

tulsa county
health profile

director's message

director's message

Public Health's Mantra is: Prevent. Promote. Protect.

In order to accomplish this mission, developing a community health profile is crucial to identify our problems and develop a plan of action.

Since as much as 65% of our disease and death results from lifestyle choices of tobacco use, poor diet and lack of physical activity, we must shift our focus to promoting health and wellness with emphasis on preventing disease, injury and disability, rather than treating illness.

By moving toward a proactive approach for protecting public health, and by emphasizing community, state and national partnerships, we have the exciting possibility of saving thousands of lives as well as saving billions of dollars in preventable health care expenses.

Public health is important to every person, every day, by providing immunizations to our children and others, protecting our community from infectious disease, ensuring clean air, water and safe food, and by promoting healthy lifestyles.

At the Tulsa Health Department, we are committed to achieving greater health impact by forming critical partnerships and alliances, and eliminating health disparities.

The Tulsa Health Department is proud to present this comprehensive health profile to our community and state, in order to form a basis of decision making and priority setting, which can have a great positive impact on our community's health.

I trust this health information will be enlightening and helpful to you as we work together to improve our community health.

Sincerely,



Gary Cox



NANCY KEITHLINE
chair

GARY BURNIDGE, D.D.D, M.S.
vice-chair

JOHN L. HERNDON
secretary

BEVERLY J. MATHIS, D. O.

JAMES O. GOODWIN, J.D.

PATRICK GROGAN, D.V.M.

GERALDINE ELLISON, PH.D.

W.H. HELMERICH, IV, M.B.A.

BETTY BOYD

GARY COX, J.D.
director



methodology

ZIP Code Level

All data in this assessment are defined for ZIP Code Tabulation Areas or ZCTAs and are presented for the 38 ZIP codes that are located within Tulsa County. However, maps and tables in the profile display only 37 ZIP codes since data for two small 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 interventions where they are most needed.

Border/Combined Zip Codes

Tulsa County has 13 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, 74108, 74116, 74126, 74127, and 74132. Data sets for these shared, or border, ZIP codes in some cases required mathematical distribution between the counties. This was accomplished, when needed, by dividing the data in proportion to the geographical areas lying 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 but when viewed on the maps throughout the profile will be read as 74115/117. In addition, Tulsa County includes small portions 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' allowing 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 74070, 74073, 74103, 74116, 74119, 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.

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, which was used to produce the maps presented in this report. It 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.

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 in this manner by evaluating data presented for each of the Tulsa County ZCTAs.

Time Period

Data throughout the profile are included for the years 2000 – 2004 or 2000 – 2005 depending upon their availability for the specific topic. Therefore, most data are average annual rates over a 5-year or 6-year period. All demographic base data are tabulations from the year 2000 U.S. Census.

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 records the data by ZIP code and each measure uses the same exact ZIP codes. ZIP codes are grouped into five data ranges using natural breaks in the overall data for each measure (see Data Breaks) and shaded accordingly in the presentation maps. Data groupings are assigned values of 1 through 5 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.

m e t h o d o l o g y

acknowledgments

acknowledgments

PREPARED BY: Tulsa Health Department
Linda Clark, DVM, MPH, Health Planner
LeeAnn Modglin, Graphic Artist

ACKNOWLEDGEMENTS: Gary Woodruff, Ph.D., Assistant Director
Kelly VanBuskirk, Health Planner
Cheray Smith, Administrative Assistant
Brandi King, Emergency Preparedness Intern

SPECIAL THANKS TO: University of Oklahoma, College of Public Health
Oklahoma State Department of Health

table of contents

I. DEMOGRAPHIC			
i. total population	10	iv. hepatitis c	72
ii. population change	12	v. gonorrhea	74
iii. black population	14	vi. chlamydia	76
iv. hispanic population	16	vii. tuberculosis	78
v. young children aged 0-4	18	viii. hiv	80
vi. population aged 15-24	20	ix. aids	82
vii. adults 65 and older	22		
viii. crude mortality rate	24	V. INJURY & VIOLENCE INDICATORS	
ix. crude birth rate	26	i. deaths from all accidents	86
x. fertility rate	28	ii. deaths from motor vehicle accidents	88
		iii. deaths from homicide	90
II. SOCIOECONOMIC		iv. deaths from suicide	92
i. median household income	32		
ii. population below poverty	34	VI. MORTALITY INDICATORS	
iii. female head of household	36	i. deaths from all causes	96
iv. educational attainment	38	ii. deaths from heart disease	98
v. unemployment rate	40	iii. deaths from cancer	100
vi. medicaid	42	iv. deaths from lung cancer	102
		v. deaths from stroke	104
III. MATERNAL & CHILD HEALTH		vi. deaths from diabetes	106
i. births to teens 17 & younger	46	vii. deaths from chronic lower respiratory	108
ii. births to teens 19 & younger	48	viii. years of potential life lost	110
iii. premature births	50		
iv. low birth weight	52	VII. HEALTH CARE ACCESS INDICATORS	
v. births to unmarried women	54	i. hospital admission rates	114
vi. late or no prenatal care	56	ii. emergency room visits	116
vii. maternal education	58	iii. avoidable hospitalizations	118
viii. tobacco use during pregnancy	60	iv. physicians	120
ix. infant mortality rate	62		
		VIII. TULSA HEALTH DEPARTMENT SERVICES	124
IV. INFECTIOUS DISEASE INDICATORS	66		
i. foodborne illness	68	IX. OVERALL ZIPCODE RATINGS	
ii. hepatitis a	70		
iii. hepatitis b		X. GLOSSARY	

general

demographics

total population

total population

Indicator Definition

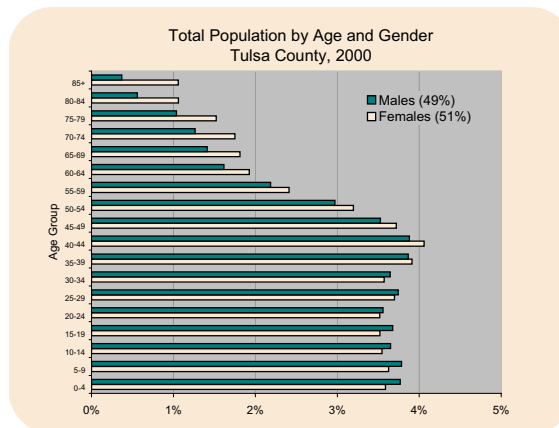
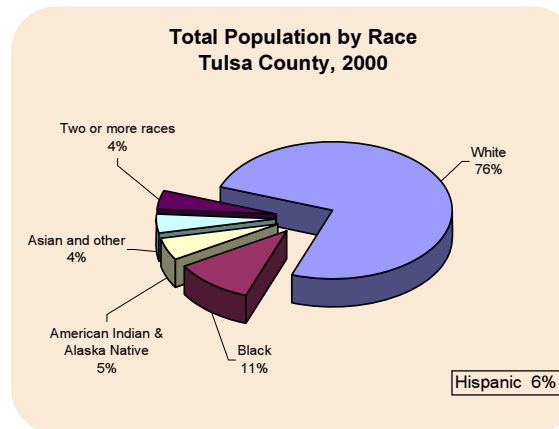
The total population is presented simply as the number of individuals living in each ZIP code, based on the 2000 U.S. Census.

Why Is This Indicator Important?

The numeric size of the population shows us where we are and 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 a population of 563,299 in 2000, approximately 95 percent of whom lived in urban areas or urban clusters. At the lower age ranges, males slightly outnumbered females. With the 35-39 age group females began to outnumber males, eventually comprising almost two-thirds of the population aged 65 and older.



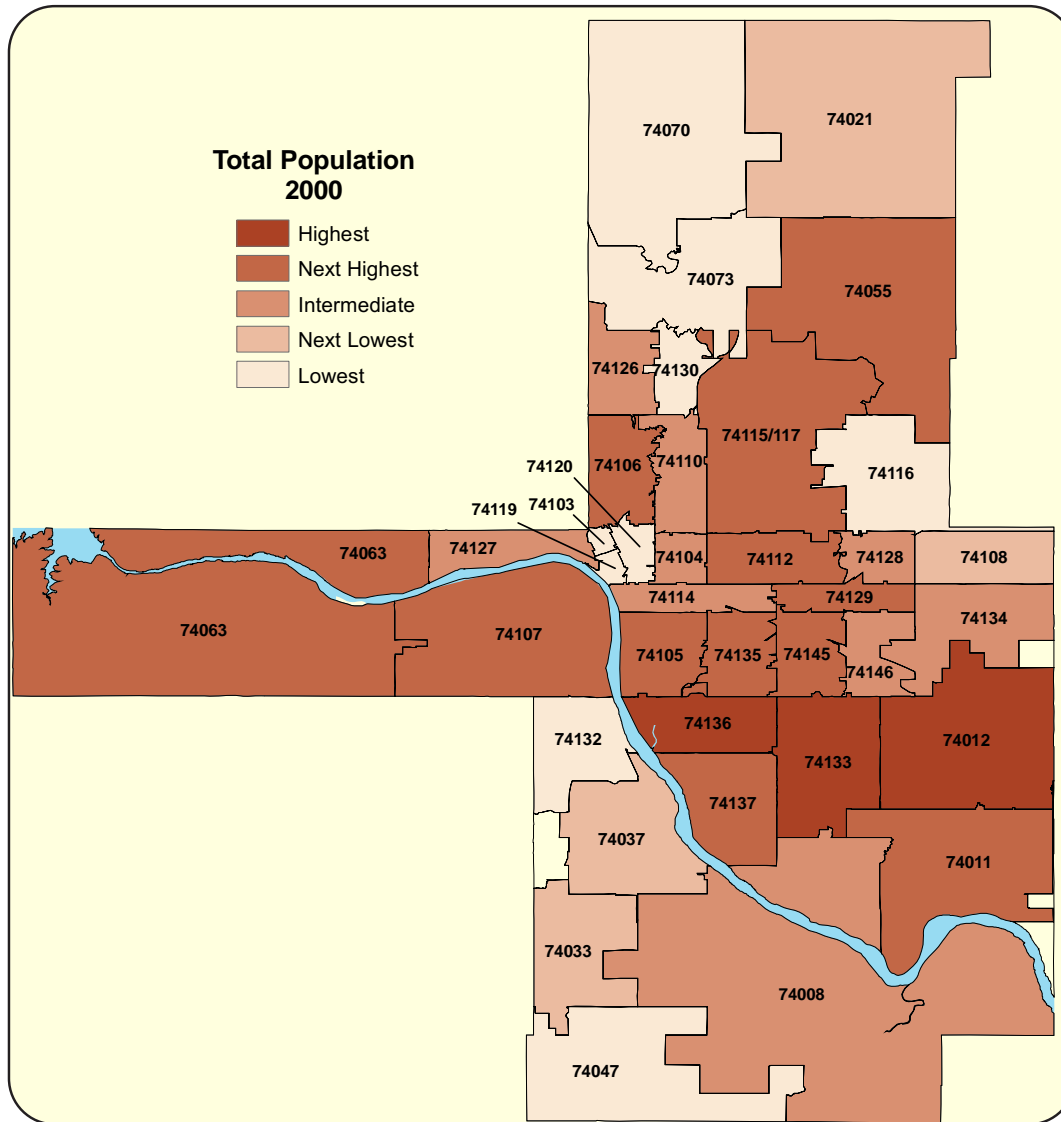
Whites comprised 76 percent of the population, and Blacks made up the largest minority race at 11 percent. Hispanics comprised 6 percent of the population in 2000, although that is likely a gross underestimation because of potential undercounting of illegal Hispanic immigrants in the 2000 Census. It should be noted that 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 populations were 74012 in Broken Arrow and 74133 and 74136 in south Tulsa.

Data Source:

U.S. Census Bureau: Census 2000.

ZIP CODE (ZCTA)	2000 Population
74012	47,249
74133	37,778
74136	32,712
74105	28,455
74115/117	23,805
74063	23,397
74011	23,031
74137	22,960
74135	21,320
74112	21,222
74107	20,284
74055	19,614
74129	18,542
74106	18,106
74145	18,020
74114	16,913
74008	15,340
74110	15,267
74146	14,380
74104	14,050
74134	12,998
74128	12,430
74126	11,837
74127	11,582
74021	9,522
74037	9,428
74033	8,373
74108	6,039
74120	5,496
74132	4,416
74119	3,790
74070	3,022
74073	3,019
74130	2,624
74116	2,514
74103	2,173
74047	1,279



total population

population change

population change

Indicator Definition

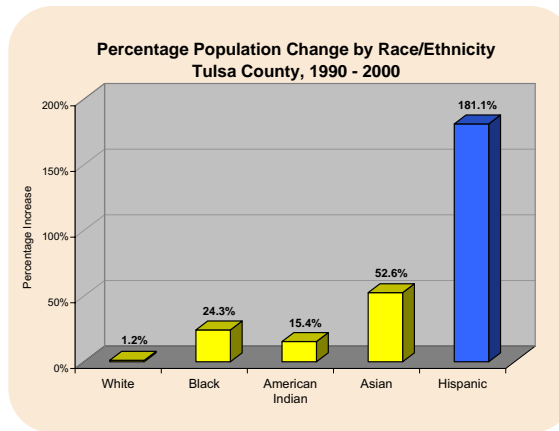
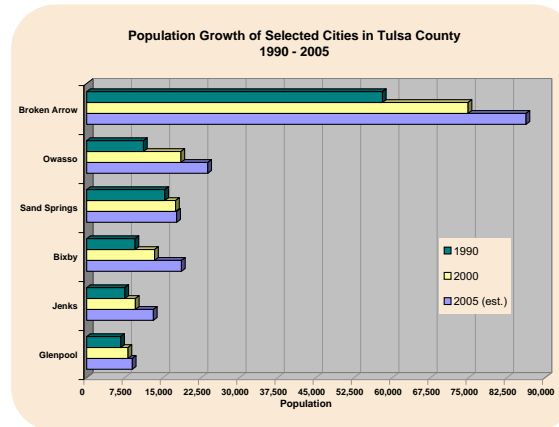
This demographic indicator is presented as the percentage change in the population within each ZIP code from the 1990 Census to the 2000 Census. Although the Census 2000 ZCTAs only approximate ZIP codes, which were the basis of the 1990 Census population counts, there were no changes in ZIP code boundaries in the 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, to ensure access to community-based programs is adequate.

How Are We Doing?

While many cities in the Tulsa County suburbs experienced significant growth throughout the 1990s and into the 2000s, the city of Tulsa grew only by an estimated 4.5 percent through 2005. Bixby is



currently the fastest growing city, with an increase of 33 percent from 2000 to 2005.

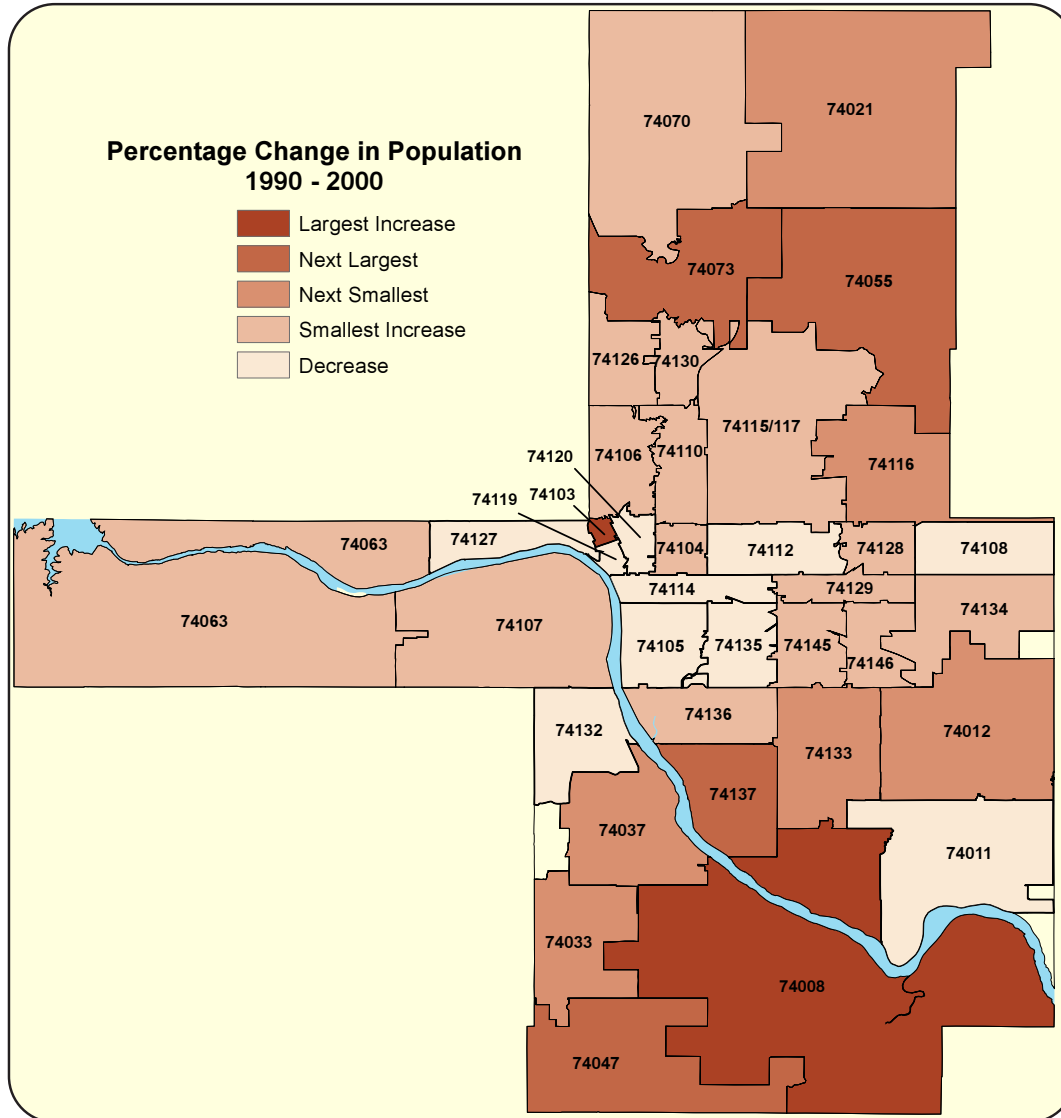
Although Tulsa County's population is predominantly white, minority and ethnic populations are growing at substantially higher rates. The most striking growth has occurred in the Hispanic population, which increased by 181 percent in the 1990s and was estimated to have increased by an additional 63 percent from 2000 to 2005. These are likely underestimates of the true growth because of the potential undercounting of illegal immigrants.

