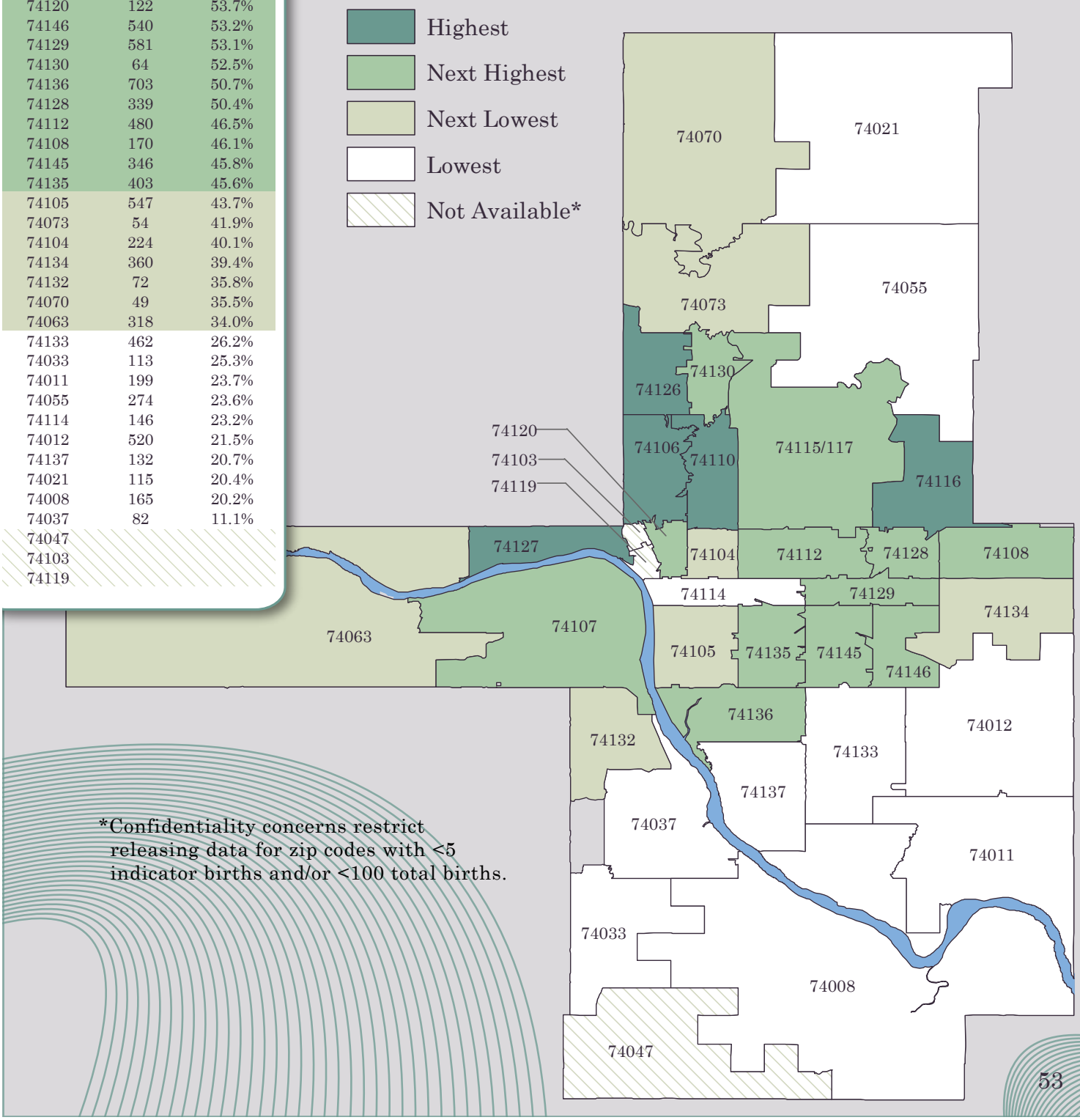
Percentage of Total Births to Unmarried Women by Region | 2007



BIRTHS TO UNMARRIED WOMEN

Percentage of Births to Unmarried Women | 2005 – 2007

ZIP Code	Number of Unmarried Birth Mothers	Percent of All Births
74106	869	81.0%
74126	478	76.1%
74116	201	67.7%
74110	673	61.3%
74127	427	60.9%
74115/117	804	58.1%
74107	604	56.8%
74120	122	53.7%
74146	540	53.2%
74129	581	53.1%
74130	64	52.5%
74136	703	50.7%
74128	339	50.4%
74112	480	46.5%
74108	170	46.1%
74145	346	45.8%
74135	403	45.6%
74105	547	43.7%
74073	54	41.9%
74104	224	40.1%
74134	360	39.4%
74132	72	35.8%
74070	49	35.5%
74063	318	34.0%
74133	462	26.2%
74033	113	25.3%
74011	199	23.7%
74055	274	23.6%
74114	146	23.2%
74012	520	21.5%
74137	132	20.7%
74021	115	20.4%
74008	165	20.2%
74037	82	11.1%
74047		
74103		
74119		



*Confidentiality concerns restrict releasing data for zip codes with <5 indicator births and/or <100 total births.

INFANT MORTALITY RATE

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, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Infant mortality is a critical measure of the health status of a community, reflecting the quality and accessibility of health care for infants and birth mothers. Risk factors for infant death include prematurity and low birth weight, factors that are related to maternal prenatal care.

How Are We Doing?

During the years 2005 – 2007, 253 Tulsa County infants died before the age of 1, an average rate of 8.8 deaths per 1,000 live births. Racial disparity was evident, with the Black infant mortality rate (18.5) more than twice that of other races. The Hispanic infant mortality rate was 5.8 deaths per 1,000 live births. There were only four infant deaths among Asian births so this rate was not calculated due to reliability concerns.

The infant mortality rate for Tulsa County fluctuated from 2000 – 2007. The infant mortality rate for Tulsa County (9.4) in 2007 was higher than both the state (8.4) and nation (6.8). The Healthy People 2010 goal for infant mortality rate is 4.5 deaths per 1,000 live births.

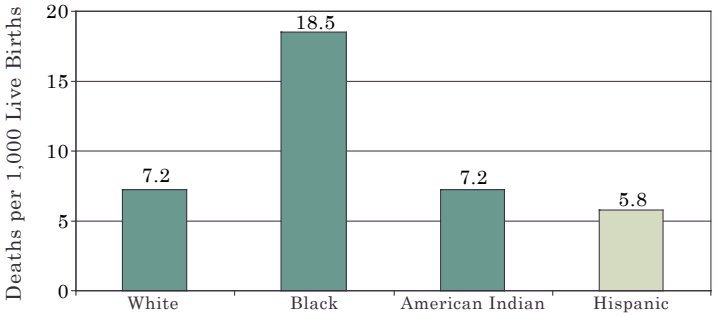
Data Source:

Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

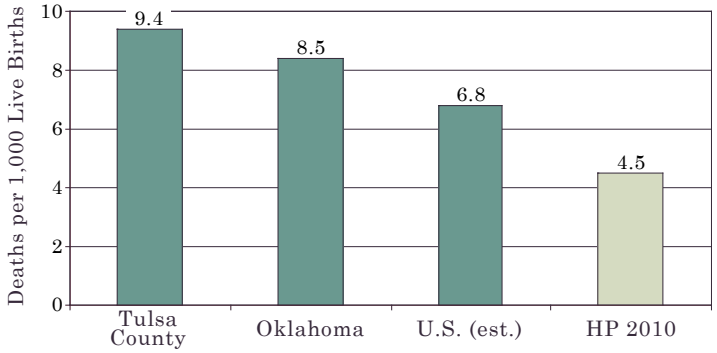
Xu J, Kochanek KD, Tejada-Vera B. Deaths: Preliminary Data for 2007. National Vital Statistics Reports; Vol 58 No 1. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

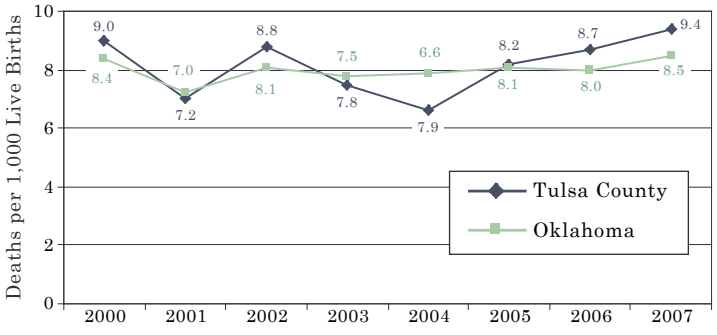
Infant Mortality Rates by Race/Ethnicity of Mother | Tulsa County | 2005 – 2007



Infant Mortality Rate by Region | 2007



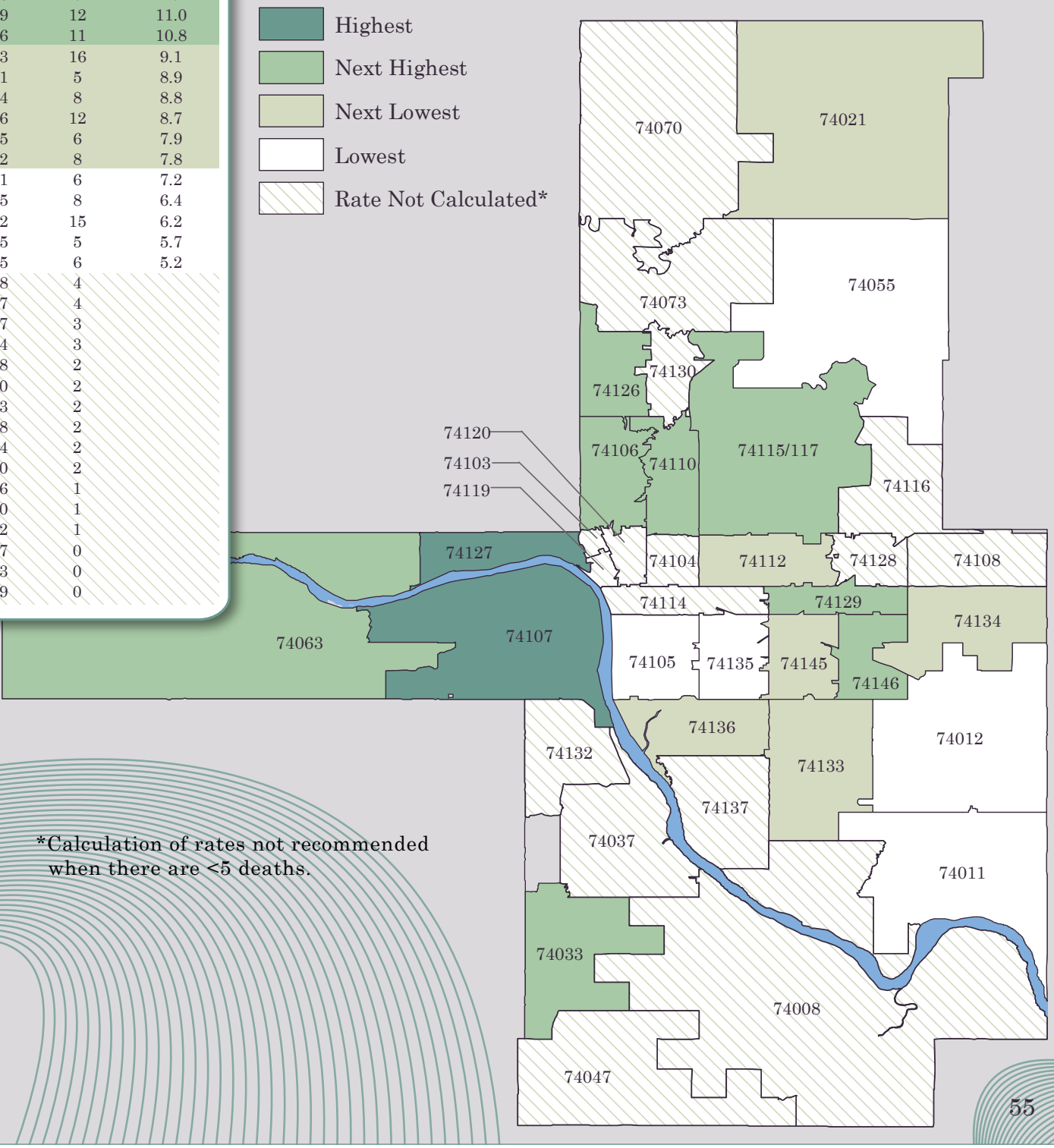
Change in Infant Mortality Rate Over Time by Region | 2000 – 2007



INFANT MORTALITY RATE

2005 – 2007

ZIP Code	Number of Infant Deaths	Infant Mortality Rate
74127	13	18.5
74107	19	17.9
74106	15	14.0
74063	12	12.8
74115/117	17	12.3
74110	13	11.8
74033	5	11.2
74126	7	11.1
74129	12	11.0
74146	11	10.8
74133	16	9.1
74021	5	8.9
74134	8	8.8
74136	12	8.7
74145	6	7.9
74112	8	7.8
74011	6	7.2
74105	8	6.4
74012	15	6.2
74135	5	5.7
74055	6	5.2
74128	4	
74137	4	
74037	3	
74104	3	
74008	2	
74070	2	
74073	2	
74108	2	
74114	2	
74120	2	
74116	1	
74130	1	
74132	1	
74047	0	
74103	0	
74119	0	



*Calculation of rates not recommended when there are <5 deaths.

FERTILITY RATE

The fertility rate is presented as the number of live births to women aged 15 – 44 years per 1,000 females aged 15 – 44 years, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

The fertility rate, which is calculated using only females of childbearing age, is a more sensitive indicator than the crude birth rate because it shows how the population may be growing naturally through reproduction.

How Are We Doing?

The average fertility rate for Tulsa County for the years 2005 – 2007 was 81.7 live births per 1,000 females aged 15 – 44 years. Hispanics had the highest fertility rate (151.5).

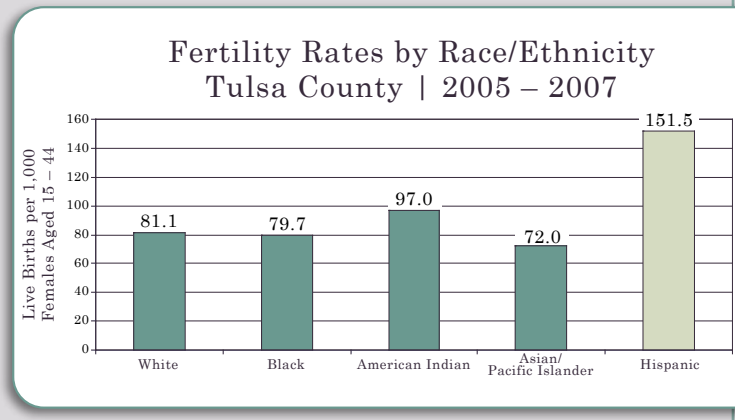
From 2000 – 2007, Tulsa County's fertility rate has increased from 74.3 to 83.1 and Oklahoma's has increased from 67.5 to 75.6. Both are higher than the national rate, which has gone from 65.9 in 2000 to 69.5 in 2007.

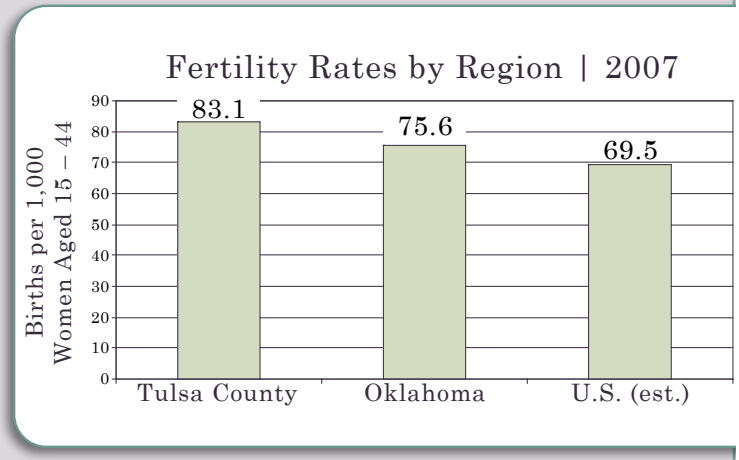
Data Source:

Vital Statistics (2005 – 2007), Health Care Information Division, Oklahoma State Department of Health.

Hamilton BE, Sutton PD, Ventura SJ. Revised Birth and Fertility Rates for the 1990s and New Rates For Hispanic Populations, 2000 and 2001: United States. National Vital Statistics Reports; Vol 51 No 12. Hyattsville, Maryland: National Center for Health Statistics. 2003.

Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary Data for 2007. National Vital Statistics Reports, Web Release; Vol 57 No 12. Hyattsville, MD: National Center for Health Statistics. Released March 18, 2009.





INFECTIOUS DISEASE

GONORRHEA

Gonorrhea is a sexually transmitted disease (STD) caused by the organism Neisseria gonorrhoeae. This indicator is presented as the number of reported cases of gonorrhea per 100,000 population in 2007.

Why Is This Indicator Important?

Gonorrhea is the second most commonly reported STD in Tulsa County. Untreated gonorrhea can lead to severe and painful infections, and potentially infertility, in both men and women. A pregnant woman with gonorrhea risks possible blindness or life-threatening infections for her baby.

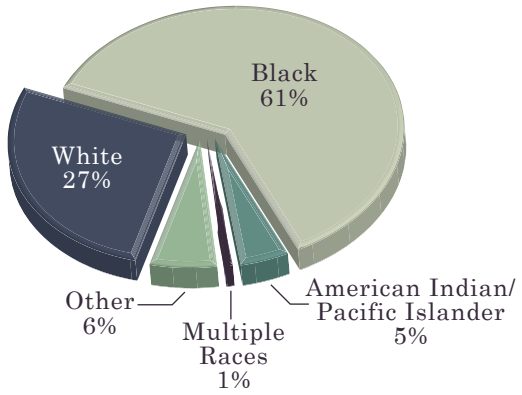
How Are We Doing?

In 2007, Tulsa County reported 1,081 gonorrhea cases, a rate of 192 cases per 100,000 population. A majority of cases were female (55.5 percent). Among these cases, 61 percent reported their race as Black and 27 percent as White. Seventy-nine percent of gonorrhea cases were to individuals between the ages of 15 and 29.

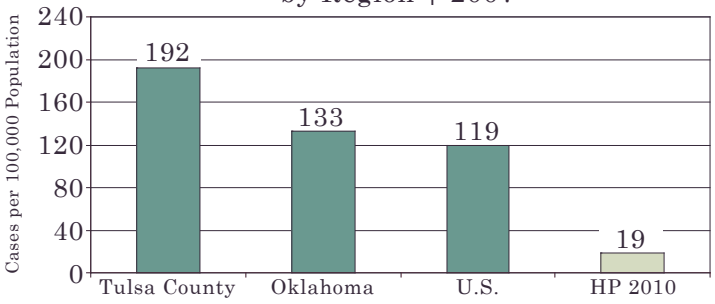
In 2007, Oklahoma's gonorrhea case rate (133 cases per 100,000 population) was lower than Tulsa County's case rate, but higher than the national rate (119 cases per 100,000 population). These rates are all higher than the Healthy People 2010 goal of 19 cases per 100,000 population.

The gonorrhea case rate was highest in zip codes 74126 and 74106. 'NA' was used to identify zip codes where data was not available. Furthermore, rates were not calculated when there were less than 10 gonorrhea cases in a zip code.

Gonorrhea Cases by Race
Tulsa County | 2007



Gonorrhea Cases per 100,000 Population
by Region | 2007



Data Source:

HIV/STD Service. Oklahoma State Department of Health.

Gonorrhea Fact Sheet 2008. Oklahoma State Department of Health. Retrieved from: http://www.ok.gov/health/documents/HIV-GonorrheaFactSheet%2011-2008.pdf.

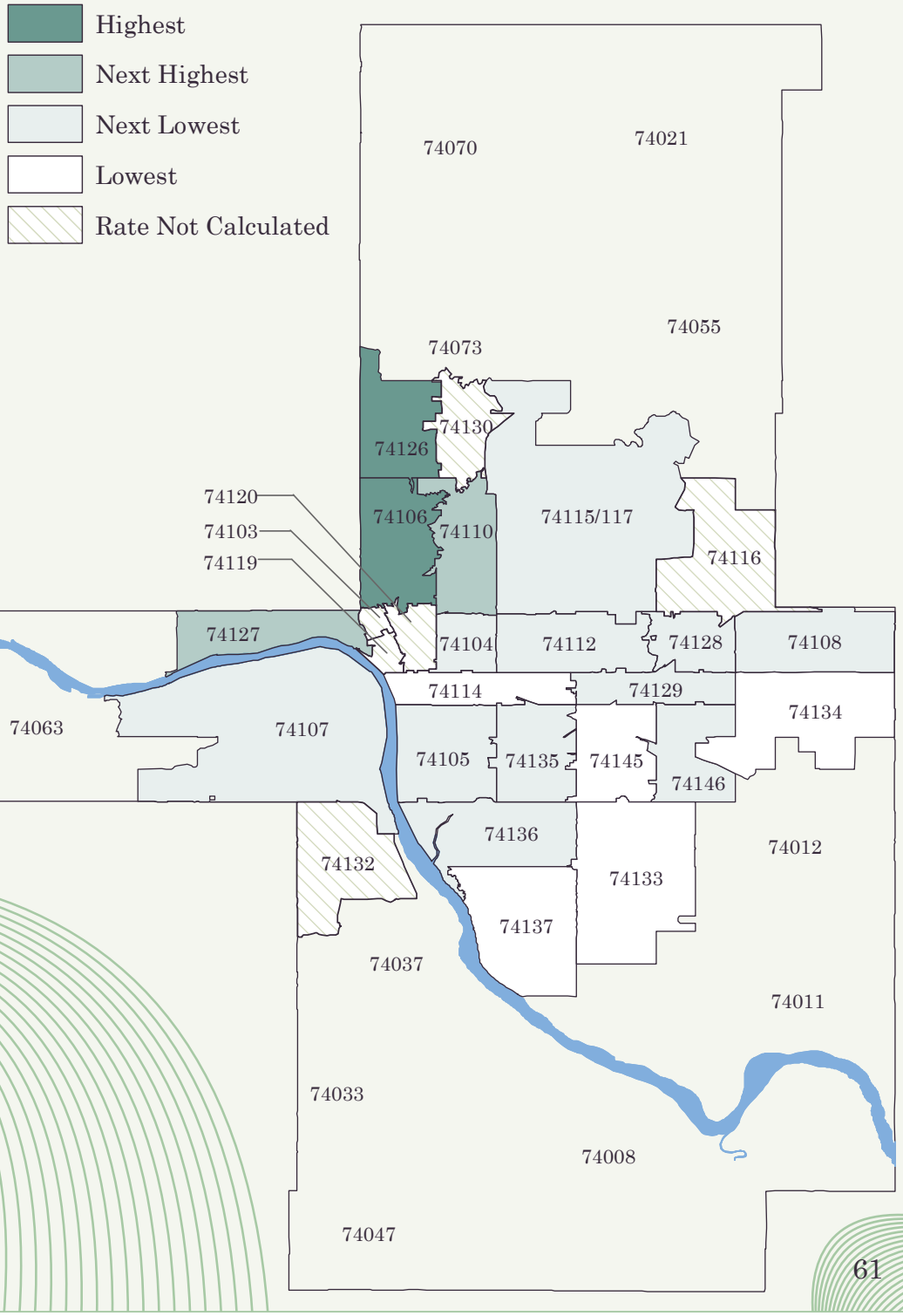
Trends in Reportable Sexually Transmitted Diseases in the United States, 2007 National Surveillance Data for Chlamydia, Gonorrhea, and Syphilis. Centers for Disease Control. Retrieved from: http://www.cdc.gov/std/stats07/trends.pdf.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

GONORRHEA

Cases per 100,000 Population
2007

ZIP Code	Number of Gonorrhea Cases	Gonorrhea Case Rate
74126	95	1,257.3
74106	142	844.9
74110	75	512.5
74127	46	448.6
74115	76	328.2
74146	43	305.7
74136	81	270.1
74107	49	258.6
74129	37	211.8
74112	42	211.1
74128	25	210.6
74108	11	178.8
74135	35	176.3
74104	23	175.4
74105	45	169.7
74134	20	150.4
74145	17	104.8
74133	40	92.3
74114	10	65.6
74137	15	57.3
74103	<10	
74116	<10	
74119	<10	
74120	<10	
74130	<10	
74132	<10	
74008	NA	
74011	NA	
74012	NA	
74021	NA	
74033	NA	
74037	NA	
74047	NA	
74055	NA	
74063	NA	
74070	NA	
74073	NA	



CHLAMYDIA

Chlamydia is a sexually transmitted disease (STD) caused by the bacterium Chlamydia trachomatis. This indicator is presented as the number of reported cases of Chlamydia per 100,000 population in 2007.

Why Is This Indicator Important?

Chlamydia is the most commonly reported STD in Tulsa County. It is known as a *silent* disease because most women and about half of men do not experience symptoms. If left untreated, however, Chlamydia can cause serious short and long-term reproductive and other health problems. Infants born to mothers infected with Chlamydia can develop eye and lung infections.

How Are We Doing?

In 2007, Tulsa County reported 2,519 Chlamydia cases, a rate of 447 cases per 100,000 population. A majority of cases were female (75.3 percent). Among these cases, 43 percent reported their race as Black and 38 percent as White. Ninety percent of Chlamydia cases were to individuals between the ages of 15 and 29.

In 2007, Oklahoma's Chlamydia case rate (346 cases per 100,000 population) was lower than Tulsa County's case rate (447 cases per 100,000 population) and the national rate (370 cases per 100,000 population).

The Chlamydia case rate was highest in zip codes 74126, 74116, 74106, 74127 and 74110. 'NA' was used to identify zip codes where data was not available. Furthermore, rates were not calculated when there were less than 10 Chlamydia cases in a zip code.

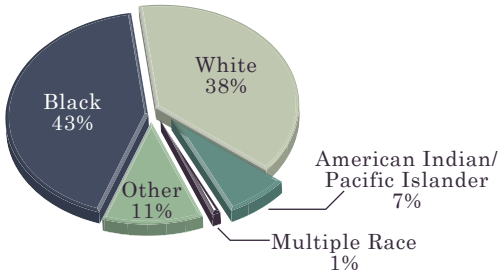
Data Source:

HIV/STD Service. Oklahoma State Department of Health.

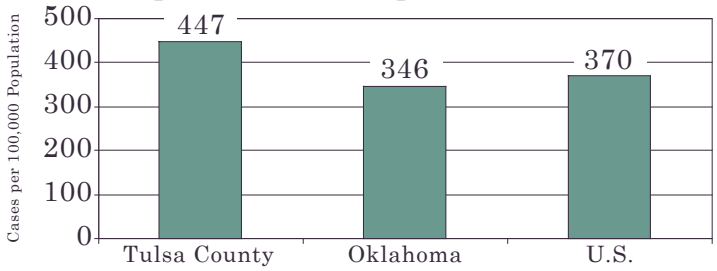
Gonorrhea Fact Sheet 2008. Oklahoma State Department of Health. Retrieved from: http://www.ok.gov/health/documents/HIV-GonorrheaFactSheet%2011-2008.pdf.

Trends in Reportable Sexually Transmitted Diseases in the United States, 2007 National Surveillance Data for Chlamydia, Gonorrhea, and Syphilis. Centers for Disease Control. Retrieved from: http://www.cdc.gov/std/stats07/trends.pdf.