The thematic map shows the lowest percentage increases in population, and even decreases, in the city of Tulsa, while the largest percentage increases occurred in the northern and southern suburbs.

Data Source:

U.S. Census Bureau: Census 1990 and 2000 and the Population Estimates Program. W.E.R. The Information Connection, Inc

ZIP CODE (ZCTA)	Percentage Change 1990 - 2000
74008	129.8%
74103	96.7%
74073	64.9%
74047	62.9%
74137	48.8%
74055	48.6%
74012	33.5%
74021	27.3%
74033	27.3%
74133	23.9%
74116	21.6%
74037	16.6%
74136	12.1%
74146	10.9%
74107	7.3%
74110	7.3%
74129	7.3%
74104	6.1%
74063	6.0%
74115/117	3.8%
74134	3.1%
74106	3.0%
74145	2.9%
74130	2.8%
74126	2.3%
74070	2.0%
74128	1.4%
74114	-1.6%
74132	-1.7%
74011	-2.0%
74120	-2.1%
74135	-2.1%
74112	-2.4%
74105	-3.4%
74127	-5.0%
74108	-5.2%
74119	-6.6%



population change

black population

black population

Indicator Definition

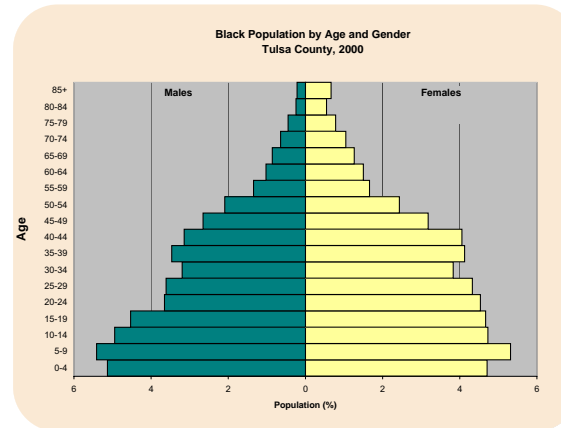
The distribution of the Black population in Tulsa County is expressed as the percentage of the total population within each ZIP code who reported being Black, based on the 2000 U.S. Census.

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. Racial isolation within neighborhoods increases the likelihood of Black/White disparities in health and quality of life.

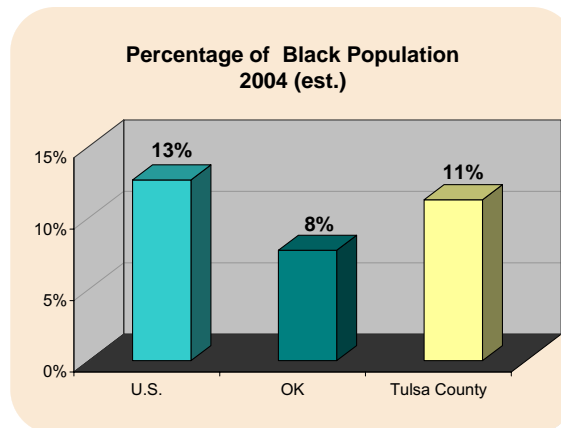
How Are We Doing?

With a 2000 population of 61,656, Blacks comprised the largest minority race in Tulsa County. Estimates for 2004 indicated they comprised 11 percent of the county's population,



compared with percentages of 8 percent for Oklahoma and 13 percent for the nation.

Overall, 47 percent of Blacks were male and 53 percent were female. Males outnumbered females in the younger age groups, but this trend began to reverse in the late teenage years. Females comprised 70 percent of the Black population aged 65 and over.

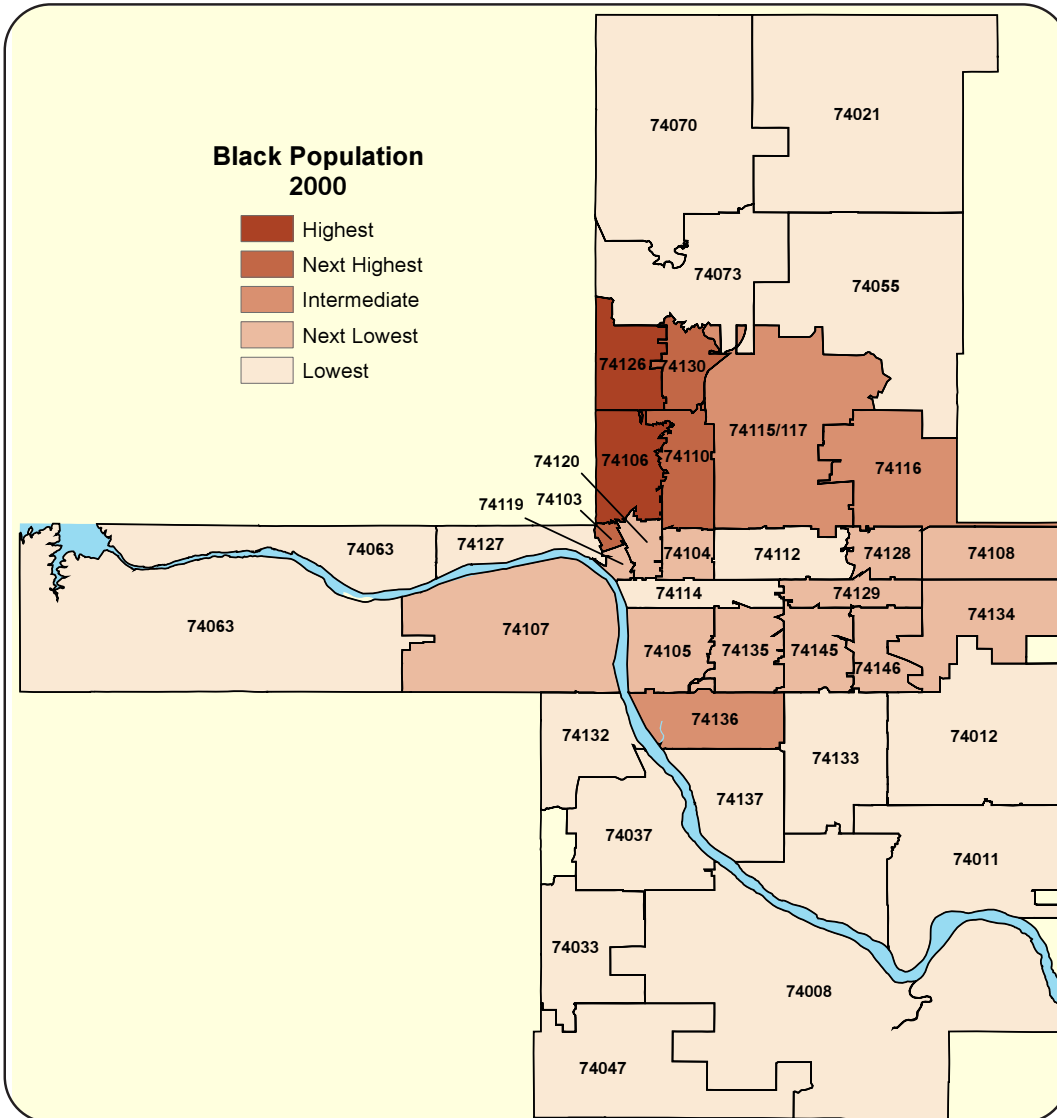


The Black population was shown to reside primarily in the city of Tulsa. ZIP codes 74126 and 74106 can be considered to be racially isolated because three-fourths or more of their residents were Black.

Data Sources:

U.S. Census Bureau: Census 2000 and the Population Estimates Program.

2000 Census		
ZIP CODE (ZCTA)	Black Population	Percentage of Total Pop.
74106	14560	80.4%
74126	8836	74.6%
74130	1039	39.6%
74103	740	34.1%
74110	4064	26.6%
74116	456	18.1%
74115/117	3666	15.4%
74136	4523	13.8%
74146	1607	11.2%
74129	1777	9.6%
74107	1933	9.5%
74134	1229	9.5%
74119	356	9.4%
74128	1138	9.2%
74120	444	8.1%
74105	2174	7.6%
74108	459	7.6%
74145	1328	7.4%
74104	944	6.7%
74135	1411	6.6%
74112	1137	5.4%
74127	574	5.0%
74132	222	5.0%
74133	1843	4.9%
74012	1916	4.1%
74011	700	3.0%
74137	667	2.9%
74073	79	2.6%
74114	383	2.3%
74033	186	2.2%
74063	526	2.2%
74047	26	2.0%
74037	151	1.6%
74055	299	1.5%
74008	185	1.2%
74070	24	0.8%
74021	53	0.6%



black population

hispanic population

hispanic population

Indicator Definition

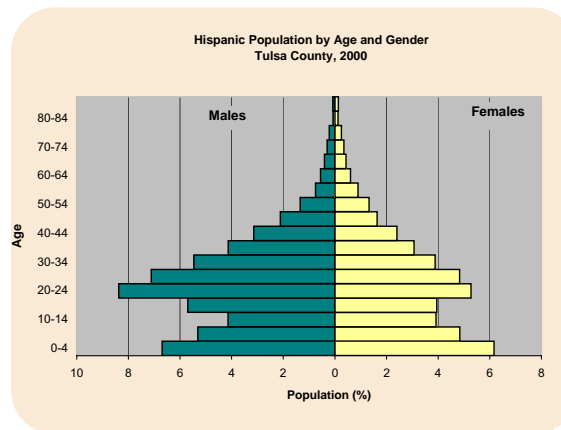
The distribution of the Hispanic population in Tulsa County is expressed as a percentage of the total population within each ZIP code, based on the 2000 U.S. Census.

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 preventive services, resulting in disparities in rates of disease and death.

How Are We Doing?

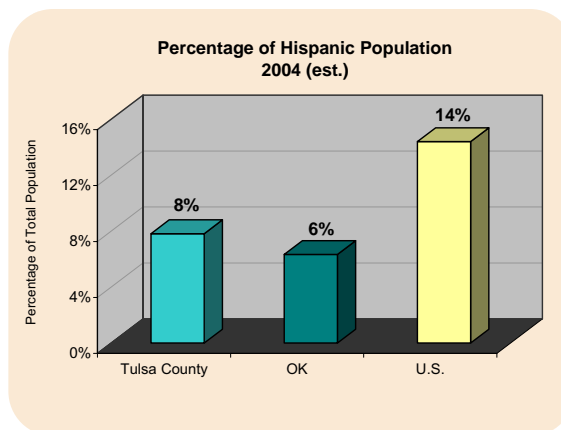
According to the 2000 Census, the Hispanic population numbered 33,616 in Tulsa County. However, due to the potential undercounting of illegal Hispanic immigrants, the number was likely much higher. In striking contrast to the population as a whole, Hispanic males outnumbered females in almost



all age groups, particularly among youths and young adults, where the ratio was 60 percent males to 40 percent females.

In 2004, Hispanics were estimated to comprise 8 percent of the Tulsa County population, higher than the state value of 6 percent but much lower than the U.S. percentage of 14 percent. Again, these are likely underestimates of the true size of the population.

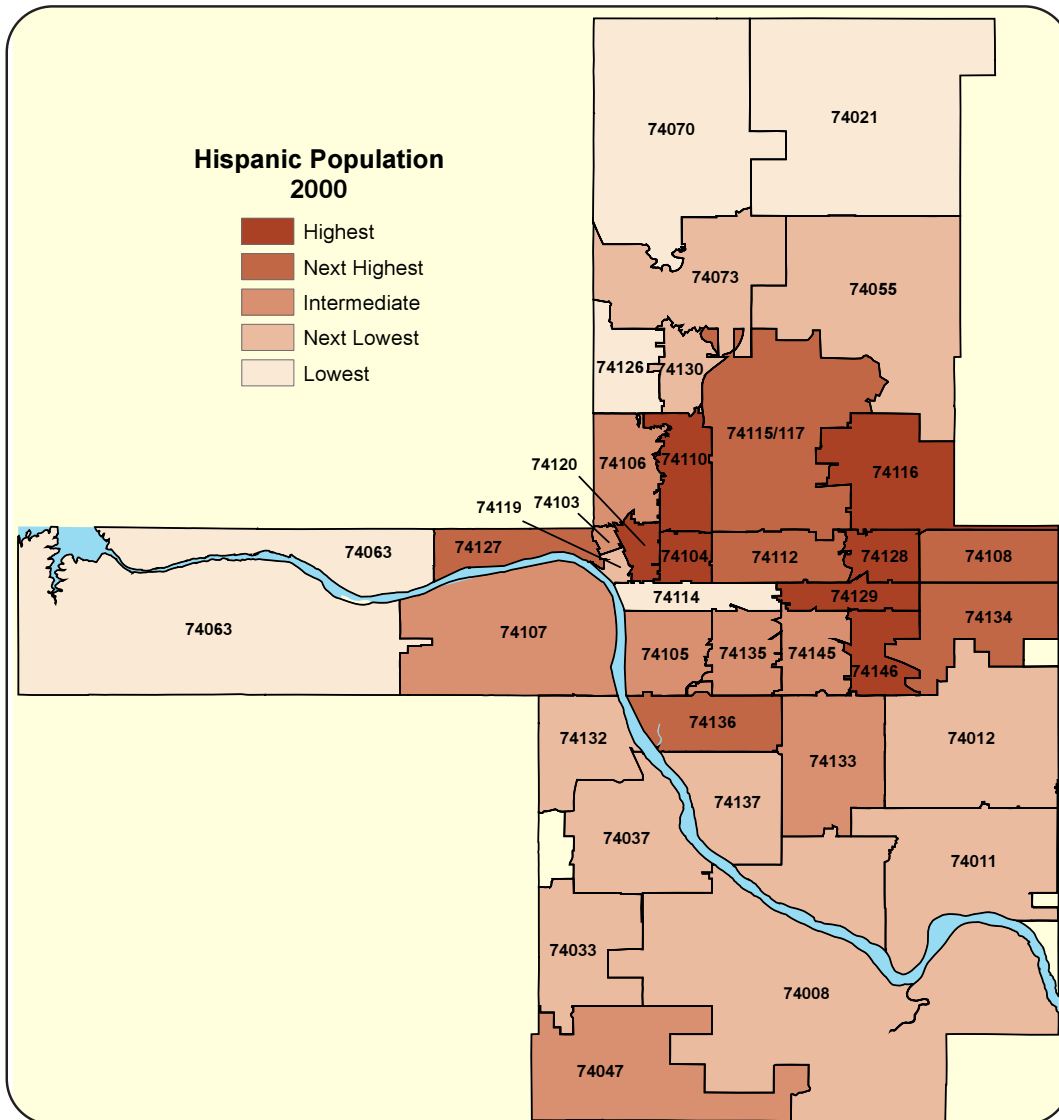
The Tulsa County ZIP codes with the highest percentages of Hispanics are mainly in north and east Tulsa.



Data Sources:

U.S. Census Bureau: Census 2000 and the Population Estimates Program.

ZIP CODE (ZCTA)	2000 Census	
	Hispanic Population	Percentage of Total Pop.
74146	2426	16.9%
74110	2457	16.1%
74116	368	14.6%
74104	1908	13.6%
74128	1395	11.2%
74129	2065	11.1%
74120	600	10.9%
74134	1215	9.3%
74115/117	2051	8.6%
74112	1590	7.5%
74136	2327	7.1%
74127	771	6.7%
74108	394	6.5%
74047	77	6.0%
74135	1224	5.7%
74145	1034	5.7%
74105	1419	5.0%
74133	1760	4.7%
74103	100	4.6%
74106	837	4.6%
74107	881	4.3%
74037	389	4.1%
74012	1870	4.0%
74055	749	3.8%
74008	575	3.7%
74119	120	3.2%
74033	255	3.0%
74011	660	2.9%
74137	655	2.9%
74130	73	2.8%
74132	119	2.7%
74073	80	2.6%
74114	351	2.1%
74063	447	1.9%
74126	186	1.6%
74070	45	1.5%
74021	133	1.4%



hispanic population

young children aged 0-4

young children aged 0-4

Indicator Definition

This indicator is presented as the percentage of the total population aged 0 to 4 years, based on the 2000 Census.

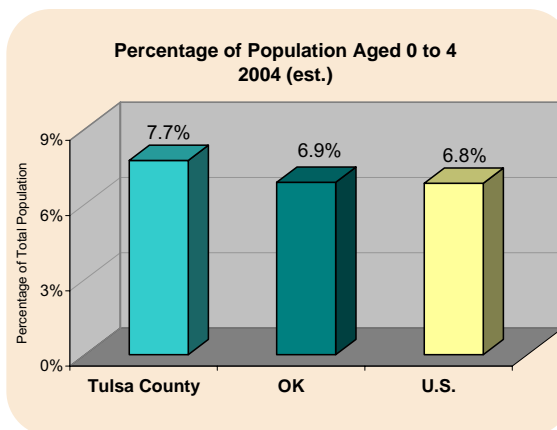
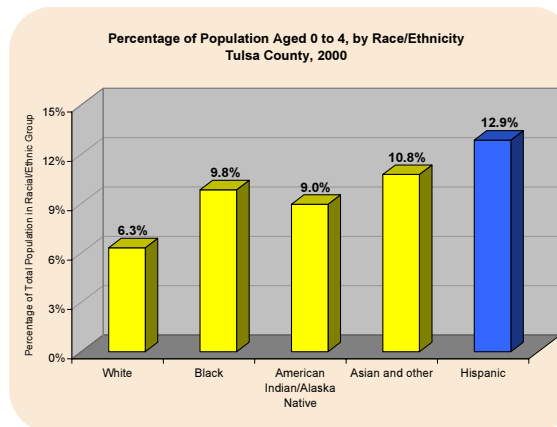
Why Is This Indicator Important?

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 2000, approximately 41,500 children aged 0 to 4 lived in Tulsa County. The White population had a much lower percentage of young children (6.3 percent) than other races. Children in this age group made up almost 13 percent of the Hispanic population.

Estimates for 2004 show that Tulsa County had a higher proportion of very



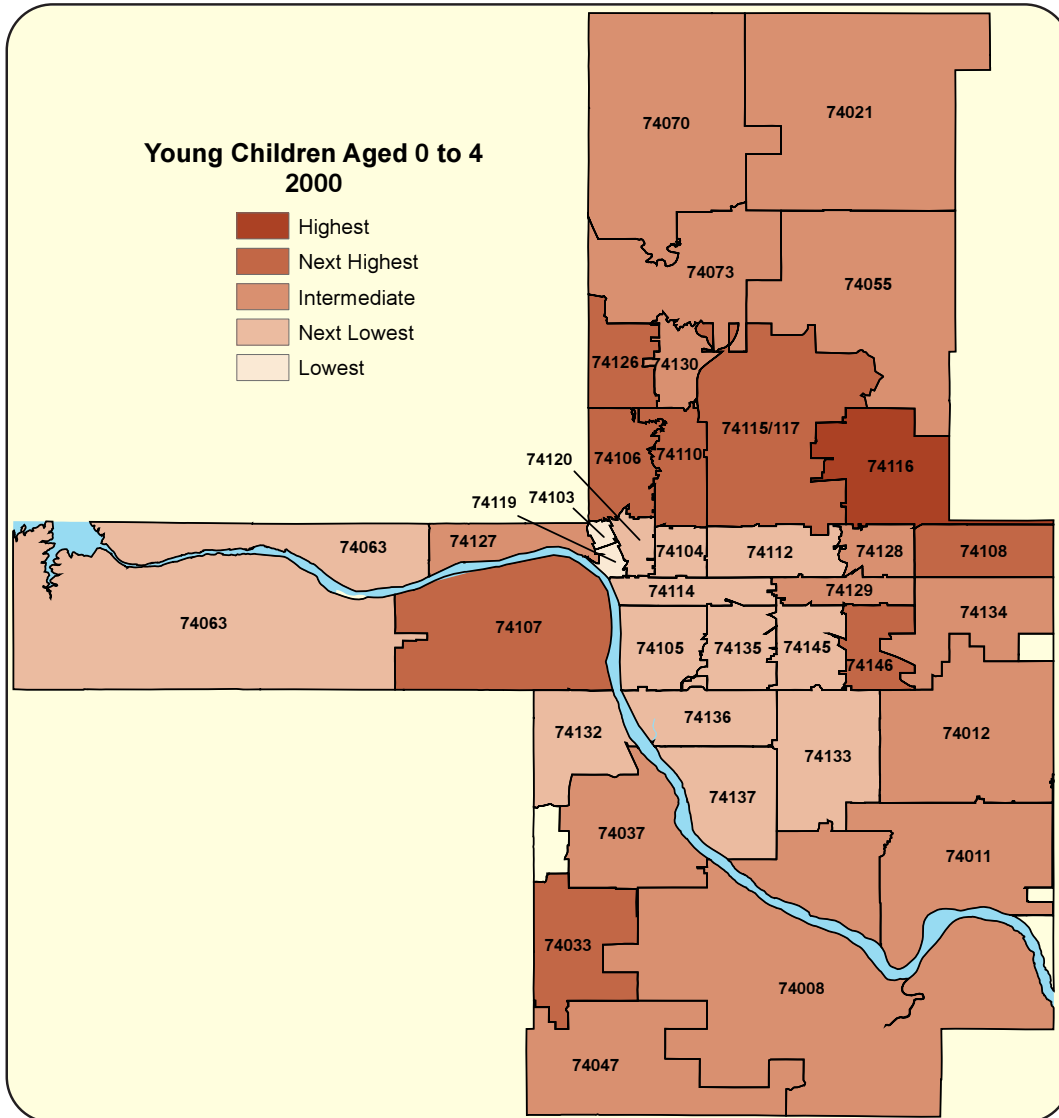
young children (7.7 percent) than the state (6.9 percent) or the nation (6.8 percent).

North, east, and west Tulsa tended to have the highest percentages of children aged 0 to 4. The ZIP codes with the lowest percentages were in downtown (74103 and 74119) midtown and south Tulsa.

Data Source:

U.S. Census Bureau: Census 2000 and the Population Estimates Program.

ZIP CODE (ZCTA)	2000 Census	
	Children Aged 0 to 4	Percentage of Total Pop
74116	332	0.132
74107	1867	0.092
74115/117	2175	0.091
74126	1063	0.09
74033	738	0.088
74108	533	0.088
74110	1349	0.088
74106	1568	0.087
74146	1230	0.086
74012	3862	0.082
74055	1617	0.082
74134	1062	0.082
74047	102	0.08
74073	241	0.08
74128	973	0.078
74130	202	0.077
74021	720	0.076
74127	877	0.076
74129	1416	0.076
74011	1705	0.074
74037	696	0.074
74008	1110	0.072
74070	215	0.071
74112	1471	0.069
74120	366	0.067
74132	295	0.067
74133	2549	0.067
74063	1543	0.066
74114	1094	0.065
74104	880	0.063
74105	1805	0.063
74136	1992	0.061
74145	1081	0.06
74135	1230	0.058
74137	1327	0.058
74119	116	0.031
74103	15	0.007



young children aged 0-4

population aged 15 - 24

population aged 15 - 24

Indicator Definition

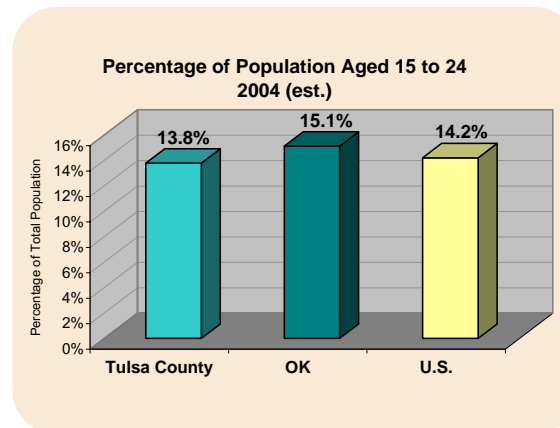
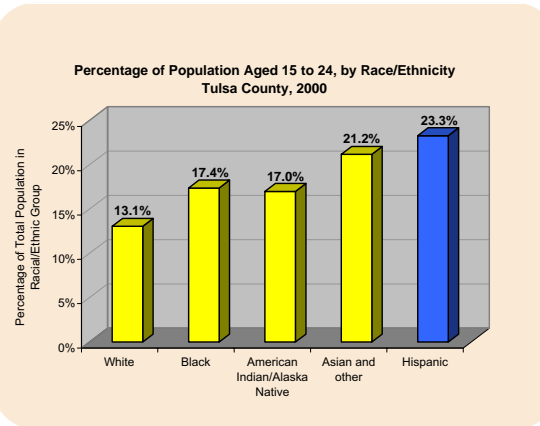
This indicator is the Tulsa County population that was aged 15 to 24, based on the 2000 Census. It is expressed as a percentage of the total population.

Why Is This Indicator Important?

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

How Are We Doing?

In 2000, this age group numbered approximately 80,000. The White population had the lowest percentage of individuals in this age range (13.1 percent). Youths comprised 23.3 percent of the Hispanic population. In 2004, an estimated 13.8 percent of the county's residents were aged 15 to 24, compared with 15.1 percent of



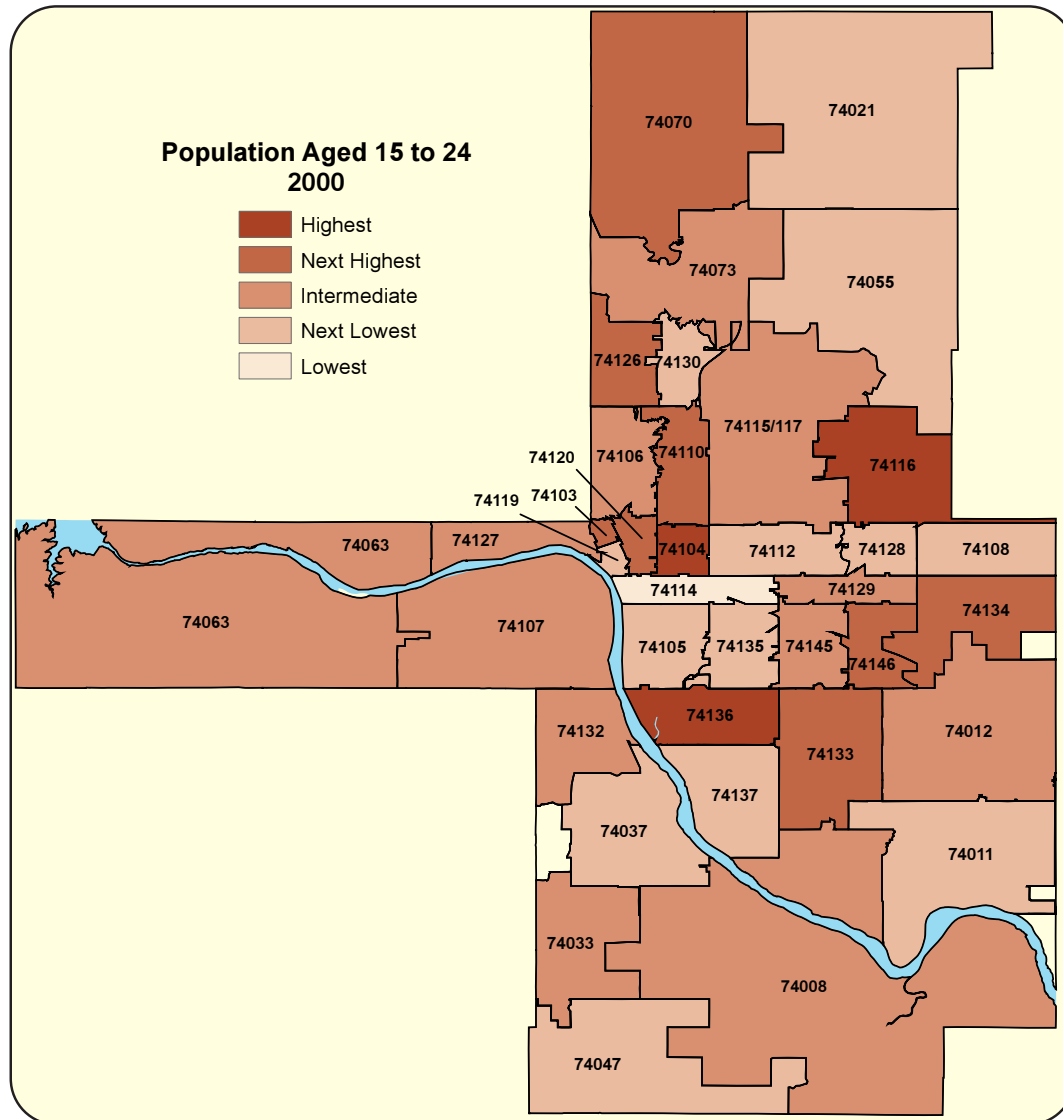
Oklahoma's population and 14.2 percent of the nation's.

The University of Tulsa and Oral Roberts University are located in two of the Tulsa County ZIP codes with the highest percentages of youths, 74104 and 74136, respectively.

Data Source:

U.S. Census Bureau: Census 2000 and the Population Estimates Program.

ZIP CODE (ZCTA)	2000 Census	
	Youths Aged 15 to 24	Percentage of Total Pop.
74104	3434	24.4%
74136	7635	23.3%
74116	515	20.5%
74146	2626	18.3%
74134	2192	16.9%
74110	2550	16.7%
74103	356	16.4%
74120	845	15.4%
74133	5722	15.1%
74126	1778	15.0%
74070	449	14.9%
74145	2540	14.1%
74033	1168	13.9%
74063	3258	13.9%
74129	2570	13.9%
74073	414	13.7%
74115/117	3203	13.5%
74106	2428	13.4%
74107	2718	13.4%
74008	2023	13.2%
74127	1527	13.2%
74132	584	13.2%
74012	6166	13.1%
74128	1586	12.8%
74055	2497	12.7%
74108	764	12.7%
74130	334	12.7%
74105	3564	12.5%
74011	2841	12.3%
74037	1144	12.1%
74047	154	12.0%
74112	2516	11.9%
74135	2535	11.9%
74137	2692	11.7%
74021	1094	11.5%
74119	412	10.9%
74114	1512	8.9%



population aged 15-24

adults 65 and older

adults 65 and older

Indicator Definition

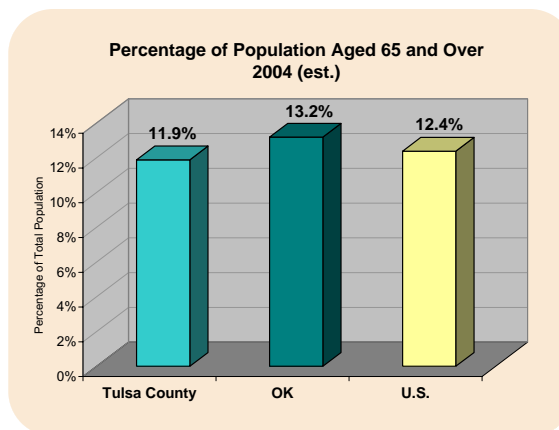
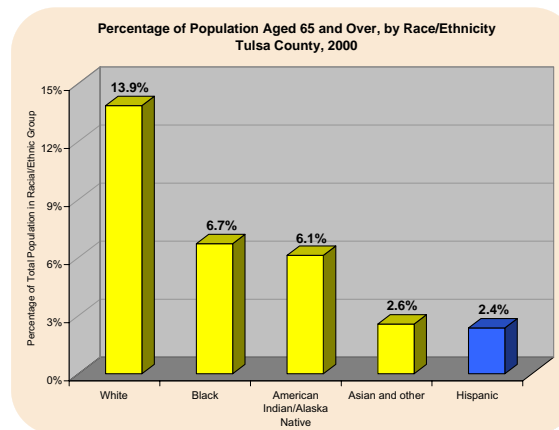
This indicator is the Tulsa County population that was aged 65 and older, based on the 2000 Census. It is expressed as a percentage of the total population.

Why Is This Indicator Important?

Because of increasing life expectancy, persons aged 65 and older are comprising higher percentages of the total population. This age cohort is expected to grow considerably when the baby boomer generation starts turning 65 in 2010 and to double in number in the year 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 2000, Tulsa County had 65,122 residents aged 65 and over. The ratio of females to males was 60 percent to 40 percent. Almost 14 percent of the White population was in this age range, while other races had much lower



percentages. Only 2.4 percent of Hispanics were seniors.