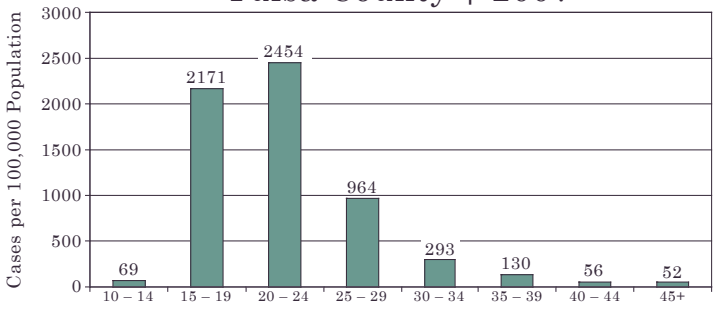
Chlamydia Cases by Race
Tulsa County | 2007



Reported Chlamydia Cases per 100,000 Population | 2007



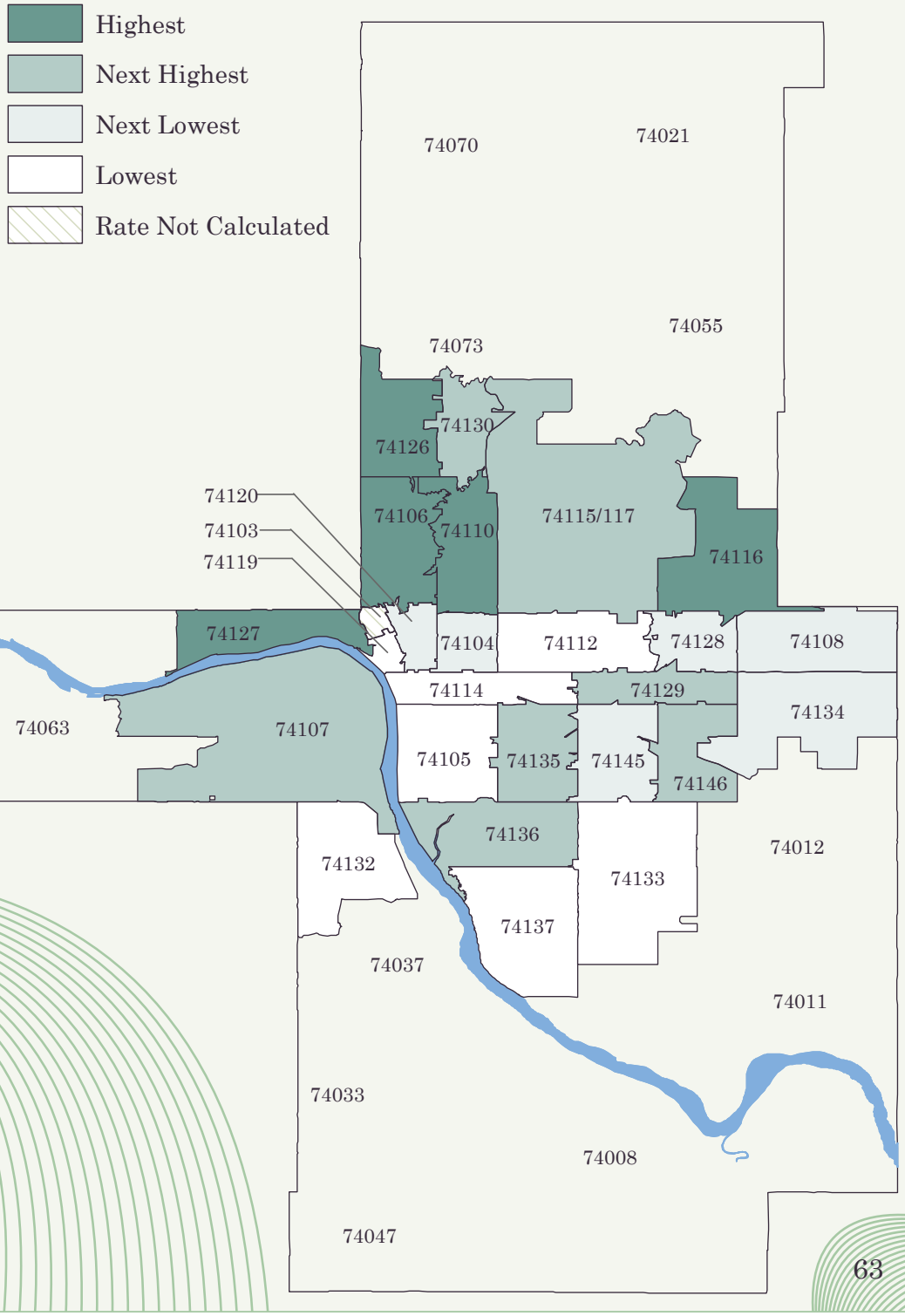
Chlamydia Case Rates by Age Group
Tulsa County | 2007



CHLAMYDIA

Cases per 100,000 Population
2007

ZIP Code	Number of Chlamydia Cases	Chlamydia Case Rate
74126	134	1,773.5
74116	43	1,709.3
74106	245	1,457.7
74127	108	1,053.1
74110	154	1,052.3
74115/117	161	695.3
74146	84	597.1
74107	111	585.9
74130	13	575.7
74129	96	549.5
74136	164	547.0
74135	108	544.0
74145	77	474.5
74128	56	471.7
74134	61	458.6
74104	60	457.6
74108	28	455.1
74120	18	364.9
74119	12	320.9
74112	63	316.7
74105	75	282.9
74114	43	282.1
74133	118	272.2
74132	11	240.7
74137	27	103.2
74103	<10	
74008	NA	
74011	NA	
74012	NA	
74021	NA	
74033	NA	
74037	NA	
74047	NA	
74055	NA	
74063	NA	
74070	NA	
74073	NA	



HIV/AIDS

The human immunodeficiency virus (HIV) is the virus that causes AIDS. AIDS, or acquired immune deficiency syndrome, refers to the most serious stage of HIV infection. This indicator is presented as the total number of newly reported HIV infections or AIDS cases among Tulsa County residents 2005 – 2007. Zip code specific rates were not mapped for HIV due to small numbers and confidentiality concerns.

Why Is This Indicator Important?

HIV progressively damages the immune system, lowering the body's ability to fight infections and certain cancers. It is spread through blood-to-blood and sexual contact. An estimated one-fourth of those infected with HIV are unaware they are infected. People infected with HIV may eventually get AIDS. Individuals with AIDS have low numbers of certain crucial immune cells, leaving them vulnerable to various cancers and life-threatening infections. Minority groups have been disproportionately affected by HIV/AIDS.

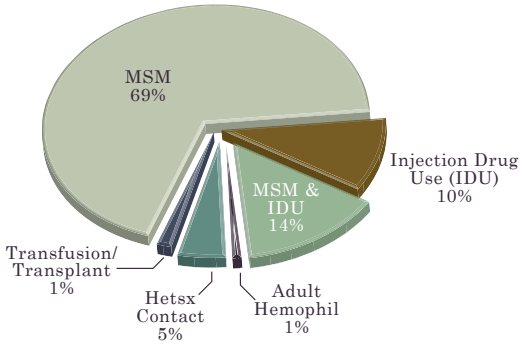
How Are We Doing?

During the years 2005 – 2007, there were 127 new reported cases of HIV, some of which likely developed into AIDS cases. In 2007, there were an estimated 601 persons living with HIV in Tulsa County, an HIV rate of 102.7 per 100,000 population.

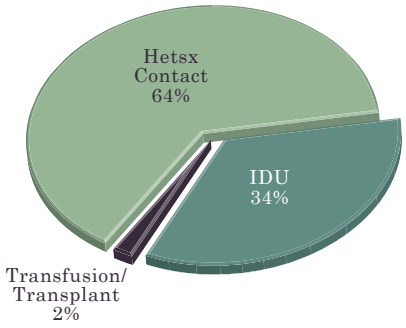
There were 172 new reported cases of AIDS in Tulsa County from 2005 – 2007. In 2007, there were an estimated 656 persons living with AIDS in Tulsa County, an AIDS rate of 112.1 per 100,000 population.

No HIV/AIDS data were available at the county level on racial, ethnic, gender or age differences in case rates. In 2007, 79 percent of HIV infections and 84 percent of AIDS cases in Oklahoma were male. Furthermore, 53 percent of HIV infections were Non-Hispanic White and 30 percent were Non-Hispanic Black. Unprotected sex was the primary means of transmission.

Transmission Categories of Living Adult HIV/AIDS Cases in Oklahoma by Sex as of December 31, 2007 | Males



Transmission Categories of Living Adult HIV/AIDS Cases in Oklahoma by Sex as of December 31, 2007 | Females



Data Source:

HIV/STD Service. Oklahoma State Department of Health.

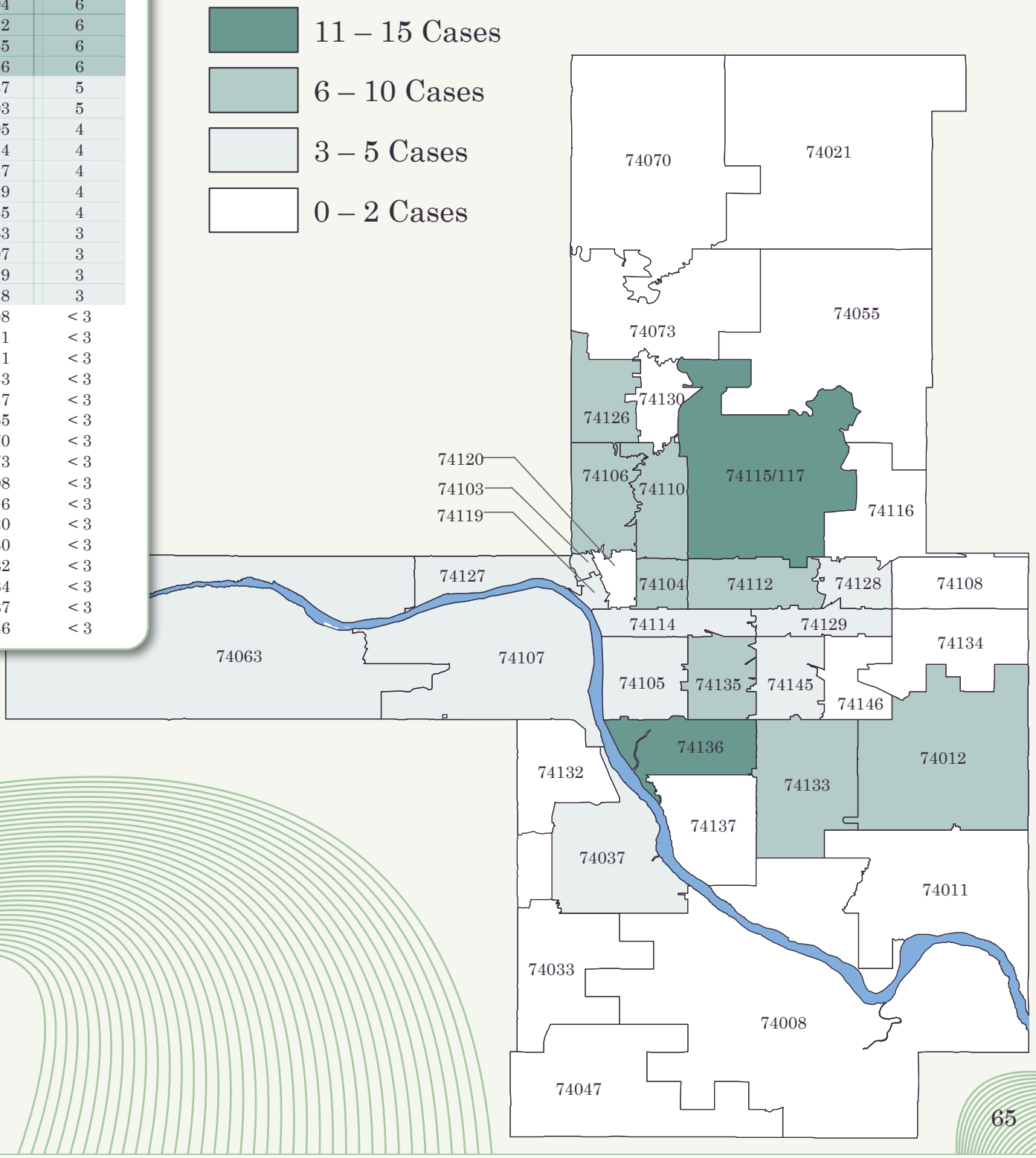
Estimated Numbers of Persons Living with HIV Infection (non-AIDS) and AIDS, per 100,000 Population by County of Residence, 2007, Oklahoma. Oklahoma State Department of Health. Retrieved: http://www.ok.gov/health/documents/HIV-HIV-AIDS%20County%202007.pdf.

Oklahoma HIV/AIDS Fact Sheet. HIV/STD Service. Oklahoma State Department of Health. Retrieved: http://www.ok.gov/health/documents/HIV-HIV-AIDS%20Fact%20Sheet%202007.pdf.

HIV/AIDS

New AIDS Cases 2005 – 2007

ZIP Code	Number of AIDS Cases
74115/117	15
74136	15
74110	9
74133	9
74106	9
74012	7
74104	6
74112	6
74135	6
74126	6
74037	5
74103	5
74105	4
74114	4
74127	4
74129	4
74145	4
74063	3
74107	3
74119	3
74128	3
74008	< 3
74011	< 3
74021	< 3
74033	< 3
74047	< 3
74055	< 3
74070	< 3
74073	< 3
74108	< 3
74116	< 3
74120	< 3
74130	< 3
74132	< 3
74134	< 3
74137	< 3
74146	< 3



TUBERCULOSIS

Tuberculosis (TB) is a disease caused by a bacterium called Mycobacterium tuberculosis. TB bacteria usually attack the lungs, but can attack any part of the body such as the kidney, spine and brain. This indicator is presented as the number of reported cases of TB per 100,000 population averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Tuberculosis is one of the world's deadliest diseases. Worldwide, over nine million individuals become sick with TB each year. If left untreated, a person with active TB will infect on average 10 to 15 people each year. Individuals with TB are also at risk of developing Multiple Drug Resistant (MDR) TB which is much harder to cure compared to regular TB.

How Are We Doing?

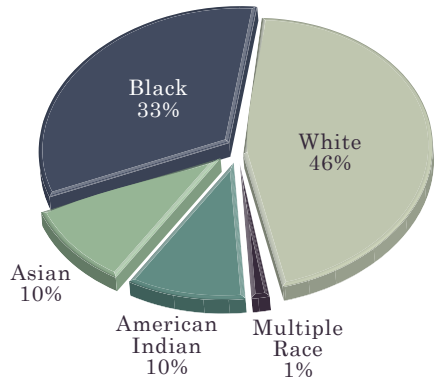
During the years 2005 – 2007, incidence was greatest among individuals with ages ranging from 25 – 64 years. A majority of tuberculosis cases were male (73 percent). The racial distribution over these three years was: 46 percent White, 33 percent Black, 10 percent Asian, 10 percent American Indian and 1 percent other.

The highest tuberculosis case rate was in zip code 74103.

Data Source:

Acute Disease Service. Oklahoma State Department of Health.

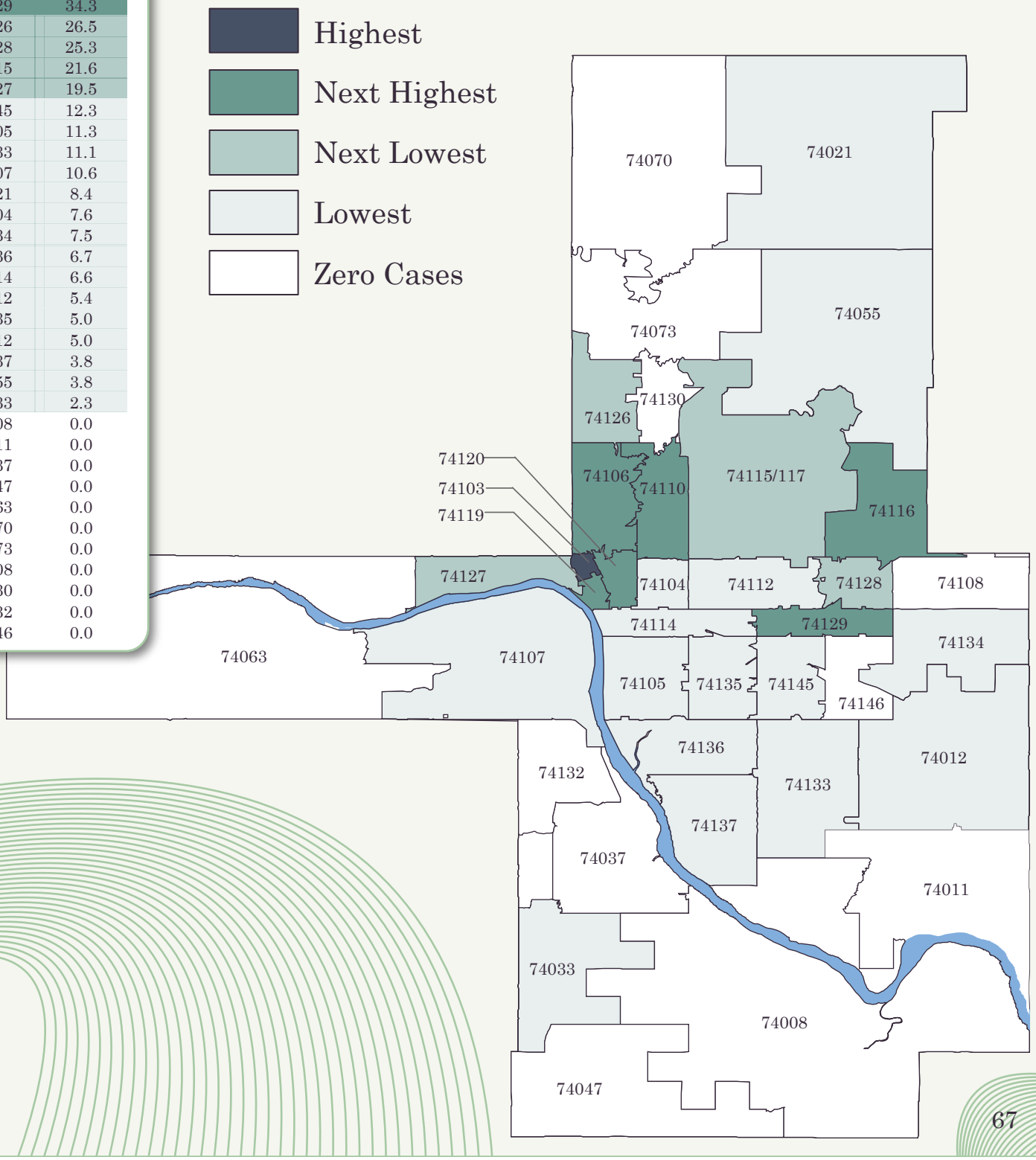
Tuberculosis Cases by Race
Tulsa County | 2005 – 2007



TUBERCULOSIS

Cases per 100,000 Population
2005 – 2007

ZIP Code	TB Case Rate
74103	212.9
74119	53.5
74110	47.8
74120	40.5
74116	39.8
74106	35.7
74129	34.3
74126	26.5
74128	25.3
74115	21.6
74127	19.5
74145	12.3
74105	11.3
74033	11.1
74107	10.6
74021	8.4
74104	7.6
74134	7.5
74136	6.7
74114	6.6
74012	5.4
74135	5.0
74112	5.0
74137	3.8
74055	3.8
74133	2.3
74008	0.0
74011	0.0
74037	0.0
74047	0.0
74063	0.0
74070	0.0
74073	0.0
74108	0.0
74130	0.0
74132	0.0
74146	0.0



FOODBORNE ILLNESS

This indicator includes reported cases of disease caused by the following bacteria—Campylobacter species, Escherichia coli O157:H7, Salmonella species and Listeria monocytogenes. It is presented as the sum of the reported foodborne illness cases per 100,000 population, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Campylobacteriosis and salmonellosis are the most frequently reported foodborne illnesses. Infections with E. coli O157:H7 and L. monocytogenes are less commonly diagnosed but usually cause more severe disease, especially in vulnerable populations, such as the elderly, young children and people with diseases that lower their ability to fight off other infections.

How Are We Doing?

Of the 379 key foodborne illnesses diagnosed in Tulsa County in 2005 – 2007, 58 percent were caused by Salmonellosis, 39 percent by Campylobacteriosis, 3 percent by E. coli O157:H7, and less than 1 percent by L. monocytogenes. Seventy percent of the cases reported their race as White, 6 percent as American Indian or Alaskan Native, 5 percent as Black and 2 percent as Asian. Seventeen percent of foodborne cases were classified as unknown race. Thirty-one percent of foodborne illnesses were to individuals 18 years of age or younger.

In 2005 – 2007, Campylobacteriosis and Salmonellosis were diagnosed at a county-wide rate of 8.4 and 12.6 cases per 100,000 population, respectively. The case rate for E. coli O 157:H7 was 0.6 per 100,000 population.

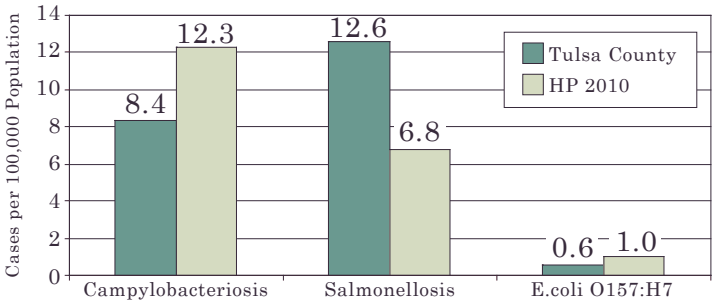
The highest rates of foodborne illness were in zip codes 74110, 74021 and 74070.

Data Source:

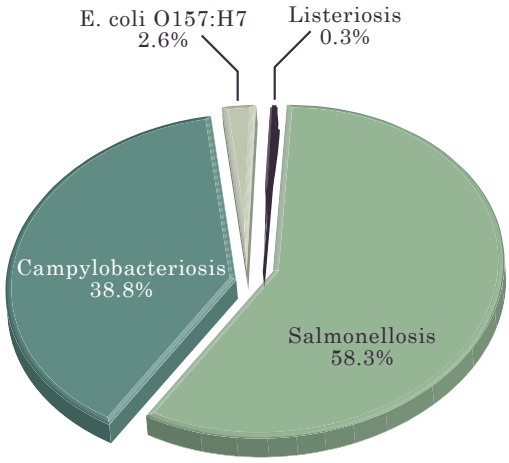
Acute Disease Service. Oklahoma State Department of Health.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

Rates of Key Foodborne Illness
Cases per 100,000 Population
Tulsa County | 2005 – 2007



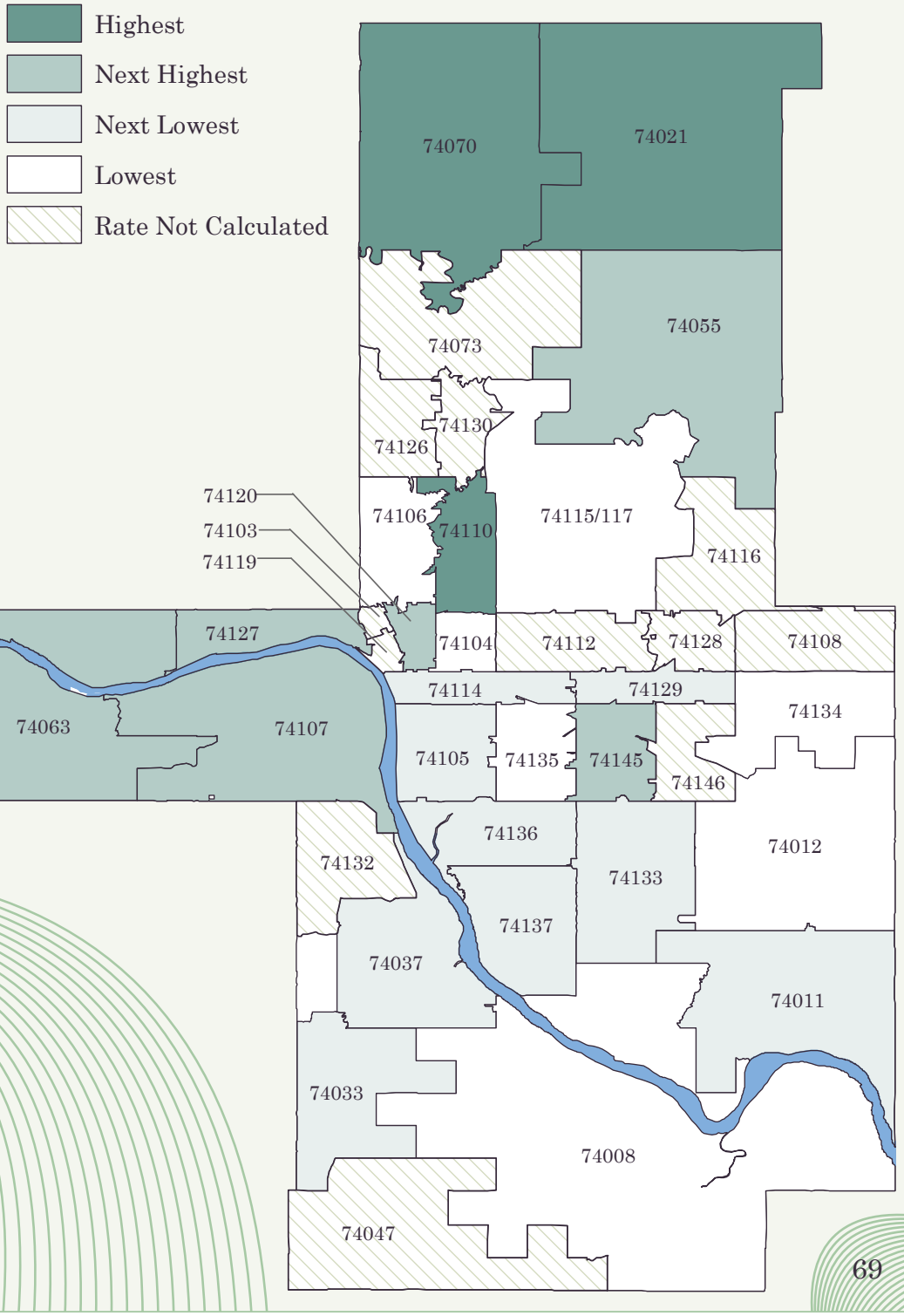
Key Foodborne Bacterial Illnesses
by Type | Tulsa County | 2005 – 2007



FOODBORNE ILLNESS

Cases per 100,000 Population
2005 – 2007

ZIP Code	Number of Foodborne Illness Cases	Foodborne Illness Rate
74110	23	52.4
74021	18	50.6
74070	5	50.0
74120	6	40.5
74107	21	36.9
74055	28	35.1
74063	19	31.8
74127	9	29.3
74145	14	28.8
74037	11	22.9
74137	17	21.7
74011	16	21.3
74133	25	19.2
74129	10	19.1
74033	5	18.6
74136	16	17.8
74105	14	17.6
74114	8	17.5
74106	8	15.9
74104	6	15.3
74135	9	15.1
74012	23	13.8
74008	9	12.7
74134	5	12.5
74115/117	5	7.2
74116	4	
74126	4	
74108	3	
74112	3	
74128	3	
74130	3	
74073	2	
74132	2	
74146	2	
74047	1	
74103	1	
74119	0	



HEPATITIS A

Hepatitis A is an acute liver disease caused by the hepatitis A virus. This indicator is presented as the number of reported cases of hepatitis A per 100,000 population, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Hepatitis A is a contagious liver disease that can range in severity from a mild illness lasting a few weeks to a severe illness lasting several months. Hepatitis A is spread via fecal-oral route and is often associated with restaurant outbreaks. Vaccination of young children is an effective way of controlling the spread of the disease.