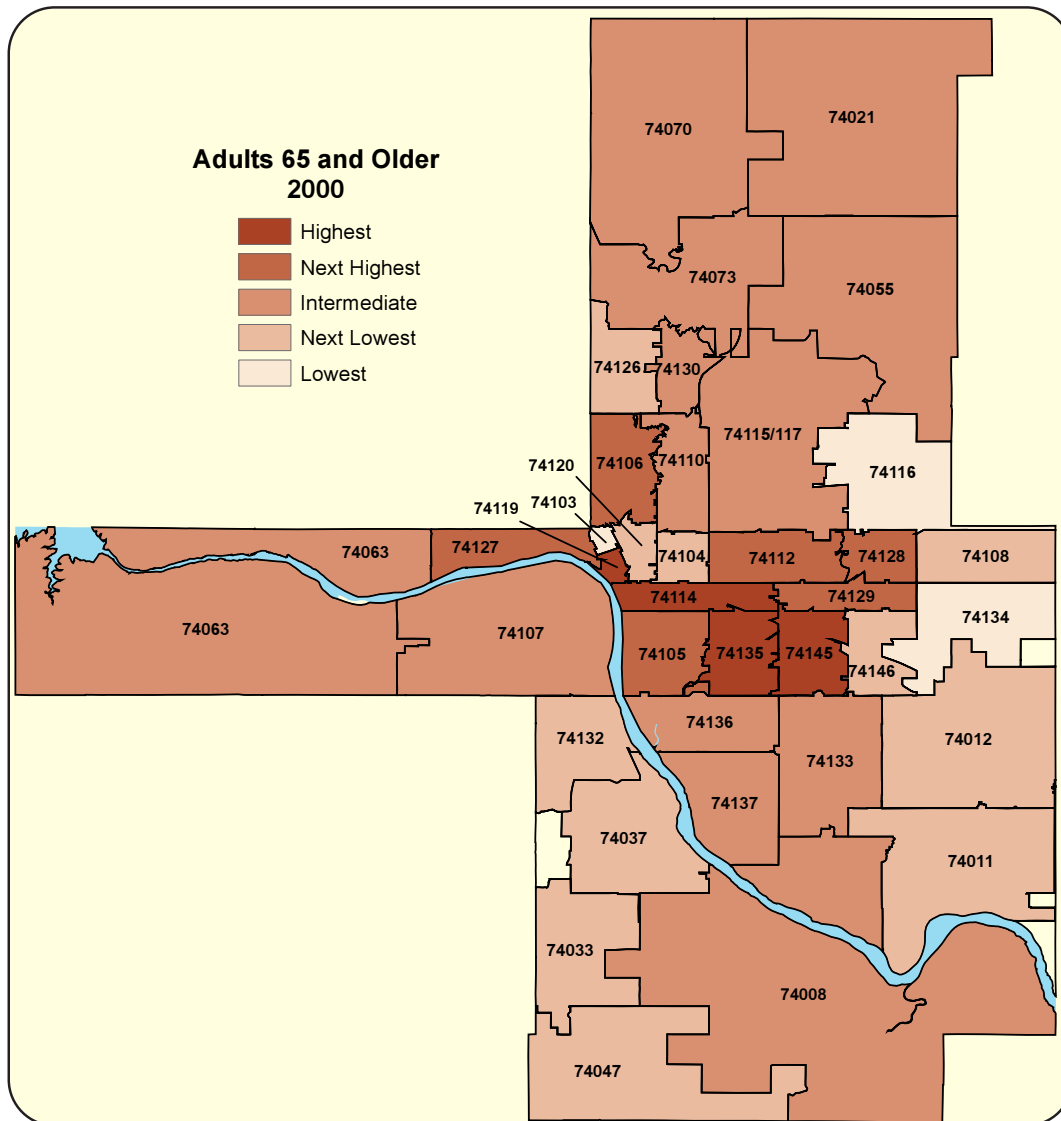
In 2004, an estimated 12 percent of our county were senior citizens, compared with 13.2 percent of Oklahoma's population and 12.4 percent of the population of the United States.

The Tulsa County ZIP codes with the highest percentages of seniors were generally in the older, more established neighborhoods of midtown Tulsa.

Data Source:

U.S. Census Bureau: Census 2000 and the Population Estimates Program.

2000 Census		
ZIP CODE (ZCTA)	Adults Aged 65+	Percentage of Total Pop.
74135	4829	22.7%
74145	3427	19.0%
74119	699	18.4%
74114	3055	18.1%
74112	3539	16.7%
74105	4652	16.3%
74128	1989	16.0%
74106	2741	15.1%
74129	2796	15.1%
74127	1574	13.6%
74063	2900	12.4%
74107	2518	12.4%
74021	1154	12.1%
74070	353	11.7%
74115/117	2788	11.7%
74136	3658	11.2%
74073	333	11.0%
74110	1665	10.9%
74130	287	10.9%
74137	2382	10.4%
74008	1516	9.9%
74055	1936	9.9%
74133	3744	9.9%
74037	876	9.3%
74104	1248	8.9%
74011	1944	8.4%
74126	997	8.4%
74108	498	8.2%
74012	3623	7.7%
74132	338	7.7%
74120	411	7.5%
74146	977	6.8%
74047	79	6.2%
74033	482	5.8%
74116	128	5.1%
74134	522	4.0%
74103	20	0.9%



adults 65 and older

crude mortality rate

crude mortality rate

Indicator Definition

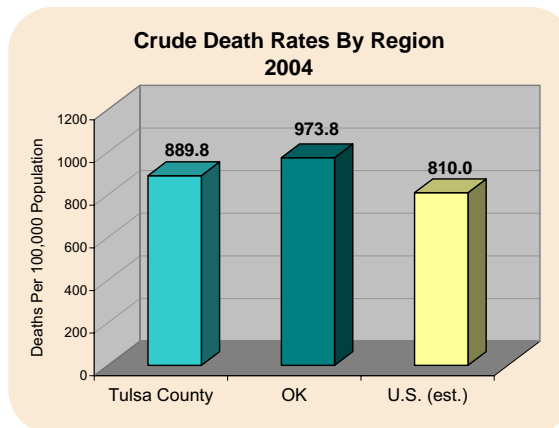
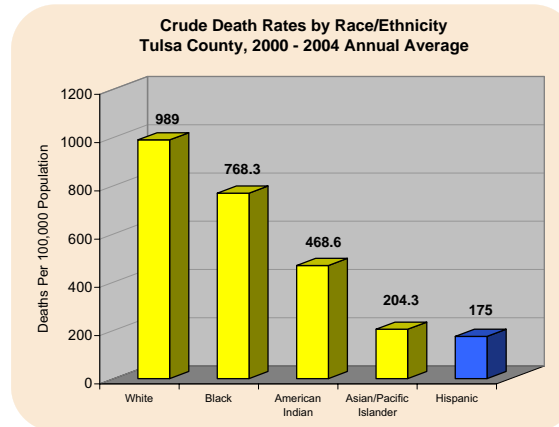
The crude death rate or mortality rate is the actual number of deaths that occurred in a population divided by the total population and multiplied by 100,000. It does not take into account underlying differences such as sex or age in populations being compared. It is presented as the number of deaths per 100,000 persons, based on the 2000 Census, averaged over the years 2000-2004.

Why Is This Indicator Important?

The crude death rate measures where a population is declining through death as opposed to outward migration and provides a crude measure of the health status of a community.

How Are We Doing?

Approximately 26,000 Tulsa County residents died during the years 2000-2004, for an overall crude death rate of 916.6 per 100,000 population. The magnitudes of the death rates among



the races were generally aligned with the proportions of their populations aged 65 and older, with the highest rates occurring in the White population (989 per 100,000). Hispanics, who had a low percentage of older persons, had the lowest crude death rate (175 per 100,000).

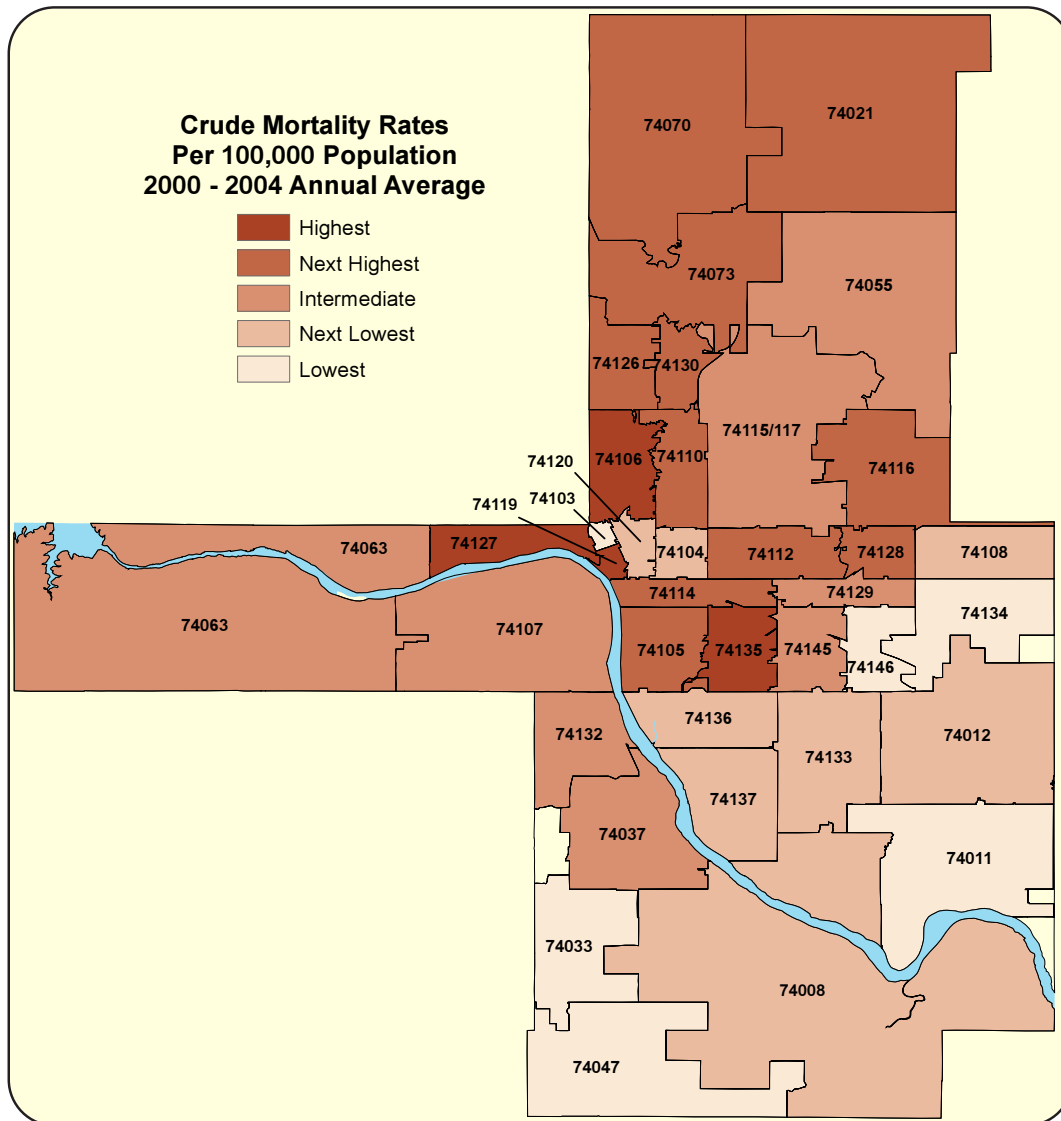
In 2004, the crude death rate for Tulsa County was lower than that of the state (889.8 and 973.8, respectively), and both exceeded the national death rate of 810 per 100,000.

The ZIP codes with the highest crude death rates in 2000-2004 tended to be in central, north, and west Tulsa and the northern suburbs, while the lowest rates occurred in southern Tulsa County.

Data Sources:

U.S. Census Bureau: Census 2000 Health Care Information Division (HCI), OSDH

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Deaths	Crude Death Rate
74127	885	1528.2
74106	1,370	1513.3
74135	1,497	1404.3
74119	239	1261.2
74073	169	1119.6
74112	1,186	1117.7
74128	689	1108.6
74110	830	1087.3
74114	900	1064.3
74105	1,496	1051.5
74126	617	1042.5
74130	135	1029.0
74070	155	1025.8
74021	485	1018.7
74116	126	1002.4
74107	1,004	989.9
74115/117	1,166	979.6
74129	907	978.3
74063	1,122	959.1
74145	810	899.0
74037	415	880.4
74132	192	869.6
74055	844	860.6
74120	223	811.5
74008	602	784.9
74104	546	777.2
74136	1,236	755.7
74108	224	741.8
74012	1,690	715.4
74137	816	710.8
74133	1,317	697.2
74033	249	594.8
74011	638	554.0
74146	390	542.4
74047	29	453.5
74134	272	418.5
74103	39	359.0



crude mortality rate

crude birth rate

crude birth rate

Indicator Definition

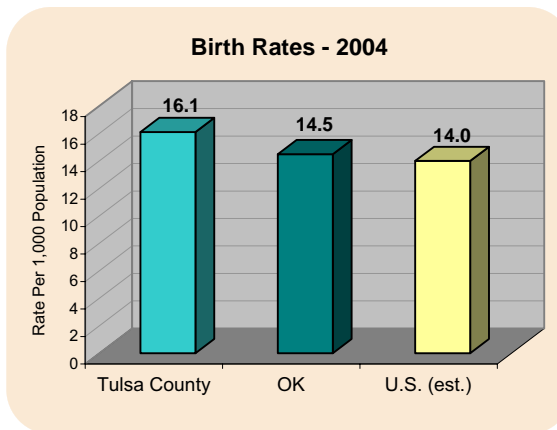
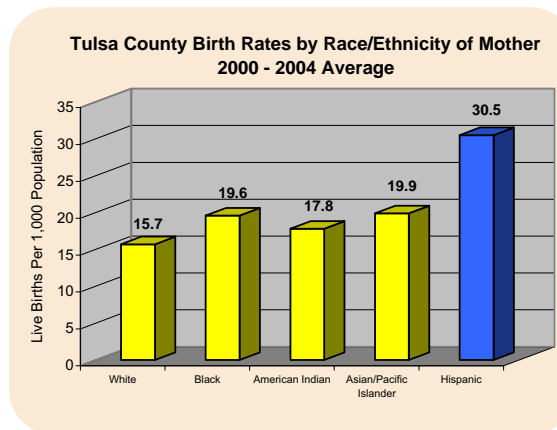
The crude birth rate is the number of live births divided by the total population and multiplied by 1,000. It is called crude because it does not take into account sex or age differences in the populations being compared. Here it is presented as the number of live births to Tulsa County residents, averaged over the years 2000-2004, per 1,000 persons. The number of persons per ZIP code is based on the 2000 Census.

Why Is This Indicator Important?

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

How Are We Doing?

There were 46,440 live births to Tulsa County residents during the years spanning 2000-2004. Males comprised 51.8 percent of the births and females 48.2 percent. Racial minorities had higher birth rates than Whites. The birth rate of 30.5 among the Hispanic



population was twice the non-Hispanic rate of 15.2.

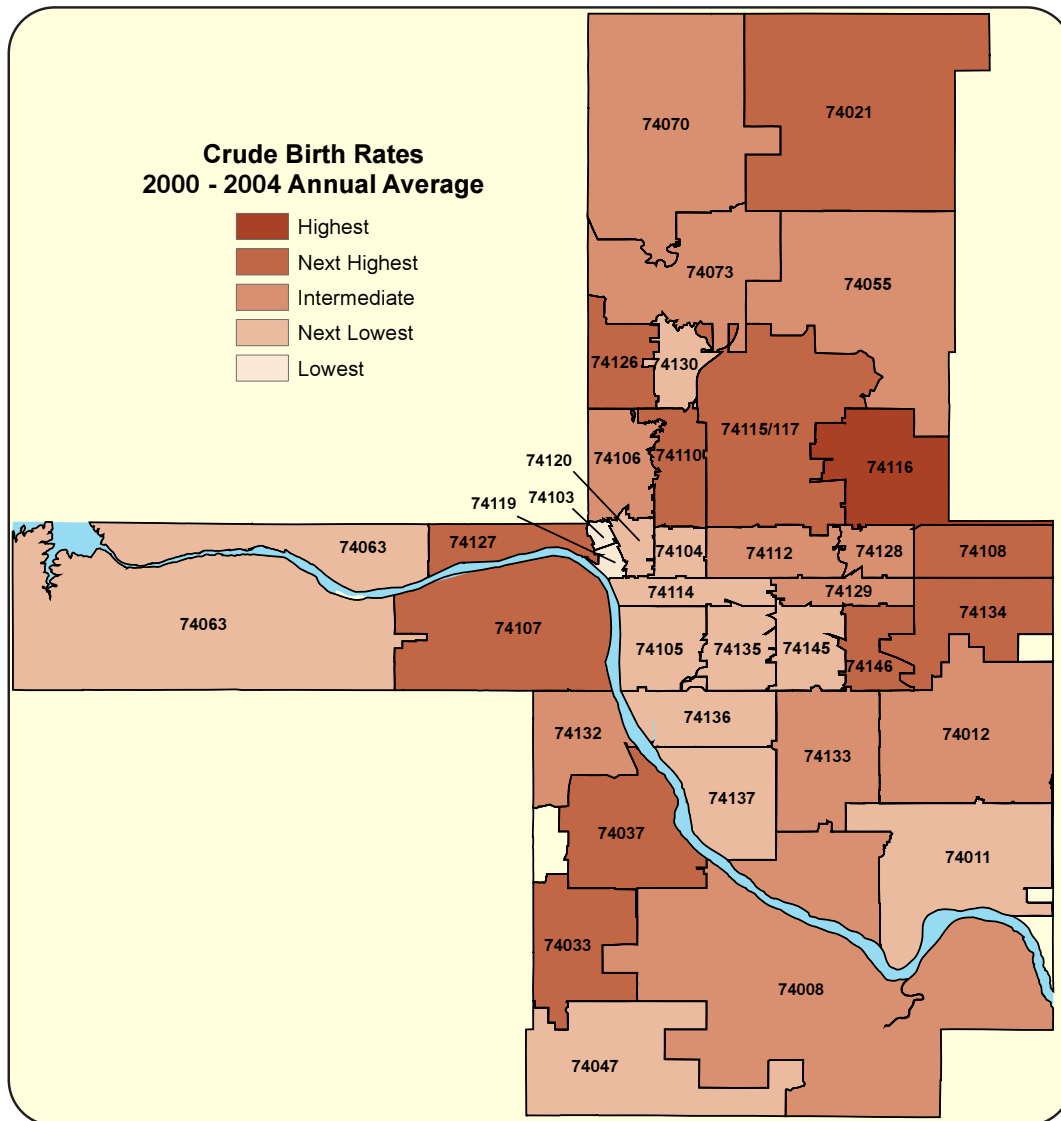
In 2004, Tulsa County's birth rate of 16.1 per 1,000 population was higher than Oklahoma's (14.5) and that of the United States (14.0).

The ZIP code with the highest crude birth rate was 74116, and the ZIP codes with the lowest birth rates were 74103 and 74119, both of which are in the downtown area.

Data Sources:

U.S. Census Bureau: Census 2000 Health Care Information Division (HCI) of the OSDH National Center for Health Statistics - Births: Preliminary Data for 2004

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Live Births	Crude Birth Rate
74116	516	41.1
74110	1,711	22.4
74127	1,173	20.3
74146	1,431	19.9
74037	937	19.9
74021	941	19.8
74126	1,162	19.6
74108	576	19.1
74115/117	2,248	18.9
74134	1,203	18.5
74107	1,852	18.3
74033	761	18.2
74129	1,665	18.0
74106	1,597	17.6
74055	1,716	17.5
74008	1,324	17.3
74128	1,070	17.2
74070	252	16.7
74073	250	16.6
74132	354	16.0
74012	3,783	16.0
74133	2,930	15.5
74112	1,624	15.3
74104	1,024	14.6
74136	2,336	14.3
74145	1,286	14.3
74120	390	14.2
74063	1,633	14.0
74135	1,483	13.9
74130	177	13.5
74105	1,910	13.4
74047	85	13.3
74011	1,530	13.3
74114	1,095	12.9
74137	1,151	10.0
74119	130	6.9
74103	36	3.3



crude birth rate

fertility rate

fertility rate

Indicator Definition

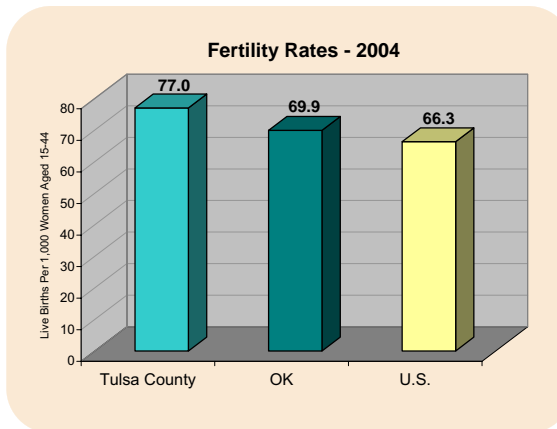
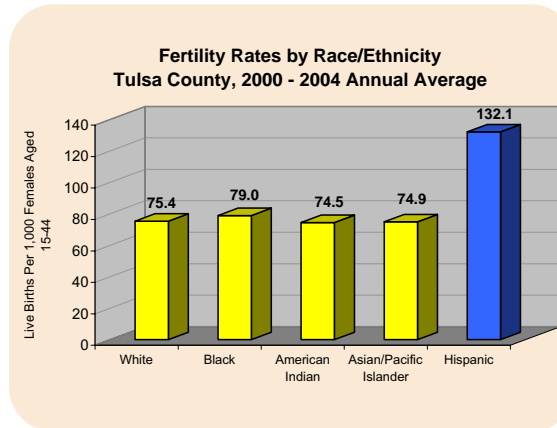
The fertility rate is presented as the number of live births to women aged 15-44 per 1,000 females aged 15-44, averaged over the years 2000-2004. The number of women in this age group per ZIP code is based on the 2000 Census.

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 showing how the population may be growing naturally through reproduction.

How Are We Doing?

The average fertility rate for Tulsa County for the years 2000-2004 was 75.6. Whites, American Indians, and Asian/Pacific Islanders had fertility rates lower than the county average, but Blacks had a higher rate 79.0, and Hispanics had the highest rate at 132.1.



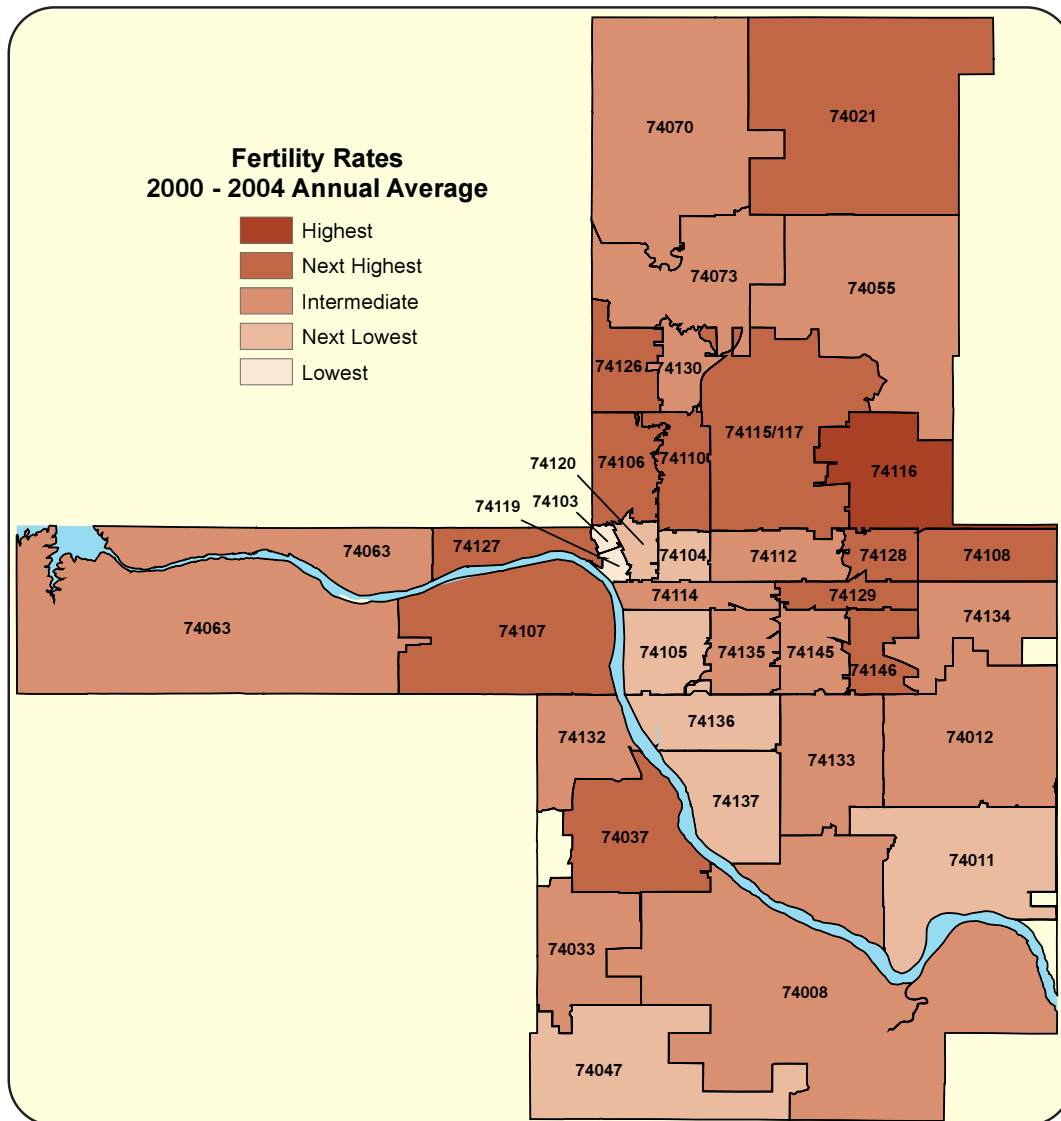
The general trend in Tulsa County's fertility rate has been upward, from 65.7 in 1995 to 77.0 in 2004. Oklahoma also experienced an increase over this time period although not as high, rising from 62.7 to 69.9. The national fertility rate in 2004 was much lower at 66.3

The ZIP code with the highest average fertility rate during 2000-2004 was 74116, and the ZIP codes with the lowest fertility rates were again in the downtown area - 74103 and 74119.

Data Sources:

U.S. Census Bureau: Census 2000 Health Care Information Division (HCI), OSDH; National Center for Health Statistics - Births: Preliminary Data for 2004

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Live Births	Fertility Rate
74116	515	168.3
74110	1,701	99.8
74127	1,169	96.1
74021	939	95.4
74037	937	89.6
74126	1,152	86.8
74128	1,069	86.8
74115/117	2,239	86.0
74129	1,660	85.8
74108	576	84.6
74146	1,429	83.2
74106	1,588	82.1
74107	1,842	80.9
74073	250	79.1
74008	1,319	78.9
74055	1,713	77.0
74070	251	76.8
74134	1,200	73.7
74135	1,480	72.4
74145	1,285	72.0
74112	1,616	71.2
74132	354	70.6
74033	760	70.0
74012	3,778	67.7
74130	177	66.8
74063	1,631	66.2
74133	2,924	66.0
74114	1,093	65.2
74105	1,907	63.6
74011	1,527	60.3
74047	85	59.6
74120	387	56.5
74104	1,022	53.6
74136	2,331	53.3
74137	1,143	49.9
74119	130	31.7
74103	36	25.4



f e r t i l i t y r a t e

socioeconomic
indicators

median household income

Indicator Definition

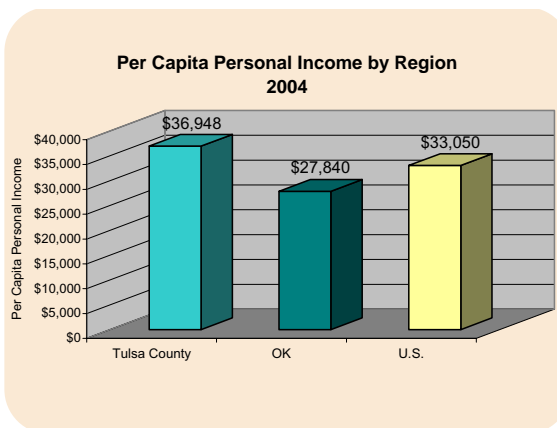
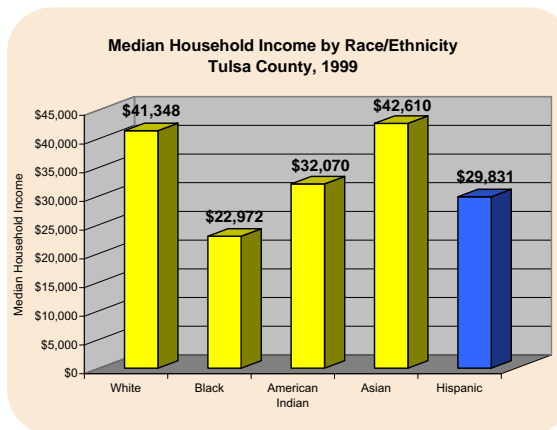
The median household income is the mid-point in the range of household incomes. Half of households reported incomes above the median income and half of households reported incomes below the median income.

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 median household income for Tulsa County in 1999 was \$38,213. Racial income inequality was evident, with White and Asian households having a median income of more than \$40,000 compared with about half that amount for Black households. Hispanic households had a median income of \$29,831.



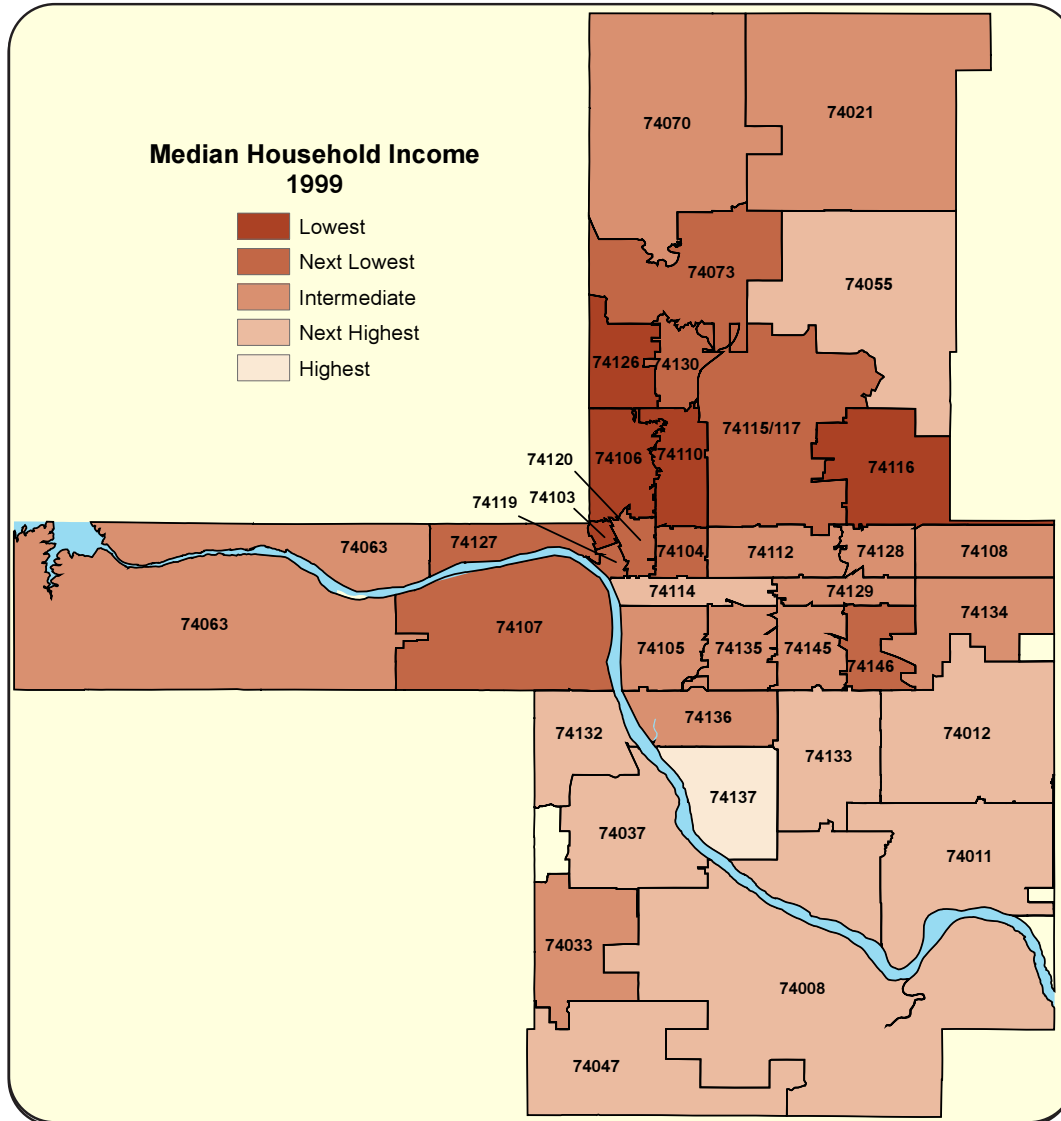
More recent estimates of another measure of economic health, per capita personal income, showed that in 2004 Tulsa County had a higher per capita income than Oklahoma and the nation as a whole. In fact, Tulsa County was ranked No. 1 of all Oklahoma counties for this indicator.

The thematic ZIP code map, however, highlights the income disparity among different segments of the county. The ZIP codes with the lowest household incomes were located in north and west Tulsa. ZIP codes with the highest incomes were generally in far south Tulsa and the southern suburbs.