How Are We Doing?

There were less than ten cases of Hepatitis A from 2005 – 2007. The following statistics define the cases; however, cases were not mapped at the zip code level due to confidentiality concerns. All of the cases occurred in individuals over the age of 18. Of these, half were male. Whites represented 50 percent of cases.

In 2007, the Hepatitis A case rate for Tulsa County was 0.5 cases per 100,000 population compared to 0.4 cases per 100,000 for the state of Oklahoma. The national Hepatitis A case rate was 1.0 per 100,000.

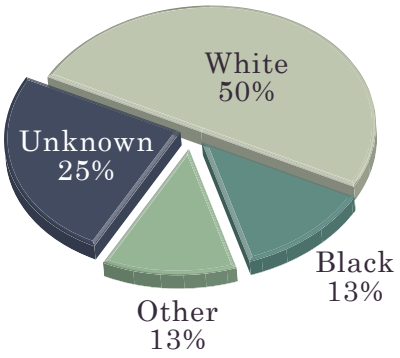
Hepatitis A cases were distributed throughout Tulsa County.

Data Source:

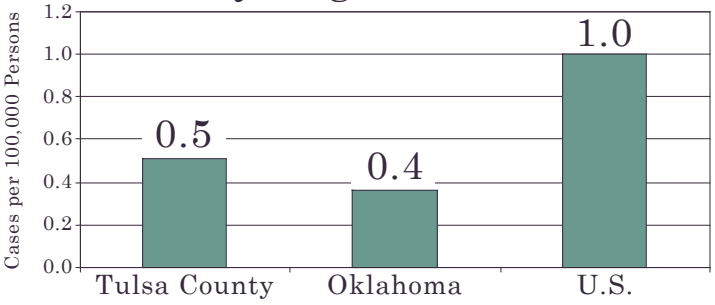
Acute Disease Service. Oklahoma State Department of Health.

Centers for Disease Control and Prevention. Surveillance for Acute Viral Hepatitis — United States, 2007. Surveillance Summaries, May 22, 2009. MMWR 2009;58(No. SS-3).

Hepatitis A Cases by Race
Tulsa County | 2005 – 2007



Hepatitis A Case Rate by Region | 2007



HEPATITIS B

Hepatitis B is a virus that causes inflammation of the liver. This indicator is presented as the number of cases of hepatitis B per 100,000 population, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

Hepatitis B is a contagious liver disease that can cause either acute or chronic disease. It is transmitted through blood and bodily fluids and is 100 times more contagious than HIV, the virus that causes AIDS. More than 600,000 persons die worldwide each year of hepatitis B associated liver disease.

How Are We Doing?

There were 56 cases of hepatitis B in Tulsa County from 2005 – 2007. All of these cases occurred in individuals 18 years of age or older. A majority of hepatitis B cases were among Whites (58 percent). Twenty-five percent of cases were American Indian.

In 2008, the hepatitis B case rate for Tulsa County (2.9 cases per 100,000 population) was lower than the state (3.5 cases per 100,000 population), but higher than the national rate (1.5 cases per 100,000 population).

Hepatitis B cases were distributed throughout Tulsa County.

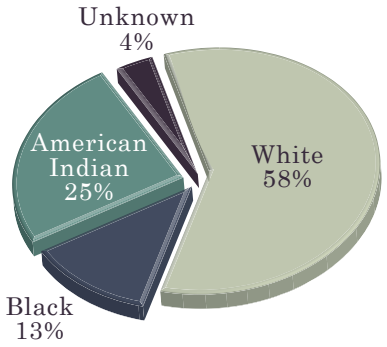
Data Source:

HIV/STD Service. Oklahoma State Department of Health.

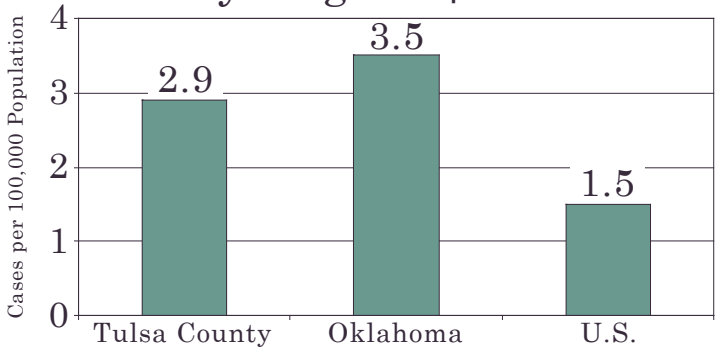
Number of Reported Cases of Communicable Diseases, Oklahoma, 1979-2008. Oklahoma State Department of Health. Retrieved from http://www.ok.gov/health/documents/2008%20Annual%20Summary%20Section%202.pdf.

Centers for Disease Control and Prevention. Surveillance for Acute Viral Hepatitis — United States, 2007. Surveillance Summaries, May 22, 2009. MMWR 2009;58(No. SS-3).

Hepatitis B Cases by Race
Tulsa County | 2006 – 2008



Hepatitis B Case Rate by Region | 2008



HEPATITIS C

Hepatitis C is a liver disease caused by the hepatitis C virus. This indicator is presented as the number of cases of hepatitis C per 100,000 population, averaged over the years 2005 – 2007.

Why Is This Indicator Important?

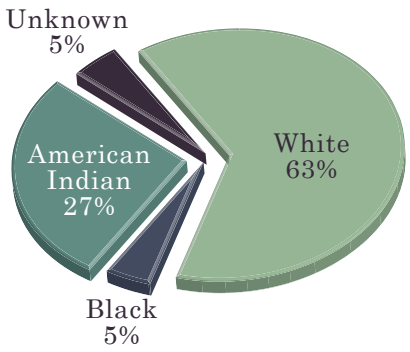
Hepatitis C is a contagious liver disease that can cause either acute or chronic disease. The hepatitis C infection is spread by contact with blood of an infected person. Hepatitis C accounts for the majority of cases that are investigated by Tulsa Health Department epidemiologists.

How Are We Doing?

During 2006 – 2008, over 1,500 lab-reported hepatitis C cases were investigated.

There were 22 confirmed hepatitis C cases in Tulsa County from 2006 – 2008. A majority of these confirmed cases were female (59.1 percent). Sixty-three percent of cases indentified themselves as White, representing the racial group most affected by hepatitis C in Tulsa County.

Hepatitis C Cases by Race
Tulsa County | 2006 – 2008



Data Source:

HIV/STD Service. Oklahoma State Department of Health.

Centers for Disease Control and Prevention. Surveillance for Acute Viral Hepatitis — United States, 2007. Surveillance Summaries, May 22, 2009. MMWR 2009;58(No. SS-3).

SOCIAL & MENTAL HEALTH

MENTAL HEALTH

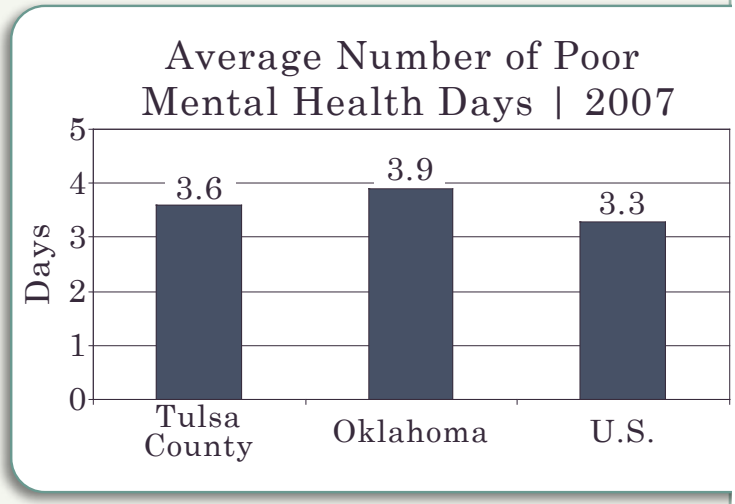
The World Health Organization defines mental health as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.[1]

Why is this indicator important?

Mental health disorders are common in the United States and can be quite serious. In fact, mental disorders are the leading cause of disability in the U.S. for the population age 15 – 44 years.[2]

How Are We Doing?

The Behavioral Risk Factor Surveillance System (BRFSS) includes a question about the number of days during the past month that a person's mental health was not good. According to the 2007 BRFSS, Tulsa County residents experienced an average of 3.6 mentally unhealthy days during the past month. This was lower than the state's average (3.9 mentally unhealthy days), but higher than the national average (3.3 mentally unhealthy days).



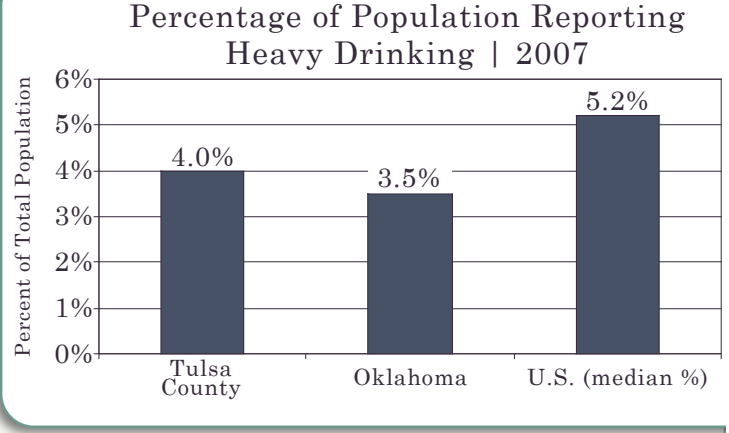
Data Source:

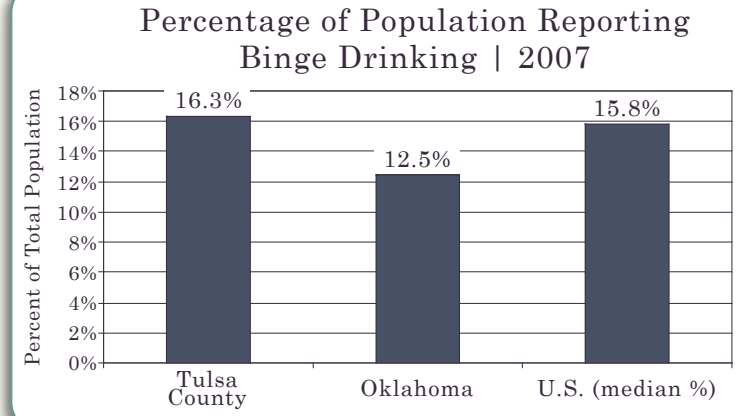
[1] The World Health Organziation. Mental Health: A State of Well-Being. October 2009. Retrieved January 21, 2010 from http://www.who.int/mental_health/en/.

[2] The World Health Organization. The World Health Report 2004: Changing History, Annex Table 3: Burden of Disease in DALYs by Cause, Sex, and Mortality Stratum in WHO Regions, Estimates for 2002. Geneva: WHO, 2004.

Oklahoma State Department of Health. 2008 State of the State's Health Report.

EXCESSIVE ALCOHOL ABUSE





Excessive alcohol use includes heaving drinking and binge drinking. Heavy drinking is defined as drinking more than two drinks per day on average for men and more than one drink per day on average for women. Binge drinking is defined as drinking five or more drinks during a single occasion for men and four or more drinks during a single occasion for women.

Why is this indicator important?

Excessive alcohol use can lead to increased risk of health problems such as liver disease and unintentional injuries.

How Are We Doing?

According to the 2007 Behavioral Risk Factor Surveillance System (BRFSS), 46.8 percent (CI: 43.4 – 50.1) of Tulsa County adults reported having at least one drink of alcohol within the past 30 days.

In Tulsa County, 4.0 percent (CI: 2.6 – 5.3) of residents reported heavy drinking compared to 3.5 percent (CI: 2.9 – 4.1) of Oklahoma residents. The median percent of individuals reporting heavy drinking in the U.S. was 5.2 percent.

Additionally, 16.3 percent (CI: 13.3 – 19.2) of Tulsa County residents reported binge drinking. This was higher than the number of Oklahoma residents reporting binge drinking (12.5 percent, CI: 11.3 – 13.7). The median percent of individuals reporting binge drinking in the U.S. was 15.8 percent.

Data Source:

Centers for Disease Control and Prevention. Alcohol and Public Health. Retrieved January 22, 2010 from http://www.cdc.gov/alcohol/index.htm.

Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System (BRFSS). SMART: BRFSS City and County Data. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2007. Retrieved from http://apps.nccd.cdc.gov/brfss-smart/index.asp.

Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System (BRFSS). Prevalence and Trends Data. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2007. Retrieved from http://apps.nccd.cdc.gov/BRFSS/index.asp.

CHILD ABUSE & NEGLECT

The Oklahoma Department of Human Services (OKDHS) investigates or assesses all accepted reports of alleged child abuse and neglect by the person 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.

Why is this indicator important?

Healthy and safe environments are important in 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 poor physical health, poor emotional and mental health and behavioral problems.

How Are We Doing?

The Oklahoma Department of Human Services manages a high volume of child abuse and neglect reports each year. For example, between July 2006 and June 2007 there were 7,975 Tulsa County reports received and screened. After screening, 4,149 reports were accepted for investigation or assessment.

According to the 2007-2008 Oklahoma Kids Count Factbook, there were 8.9 confirmed cases per 1,000 children in the fiscal year 2004-2006 for Tulsa County compared to 15.3 confirmed cases per 1,000 children for Oklahoma. Nationally, it is estimated that children were abused or neglected at a rate of 12.1 per 1,000 children.

Data Source:

Oklahoma Department of Human Services. Child Abuse & Neglect Statistics. State Fiscal Year 2007.

Oklahoma Kids Count Factbook, 2007 – 2008. Retrieved from www.kidscount.org.

Child Maltreatment 2006. U.S. Department of Health & Human Services Administration for Children and Families Administration on Children, Youth and Families Children's Bureau.

HOMELESSNESS

Each January, the agencies of the Tulsa City-County Continuum of Care and Homeless Services Network in cooperation with the cities of Tulsa and Broken Arrow conduct a one-night survey of homelessness. This count records the number of homeless individuals and collects demographic information about homeless persons sleeping in emergency shelters, transitional housing, or other sites as well as the number of non-sheltered people. The information is provided to the Department of Housing and Urban Development.

Why Is This Indicator Important?

Homelessness is a growing public health problem. It is associated with behavioral, social and environmental risks that lead to communicable diseases. Furthermore, homelessness often presents barriers to healthcare access.

How Are We Doing?

On January 25, 2007, there were 890 homeless persons in Tulsa, 118 of which were children less than 18 years of age. Data collected from this annual survey suggest the number of homeless families is increasing. In 2006, there were 149 individuals that reported being part of a family with children compared to 186 in 2007 (25 percent increase).

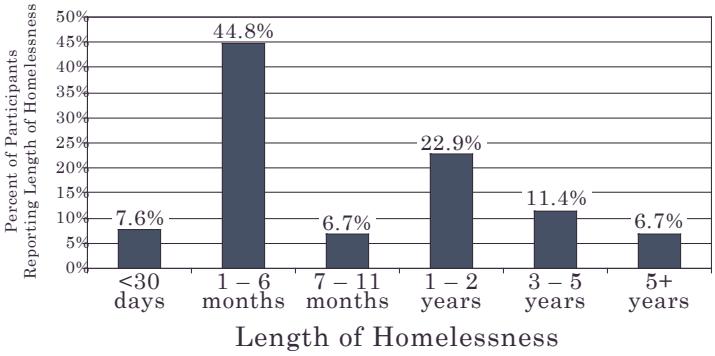
A majority of homeless adults were male (72.7 percent). Thirty-nine percent reported never being married and 38 percent reported being divorced. Forty-five percent of participants reported being homeless 1-6 months at the time of the survey.

Survey participants were asked to report the condition(s) that contributed to their homelessness. The top reported reasons included job loss, relocation and mental health difficulties. Participants were also asked to report their top three needed services. Housing placement was reported as the number one needed service, followed by transportation, dental services and health care.

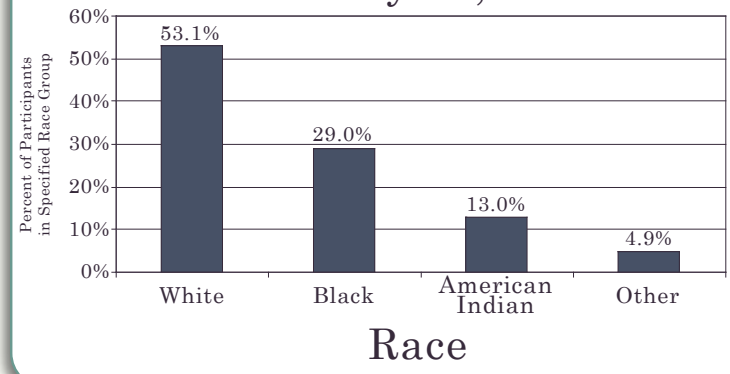
Data Source:

Department of Housing and Urban Development (2007, January). Tulsa County Point In Time Survey 2007, Washington DC: Russell Burkhart.

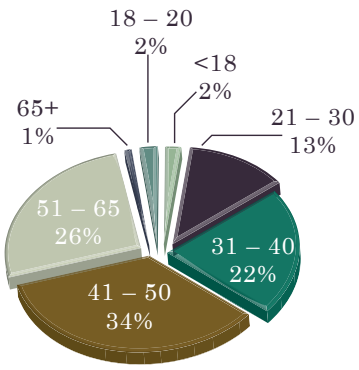
Length of Homelessness
January 25, 2007



Race of Homeless Persons
January 25, 2007



Homeless Persons by Age Group
January 25, 2007



DEATHS FROM SUICIDE

The death rate from suicide is the number of deaths from suicide per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The zip code populations are based on 2009 estimates.

Why Is This Indicator Important?

Suicide was the ninth leading cause of death for Tulsa County residents over the years 2005 – 2007. Suicide may be preventable through early recognition and treatment of risk factors, such as mental and substance abuse disorders.

How Are We Doing?

During the years 2005 – 2007, 268 Tulsa County residents committed suicide. Males committed suicide at a rate four times higher than females (25.8 and 6.3 per 100,000, respectively). At 16.4 suicides per 100,000, Whites had a suicide rate more than twice that of Blacks (6.9 per 100,000). Hispanics had a suicide death rate of 10.1 per 100,000.

In 2006, Tulsa County's suicide rate (14.2) was about the same as the state's rate (14.9), but both of these rates were higher than the national rate (10.9). The Healthy People 2010 goal for suicide deaths is 5.0 per 100,000.

The highest suicide rates occurred in several contiguous zip codes including 74120 and 74119.

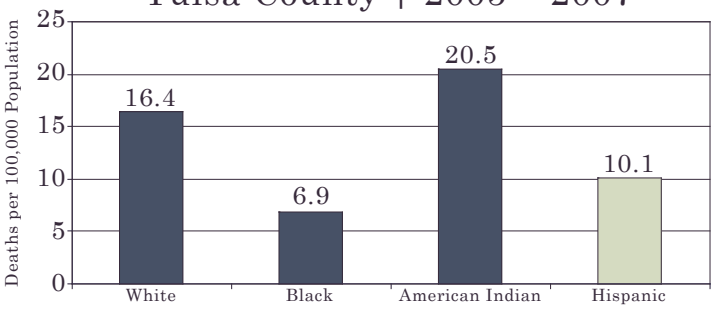
Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health

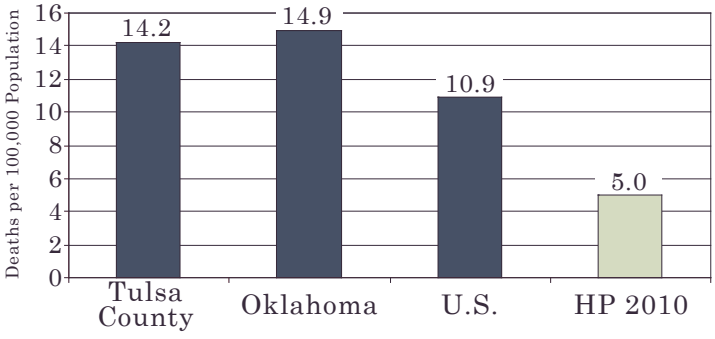
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final data for 2006. National Vital Statistics Reports; vol 57 no 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

Age Adjusted Suicide Death Rate by Race/Ethnicity Tulsa County | 2005 – 2007



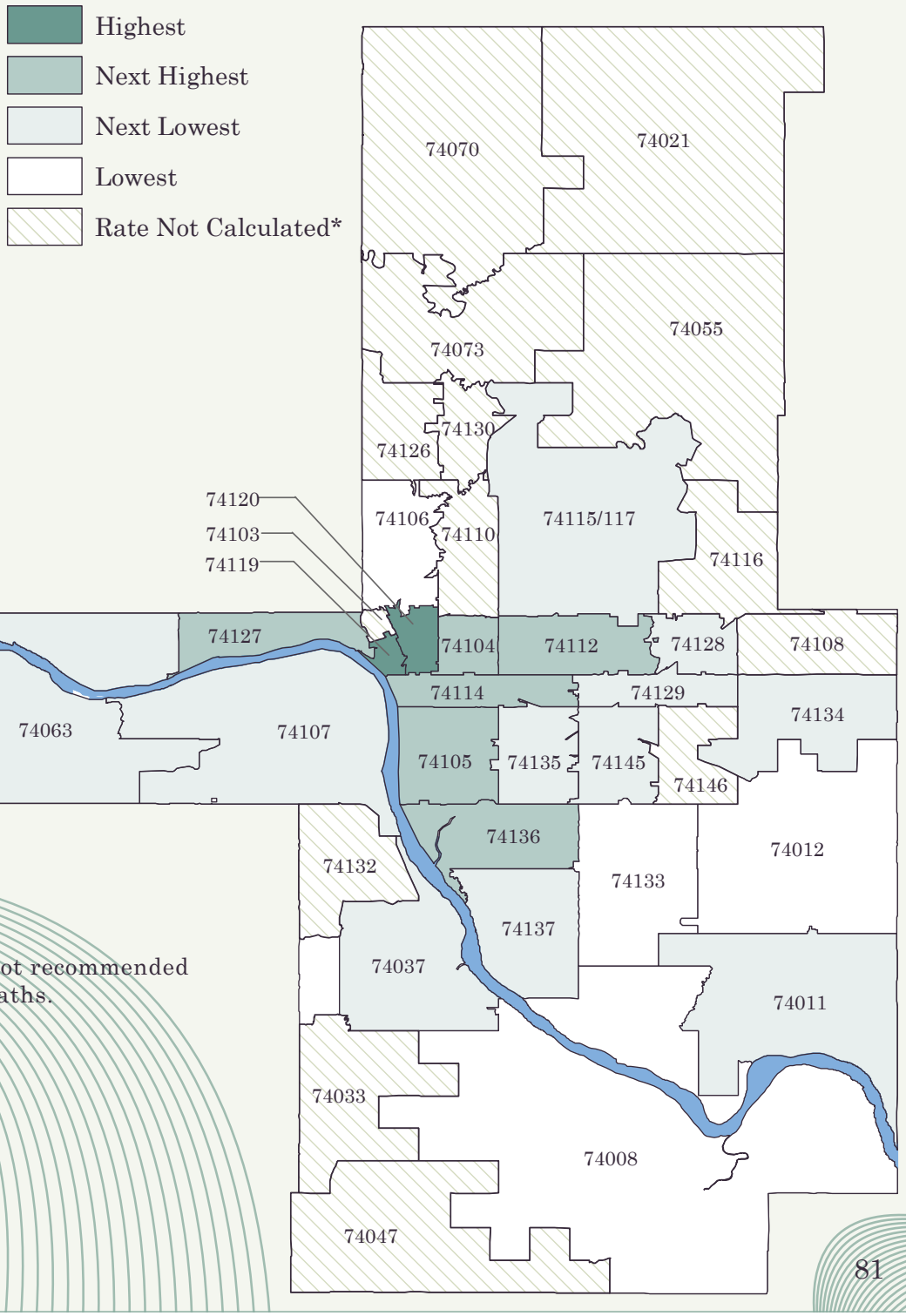
Age Adjusted Suicide Death Rate by Region | 2006



DEATHS FROM SUICIDE

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Suicide Death Rate
74120	7	49.2
74119	8	48.2
74112	19	31.7
74105	21	25.2
74127	8	24.7
74136	20	22.5
74114	10	21.9
74104	7	20.8
74115/117	12	18.5
74128	6	18.1
74037	8	17.1
74145	8	16.7
74063	10	15.8
74134	6	15.5
74137	10	14.2
74011	10	13.8
74129	7	13.8
74107	7	13.7
74135	9	13.6
74133	17	12.4
74008	8	11.6
74106	6	11.3
74012	13	9.0
74055	4	
74073	4	
74146	4	
74021	3	
74033	3	
74110	3	
74047	< 3	
74070	< 3	
74103	< 3	
74108	< 3	
74116	< 3	
74126	< 3	
74130	< 3	
74132	< 3	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM HOMICIDE

The death rate from homicide (murder) is the number of deaths from homicides per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The rates are based on the residence of the victim, not the location of the crime. The zip code populations are based on 2009 estimates.

Why Is This Indicator Important?

Violence is a major concern in Tulsa County. About two-thirds of the total homicides during this time period were caused by assault with firearms.

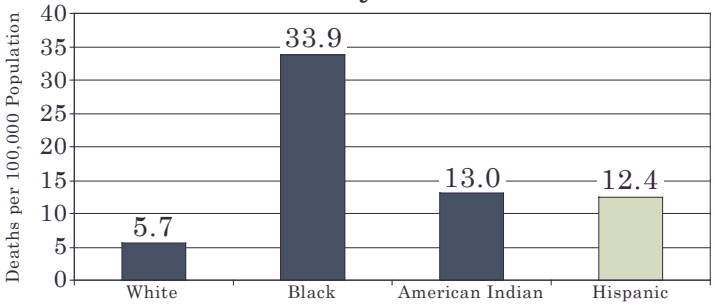
How Are We Doing?

The average age adjusted homicide rate for Tulsa County in 2005 – 2007 was 9.7 per 100,000 population. The death rate for males (14.6) was more than three times that for females (4.5). There was marked racial disparity, with Blacks dying from homicide at a rate six times that of Whites. The homicide death rate for Hispanics was 12.4 deaths per 100,000 population.

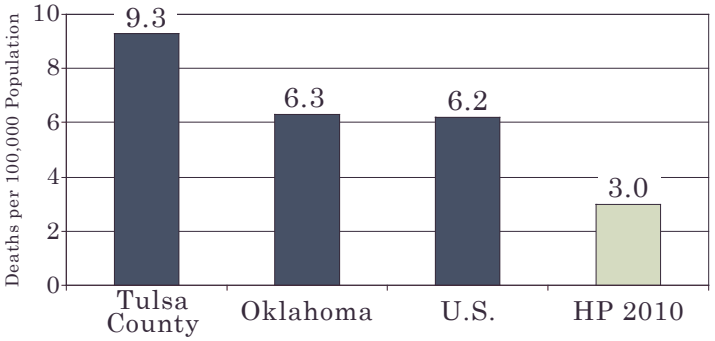
In 2006, Tulsa County's homicide death rate was 9.3 deaths per 100,000 population. Oklahoma and the nation had similar homicide death rates, 6.3 and 6.2, respectively. Healthy People 2010 set a national target of 3.0 homicide deaths per 100,000 population.