Data Sources:

U.S. Census Bureau: Census 2000.
Oklahoma Department of Commerce:
Per Capita Personal Income for Counties
and MSAs: 2000-2004.

ZIP CODE (ZCTA)	1999 Median Household Income
74106	19145
74116	20607
74103	21917
74110	22274
74126	23025
74120	26345
74119	26549
74127	26913
74115/117	28864
74107	29462
74104	29986
74130	30283
74146	30570
74073	32951
74112	33728
74136	34812
74128	34956
74108	36094
74129	36207
74105	36837
74135	37103
74070	37683
74063	39182
74021	39237
74145	39276
74134	40686
74033	43639
74047	46250
74055	47348
74114	47852
74008	48898
74133	50379
74012	52053
74037	53044
74132	53867
74011	55725
74137	79049



median household income

population below poverty population below poverty

Indicator Definition

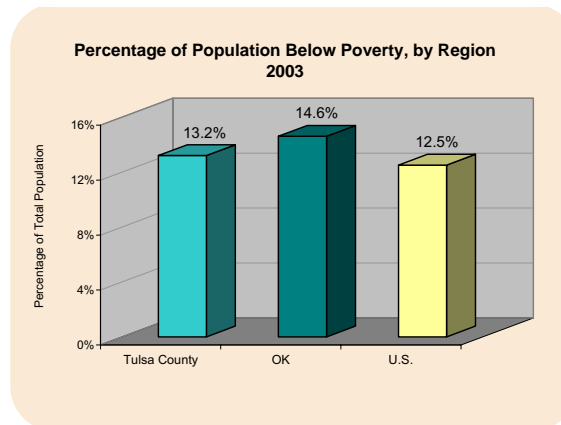
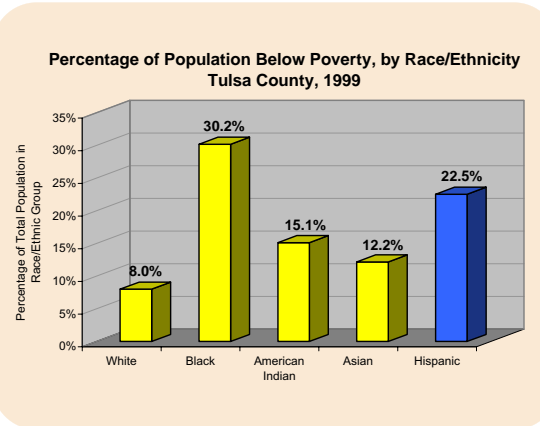
This indicator is the percentage of persons living below the federal poverty level in 1999 and is taken from the 2000 Census. The Census Bureau determines poverty level using a set of income thresholds that vary by family size and composition. In 1999, the weighted averaged poverty threshold for a family of four was \$17,029.

Why Is This Indicator Important?

As with other indicators of a community's economic health, poverty is a predictor for many poor behavioral choices and health outcomes, with the associated increased need for public health and other social services.

How Are We Doing?

In Tulsa County, there was racial disparity in the percentage of the population below poverty in 1999. Almost 30 percent of the Black population lived below the poverty level, a rate almost four times that of the White population and twice that of American Indians. Hispanics had a poverty rate of 22.5 percent.



Estimates for 2003 put the poverty rate of Tulsa County (13.2 percent) below that of the state (14.6 percent) but above the national rate of 12.5 percent. Of county residents below the age of 18, more than 18 percent lived below the poverty level.

The distribution of the population below poverty in Tulsa County was consistent with the data on racial divides. The ZIP code with the highest percentage of people living below poverty was in downtown Tulsa, where there are a number of shelters. The next highest were generally the ZIP codes with the highest percentages of Black residents, in north Tulsa. The suburbs and south Tulsa tended to have lower rates.

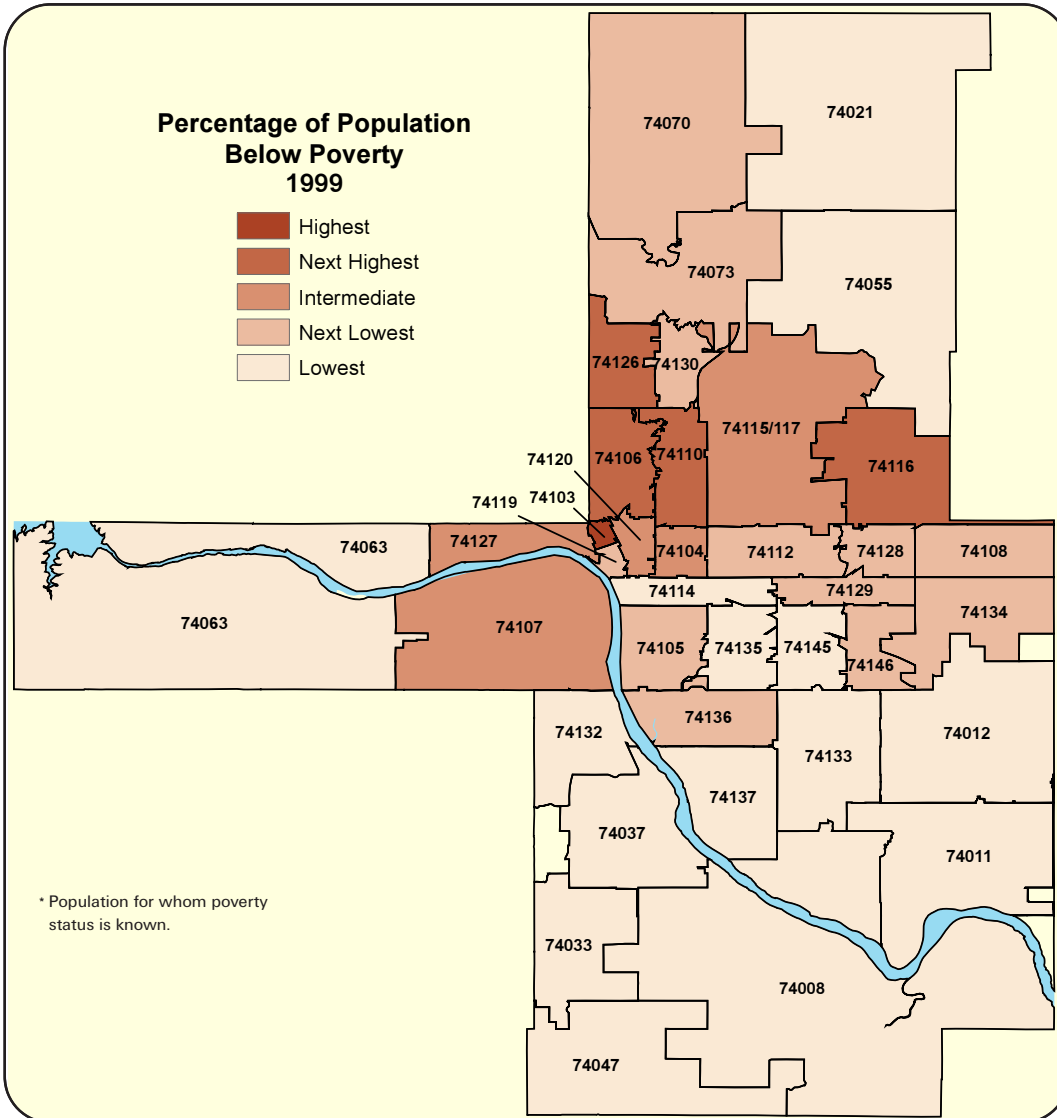
Public Health/Community Interventions

Provide continued support for and expansion of programs that address the health care needs of children and families in poverty.

Data Sources:

U.S. Census Bureau: Census 2000; Poverty Thresholds, 1999; Small Area Income and Poverty Estimates (SAIPE), 2003.

ZIP CODE (ZCTA)	Population Below Poverty*	Percentage of Total Population*
74103	640	65.8%
74106	6,260	35.2%
74116	742	30.8%
74126	3,505	30.0%
74110	4,241	28.1%
74127	2,280	20.0%
74107	3,998	19.8%
74115/117	4,683	19.8%
74104	2,366	18.9%
74120	968	18.0%
74108	953	15.6%
74119	538	14.5%
74146	1,946	13.8%
74130	360	13.5%
74073	416	13.4%
74129	2,263	12.4%
74136	3,551	12.0%
74105	3,120	11.0%
74112	2,301	10.9%
74070	320	10.8%
74134	1,387	10.6%
74128	1,260	10.4%
74063	1,977	8.6%
74021	791	8.4%
74135	1,697	8.2%
74145	1,443	7.9%
74033	533	6.4%
74008	848	5.6%
74132	239	5.5%
74055	1,008	5.3%
74133	1,955	5.2%
74114	827	5.0%
74047	65	4.9%
74012	2,125	4.6%
74037	425	4.6%
74011	1,034	4.5%
74137	943	4.2%



population below poverty

female head of household female head of household

Indicator Definition

This indicator is defined as a household headed by a female with her own children under 18 years of age, with no husband present. It is presented as the percentage of all households, based on the 2000 Census.

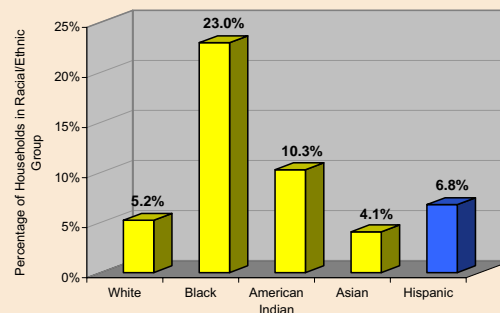
Why Is This Indicator Important?

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

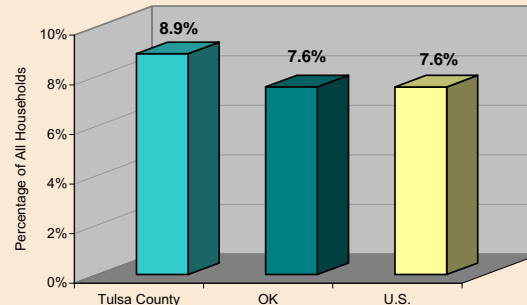
How Are We Doing?

In 2000, the percentage of households headed by a female without a husband, living with her own children under the age of 18, was 7.4 percent. A significant share (almost one-fourth) of Black households were headed by females with children, over twice the

Percentage Households Headed by a Female With Own Children by Race/Ethnicity, Tulsa County, 2000



Percentage Households Headed By a Female With Own Children by Region, 2004



rate for American Indians (10.3 percent). White and Asian households had much lower percentages of 5.2 percent and 4.1 percent, respectively.

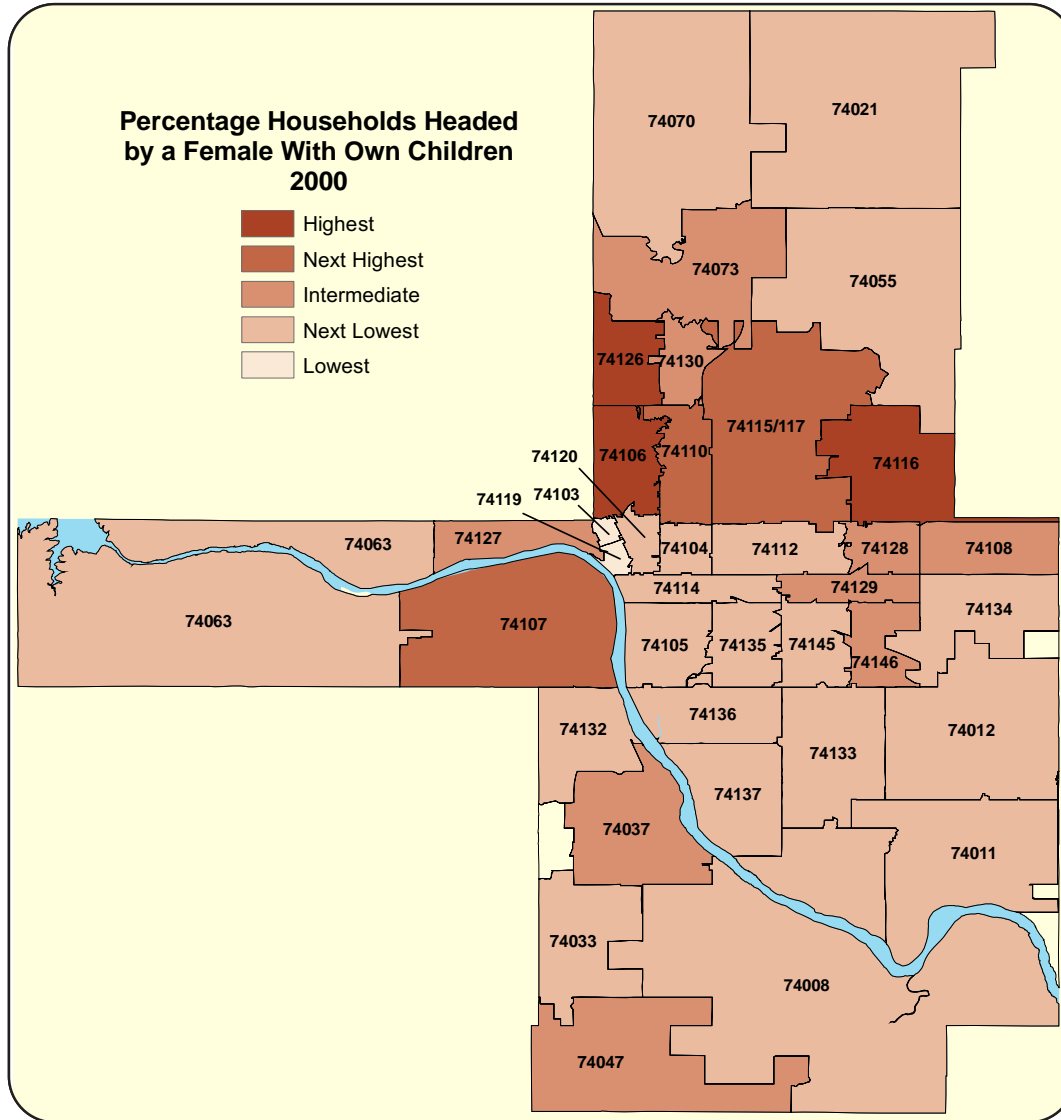
Estimates for 2004 put Tulsa County with almost 9 percent of households headed by a female with her own children, compared with 7.6 percent for both Oklahoma and the nation.

The highest concentration of female-headed households in 2000 was in north Tulsa, primarily ZIP codes 74126, 74106, and 74116. Not unexpectedly, the lowest percentages were found in the downtown area (74103 and 74119). The next lowest percentages tended to be in midtown and south Tulsa and the far northern and southern county suburbs.

Data Source:

U.S. Census Bureau: Census 2000 and American Community Survey, 2004.

ZIP CODE (ZCTA)	2000 Percentage w/Female Head
74116	24.6%
74106	20.1%
74126	20.0%
74110	13.7%
74107	12.6%
74115/117	12.2%
74047	9.4%
74146	9.4%
74127	9.0%
74108	8.8%
74037	8.7%
74130	8.7%
74073	8.2%
74129	8.2%
74128	7.9%
74134	6.6%
74105	6.4%
74120	6.4%
74132	6.4%
74136	6.4%
74063	6.3%
74012	6.2%
74070	6.1%
74055	5.8%
74011	5.6%
74021	5.4%
74008	5.2%
74033	5.2%
74112	5.1%
74133	4.8%
74135	4.8%
74137	4.8%
74104	4.6%
74145	4.3%
74114	4.2%
74119	1.7%
74103	0.0%



female head of household

educational attainment

educational attainment

Indicator Definition

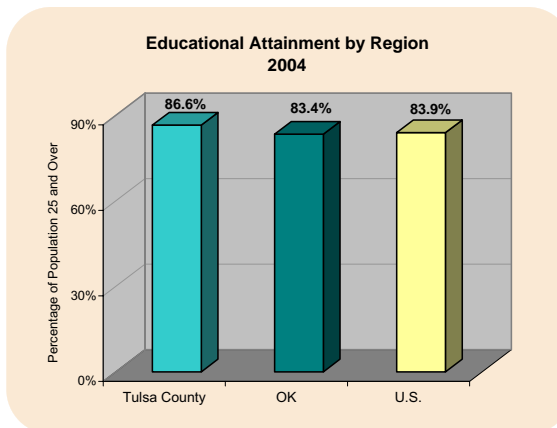
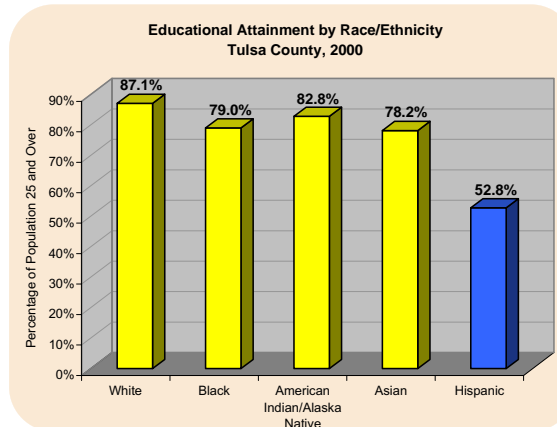
Educational attainment is defined as the completion of at least a high school education by the population aged 25 and older. It is presented as a percentage of the total population 25 and older, based on the 2000 Census.