Because of the low number of homicides, a limited number of homicide death rates could be calculated. Of the zip codes with at least 5 homicides, the highest rates occurred among those living in 74126 and 74116.

Age Adjusted Homicide
Death Rate by Race/Ethnicity
Tulsa County | 2005 – 2007



Age Adjusted Homicide
Death Rate by Region | 2006



Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

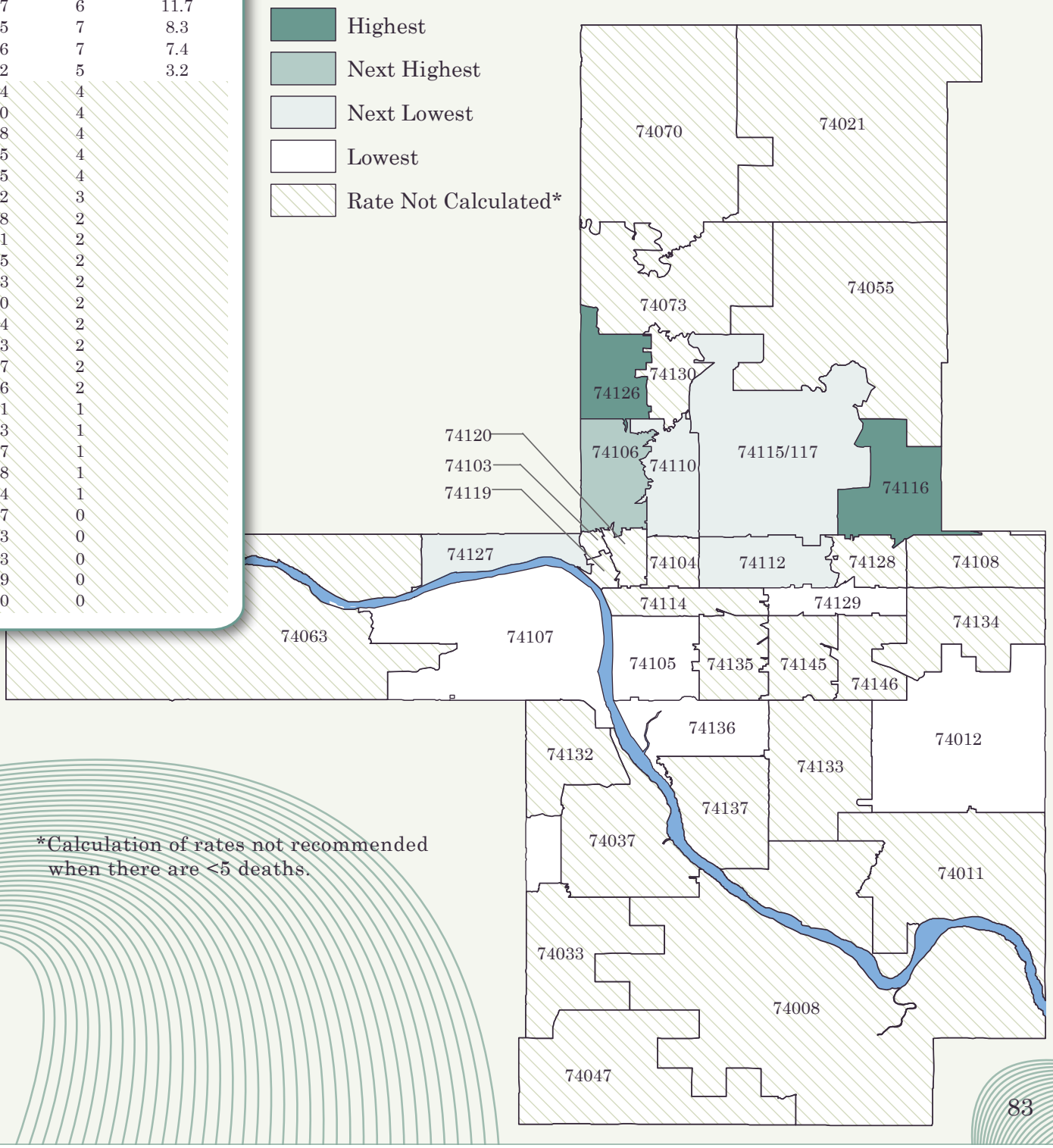
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final data for 2006. National Vital Statistics Reports; vol 57 no 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

DEATHS FROM HOMICIDE

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Death Rate
74126	17	79.8
74116	5	66.7
74106	21	44.1
74127	8	26.0
74110	11	24.7
74112	10	20.1
74115/117	11	16.9
74129	6	12.7
74107	6	11.7
74105	7	8.3
74136	7	7.4
74012	5	3.2
74104	4	
74120	4	
74128	4	
74135	4	
74145	4	
74132	3	
74008	2	
74021	2	
74055	2	
74063	2	
74070	2	
74114	2	
74133	2	
74137	2	
74146	2	
74011	1	
74033	1	
74037	1	
74108	1	
74134	1	
74047	0	
74073	0	
74103	0	
74119	0	
74130	0	



*Calculation of rates not recommended when there are <5 deaths.

MORTALITY INDICATORS

DEATHS FROM ALL CAUSES

The mortality rate from all causes is presented as the number of deaths per 100,000 population averaged over the years 2005 – 2007. The rates were age adjusted to account for differences in age distribution among ZIP codes. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

Mortality rates are related to other community health indicators, such as access to health care and risk factors related to personal behaviors.

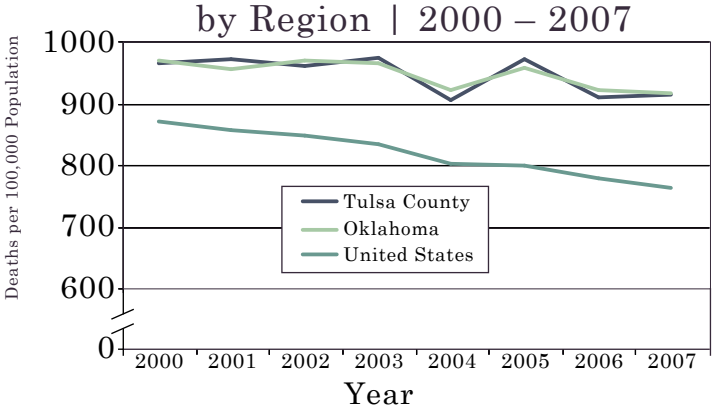
How Are We Doing?

Throughout the 1980s, Tulsa County, along with Oklahoma and the nation, experienced a drop in overall mortality rates. Beginning in the early 1990s, while the nation's death rate continued to drop, the overall death rates for Tulsa County and Oklahoma began to rise again. The age adjusted death rates for Tulsa County and Oklahoma continue to be higher than the nation.

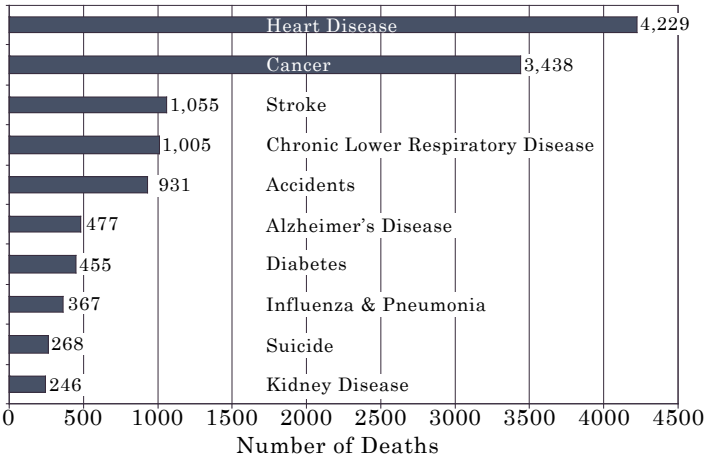
There were approximately 16,300 deaths in Tulsa County from 2005 – 2007. The top five causes of death in Tulsa County were the same as the nation's leading causes of death. Heart disease was the number one cause of death, followed by cancer, stroke, chronic lower respiratory diseases and accidents.

The ZIP codes with the highest overall mortality rates included 74126, 74132, 74127 and 74073.

Age Adjusted Death Rates
by Region | 2000 – 2007



Ten Leading Causes of Death
Tulsa County | 2005 – 2007



Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

Kung HC, Hoyert DL, Xu JQ, Murphy SL. Deaths: Final data for 2005. National vital statistics reports; vol 56 no 10. Hyattsville, MD: National Center for Health Statistics. 2008.

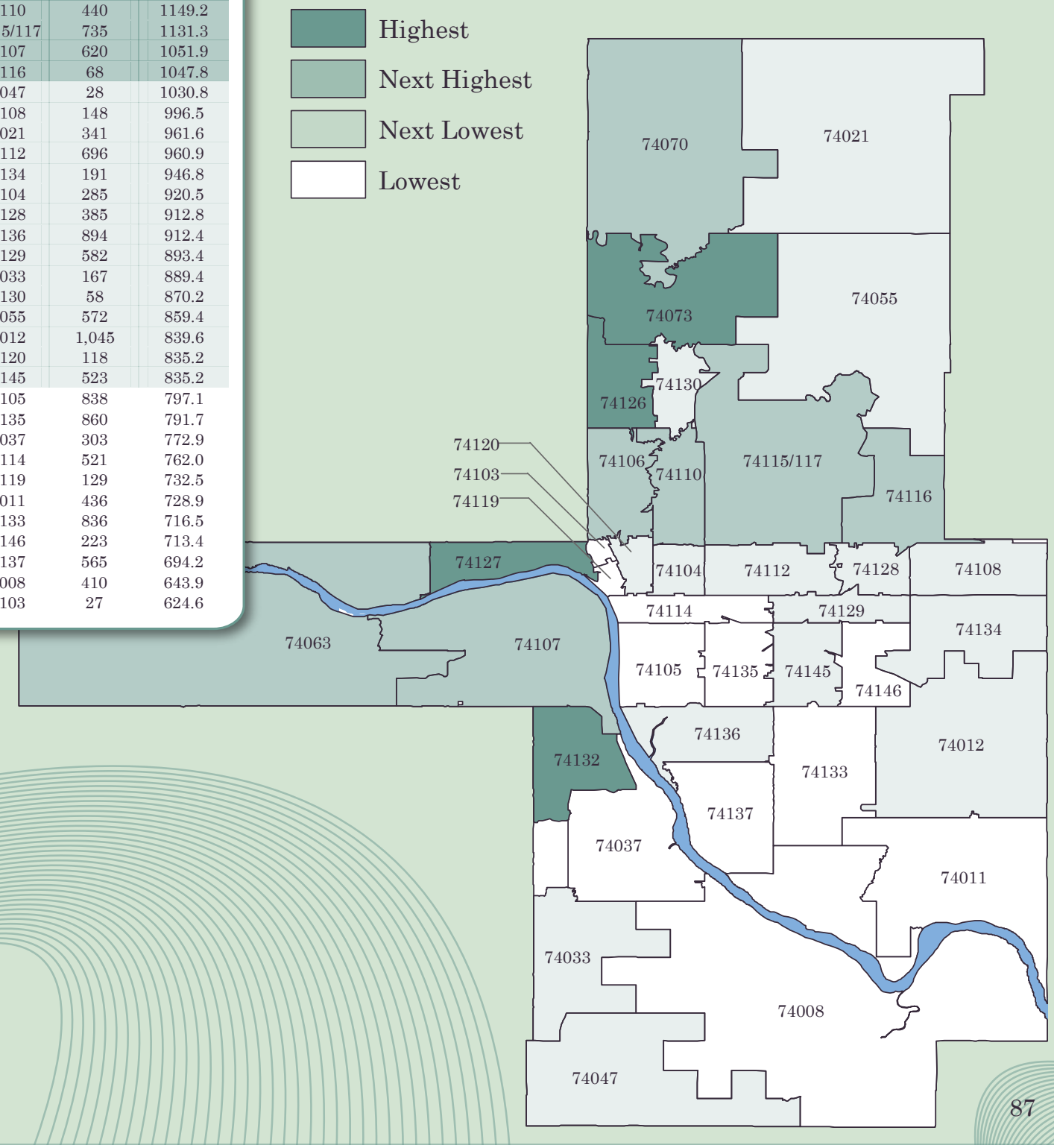
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

Xu J, Kochanek KD, Tejada-Vera B. Deaths: Preliminary Data for 2007. National Vital Statistics Reports; Vol 58 No 1. Hyattsville, MD: National Center for Health Statistics. 2009.

DEATHS FROM ALL CAUSES

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Death Rate
74126	352	1899.0
74132	172	1714.0
74127	537	1651.6
74073	99	1470.3
74106	795	1331.8
74063	775	1257.8
74070	115	1207.1
74110	440	1149.2
74115/117	735	1131.3
74107	620	1051.9
74116	68	1047.8
74047	28	1030.8
74108	148	996.5
74021	341	961.6
74112	696	960.9
74134	191	946.8
74104	285	920.5
74128	385	912.8
74136	894	912.4
74129	582	893.4
74033	167	889.4
74130	58	870.2
74055	572	859.4
74012	1,045	839.6
74120	118	835.2
74145	523	835.2
74105	838	797.1
74135	860	791.7
74037	303	772.9
74114	521	762.0
74119	129	732.5
74011	436	728.9
74133	836	716.5
74146	223	713.4
74137	565	694.2
74008	410	643.9
74103	27	624.6



DEATHS FROM HEART DISEASE

The death rate from heart disease is presented as the number of deaths from heart disease per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code populations were based on 2009 population estimates.

Why Is This Indicator Important?

Heart disease has long been the number one cause of death for residents of Tulsa County, as well as Oklahoma and the nation. The American Heart Association has identified major risk factors for heart disease, such as smoking, physical inactivity and obesity, that can be modified by a change in lifestyle. Other major risk factors, such as high blood cholesterol, high blood pressure and diabetes can be controlled through medication and changes in diet.

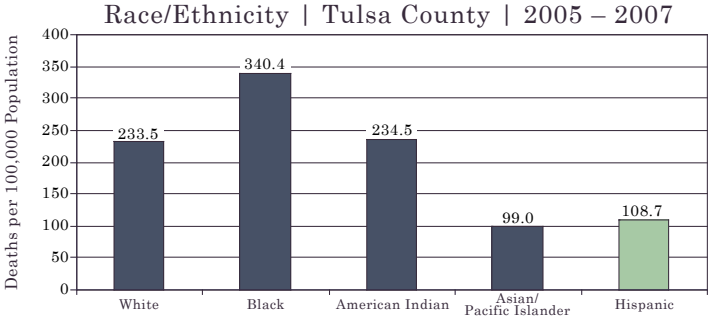
How Are We Doing?

From 2005 to 2007, the average age-adjusted heart disease death rate for Tulsa County was 240.6 deaths per 100,000 people. Deaths from heart disease occurred at about 1.5 times the rate among men (297.0 per 100,000) as among women (199.0 per 100,000). The heart disease death rate was highest, among all races, in the Black population (340.4 per 100,000). The heart disease death rate was lowest among the Asian population (99.0 per 100,000). The Hispanic population had a heart disease death rate of 108.7 per 100,000 population.

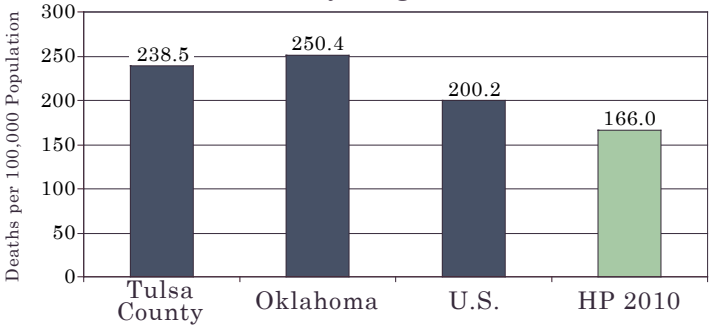
In 2006, Tulsa County's heart disease death rate (238.5) was lower than the state (250.4), but higher than the nation (200.2). The Healthy People 2010 heart disease death rate goal is 166.0 deaths per 100,000 population.

The Tulsa County ZIP codes with the highest heart disease death rates were 74126, 74132, 74127 and 74047.

Age Adjusted Heart Disease Death Rates by Race/Ethnicity | Tulsa County | 2005 – 2007



Age Adjusted Heart Disease Death Rates by Region | 2006



Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

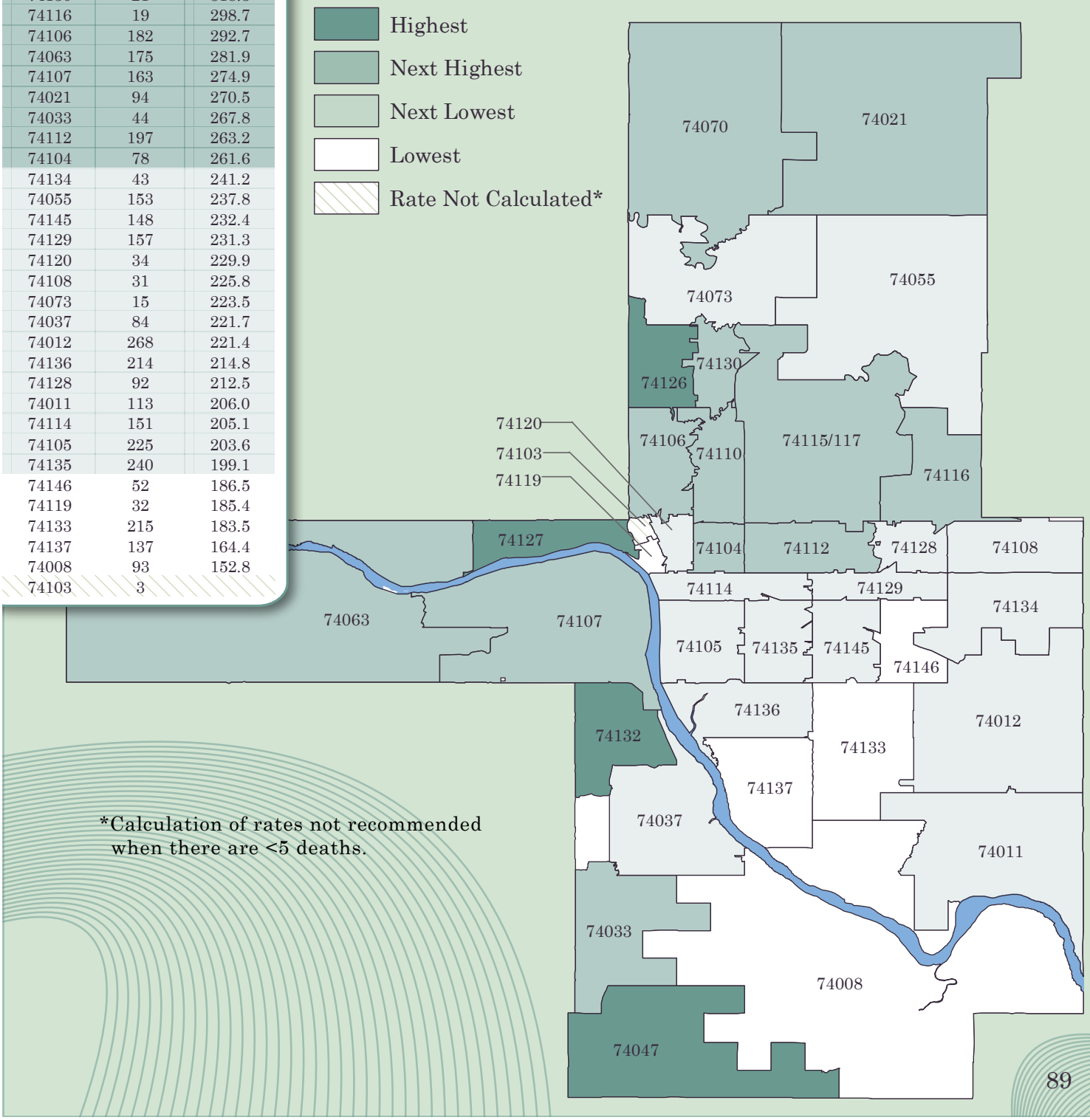
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

DEATHS FROM HEART DISEASE

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Heart Disease Death Rate
74126	89	503.6
74132	48	502.4
74127	144	433.8
74047	10	425.0
74070	31	331.5
74115/117	213	331.3
74110	120	319.7
74130	21	318.3
74116	19	298.7
74106	182	292.7
74063	175	281.9
74107	163	274.9
74021	94	270.5
74033	44	267.8
74112	197	263.2
74104	78	261.6
74134	43	241.2
74055	153	237.8
74145	148	232.4
74129	157	231.3
74120	34	229.9
74108	31	225.8
74073	15	223.5
74037	84	221.7
74012	268	221.4
74136	214	214.8
74128	92	212.5
74011	113	206.0
74114	151	205.1
74105	225	203.6
74135	240	199.1
74146	52	186.5
74119	32	185.4
74133	215	183.5
74137	137	164.4
74008	93	152.8
74103	3	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM CANCER

The death rate from cancer is the number of deaths from all cancers per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

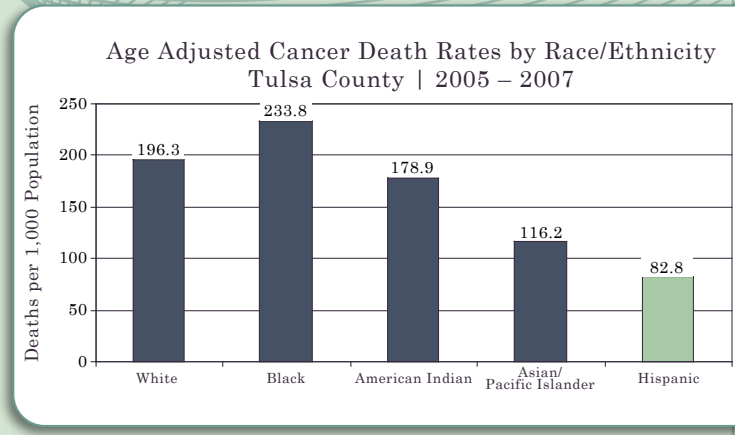
Cancer was the second leading cause of death in 2005 – 2007. Smoking is a major cancer risk factor. For nonsmokers, healthy eating and physical activity are major ways to reduce cancer risk.

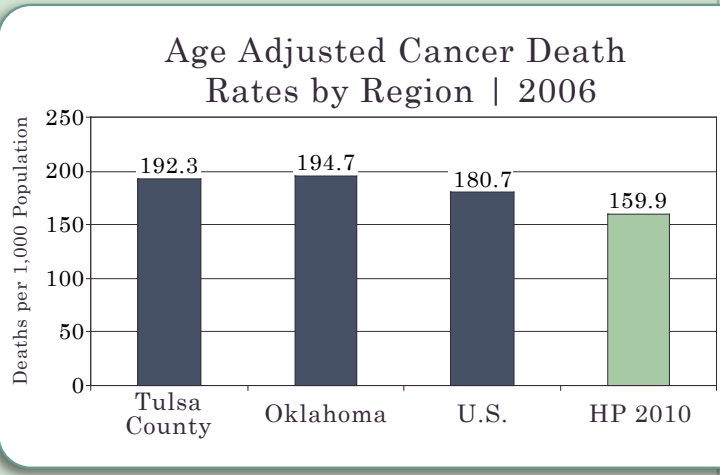
How Are We Doing?

There were 3,438 cancer deaths among Tulsa County residents during 2005 – 2007, for an average age adjusted death rate of 197.6 per 100,000 population. Men had a higher cancer death rate (236.1) than women (174.5). Cancer deaths occurred at a higher rate in the Black population (233.8 per 100,000) compared to other races.

In 2006, the cancer death rate in Tulsa County (192.3) was similar to Oklahoma's cancer death rate (194.7). The national cancer death rate was 180.7. Healthy People 2010 set a national goal of 159.9 overall cancer deaths per 100,000 population.

The Tulsa County ZIP codes with the highest cancer death rates were 74126 in northern Tulsa County and 74132 in southwest Tulsa County.





Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

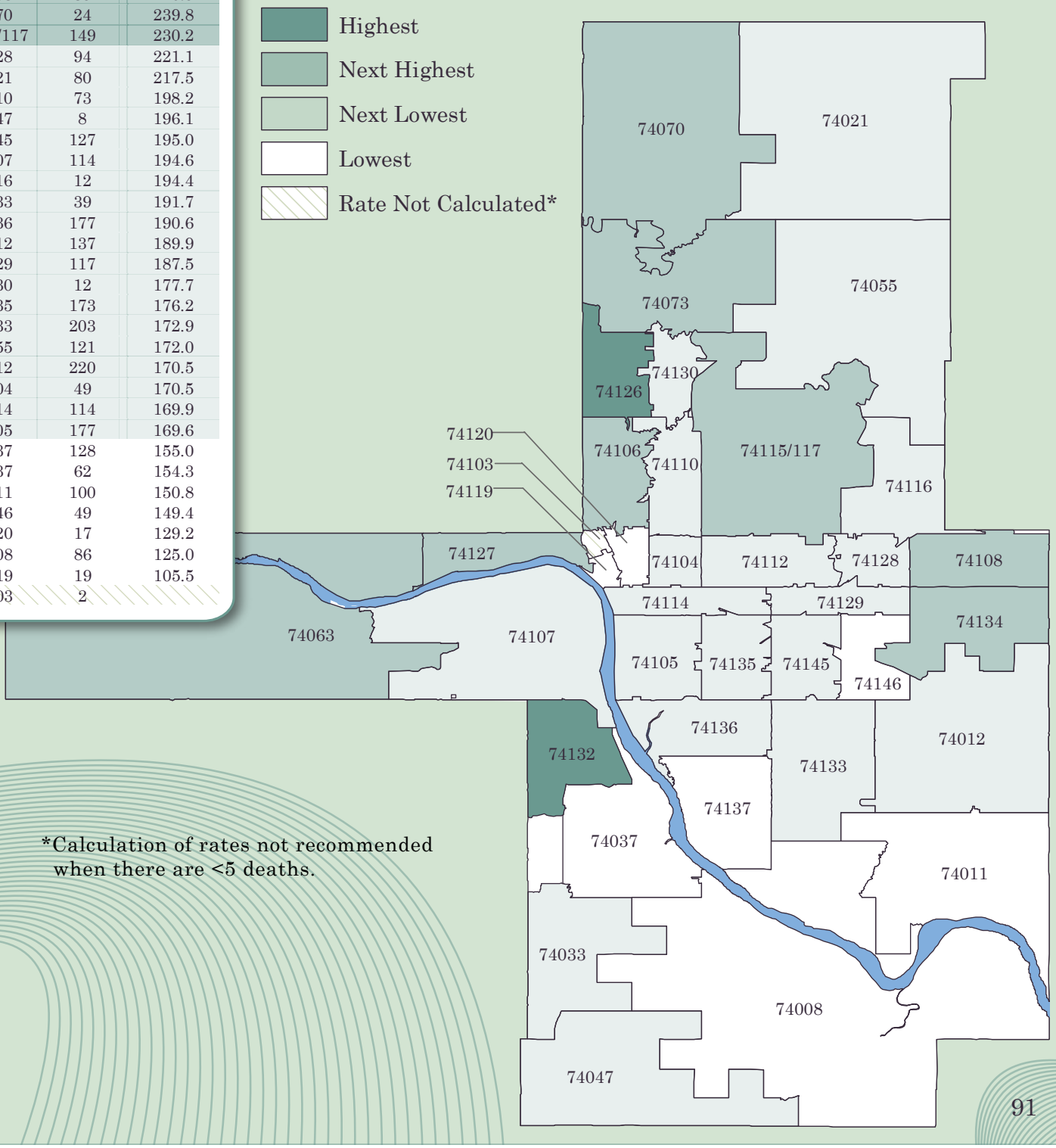
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

DEATHS FROM CANCER

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Cancer Death Rate
74126	85	445.0
74132	42	361.0
74127	109	327.7
74073	22	309.1
74063	183	289.9
74106	162	285.0
74134	48	244.8
74108	39	240.9
74070	24	239.8
74115/117	149	230.2
74128	94	221.1
74021	80	217.5
74110	73	198.2
74047	8	196.1
74145	127	195.0
74107	114	194.6
74116	12	194.4
74033	39	191.7
74136	177	190.6
74112	137	189.9
74129	117	187.5
74130	12	177.7
74135	173	176.2
74133	203	172.9
74055	121	172.0
74012	220	170.5
74104	49	170.5
74114	114	169.9
74105	177	169.6
74137	128	155.0
74037	62	154.3
74011	100	150.8
74146	49	149.4
74120	17	129.2
74008	86	125.0
74119	19	105.5
74103	2	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM LUNG CANCER

The death rate from lung cancer is the number of deaths from cancers of the trachea, bronchus, and lung per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code populations are 2009 estimates.