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 educational attainment of 85 percent in 2000. Attainment was highest for the White population (87.1 percent), followed by American Indians (82.8 percent), Blacks (79 percent), and Asians (78.2 percent). About 53 percent of Hispanics had



achieved a high school education.

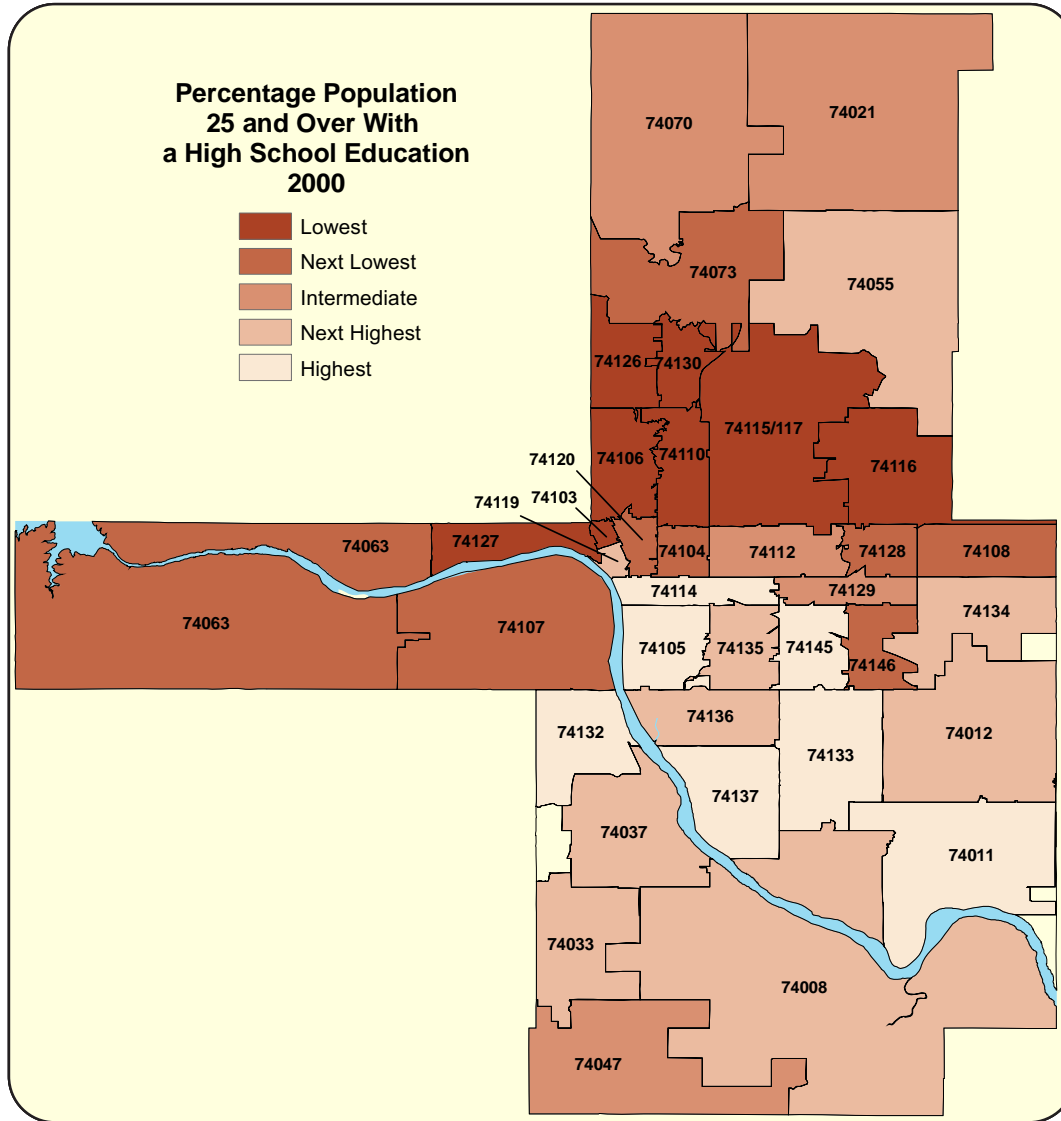
Geographically, educational attainment was lowest in north Tulsa, with the next lowest attainment occurring in northern and western Tulsa County. Highest levels of educational attainment were in midtown and south Tulsa toward the southeast.

Estimates for 2004 put the educational attainment of Tulsa County at 86.6 percent, higher than the state and nation with levels of 83.4 and 83.9 percent, respectively.

Data Source:

U.S. Census Bureau: Census 2000 and American Community Survey, 2004.

ZIP CODE (ZCTA)	2000 Census % >25 with H.S. Ed.
74110	64.8%
74116	66.9%
74127	68.3%
74115/117	69.9%
74106	70.4%
74126	71.5%
74130	72.3%
74103	73.2%
74073	76.7%
74146	77.0%
74108	77.9%
74107	78.2%
74128	79.4%
74063	80.1%
74104	80.6%
74120	80.8%
74021	82.7%
74112	83.0%
74070	84.5%
74129	84.5%
74047	85.7%
74033	86.4%
74008	86.6%
74055	87.2%
74134	87.3%
74119	87.5%
74037	88.1%
74135	90.0%
74136	90.4%
74012	90.5%
74145	91.3%
74105	91.5%
74011	93.5%
74133	93.5%
74114	93.6%
74132	95.0%
74137	95.7%



educational attainment

unemployment rates

Indicator Definition

This indicator is presented as the percentage of the total civilian labor force that was unemployed in 2000, based on information obtained through the 2000 Census.

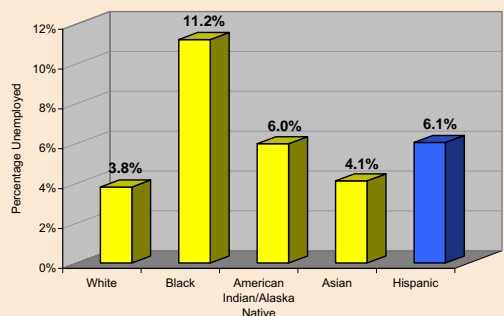
Why Is This Indicator Important?

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

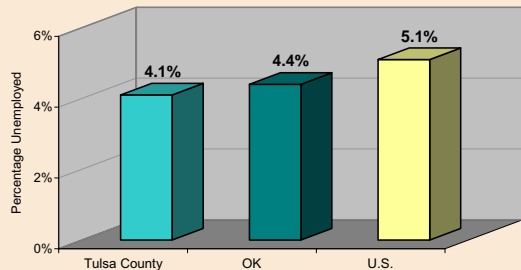
How Are We Doing?

The overall unemployment rate for Tulsa County in 2000, according to the Census, was 4.8 percent. The unemployment rate was highest for the Black population at 11.2 percent, and lowest for the White population (3.8 percent). In between these two extremes were American Indians with

Percentage Civilian Labor Force Unemployed, by Race/Ethnicity
Tulsa County, 2000



Percentage Civilian Labor Force Unemployed, by Region
2005, Annual Average



an unemployment rate of 6 percent. The rate for Asians was 4.1 percent. Hispanics had an unemployment rate of 6.1 percent.

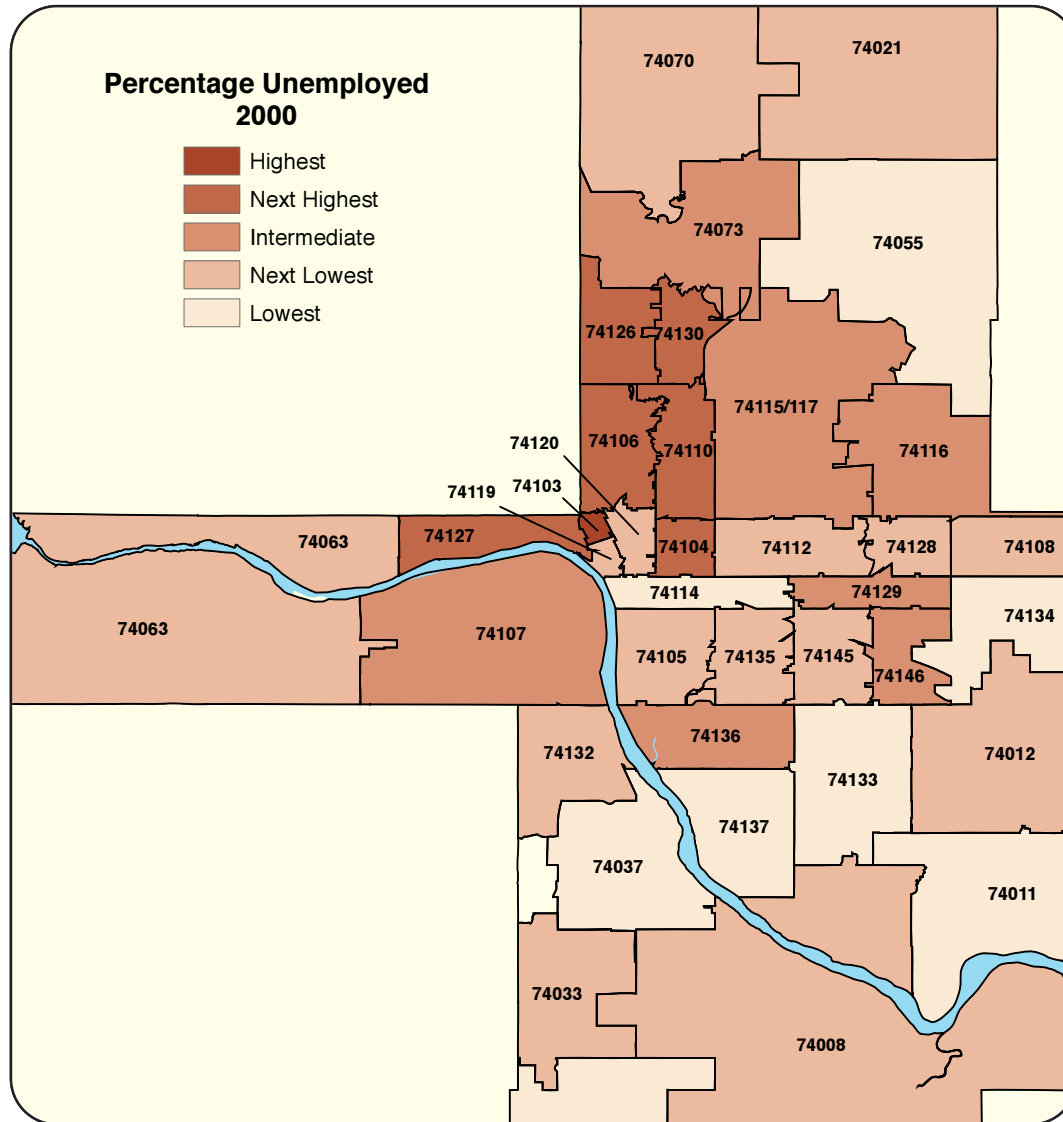
In 2000, the Tulsa County unemployment rates were highest in a cluster of ZIP codes in northwestern Tulsa, and the lowest rates were in south Tulsa and isolated ZIP codes in north, central, and southern Tulsa County.

More recent unemployment statistics (2005 annual average rates) indicate that Tulsa County had a lower unemployment rate (4.1 percent) than Oklahoma (4.4 percent) and the United States (5.1 percent).

Data Sources:

U.S. Census Bureau: Census 2000
U.S. Department of Labor, Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS), 2005.

ZIP CODE (ZCTA)	Percentage Unemployed
74103	49.9%
74126	11.7%
74130	10.7%
74106	10.2%
74110	9.6%
74104	9.4%
74127	8.4%
74136	6.9%
74116	6.7%
74107	6.0%
74115/117	5.7%
74073	5.5%
74129	5.2%
74146	5.1%
74119	4.8%
74120	4.8%
74063	4.5%
74105	4.4%
74135	4.4%
74021	4.3%
74128	4.3%
74112	4.2%
74108	4.0%
74145	4.0%
74070	3.8%
74132	3.5%
74008	3.4%
74012	3.3%
74033	3.3%
74133	3.1%
74134	3.1%
74011	2.4%
74055	2.4%
74047	2.2%
74137	2.1%
74114	1.9%
74037	1.6%



unemployment rate

medicaid

Indicator Definition

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 2005, based on the number of unduplicated enrollees. The ZIP code populations were taken from the 2000 U.S. Census.

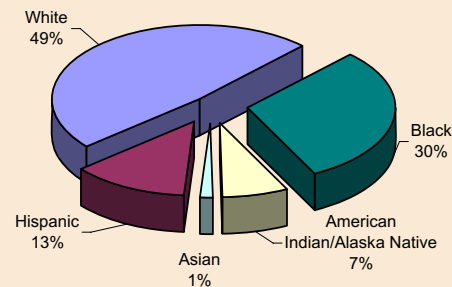
Why Is This Indicator Important?

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. Children form the majority of the enrollees, and the program financed more than 50 percent of the births in Oklahoma in SFY2005 (State Fiscal Year 2005; July – June). Besides being a measure of poverty, Medicaid enrollment provides an indication of the population making use of government assistance programs.

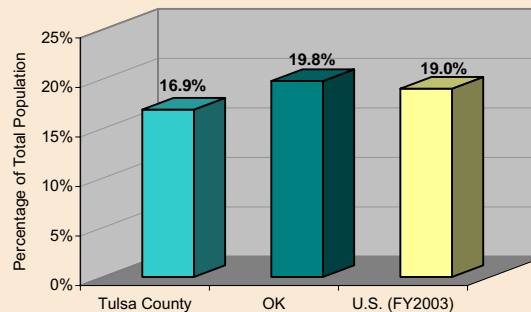
How Are We Doing?

Tulsa County had 96,113 unduplicated Medicaid enrollees during SFY 2005,

**Racial Breakdown of Medicaid Enrollees
Tulsa County, January 2006**



**Percentage Population on Medicaid, by Region
SFY2005**



about 17 percent of the total population. During the same time period, 19.8 percent of Oklahoma's population was covered by Medicaid. Nineteen percent of the nation's population was on Medicaid during FY 2003, the most recent U.S. data available.

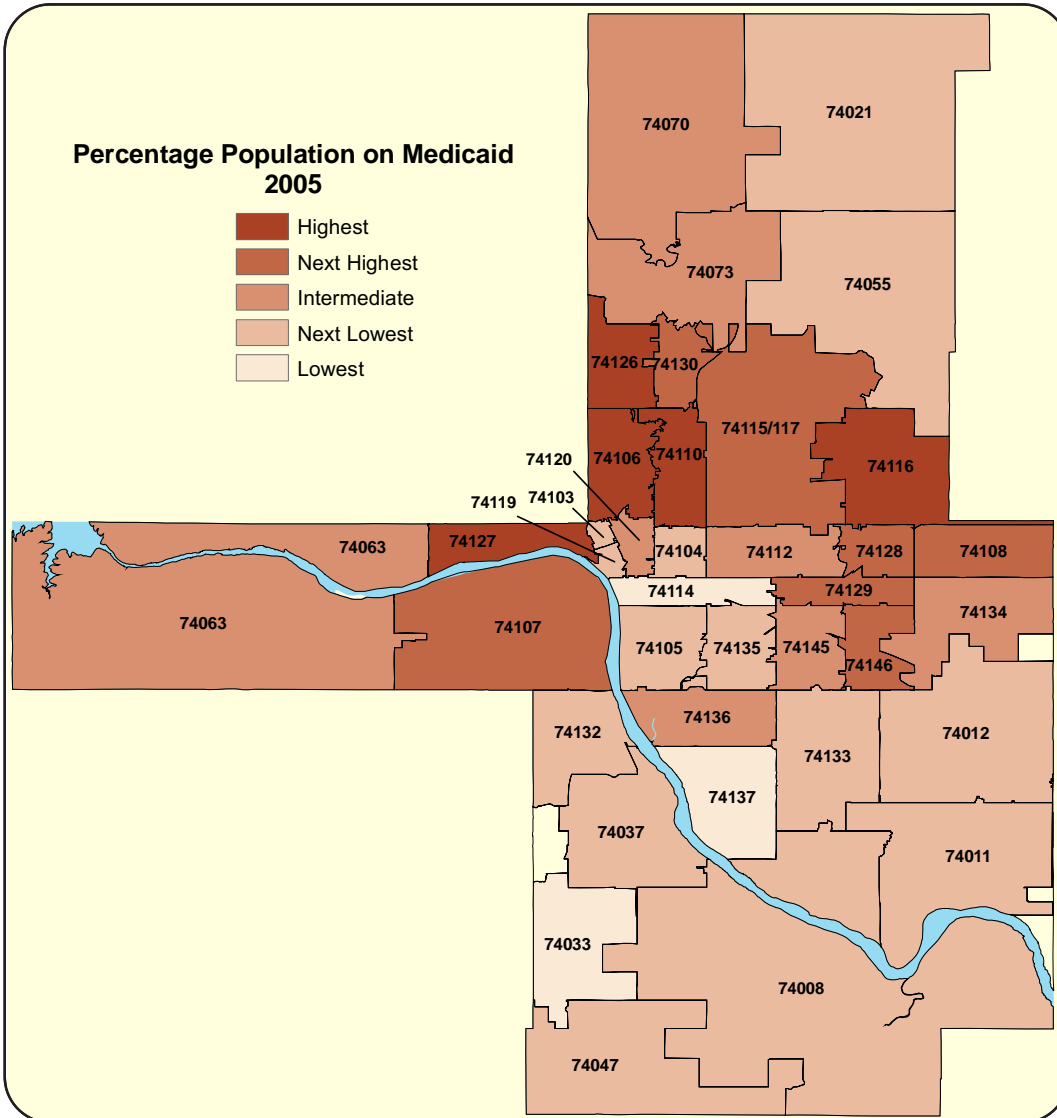
In January 2006, 49 percent of Tulsa County Medicaid enrollees were White, 30 percent were Black, 7 percent were American Indian/Alaska Native, 1 percent were Asian, and 13 percent were Hispanic.