Why Is This Indicator Important?

Cancer was the second leading cause of death in Tulsa County during the period 2005 – 2007. Lung cancer, which is linked to cigarette smoking, was the major cause of cancer deaths in both men and women.

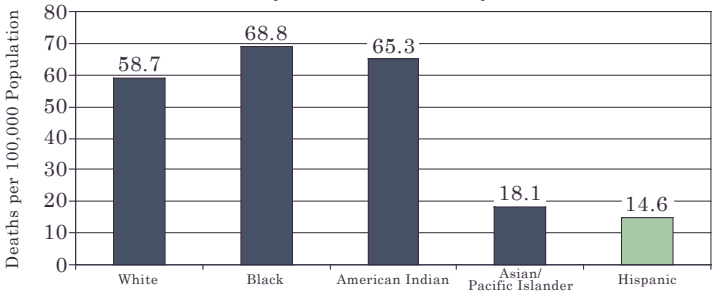
How Are We Doing?

During 2005 – 2007, 1,026 Tulsa County residents died from lung cancer, representing 29.8 percent of all cancer deaths. The lung cancer death rate for the Black population (68.8 deaths per 100,000 population) was higher than the rate for the White population (58.7 per 100,000). Hispanics died from lung cancer at a rate of 14.6 deaths per 100,000 population.

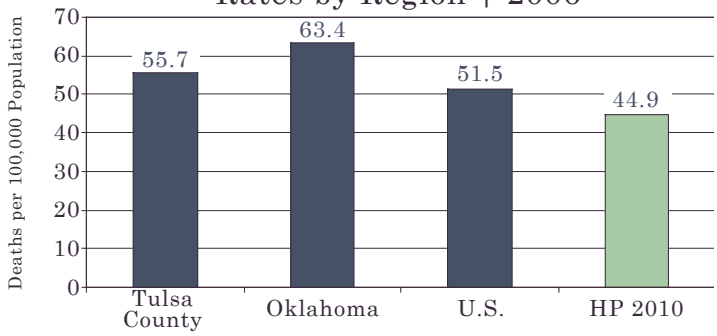
Tulsa County had a lung cancer death rate of 55.7 in 2006. Oklahoma's lung cancer death rate was 63.4 per 100,000 in 2006 and the national rate was 51.5 per 100,000. The national Healthy People 2010 target goal for lung cancer deaths in 2010 is 44.9 deaths per 100,000 population.

In general, the highest lung cancer death rates in 2005 – 2007 occurred in zip codes 74126 and 74132.

Age Adjusted Lung Cancer Death Rates by Race/Ethnicity | Tulsa County | 2005 – 2007



Age Adjusted Lung Cancer Death Rates by Region | 2006



Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

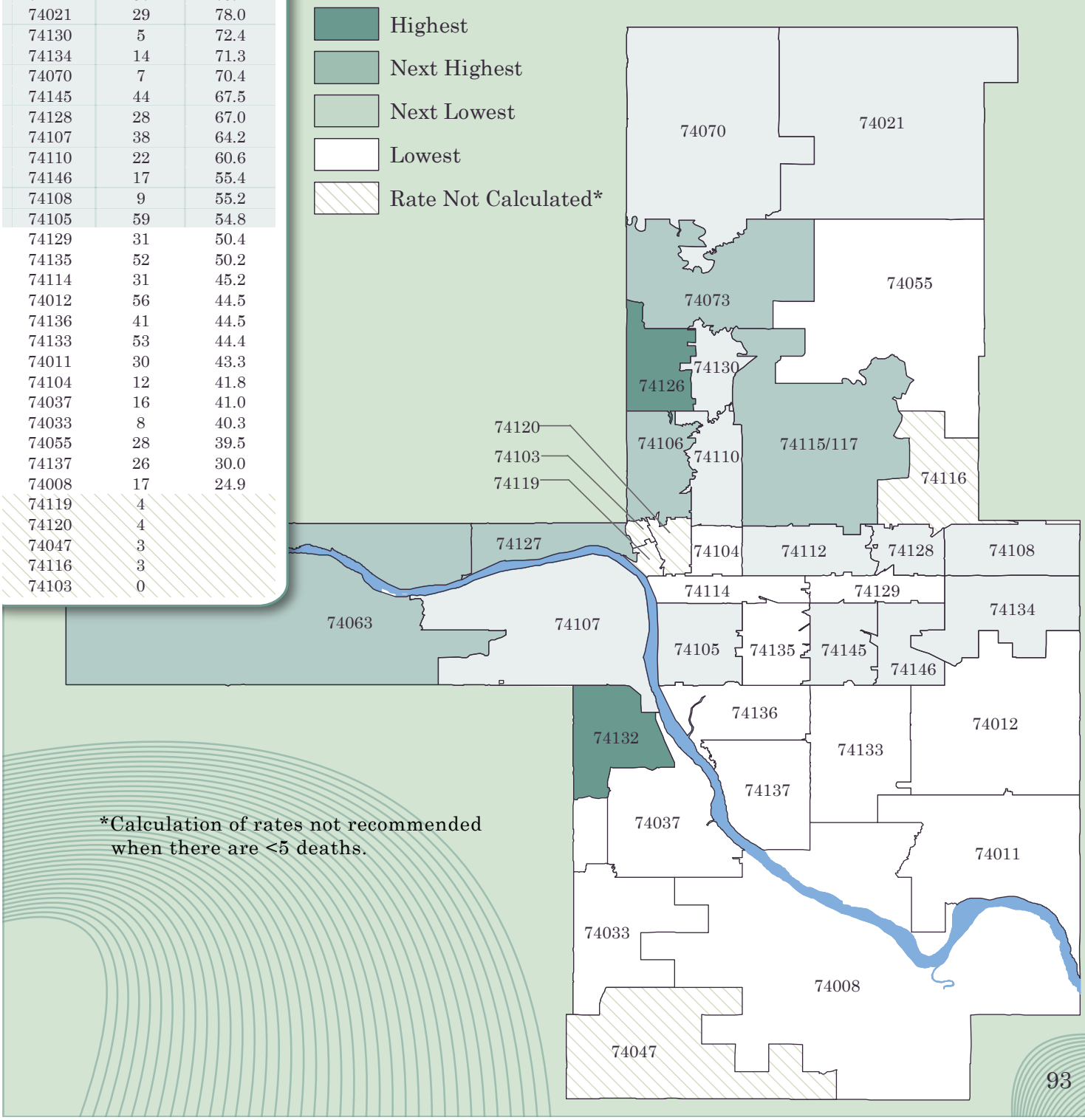
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

DEATHS FROM LUNG CANCER

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Lung Cancer AADR
74126	32	167.9
74132	15	138.4
74127	38	114.6
74106	55	101.2
74073	7	98.7
74063	60	94.7
74115/117	59	90.2
74112	57	79.2
74021	29	78.0
74130	5	72.4
74134	14	71.3
74070	7	70.4
74145	44	67.5
74128	28	67.0
74107	38	64.2
74110	22	60.6
74146	17	55.4
74108	9	55.2
74105	59	54.8
74129	31	50.4
74135	52	50.2
74114	31	45.2
74012	56	44.5
74136	41	44.5
74133	53	44.4
74011	30	43.3
74104	12	41.8
74037	16	41.0
74033	8	40.3
74055	28	39.5
74137	26	30.0
74008	17	24.9
74119	4	
74120	4	
74047	3	
74116	3	
74103	0	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM STROKE

The death rate from stroke (cerebrovascular disease) is the number of deaths from stroke per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

Stroke was the third leading cause of death in Tulsa County during the years 2005 – 2007, and is a major cause of long-term disability. The most powerful modifiable risk factor for stroke is hypertension, or high blood pressure. Smoking, high cholesterol and obesity are also major risk factors that can be modified through lifestyle changes.

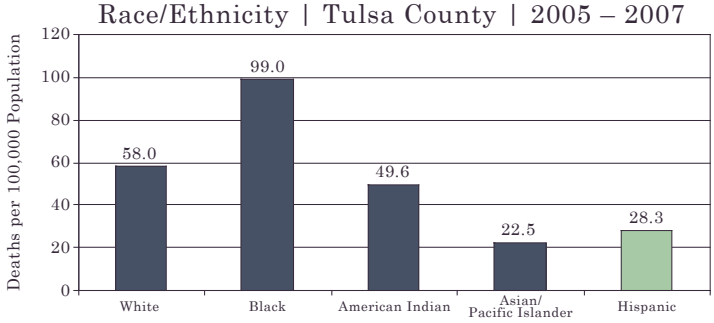
How Are We Doing?

During 2005 – 2007, there were 1,055 deaths attributed to stroke among Tulsa County residents for an age adjusted death rate of 60.5 per 100,000. Most strokes (85%) occurred in persons 65 and older, and the death rate for men (61.8) slightly exceeded that of women (59.0). There was marked racial disparity in stroke death rates. The death rates for Whites, Blacks, and American Indians were 58.0, 99.0, and 49.6, respectively.

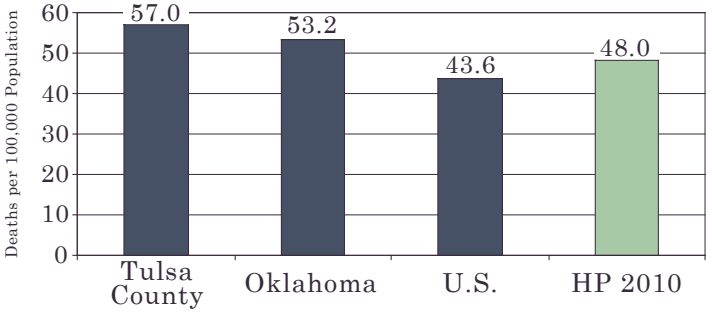
In 2006, the Tulsa County stroke death rate (57.0) was higher than the state (53.2) and national (43.6) rates. The Healthy People 2010 stroke death rate goal was 48.0 deaths per 100,000 population.

The Tulsa County ZIP codes with the highest stroke death rates were 74132 and 74126.

Age Adjusted Stroke Death Rates by Race/Ethnicity | Tulsa County | 2005 – 2007



Age Adjusted Stroke Death Rates by Region | 2006



Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

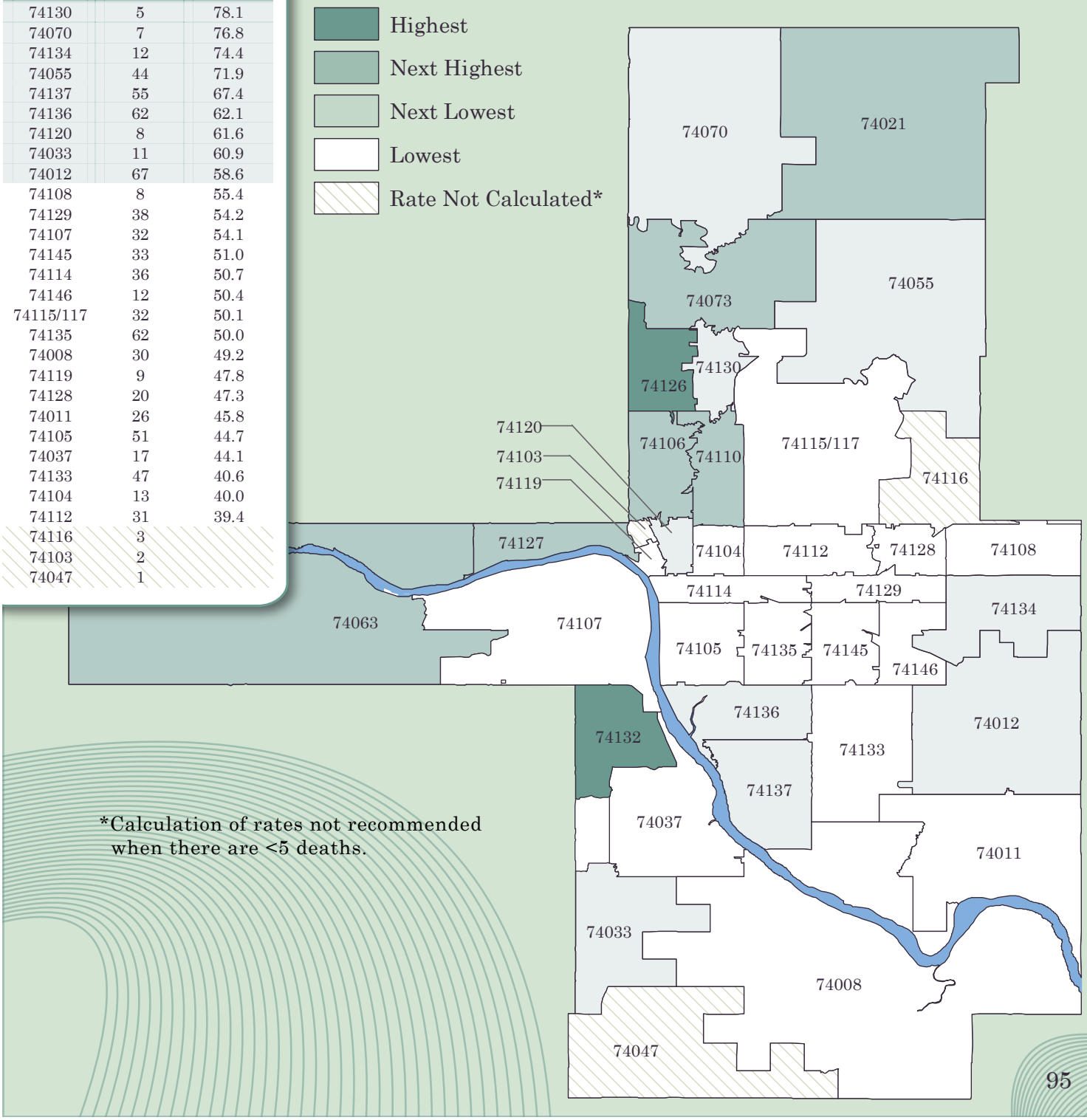
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

DEATHS FROM STROKE

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Stroke Death Rate
74132	17	185.2
74126	32	182.7
74073	7	108.7
74110	40	103.9
74127	30	93.0
74106	56	91.7
74063	53	87.3
74021	29	84.2
74130	5	78.1
74070	7	76.8
74134	12	74.4
74055	44	71.9
74137	55	67.4
74136	62	62.1
74120	8	61.6
74033	11	60.9
74012	67	58.6
74108	8	55.4
74129	38	54.2
74107	32	54.1
74145	33	51.0
74114	36	50.7
74146	12	50.4
74115/117	32	50.1
74135	62	50.0
74008	30	49.2
74119	9	47.8
74128	20	47.3
74011	26	45.8
74105	51	44.7
74037	17	44.1
74133	47	40.6
74104	13	40.0
74112	31	39.4
74116	3	
74103	2	
74047	1	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM DIABETES

The death rate from diabetes is the number of deaths from diabetes mellitus per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code population estimates are based on 2009 estimates.

Why Is This Indicator Important?

Nationally, the number of persons with diabetes has increased steadily over the past decade. Diabetes was the seventh leading cause of death in Tulsa County residents during 2005 – 2007. Health problems associated with diabetes, including blindness, amputations and end-stage renal disease, may be prevented with timely managed care.

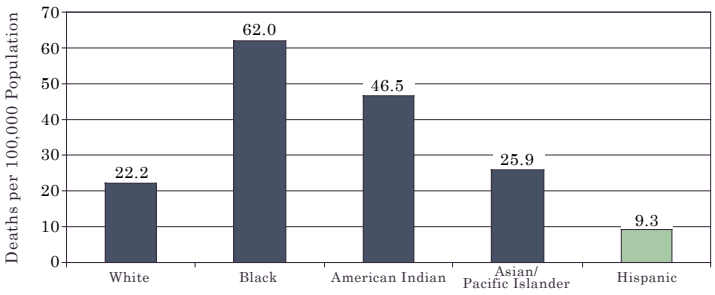
How Are We Doing?

A total of 455 Tulsa County residents died from diabetes during the years 2005 – 2007, for an average age adjusted death rate of 25.9 per 100,000. A disparity in diabetes death rates between Blacks (62.0 deaths per 100,000 population) and Whites (22.2 deaths per 100,000 population) was striking. The rates for American Indians, Asian/Pacific Islanders, and Hispanics are based on a relatively small number of deaths and are less reliable.

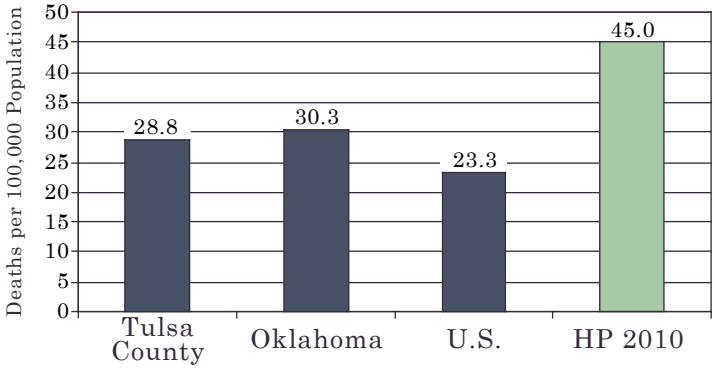
The 2006 age adjusted diabetes death rate for Oklahoma was 30.3 deaths per 100,000 population. The rate for Tulsa County was slightly lower than the state at 28.8 per 100,000, but higher than the nation rate of 23.3 per 100,000. The Healthy People 2010 goal for diabetes deaths is 45.0 deaths per 100,000 population.

The ZIP codes with the highest age adjusted diabetes death rates included 74073, 74106, 74127 and 74108.

Age Adjusted Diabetes Death Rates by Race/Ethnicity | Tulsa County | 2005 – 2007



Age Adjusted Diabetes Death Rates by Region | 2006



Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

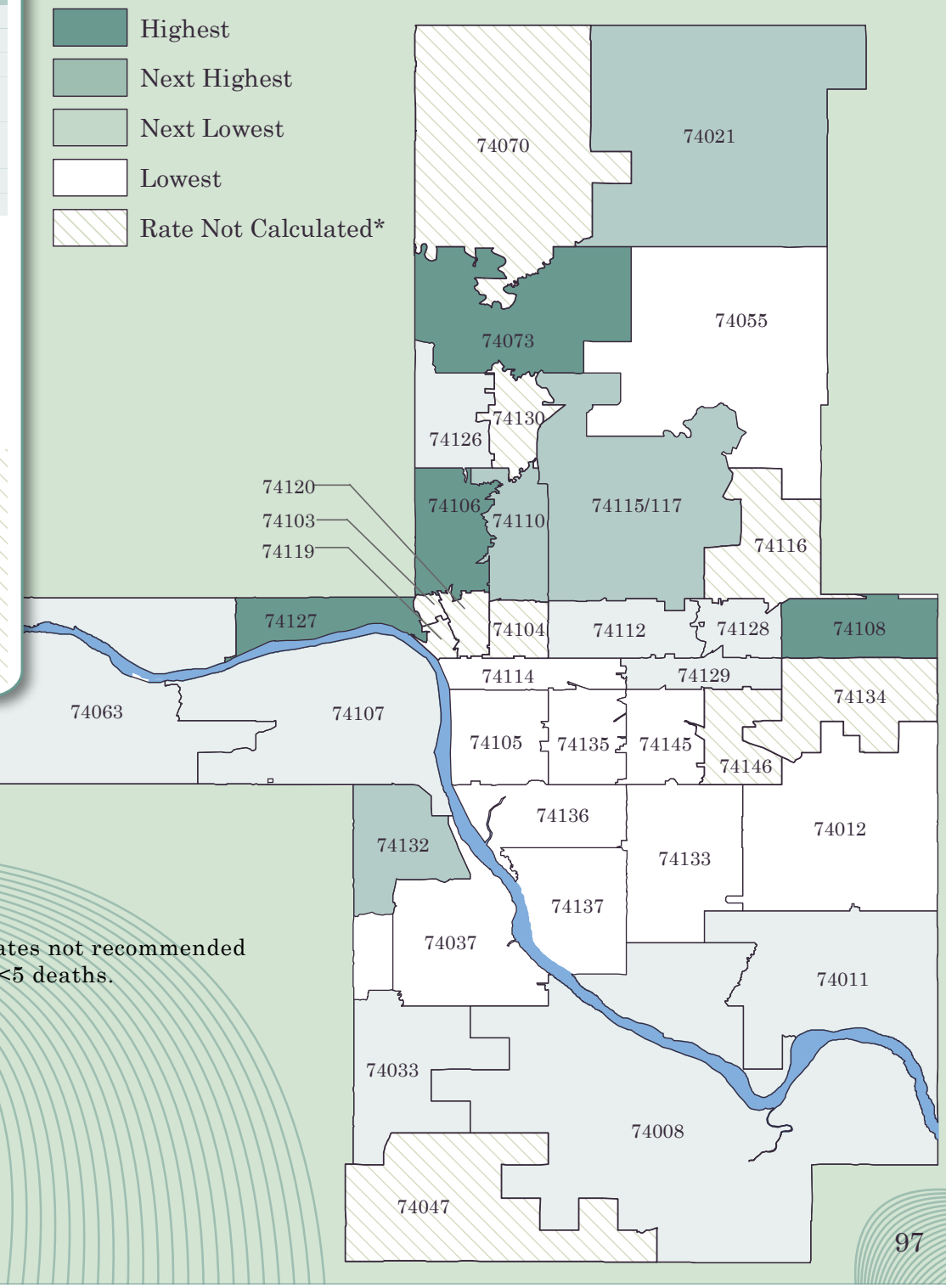
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

DEATHS FROM DIABETES

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Diabetes Death Rate
74073	6	89.5
74106	41	69.8
74127	23	67.1
74108	9	64.9
74132	5	48.5
74115/117	29	44.0
74110	16	42.6
74021	14	40.1
74128	15	33.7
74107	19	31.7
74033	5	30.2
74126	5	29.1
74112	20	28.2
74008	17	28.1
74011	19	27.5
74063	17	27.0
74129	18	26.4
74012	28	21.0
74136	20	20.3
74055	13	18.9
74105	18	18.5
74114	11	15.2
74145	9	14.5
74135	17	14.3
74133	14	12.7
74037	6	12.5
74137	10	12.2
74104	4	
74146	4	
74070	3	
74119	3	
74134	3	
74047	1	
74116	1	
74120	1	
74130	1	
74103	0	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM CHRONIC LOWER RESPIRATORY DISEASE

Chronic lower respiratory disease (CLRD) includes chronic bronchitis and emphysema (collectively referred to as chronic obstructive lung disease, or COPD), and asthma. The death rate from CLRD is the number of deaths from CLRD per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

The fourth leading cause of death for Tulsa County residents in 2005 – 2007 was CLRD. Chronic obstructive lung disease accounted for 98 percent of these deaths. Asthma accounted for two percent of the CLRD deaths. Smoking is a well-known primary risk factor for COPD.

How Are We Doing?

Chronic lower respiratory disease claimed the lives of 1,005 Tulsa County residents during 2005 – 2007, for an average age adjusted death rate of 58.3 per 100,000 population. Overwhelmingly, these deaths occurred in persons aged 45 and older. The death rate among men and women was 68.5 and 52.5, respectively. Whites (60.0 per 100,000) had the highest CLRD death rate compared to other races. The CLRD death rate among Hispanics was 13.8 per 100,000.

In 2006, Tulsa County (56.0) had an age adjusted CLRD death rate slightly lower than the state (57.1). The national rate (40.5) was lower than both Tulsa County and Oklahoma.

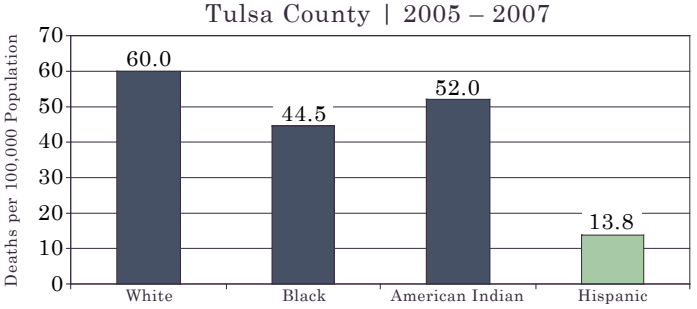
Within Tulsa County, the CRLD death rate was highest in the following zip codes: 74116, 74073, 74063, 74127, 74132 and 74126.

Data Source:

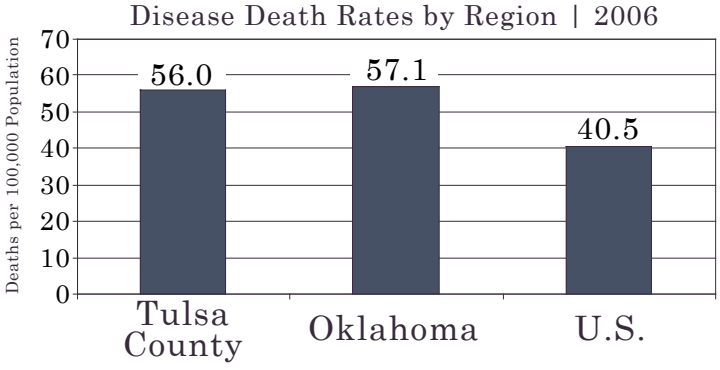
Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

Age Adjusted Chronic Lower Respiratory Disease Death Rates by Race/Ethnicity
Tulsa County | 2005 – 2007



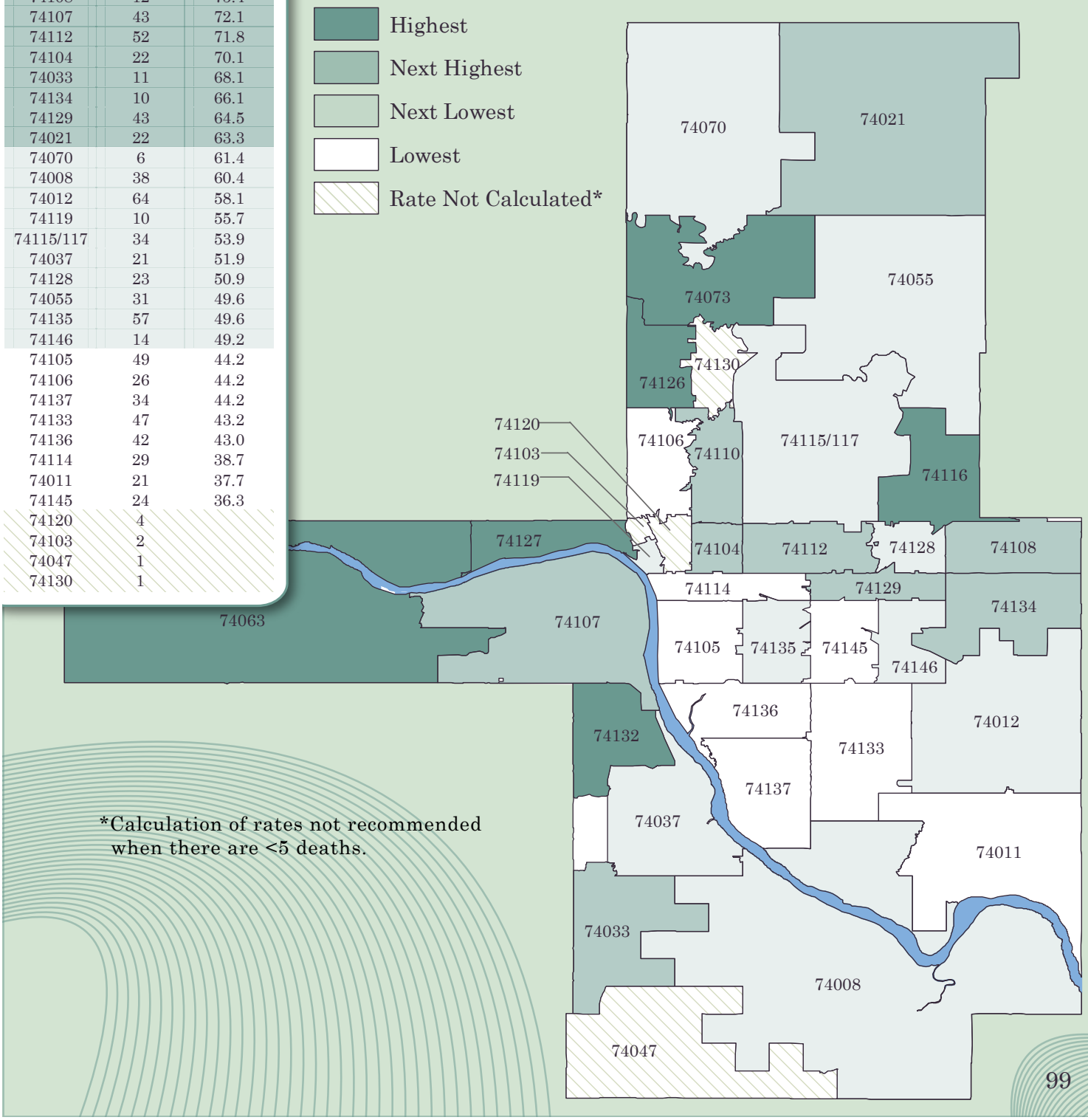
Age Adjusted Chronic Lower Respiratory Disease Death Rates by Region | 2006



DEATHS FROM CHRONIC LOWER RESPIRATORY DISEASE

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	CLRD Death Rate
74116	7	134.4
74073	9	132.7
74063	71	114.0
74127	38	113.3
74132	11	104.8
74126	19	95.2
74110	30	83.5
74108	12	75.4
74107	43	72.1
74112	52	71.8
74104	22	70.1
74033	11	68.1
74134	10	66.1
74129	43	64.5
74021	22	63.3
74070	6	61.4
74008	38	60.4
74012	64	58.1
74119	10	55.7
74115/117	34	53.9
74037	21	51.9
74128	23	50.9
74055	31	49.6
74135	57	49.6
74146	14	49.2
74105	49	44.2
74106	26	44.2
74137	34	44.2
74133	47	43.2
74136	42	43.0
74114	29	38.7
74011	21	37.7
74145	24	36.3
74120	4	
74103	2	
74047	1	
74130	1	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM INFLUENZA & PNEUMONIA

The death rate from influenza/pneumonia is the number of deaths from flu or pneumonia per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

Influenza/pneumonia ranked as the eighth leading cause of death in Tulsa County during the years 2005 – 2007. Influenza can cause mild to severe illness, including death. Pneumonia is an infection of the lungs and can be a complication of influenza, especially in the elderly or persons with underlying medical conditions.

How Are We Doing?

During 2005 – 2007, there were 367 deaths attributed to influenza/pneumonia among Tulsa County residents. The overall influenza/pneumonia age adjusted death rate was 20.9 per 100,000 population. The death rate for men (25.5) exceeded that of women (18.8). Forty-two percent of influenza/pneumonia deaths were among individuals 85 years of age or older. The death rates for some ethnic groups are not shown because they are based on a relatively small number of deaths.

In 2006, the Tulsa County influenza/pneumonia death rate (21.9) was similar to the state rate (22.6), but higher than the national rate (17.8).

The Tulsa County ZIP codes with the highest influenza/pneumonia death rates were 74063, 74112, 74127 and 74106.

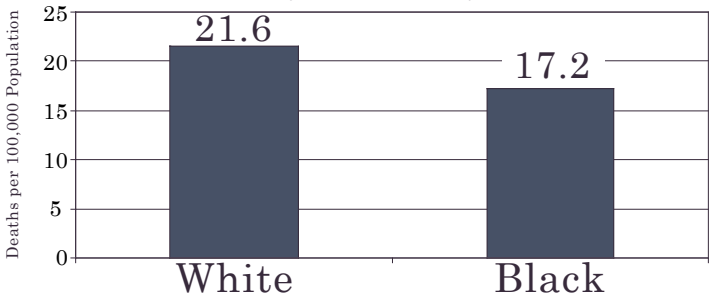
Data Source:

Centers for Disease Control and Prevention. Seasonal Influenza: The Disease. Retrieved January 19, 2010. Website: http://www.cdc.gov/flu/about/disease/.

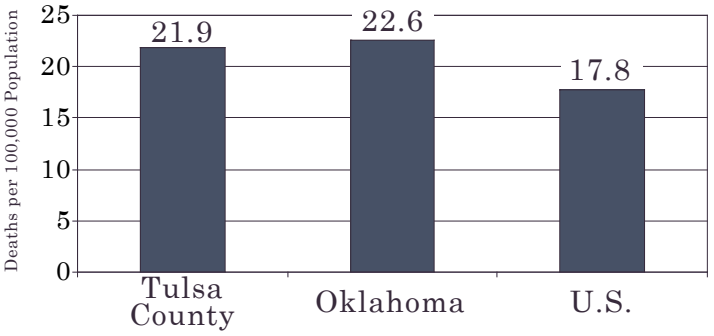
Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

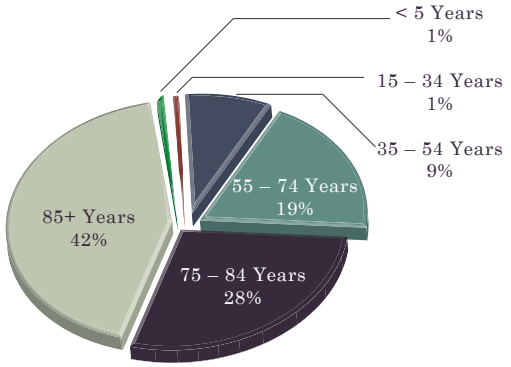
Age Adjusted Influenza/Pneumonia Death Rates by Race/Ethnicity | Tulsa County | 2005 – 2007



Age Adjusted Influenza/Pneumonia Death Rates by Region | 2006



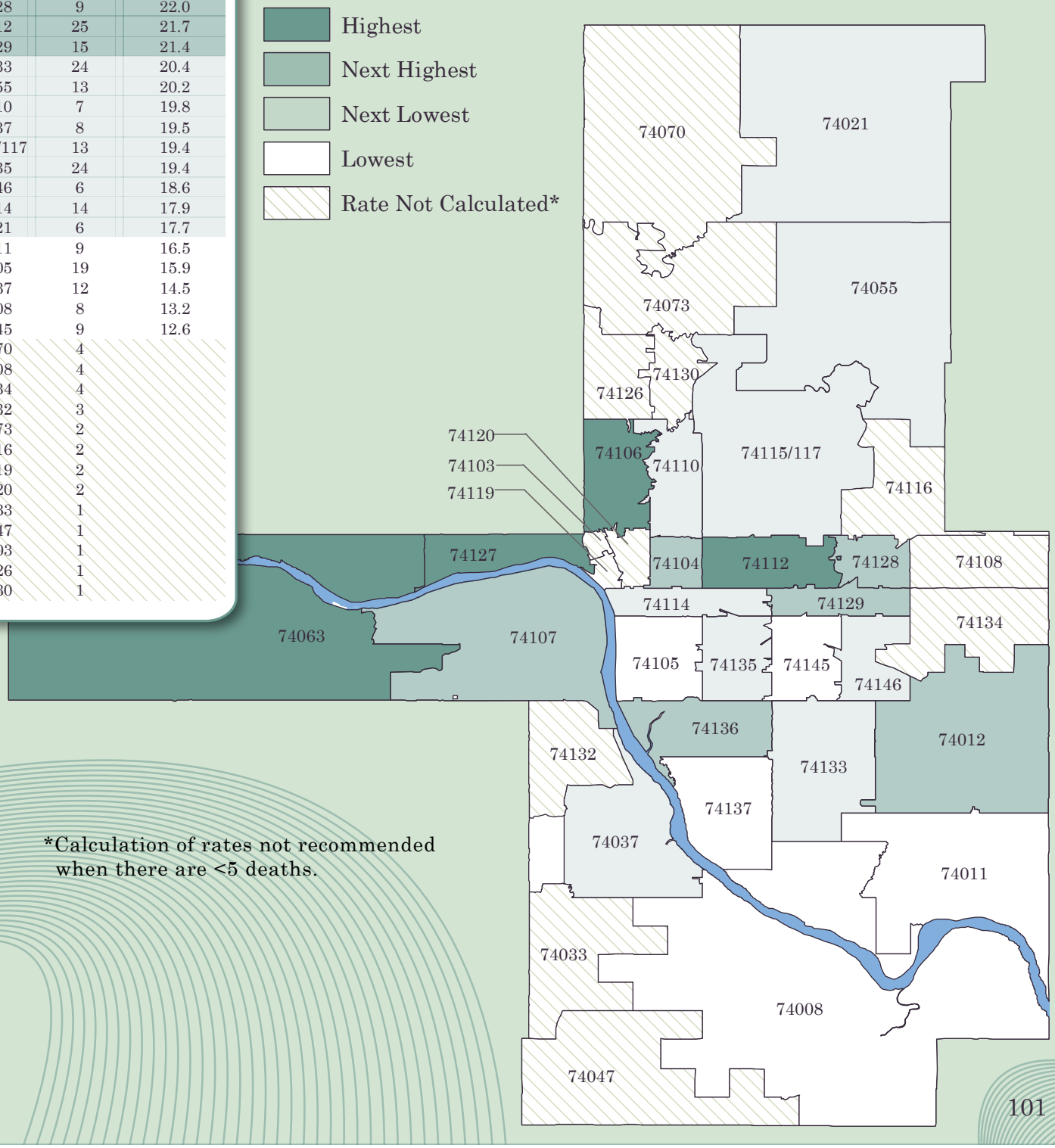
Influenza/Pneumonia Deaths by Age Group | Tulsa County | 2005 – 2007



DEATHS FROM INFLUENZA & PNEUMONIA

Age-Adjusted Rate per 100,000
2005 – 2007

ZIP Code	Number of Deaths	Influenza/ Pneumonia Death Rate
74063	17	28.5
74112	22	27.8
74127	9	27.5
74106	19	26.4
74104	7	23.7
74136	23	22.4
74107	13	22.3
74128	9	22.0
74012	25	21.7
74129	15	21.4
74133	24	20.4
74055	13	20.2
74110	7	19.8
74037	8	19.5
74115/117	13	19.4
74135	24	19.4
74146	6	18.6
74114	14	17.9
74021	6	17.7
74011	9	16.5
74105	19	15.9
74137	12	14.5
74008	8	13.2
74145	9	12.6
74070	4	
74108	4	
74134	4	
74132	3	
74073	2	
74116	2	
74119	2	
74120	2	
74033	1	
74047	1	
74103	1	
74126	1	
74130	1	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM ALL ACCIDENTS

Unintentional injuries (accidents) include motor vehicle accidents, accidental falls, drownings, fires and poisonings. The death rate from unintentional injuries is the number of deaths from accidents per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

Accidents were the fifth leading cause of death among Tulsa County residents in the years 2005 – 2007. However, accidents were the number one cause of death among younger age groups (1 – 44 years). Motor vehicle accidents accounted for more than one quarter of all accident deaths.

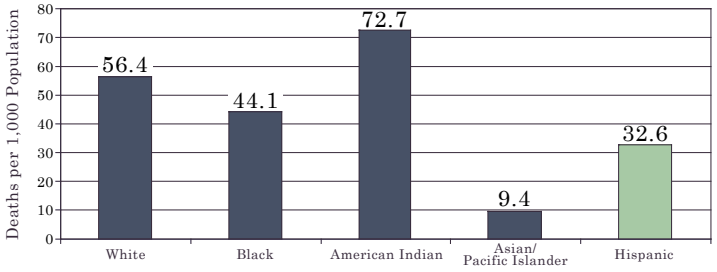
How Are We Doing?

Accidents killed 952 Tulsa County residents in 2005 – 2007, for an average age adjusted death rate of 54.9 per 100,000 population. Males, with a rate of 71.8 deaths per 100,000, were almost twice as likely as females (39.6 per 100,000) to die in an accident. Consistent with the national trend, American Indians (72.7 per 100,000) had a higher accident death rate than other races. The accident death rate among Whites (56.4) exceeded that of Blacks (44.1).

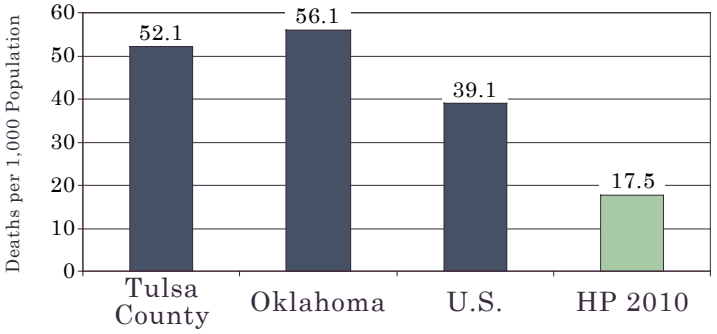
The 2006 accident death rate for Tulsa County (52.1) was lower than the state's death rate (56.1). However, these rates were much higher than the national accident death rate (39.1). The Healthy People 2010 accident death rate target is 17.5 deaths per 100,000 population.

In Tulsa County, the ZIP codes with the highest age adjusted unintentional injury death rate were 74127 and 74070.

Age Adjusted Unintentional Injury (Accident) Death Rates by Race/Ethnicity
Tulsa County | 2005 – 2007



Age Adjusted Unintentional Injury (Accident) Death Rates by Region | 2006



Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

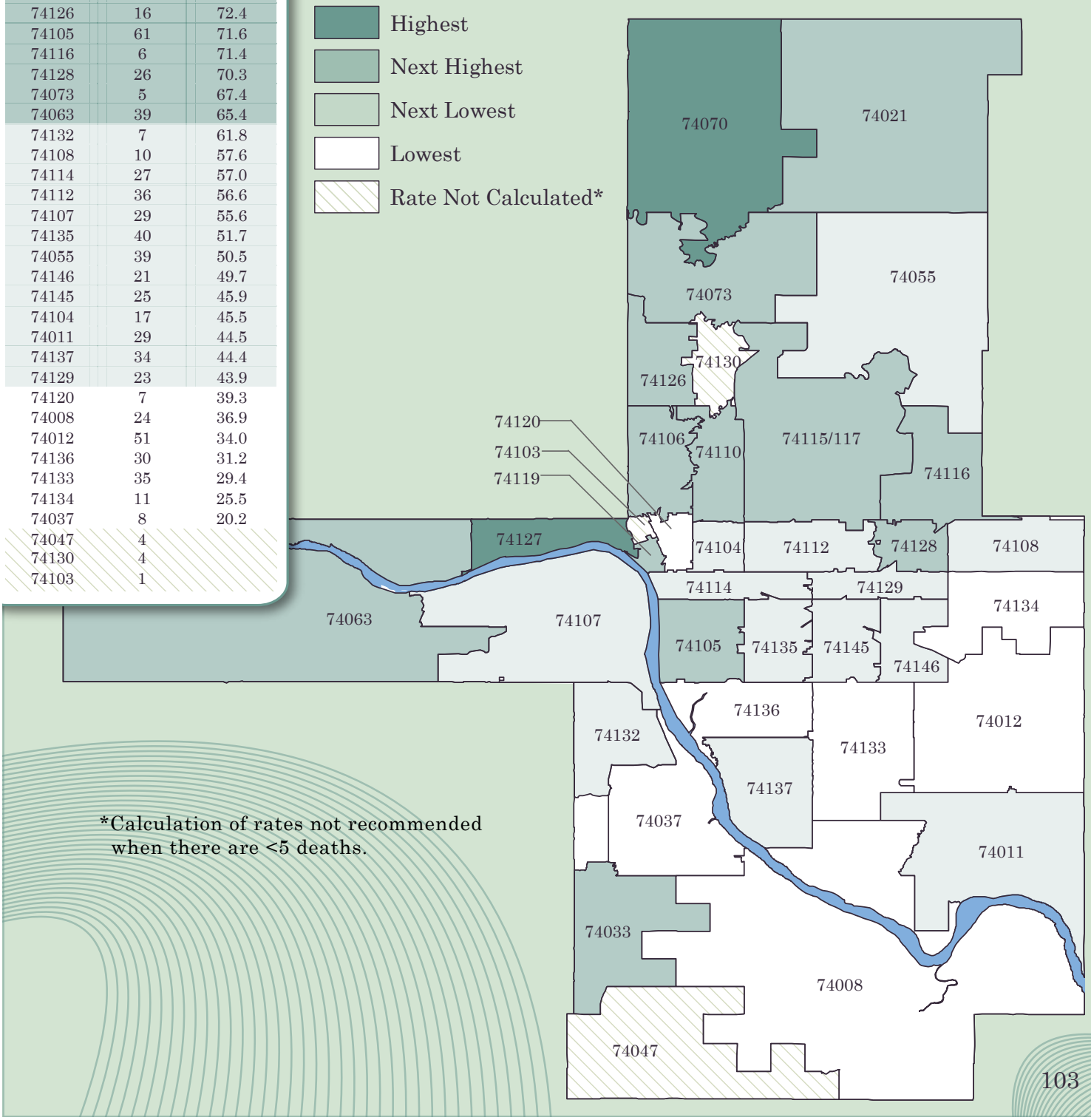
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

DEATHS FROM ALL ACCIDENTS

Age-Adjusted Rates per 100,00
2005 – 2007

ZIP Code	Number of Deaths	Accident Death Rate
74127	40	139.8
74070	12	124.7
74115/117	57	87.3
74119	13	84.7
74033	18	84.3
74110	32	80.5
74021	26	76.1
74106	37	72.5
74126	16	72.4
74105	61	71.6
74116	6	71.4
74128	26	70.3
74073	5	67.4
74063	39	65.4
74132	7	61.8
74108	10	57.6
74114	27	57.0
74112	36	56.6
74107	29	55.6
74135	40	51.7
74055	39	50.5
74146	21	49.7
74145	25	45.9
74104	17	45.5
74011	29	44.5
74137	34	44.4
74129	23	43.9
74120	7	39.3
74008	24	36.9
74012	51	34.0
74136	30	31.2
74133	35	29.4
74134	11	25.5
74037	8	20.2
74047	4	
74130	4	
74103	1	



*Calculation of rates not recommended when there are <5 deaths.

DEATHS FROM MOTOR VEHICLE ACCIDENTS

The death rate from motor vehicle accidents (including motorcycle and automobile accidents) is the number of deaths from motor vehicle accidents per 100,000 population, age adjusted and averaged over the years 2005 – 2007. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

Motor vehicle accidents accounted for more than one quarter of the deaths from all accidents in Tulsa County over the period 2005 – 2007. Deaths from motor vehicle accidents can most often be prevented by the proper use of safety equipment, such as seatbelts in cars and motorcycle helmets, and by following traffic laws.

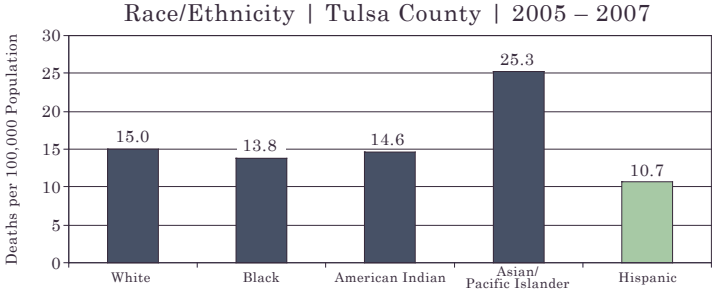
How Are We Doing?

During the years 2005 – 2007, 255 Tulsa County residents died in motor vehicle accidents, for an average age adjusted death rate of 14.8 deaths per 100,000 population. Males died at a rate of about two and a half that of females (21.6 and 8.7 per 100,000, respectively). The motor vehicle accident rate for the White population was 15.0 per 100,000. Although the Asian/Pacific Islander death rate is higher, it is based on only 8 deaths.

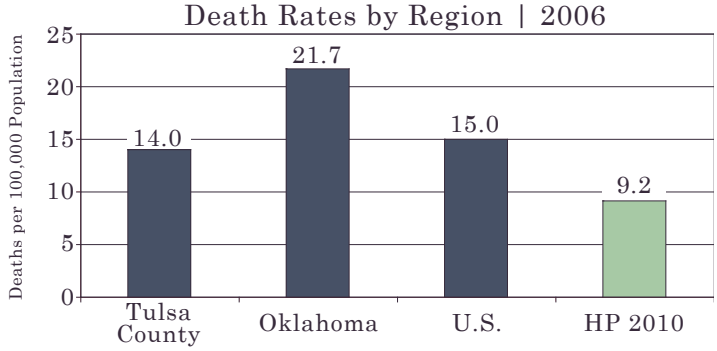
In 2006, the motor vehicle accident rate for Tulsa County (14.0) was 35 percent lower than the state's rate (21.7). The national motor vehicle accident death rate in 2006 was 15.0 deaths per 100,000 population. The Healthy People 2010 goal is 9.2 motor vehicle accident deaths per 100,000 population.

The Tulsa County ZIP codes with the highest motor vehicle accident death rates were primarily in far northeastern and western areas of Tulsa County.

Age Adjusted Motor Vehicle Accident Death Rates by Race/Ethnicity | Tulsa County | 2005 – 2007



Age Adjusted Motor Vehicle Accident Death Rates by Region | 2006



Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

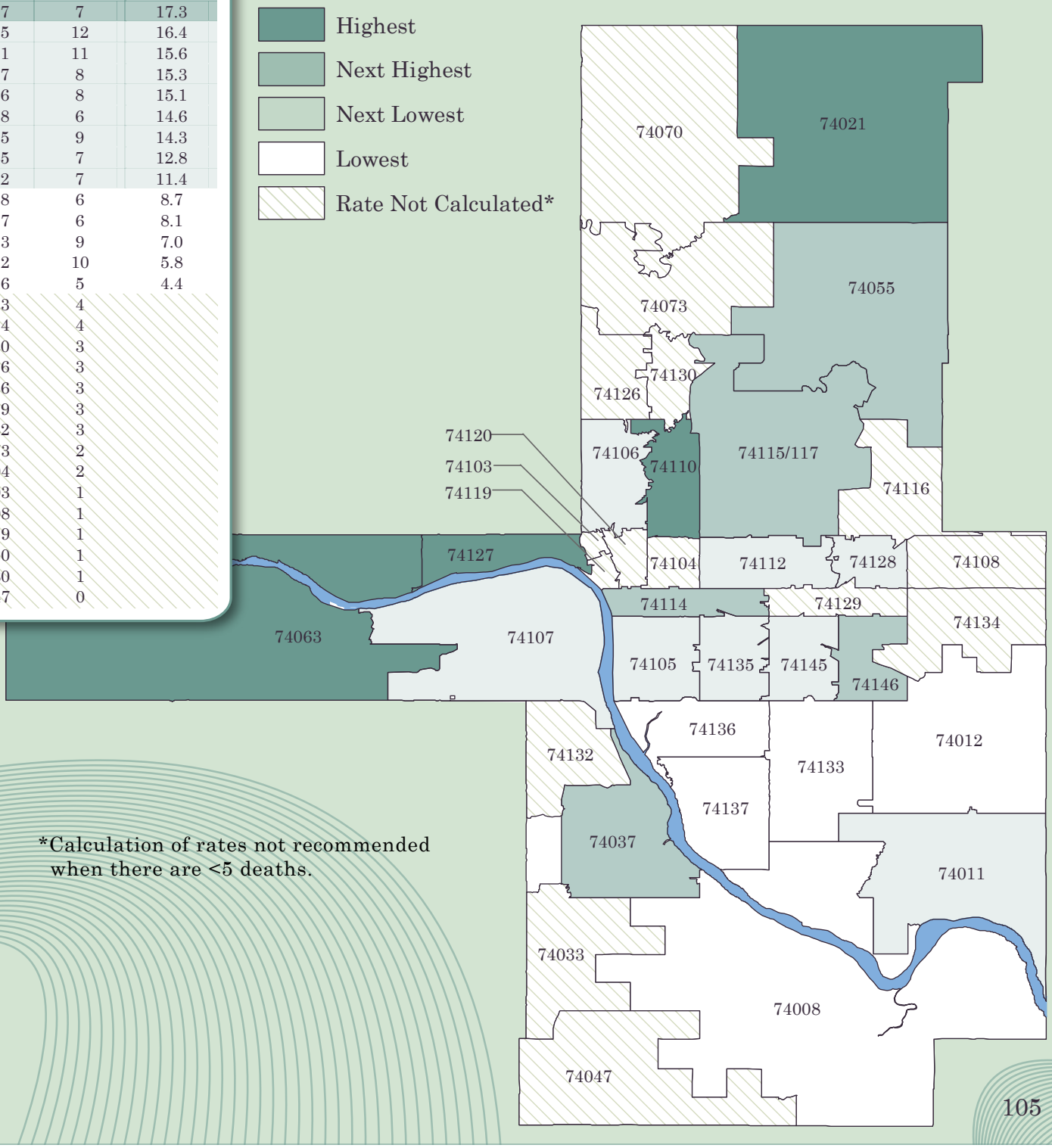
Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. Deaths: Final Data for 2006. National Vital Statistics Reports; Vol 57 No 14. Hyattsville, MD: National Center for Health Statistics. 2009.

U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2010. Retrieved from http://www.health.gov/healthypeople/.

DEATHS FROM MOTOR VEHICLE ACCIDENTS

Age-Adjusted Rates per 100,000
2005 – 2007

ZIP Code	Number of Deaths	MVA Death Rate
74127	10	33.3
74021	11	32.0
74063	16	27.0
74110	10	25.3
74115/117	15	23.4
74055	17	20.4
74146	8	17.7
74114	8	17.5
74037	7	17.3
74105	12	16.4
74011	11	15.6
74107	8	15.3
74106	8	15.1
74128	6	14.6
74135	9	14.3
74145	7	12.8
74112	7	11.4
74008	6	8.7
74137	6	8.1
74133	9	7.0
74012	10	5.8
74136	5	4.4
74033	4	
74134	4	
74070	3	
74116	3	
74126	3	
74129	3	
74132	3	
74073	2	
74104	2	
74103	1	
74108	1	
74119	1	
74120	1	
74130	1	
74047	0	



*Calculation of rates not recommended when there are <5 deaths.

YEARS OF POTENTIAL LIFE LOST

The years of potential life lost (YPLL) is the number of years people would have lived had they not died prematurely. It is calculated as the age at death subtracted from the expected lifespan (here assumed to be 75). Each infant death (under one year of age) was counted as 75 YPLL. The YPLL rate is presented as the total YPLL per 1,000 population aged 75 and younger, averaged over the years 2005 – 2007. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

Unlike the crude mortality rate, which is highly influenced by the large number of deaths occurring in the older population, the YPLL emphasizes the losses suffered as a result of people who died young. Disease-specific YPLLs provide a broader perspective on the relative importance of the causes of premature death.

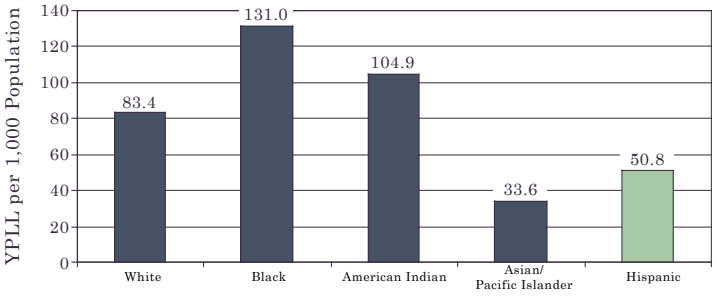
How Are We Doing?

The total YPLL for all of Tulsa County during the years 2005-2007 was 154,903 years, for an average rate of 89.4 YPLL per 1,000 population. The rate for males (111.3 per 1,000) was 1.6 times that for females (68.3 per 1,000). Racial disparity was evident, with Blacks having the highest YPLL rate at 131.0 per 1,000, followed by American Indians at 104.9 per 1,000, and Whites at 83.4 per 1,000. The Hispanic population had an average YPLL rate of 50.8 per 1,000.

According to preliminary 2007 data, accidents were responsible for 17.7% of the YPLL. Cancer and heart disease accounted for the next highest percentages. Suicide and homicide caused more YPLL than stroke, diabetes, and chronic lower respiratory diseases combined.

During 2005 – 2007, the ZIP codes with the highest YPLL were 74126, 74127, 74106 and 74073 in northwest Tulsa and 74116 in east Tulsa. The lowest rates were seen in southern Tulsa.

Years of Potential Life Lost by Race/Ethnicity
Tulsa County | 2005 – 2007



Years of Potential Life Lost (Prior to Age 75) by Cause | Tulsa County | 2007

Cause of Death	Perentage of all YPLL
Accidents	17.7%
Cancer	17.5%
Heart Disease	14.0%
Infant Death	13.1%
Suicide	5.5%
Homicide	4.2%
Chronic Lower Respiratory Diseases	3.2%
Chronic Liver Disease/Cirrhosis	2.5%
Diabetes	2.2%
Stroke	2.1%
Influenza/Pneumonia	1.2%
All Other	16.9%

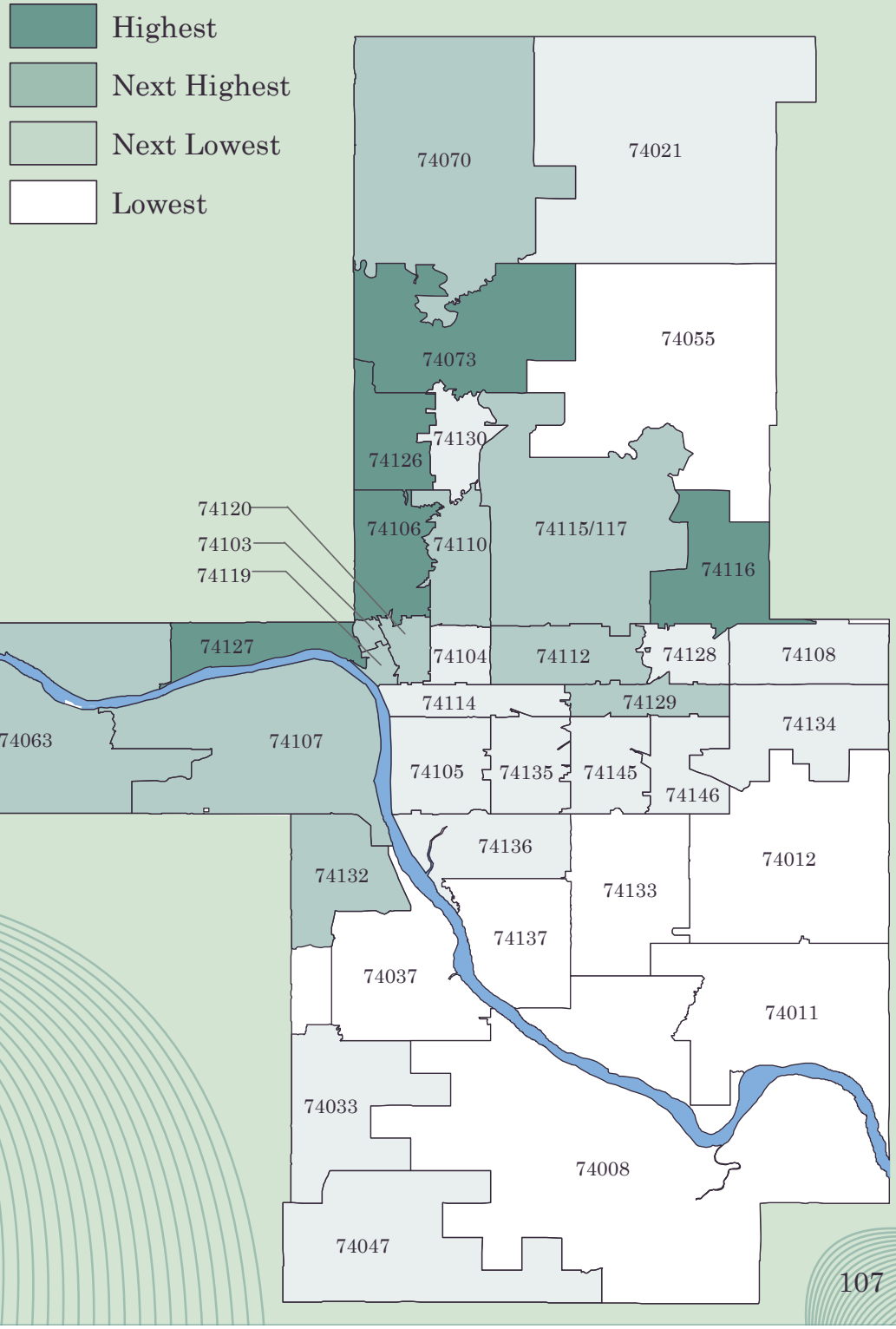
Data Source:

Vital Statistics (2005, 2006, preliminary 2007), Health Care Information Division, Oklahoma State Department of Health.

YEARS OF POTENTIAL LIFE LOST

per 1,000 Population | 2005 – 2007

ZIP Code	Total YPLL <75	YPLL Rate
74126	5,108	225.3
74127	6,419	208.6
74116	1,354	179.4
74106	8,837	175.3
74073	1,052	155.3
74115/117	9,493	136.7
74110	5,722	130.3
74107	6,751	118.8
74120	1,707	115.3
74119	1,287	114.7
74070	1,140	114.0
74063	6,790	113.8
74103	608	107.9
74112	6,395	107.2
74132	1,404	102.4
74129	5,354	102.2
74146	4,006	94.9
74021	3,275	92.1
74130	605	89.3
74105	7,076	89.0
74145	4,301	88.3
74128	3,114	87.4
74033	2,252	83.6
74047	274	82.8
74104	3,218	81.8
74108	1,495	81.0
74136	6,851	76.2
74114	3,429	75.0
74135	4,457	74.8
74134	2,830	70.9
74055	4,767	59.7
74011	4,235	56.5
74012	8,828	53.0
74133	6,502	50.0
74037	2,307	48.1
74008	3,344	47.3
74137	3,364	42.9



HEALTH CARE ACCESS INDICATORS

HOSPITAL ADMISSIONS

This indicator is an estimate of the use of short-stay hospitals by Tulsa County residents during the year 2007. It is presented as the number of hospital discharges per 1,000 population. Zip code populations are based on 2009 population estimates.

Why Is This Indicator Important?

Hospital inpatient utilization data give an indication of the magnitude and types of illnesses experienced by a population. Trends in utilization reflect changes in the age distribution of the population, technological advances and efforts to shift care to outpatient services.

How Are We Doing?

The overall hospital utilization rate for Tulsa County in 2007 was 142.6 per 1,000 population. For the same year, the state's utilization rate was 143.4 per 1,000 population. Females accounted for the majority of the discharges (60.4 percent). Whites comprised 76 percent of the discharges, Blacks 13 percent and American Indians 4 percent.

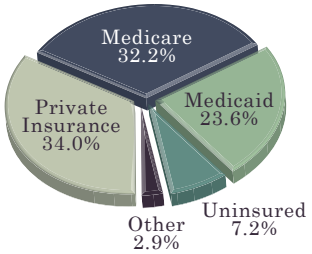
Circulatory conditions made up 13.8 percent of all hospital stays in 2007. These hospitalizations were for diagnoses such as congestive heart failure, heart attack, coronary artery disease and irregular heart beat. Conditions related to pregnancy and childbirth were ranked second among reasons for hospitalizations. Combined with newborn hospital stays, pregnancy and childbirth stays comprised 24 percent of all hospital discharges. Overall, 31 percent of patients were aged 65 years and older.

Hospital utilization in 2007 was highest in zip code 74103. Utilization was lowest in southern Tulsa.

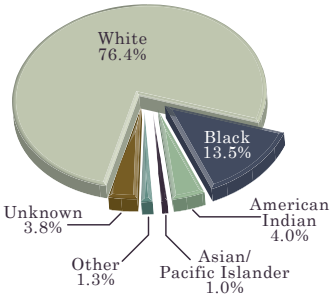
Data Source:

2007 Patient Origin Report. Health Care Information Division (HCI). Oklahoma State Department of Health.

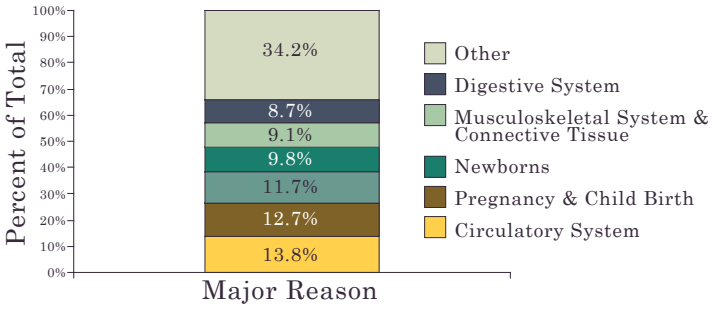
Expected Primary Payer for Hospital Discharges Tulsa County | 2007



Hospital Admissions by Race | 2007



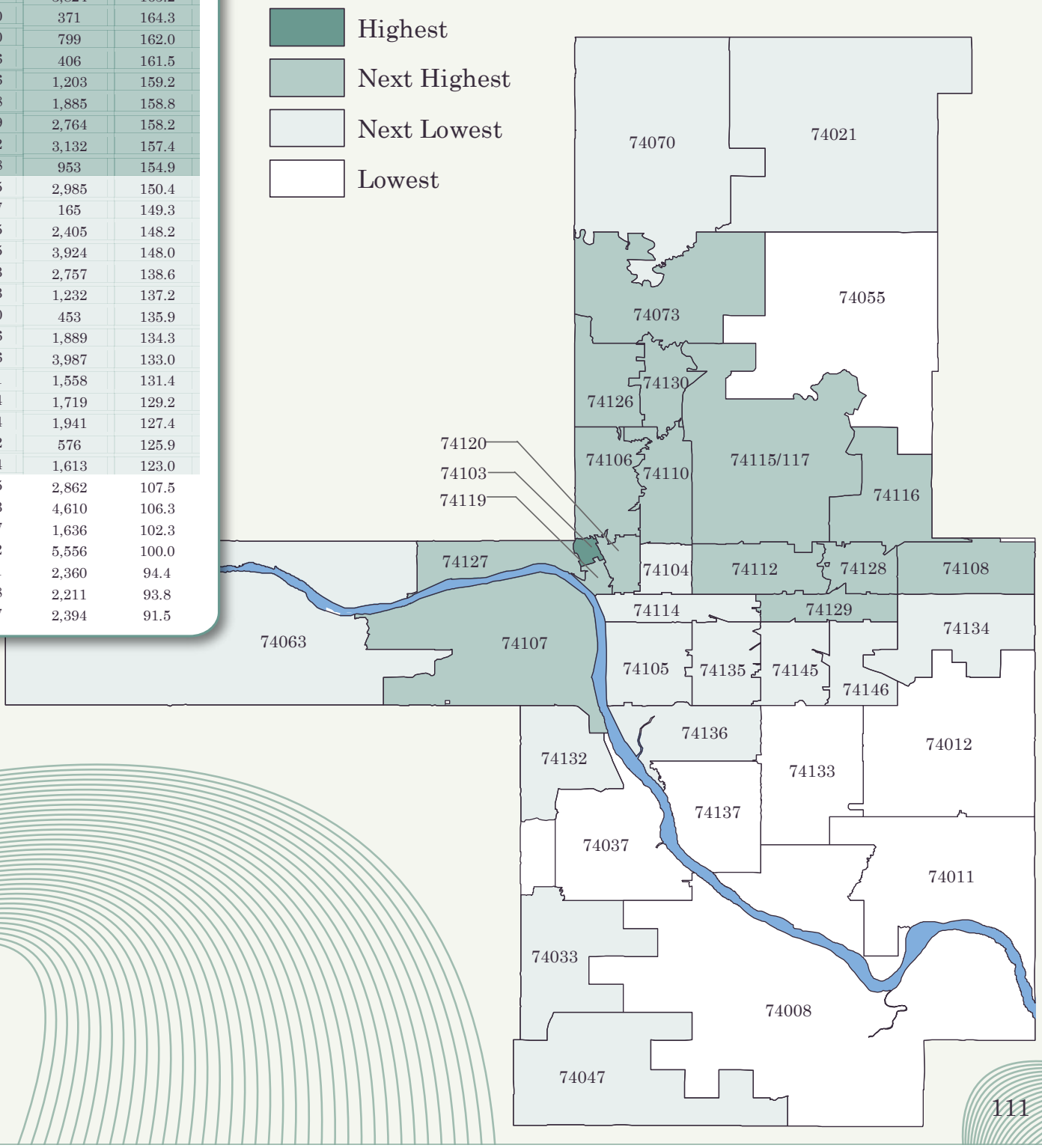
Discharges by Major Reason for Hospital Stay Tulsa County | 2007



HOSPITAL ADMISSIONS

per 1,000 Population | 2007

ZIP Code	Number of Admissions	Admission Rate
74103	607	323.0
74106	3,465	206.2
74110	2,718	185.7
74127	1,858	181.2
74107	3,389	178.9
74073	395	174.8
74119	620	165.8
74115/117	3,824	165.2
74130	371	164.3
74120	799	162.0
74116	406	161.5
74126	1,203	159.2
74128	1,885	158.8
74129	2,764	158.2
74112	3,132	157.4
74108	953	154.9
74135	2,985	150.4
74047	165	149.3
74145	2,405	148.2
74105	3,924	148.0
74063	2,757	138.6
74033	1,232	137.2
74070	453	135.9
74146	1,889	134.3
74136	3,987	133.0
74021	1,558	131.4
74134	1,719	129.2
74114	1,941	127.4
74132	576	125.9
74104	1,613	123.0
74055	2,862	107.5
74133	4,610	106.3
74037	1,636	102.3
74012	5,556	100.0
74011	2,360	94.4
74008	2,211	93.8
74137	2,394	91.5



EMERGENCY ROOM VISITS

This indicator is the number of emergency room (ER) visits to eight acute-care hospitals by Tulsa County residents, per 1,000 population, during the year 2007. Zip code populations are based on 2009 estimates.

Why Is This Indicator Important?

Lack of access to adequate and timely outpatient preventative health care services can lead to increased use of the hospital ER as a source of primary care. Frequent ER use has been associated with poor health, and the uninsured and underinsured are disproportionately affected.

How Are We Doing?

In 2007, over 220,000 visits were made to the eight ERs, for an approximate overall rate of 424 per 1,000 population. This is most likely an over estimate for county residents because the ZIP code was unknown for 11 percent of visits. The 2007 rates were 447 and 401 per 1,000 for Oklahoma and the United States, respectively.

Females accounted for more ER visits than men—59 percent versus 41 percent. Furthermore, 17.6 percent of emergency room visits were individuals 24 – 34 years of age.

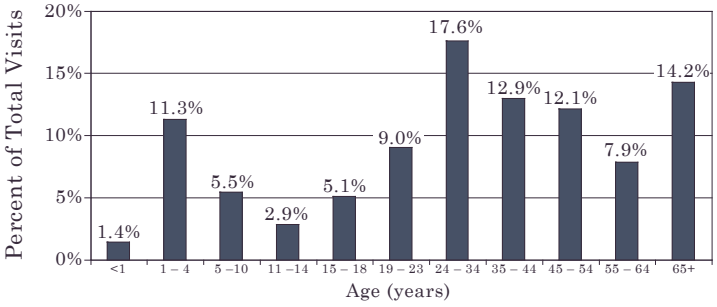
Emergency room use in 2007 was highest in northern and western Tulsa, and lower rates were seen in the northern and southern suburbs of the county.

Data Source:

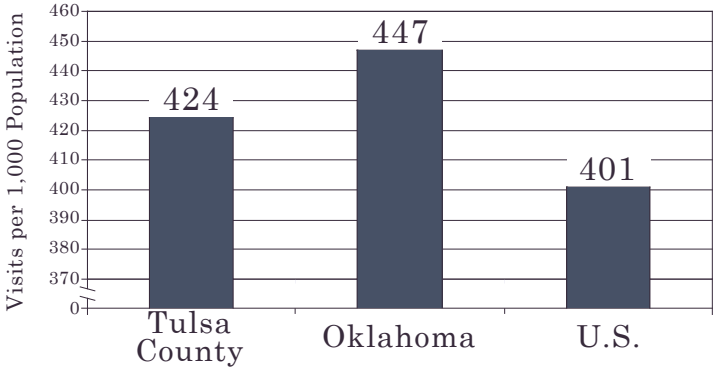
Tulsa Area Syndromic Surveillance System (TASSS). Tulsa Health Department.

Hospital Emergency Room Visits per 1,000 Population, 2007. Kaiser Family Foundation. Retrieved from http://statehealthfacts.org/.

Emergency Room Visits by Age | Tulsa County | 2007



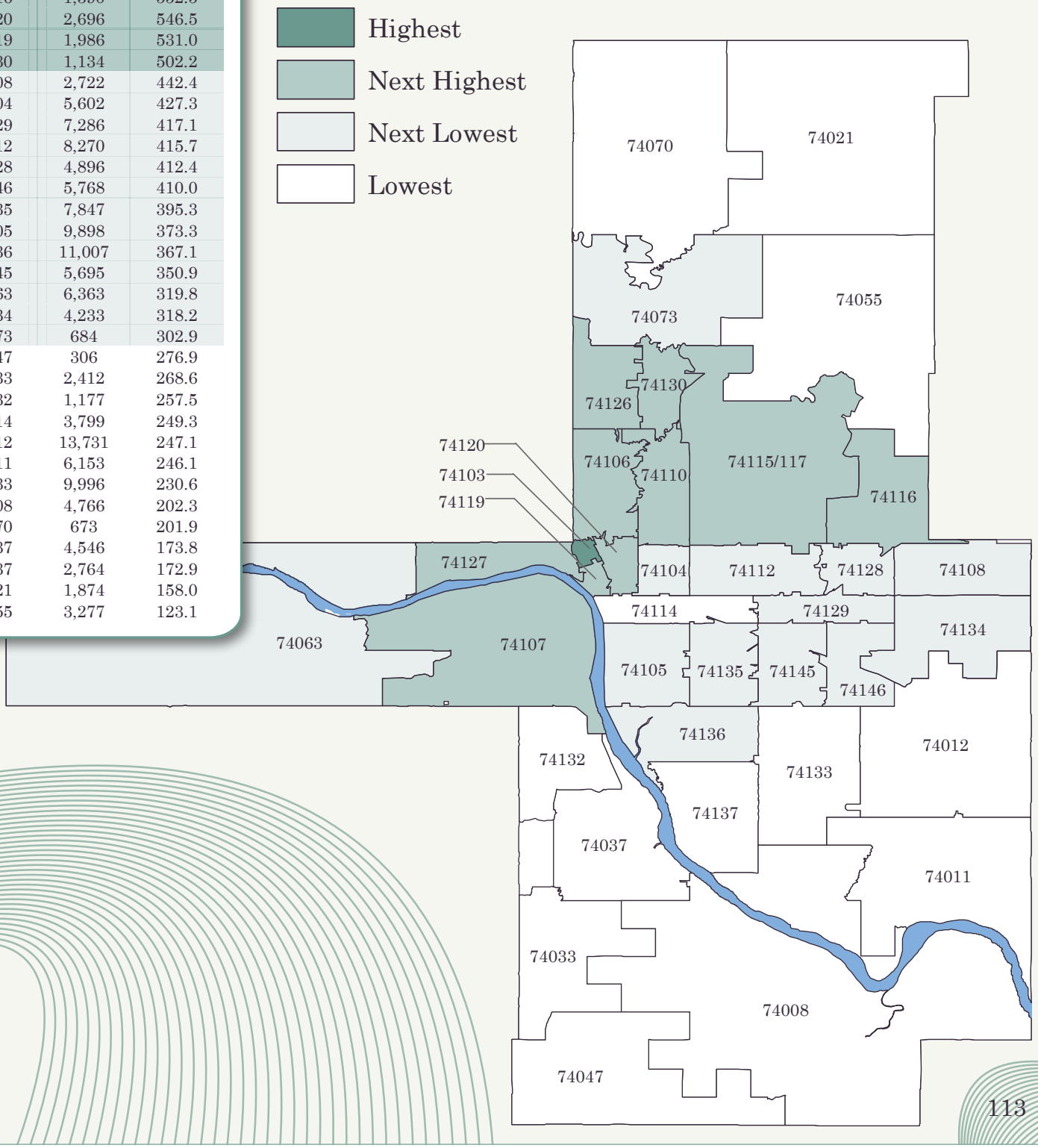
Emergency Room Visit Rate by Region | 2007



EMERGENCY ROOM VISITS

per 1,000 Population | 2007

ZIP Code	Number of ER Visits	ER Visit Rate
74103	3,150	1676.4
74106	12,024	715.4
74110	9,830	671.7
74126	4,746	628.1
74127	5,948	580.0
74107	10,805	570.3
74115/117	13,021	562.4
74116	1,390	552.5
74120	2,696	546.5
74119	1,986	531.0
74130	1,134	502.2
74108	2,722	442.4
74104	5,602	427.3
74129	7,286	417.1
74112	8,270	415.7
74128	4,896	412.4
74146	5,768	410.0
74135	7,847	395.3
74105	9,898	373.3
74136	11,007	367.1
74145	5,695	350.9
74063	6,363	319.8
74134	4,233	318.2
74073	684	302.9
74047	306	276.9
74033	2,412	268.6
74132	1,177	257.5
74114	3,799	249.3
74012	13,731	247.1
74011	6,153	246.1
74133	9,996	230.6
74008	4,766	202.3
74070	673	201.9
74137	4,546	173.8
74037	2,764	172.9
74021	1,874	158.0
74055	3,277	123.1



MEDICAID

Medicaid is an entitlement program that provides medical benefits to low-income individuals and families who have inadequate or no health insurance. This indicator is presented as the percentage of the population enrolled in Medicaid in 2006, based on the number of unduplicated enrollees. The ZIP code populations are based on 2009 estimates.

Why Is This Indicator Important?

Medicaid is our nation's primary source of health insurance for the poor, primarily covering families with children up to age 19, pregnant women, the elderly and the disabled. Besides being a measure of poverty, Medicaid enrollment provides an indication of the population making use of government assistance programs.

How Are We Doing?

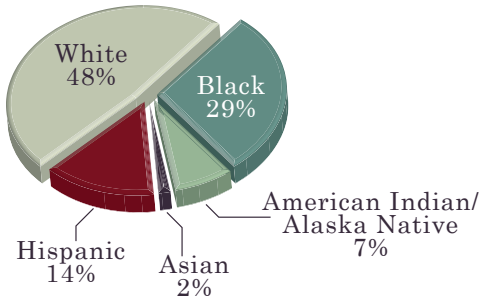
According to the 2007 Behavioral Risk Factor Surveillance System (BRFSS), 18.7 percent (CI: 15.9 – 21.4) of Tulsa County adults were uninsured.

Tulsa County had 107,632 unduplicated Medicaid enrollees during SFY 2007, 18.6 percent of the total population. During the same time period, 21.3 percent of Oklahoma's population was on Medicaid. During the FY 2006, 19.7 percent of the nation's population was on Medicaid.

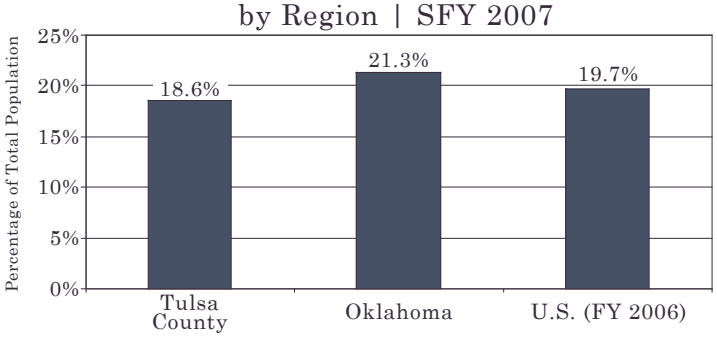
In December 2007, 48 percent of Tulsa County Medicaid enrollees were White, 29 percent Black, 14 percent Hispanic and 7 percent American Indian/Alaskan Native.

The geographic distribution of Medicaid recipients in Tulsa County in 2006 showed the ZIP codes with the highest percentage of enrollees were located in: 74126, 74127, 74106, 74116 and 74110.

Racial Breakdown of Medicaid Enrollees
Tulsa County | December 2007



Percentage Population on Medicaid
by Region | SFY 2007



Data Source:

Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance Systems (BRFSS). Prevalence and Trends Data. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2007. Retrieved from http://apps.nccd.cdc.gov/BRFSS/index.asp.

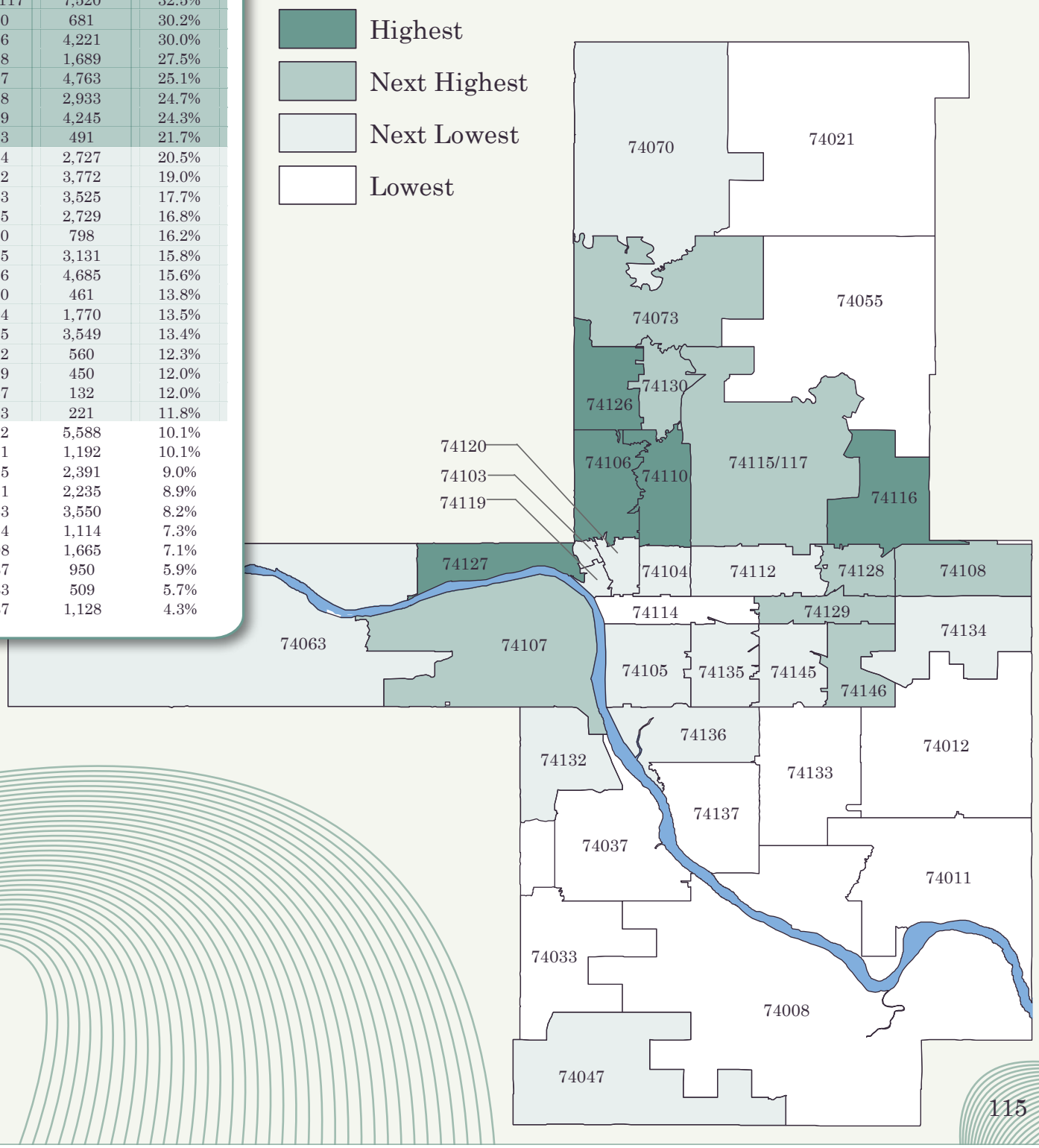
Oklahoma Health Care Authority (OHCA).

Oklahoma & United States State Medicaid Fact Sheet. The Kaiser Commission on Medicaid and the Uninsured. Retrieved from www.statehealthfacts.org.

MEDICAID

Percent of Population on Medicaid 2006

ZIP Code	Number of Individuals on Medicaid	Percent of Population on Medicaid
74126	4,369	57.8%
74127	5,562	54.2%
74106	7,523	44.8%
74116	1,047	41.6%
74110	5,607	38.3%
74115/117	7,520	32.5%
74130	681	30.2%
74146	4,221	30.0%
74108	1,689	27.5%
74107	4,763	25.1%
74128	2,933	24.7%
74129	4,245	24.3%
74073	491	21.7%
74134	2,727	20.5%
74112	3,772	19.0%
74063	3,525	17.7%
74145	2,729	16.8%
74120	798	16.2%
74135	3,131	15.8%
74136	4,685	15.6%
74070	461	13.8%
74104	1,770	13.5%
74105	3,549	13.4%
74132	560	12.3%
74119	450	12.0%
74047	132	12.0%
74103	221	11.8%
74012	5,588	10.1%
74021	1,192	10.1%
74055	2,391	9.0%
74011	2,235	8.9%
74133	3,550	8.2%
74114	1,114	7.3%
74008	1,665	7.1%
74037	950	5.9%
74033	509	5.7%
74137	1,128	4.3%



PHYSICIANS

A list of Tulsa County physicians and their location of practice was obtained from the subscription database ReferenceUSA. ReferenceUSA is an internet-based reference service that compiles data from a number of sources including state licensing information.

Why Is This Indicator Important?

Lack of or delayed access to primary care physicians can lead to poor health outcomes because of inadequate preventative care and delayed treatment. Transportation for medical appointments is often a challenge for low income residents which results in increased use of hospital emergency rooms.

How Are We Doing?

Address mapping of physicians located in Tulsa County showed that most are located in zip codes 74136 and 74104. As expected, many of these physicians are in the complex of office buildings near St. Francis Hospital (zip code 74136) and near Hillcrest Medical Center and St. John Medical Center in midtown Tulsa (zip code 74104). The map reflects the number of physicians serving each zip code; therefore, physicians were counted more than once if providing services in more than one zip code.

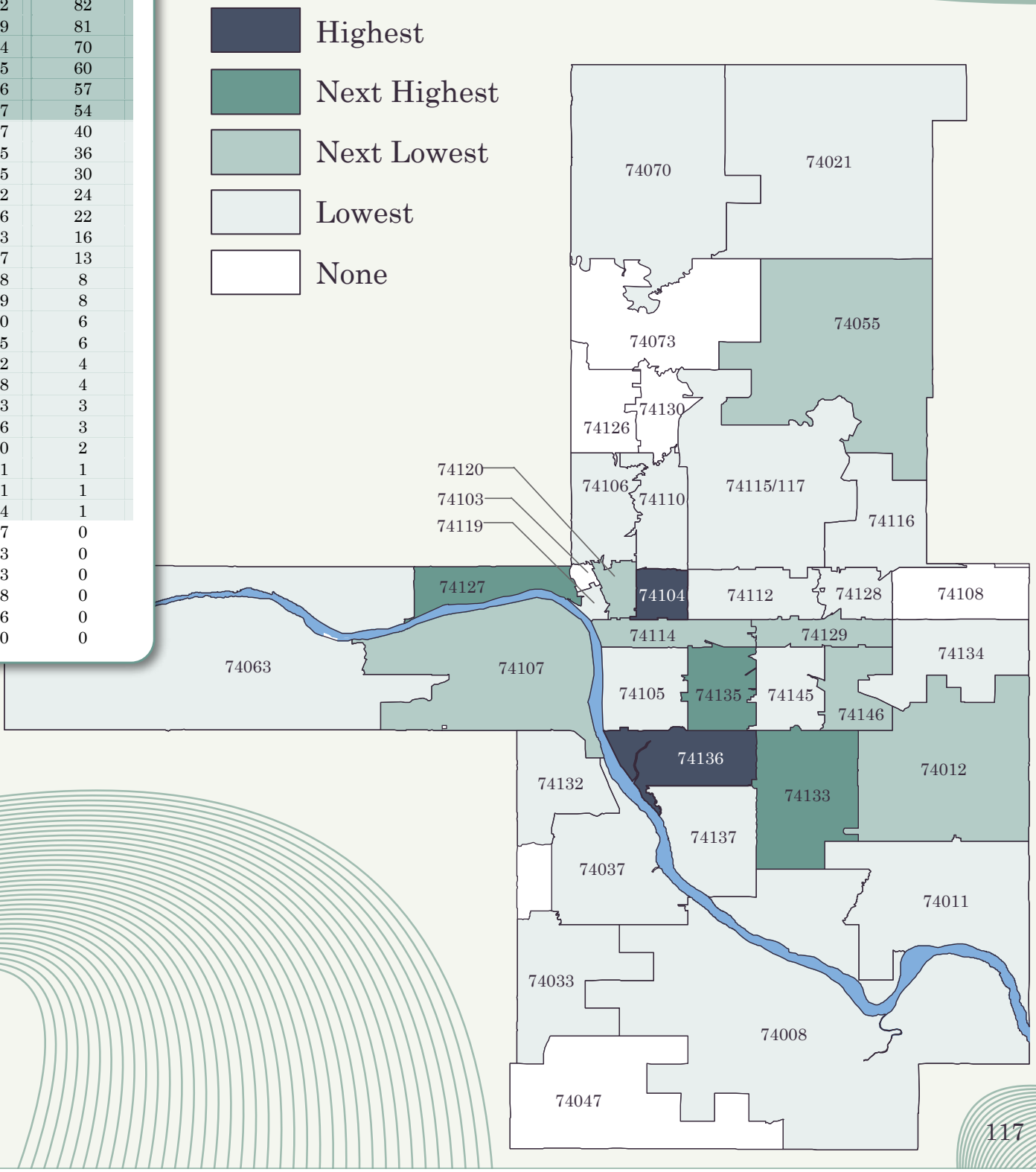
Data Source:

ReferenceUSA. Physicians in Tulsa County. Retrieved October 27, 2009, from http://www.referenceusa.com/.

PHYSICIANS

Number of Physicians | 2009

ZIP Code	Number of Physicians
74136	530
74104	472
74135	271
74133	227
74127	177
74120	91
74012	82
74129	81
74114	70
74055	60
74146	57
74107	54
74137	40
74145	36
74105	30
74132	24
74106	22
74063	16
74037	13
74008	8
74119	8
74070	6
74115	6
74112	4
74128	4
74033	3
74116	3
74110	2
74011	1
74021	1
74134	1
74047	0
74073	0
74103	0
74108	0
74126	0
74130	0



BEHAVIORAL RISK FACTORS & QUALITY OF LIFE

BEHAVIORAL RISK FACTORS & QUALITY OF LIFE

Overall Health Status

Almost 83 percent of Tulsa County adults reported their health to be good, very good, or excellent. [2]

Physical Activity

Less than half of Tulsa County adult residents (47.6 percent) met the physical activity recommendations (30+ minutes of moderate physical activity five or more days a week or vigorous physical activity for 20+ minutes three or more days a week). [1]

Fruit and Vegetable Consumption

Only 18.8 percent of adults reported consuming fruits or vegetables five or more times a day. [1]

[1]Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System (BRFSS). SMART: BRFSS City and County Data. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2007. Retrieved from http://apps.nccd.cdc.gov/brfss-smart/index.asp.

BEHAVIORAL RISK FACTORS & QUALITY OF LIFE

Overweight and Obesity

The overall obesity rate among Tulsa County adults is 26.9 percent. In addition, 35.7 percent of Tulsa County adults are overweight.[2]

Tobacco Use

In 2008, 22.8 percent of Tulsa County adults reported being current smokers. [2]

Breast Cancer Screening

Among Tulsa County women aged 50 years or older, 73.2 percent reported having a mammogram in the past two years. [2]

[2]Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System (BRFSS). SMART: BRFSS City and County Data. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008. Retrieved from http://apps.nccd.cdc.gov/brfss-smart/index.asp.

GLOSSARY

American Community Survey (ACS)
ACS is a nationwide survey that collects population and housing data every year.

Average (Mean)
The sum of all values divided by the number of values recorded. The mean is therefore a measure of the "average" value.

Accidents (Unintentional Injuries)
ICD-10 codes V01 – X59, Y85 – Y86

Age-Adjusted Mortality
A summary of age-specific death rates standardized to one age distribution (such as the 2000 United States standard population). The age-adjusted mortality rate therefore is considered to be a fictitious rather than actual mortality rate. However, since the summary method has the effect of removing the influence of age from the overall mortality picture, it allows more meaningful comparisons to be made between populations with different age distributions.

Behavioral Risk Factor Surveillance System (BRFSS)
BRFSS, which is supported by the CDC, is the world's largest, on-going telephone health survey system. It tracks health conditions and behaviors in adults (18+ years of age) in all 50 states as well as many local areas. Information is gathered on issues such as health care access, alcohol use, cholesterol awareness, nutrition and obesity. This information is used by health care professionals to track health risks, identify new problems, prevent disease and improve treatment.

Birth Rate
The total number of births per unit of population reported during a given time interval, often expressed as the number of births per 1,000 persons.

Cancer (Malignant Neoplasms)
ICD-10 codes C00 – C97

CDC
Centers for Disease Control and Prevention

Chronic Liver Disease/Cirrhosis
ICD-10 codes K70, K73 – K74

Chronic Lower Respiratory Diseases (CLRD)
ICD-10 codes J40 – J47

CI
Confidence Interval

Congenital Malformations, Deformations, and Chromosomal Abnormalities
ICD-10 codes Q00 – Q99

Crude Birth Rate
The ratio of total live births to total population, usually expressed as the number of live births per 1,000 population per year.

GLOSSARY

Crude Mortality Rate
The total number of deaths per unit of population reported during a given time interval, often expressed as the number of deaths per 100,000 persons.

Descriptive Statistics
Descriptive statistics are used to summarize and describe data. They show patterns and general trends, without any effort to test hypotheses.

Diabetes (mellitus)
ICD-10 codes E10 – E14

Healthy People 2010
A broad set of guidelines and goals for select health outcomes by the year 2010. Healthy People 2010 was developed by the Healthy People Consortium; a combination of health departments, agencies, and leading public health figures.

Heart Disease
ICD-10 codes I00 – I09, I11, I13, I20 – I51

Hispanic Origin
Based on self-identification by respondents. People of Hispanic origin are those who indicated that their origin was Mexican, Puerto Rican, Cuban Central or South American, or some other Hispanic origin. People of Hispanic origin may be of any race.

Homicide (Assault)
ICD-10 codes X85 – Y09, Y87.1

ICD Codes
The International Classification of Diseases and Related Health Problems (ICD) was designed to promote international comparability in the collection, processing, classification and presentation of disease and death statistics. It is a collaborative effort of the World Health Organization and ten international centers. ICD codes translate verbal descriptions of diseases and procedures into numbers. There have been 10 versions of ICD, with the tenth version currently used to track death statistics (e.g., it is used to code cause of death on death certificates). The ninth version is still used for disease statistics (e.g., hospital discharge diagnoses).

IDU
Intravenous drug use

Incidence Rate
A measure of the number of new cases of disease occurring in a specific population over a specific period of time, usually a year.

Indicator
A measure of health status or a health outcome.

Infant Death
Infants who died before their first birthday.

GLOSSARY

Infant Mortality Rate
The total number of infant deaths in the first year of life reported per unit of population during a given time interval, often expressed as the number of infant deaths per 1,000 live births.

Infectious Disease
A disease caused by the entrance into the body of organisms (such as bacteria or viruses) that then grow and multiply there; often used synonymously with communicable disease.

Influenza/Pneumonia
ICD-10 codes J10 – J18

Life Expectancy
The number of additional years of life expected at a specified point in time.

Low Birth Weight (LWB)
Weight at birth of less than 2,500 grams (about 5.5 pounds).

Lung Cancer (Trachea, Bronchus, and Lung)
ICD-10 codes C33 – C34

Median
The point at which exactly half of the data are above and half are below.

Mortality
The event or rate of death.

MSM
Men who have sex with men.

NCHS (National Center for Health Statistics)
The NCHS of the CDC is the United States' principal health statistics agency. Data are gathered from multiple sources, such as vital and medical records, surveys, and testing; compiled; and disseminated to guide policies for the improvement of the nation's health.

Non-Hispanic
All people whose ethnicity is not Hispanic. Race and ethnicity are separate concepts, so the racial categories of White, Black, American Indian/ Alaska Native, and Asian/Pacific Islander all contain some people of Hispanic origin.

OSDH
Oklahoma State Department of Health

Per Capita Income
The total income for a geographic region divided by the number of people living in that region.

Race
Based on self-identification by respondents.

Rate
The frequency with which an event occurs in a defined population for a specified amount of time. Rates are usually calculated per 100, 1,000, or 100,000 population. The larger the population, the more reliable and meaningful the data.

GLOSSARY

Stroke (Cerebrovascular Disease)
ICD-10 codes I60 – I69

Suicide (Intentional Self-Harm)
ICD-10 codes X60 – X84, Y87.0

Tulsa Area Syndromic Surveillance System (TASSS)
TASSS is a system through which several Tulsa-area hospitals send daily electronic transfers of emergency room chief complaints to the THD. The purpose is to monitor population-level early signs of impending disease, such as fever, rash, and diarrhea, and alert physicians to potential outbreaks and bioterrorism events before large numbers ofatients become sick. TASSS data includes zip codes and was used to estimate ER use in various areas of the county.

THD
Tulsa Health Department

Very Low Birth Weight (VLBW)
Weight at birth of less than 1,500 grams (about 3.3 pounds).

Years of Potential Life Lost (YPLL)
A statistical measure used to determine premature death. YPLL is calculated by subtracting an individual's age at death from a predetermined life expectancy, usually 75 years of age.

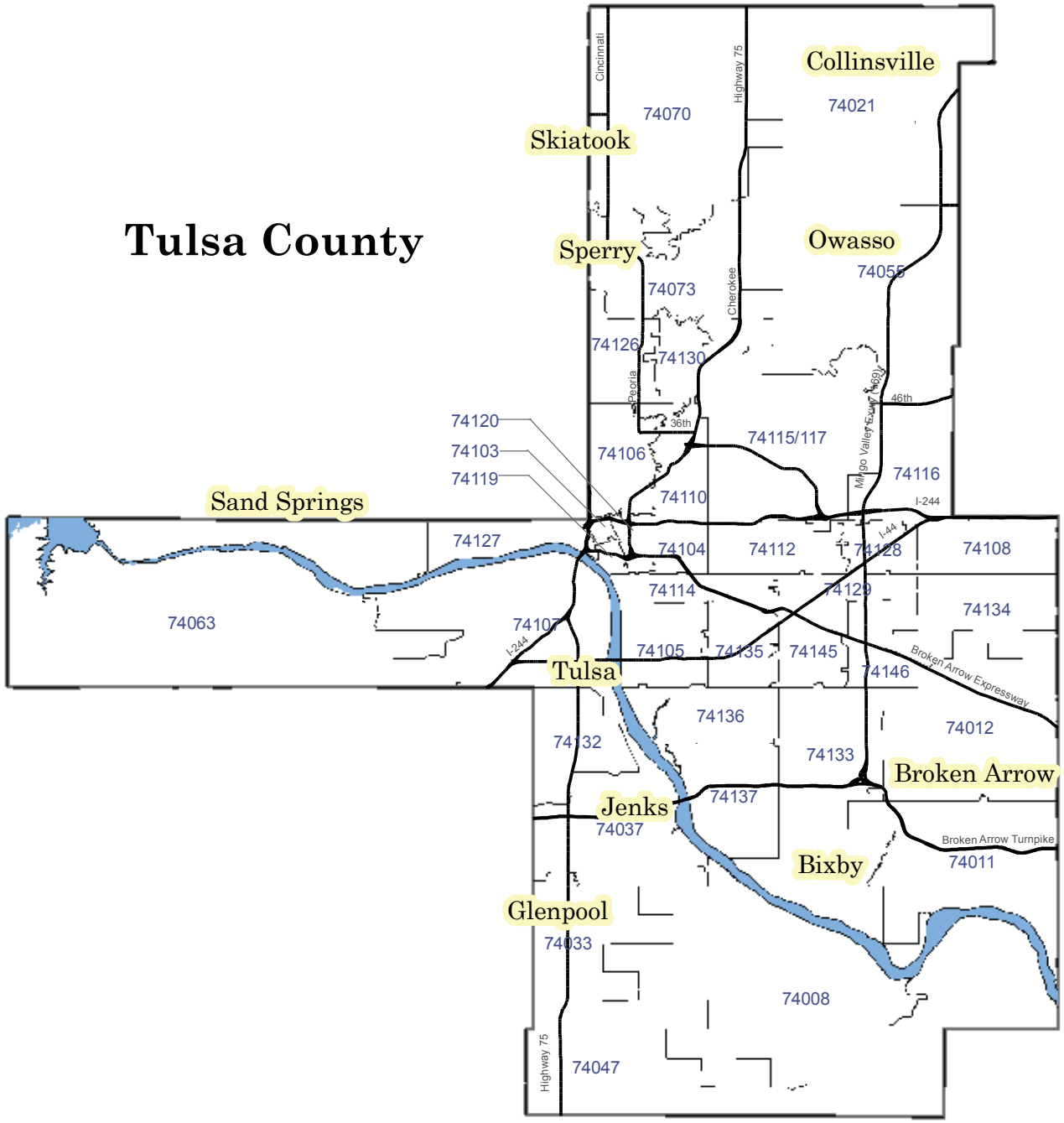
ZIP CODE ANALYSIS

Indicator		Maternal & Child Health									Infectious Disease				
ZIP Code	Avg. Rating	Births to Teens <18	Births to Teens <20	Late or No Prenatal Care	Tobacco Use While Preg.	Premature Births	Low Birth Weight	Maternal Education	Births to Unmarried Women	Infant Mortality	Gonorrhea	Chlamydia	HIV/AIDS	Tuberculosis	Foodborne Illness
74008	1.17	1	1	2	1	2	1	1	1	**	**	**	**	**	1
74137	1.30	1	1	2	1	3	2	1	1	**	1	1	**	1	2
74133	1.31	1	1	2	1	2	2	1	1	2	1	1	3	1	2
74011	1.36	1	1	2	2	2	1	1	1	1	**	**	**	**	2
74037	1.38	1	1	1	1	2	1	1	**	**	**	**	2	**	2
74012	1.39	1	1	2	1	2	1	1	1	1	**	**	3	1	1
74114	1.43	1	1	1	1	1	1	1	1	**	1	1	2	1	2
74055	1.64	2	1	2	1	3	2	1	1	1	**	**	**	1	3
74033	1.83	1	1	2	2	2	2	1	1	3	**	**	**	1	2
74105	1.83	1	2	3	3	3	2	2	2	1	2	1	2	1	2
74135	1.93	2	2	3	3	2	2	2	3	1	2	3	3	1	1
74145	1.93	2	2	3	2	3	2	2	3	2	1	2	2	1	3
74134	1.96	2	2	3	1	2	2	3	2	2	1	2	**	1	1
74021	2.04	1	1	1	2	2	2	1	1	2	**	**	**	1	4
74136	2.07	2	2	3	2	3	3	2	3	2	2	3	4	1	2
74104	2.08	2	2	3	2	1	2	3	2	**	2	2	3	1	1
74047	2.14	**	**	**	**	**	**	**	**	**	**	**	**	**	**
74119	2.14	**	**	**	**	**	**	**	**	**	**	1	2	3	**
74112	2.28	2	2	3	3	2	2	2	3	2	2	1	3	1	**
74146	2.29	3	3	4	2	2	2	4	3	3	2	3	**	**	**
74129	2.34	3	3	4	2	1	2	3	3	3	2	3	2	3	2
74128	2.37	3	3	4	2	2	2	4	3	**	2	2	2	2	**
74120	2.38	2	2	3	4	1	1	3	3	**	**	2	**	3	3
74070	2.50	2	2	2	4	3	2	2	2	**	**	**	**	**	4
74108	2.55	3	3	3	4	2	2	3	3	**	2	2	**	**	**
74063	2.58	2	2	2	3	3	1	1	2	3	**	**	2	**	3
74130	2.61	3	3	4	3	1	2	3	3	**	**	3	**	**	**
74132	2.62	2	2	2	2	3	3	1	2	**	**	1	**	**	**
74103	2.63	**	**	**	**	**	**	**	**	**	**	**	2	4	**
74107	2.63	3	3	3	4	4	3	3	3	4	2	3	2	1	3
74115 /117	2.83	3	3	4	3	3	3	4	3	3	2	3	4	2	**
74073	3.00	**	3	2	4	4	2	2	2	**	**	**	**	**	**
74106	3.20	4	4	4	4	4	4	3	4	3	4	4	3	3	1
74110	3.21	4	4	4	4	3	3	4	4	3	3	4	3	3	4
74116	3.25	4	4	4	3	1	1	4	4	**	**	4	**	3	**
74127	3.33	3	3	3	4	3	3	3	4	4	3	4	2	2	3
74126	3.62	4	4	4	4	4	4	3	4	3	4	4	3	2	**

ZIP CODE ANALYSIS

Social & Mental		Mortality Indicators											Access		
Deaths from Suicide	Deaths from Homicide	Deaths from All Causes	Deaths from Heart Disease	Deaths from Cancer	Deaths from Lung Cancer	Deaths from Stroke	Deaths from Diabetes	Deaths from CLRD	Deaths from Flu/Pneumonia	Unintentional Injury Deaths	Deaths from MVAs	YPLL	Hospital Admissions	Emergency Room Visits	Population on Medicaid
1	**	1	1	1	1	1	2	2	1	1	1	1	1	1	1
2	**	1	1	1	1	2	1	1	1	2	1	1	1	1	1
1	**	1	1	2	1	1	1	1	2	1	1	1	1	1	1
2	**	1	2	1	1	1	2	1	1	2	2	1	1	1	1
2	**	1	2	1	1	1	1	2	2	1	3	1	1	1	1
1	1	2	2	2	1	2	1	2	3	1	1	1	1	1	1
3	**	1	2	2	1	1	1	1	2	2	3	2	2	1	1
**	**	2	2	2	1	2	1	2	2	2	3	1	1	1	1
**	**	2	3	2	1	2	2	3	**	3	**	2	2	1	1
3	1	1	2	2	2	1	1	1	1	3	2	2	2	2	2
2	**	1	2	2	1	1	1	2	2	2	2	2	2	2	2
2	**	2	2	2	2	1	1	1	1	2	2	2	2	2	2
2	**	2	2	3	2	2	**	3	**	1	**	2	2	2	2
**	**	2	3	2	2	3	3	3	2	3	4	2	2	1	1
3	1	2	2	2	1	2	1	1	3	1	1	2	2	2	2
3	**	2	3	2	1	1	**	3	3	2	**	2	2	2	2
**	**	2	4	2	**	**	**	**	**	**	**	2	2	1	2
4	**	1	1	1	**	1	**	2	**	3	**	3	3	3	2
3	2	2	3	2	2	1	2	3	4	2	2	3	3	2	2
**	**	1	1	1	2	1	**	2	2	2	3	2	2	2	3
2	1	2	2	2	1	1	2	3	3	2	**	3	3	2	3
2	**	2	2	2	2	1	2	2	3	3	2	2	3	2	3
4	**	2	2	1	**	2	**	**	**	1	**	3	3	3	2
**	**	3	3	3	2	2	**	2	**	4	**	3	2	1	2
**	**	2	2	3	2	1	4	3	**	2	**	2	3	2	3
2	**	3	3	3	3	3	2	4	4	3	4	3	2	2	2
**	**	2	3	2	2	2	**	**	**	**	**	2	3	3	3
**	**	4	4	4	4	4	3	4	**	2	**	3	2	1	2
**	**	1	**	1	**	**	**	**	**	**	**	3	4	4	2
2	1	3	3	2	2	1	2	3	3	2	2	3	3	3	3
2	2	3	3	3	3	1	3	2	2	3	3	3	3	3	3
**	**	4	2	3	3	3	4	4	**	3	**	4	3	2	3
1	3	3	3	3	3	3	4	1	4	3	2	4	3	3	4
**	2	3	3	2	2	3	3	3	2	3	4	3	3	3	4
**	4	3	3	2	**	**	**	4	**	3	**	4	3	3	4
3	2	4	4	3	3	3	4	4	4	4	4	4	3	3	4
**	4	4	4	4	4	4	2	4	**	3	**	4	3	3	4

TULSA COUNTY MAP



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TULSA COUNTY HEALTH PROFILE

THD

TULSA HEALTH DEPARTMENT

TULSA HEALTH

DEPARTMENT