The geographic distribution of Medicaid recipients in Tulsa County in 2005 showed that the ZIP codes with the highest percentages of enrollees were located in east, north, and west Tulsa, while the lower rates were seen in the northeast county suburbs and in midtown Tulsa extending through south Tulsa into the southern suburbs.

Data Sources:

U.S. Census Bureau: Census 2000 and the Population Estimates Program.
Oklahoma Health Care Authority (HCA).
The Henry J. Kaiser Family Foundation

ZIP CODE (ZCTA)	2005 Number on Medicaid	Percentage on Medicaid
74116	1,187	47.2%
74127	5,107	44.1%
74106	7,434	41.1%
74126	4,564	38.6%
74110	5,608	36.7%
74115/117	7,113	29.9%
74146	3,764	26.2%
74108	1,577	26.1%
74130	650	24.8%
74107	4,893	24.1%
74129	4,188	22.6%
74128	2,560	20.6%
74134	2,362	18.2%
74112	3,444	16.2%
74120	862	15.7%
74070	452	15.0%
74073	453	15.0%
74063	3,322	14.2%
74145	2,418	13.4%
74136	4,277	13.1%
74021	1,196	12.6%
74104	1,777	12.6%
74135	2,683	12.6%
74119	464	12.2%
74105	3,321	11.7%
74132	490	11.1%
74055	2,146	10.9%
74008	1,630	10.6%
74012	4,990	10.6%
74047	132	10.3%
74103	223	10.3%
74037	877	9.3%
74011	2,053	8.9%
74133	3,210	8.5%
74114	1,083	6.4%
74137	997	4.3%
74033	343	4.1%



m e d i c a i d

maternal & child
health

births to teens 17 and younger

births to teens 17 and younger

Indicator Definition

This indicator is presented as births to Tulsa County teenagers 17 and younger as a percentage of total births, averaged over the years 2000-04.

Why Is This Indicator Important?

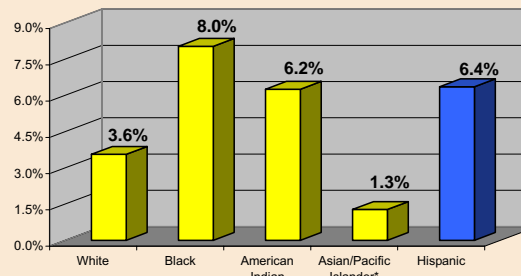
Teen mothers in this age category are especially vulnerable to economic and health-related problems, and their infants are more likely to die and to experience problems later in life.

How Are We Doing?

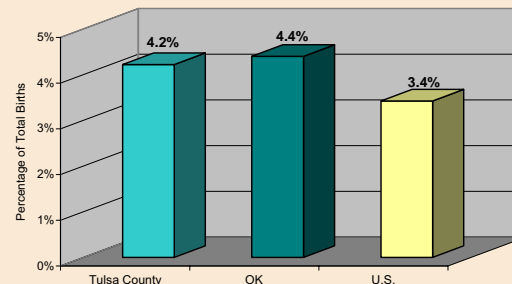
There were 2,003 births to Tulsa County teens 17 and younger during 2000-04, comprising 4.3 percent of total births. The percentage of births to teens in this age group decreased slightly from 2000 to 2004, from 4.6 to 4.2 percent, compared to 4.4 percent in Oklahoma and 3.4 percent in the nation in 2004.

Among births to White mothers, 3.6 percent were to teens younger than 17 and younger, compared with 8 percent

Percentage of Births to Teens 17 and Younger by Race/Ethnicity
Tulsa County, 2000 - 2004 Average



Percentage of Births to Teens 17 and Younger
2004



of births to Black teens and 6.2 percent of births to American Indian teens. Births to Hispanic teen mothers accounted for 6.5 percent of all births.

ZIP codes 74126, 74110, 74016, and 74116 in north Tulsa had the highest percentage of births to teens 17 and younger.

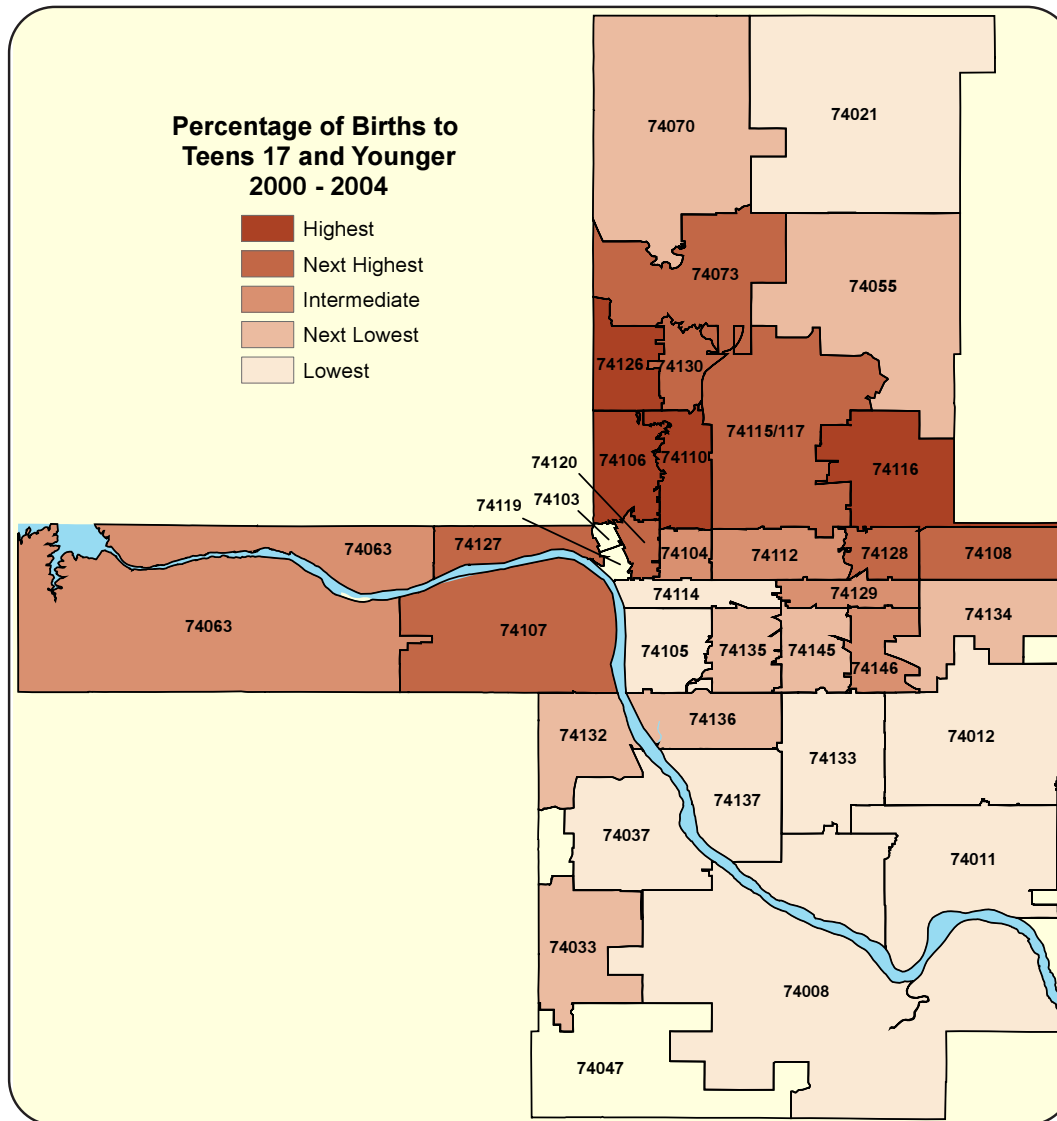
Public Health/Community Interventions

Expand programs that provide sex education and family planning services to teenagers. Provide programs that support high school graduation and financial independence. Identify the attitudes and perceptions that result in racial and ethnic disparities in teen births.

Data Sources:

U.S. Census Bureau: Census 2000.
Health Care Information Division (HCI) of the OSDH.

ZIP CODE (ZCTA)	Number of Births to Teens <18	Percent of All Births
74126	139	12.0%
74110	156	9.1%
74106	142	8.9%
74116*	46	8.9%
74115/117	170	7.6%
74120*	28	7.2%
74127	81	6.9%
74073*	16	6.4%
74128	62	5.8%
74108*	33	5.7%
74107	103	5.6%
74130*	10	5.6%
74112	80	4.9%
74146	66	4.6%
74104	46	4.5%
74129	75	4.5%
74063	65	4.0%
74055	62	3.6%
74070*	9	3.6%
74132*	12	3.4%
74134	40	3.3%
74135	48	3.2%
74145	41	3.2%
74033*	22	2.9%
74136	62	2.7%
74105	48	2.5%
74114	26	2.4%
74008	31	2.3%
74011	34	2.2%
74021*	20	2.1%
74012	72	1.9%
74133	51	1.7%
74037*	10	1.1%
74137	13	1.1%
74119	**	**
74047	**	**
74103	**	**



births to teens 17 and younger

births to teens 19 and younger

births to teens 19 and younger

Indicator Definition

This indicator is presented as births to Tulsa County teenagers ages 19 and younger as a percentage of total births, averaged over the years 2000-04.

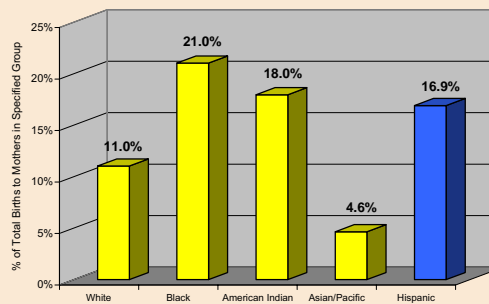
Why Is This Indicator Important?

Teenaged mothers are more likely than other mothers 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 teenaged mothers intensify the demands on health care and welfare systems.

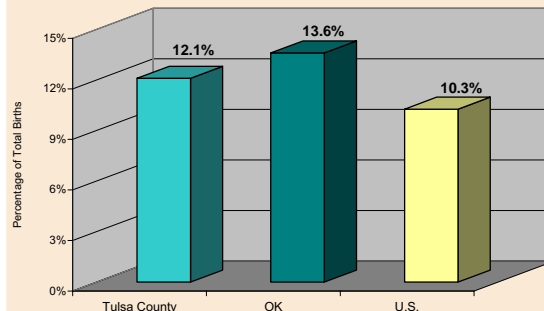
How Are We Doing?

Of the 46,440 live births to Tulsa County mothers during 2000-04, 5,923 (12.8 percent) happened among teens 19 or younger. There was a gradual decrease from 13.8 percent in 2000 to 12.1 percent in 2004, compared with 13.6 percent for Oklahoma and 10.3 percent for the nation in 2004.

Percentage of Births to Teens 19 and Younger
by Race/Ethnicity of Mother
Tulsa County, 2000 - 2004



Percentage of Births to Teens 19 and Younger
2004



Among births to White mothers, 11 percent were to teens 19 and younger, compared with 21 percent of births to Black mothers and 18 percent of births to American Indian mothers. Approximately 17 percent of Hispanic births were to teenagers.

The ZIP codes with the highest percentage of teen births were 74116, 74126, 74110, and 74106 in north Tulsa.

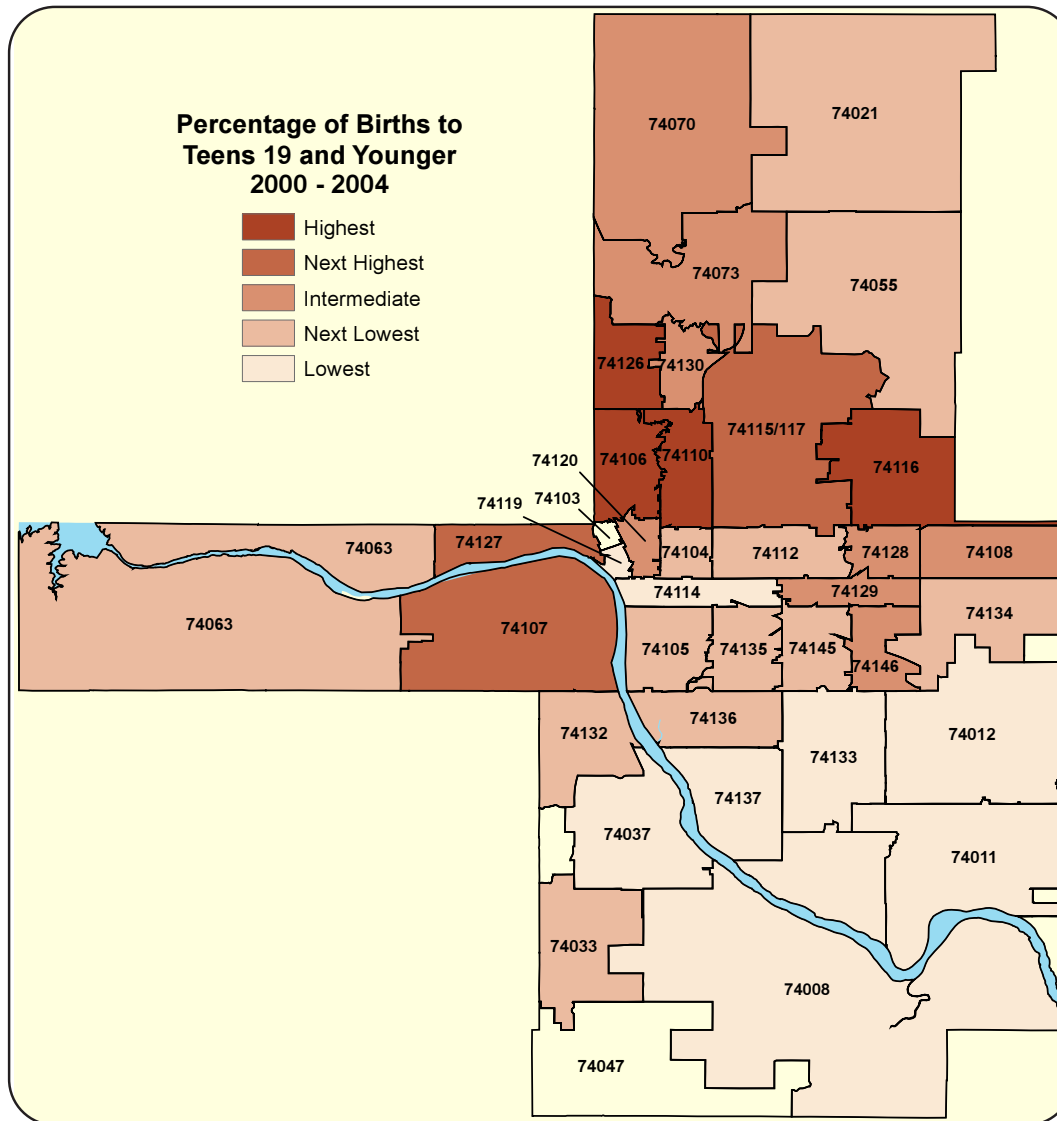
Public Health/Community Interventions

Reinforce efforts to reduce the number of adolescent pregnancies.

Data Sources:

U.S. Census Bureau: Census 2000.
Health Care Information Division (HCI)
of the OSDH. NCHS.

ZIP CODE (ZCTA)	Number of Births to Teens <20	Percent of All Births
74116*	132	26.0%
74126	285	25.0%
74110	385	23.0%
74106	354	22.0%
74107	345	19.0%
74115/117	430	19.0%
74127	206	18.0%
74073*	41	16.0%
74108*	90	16.0%
74146	236	16.0%
74070*	39	15.0%
74120*	58	15.0%
74128	156	15.0%
74129	244	15.0%
74130*	24	14.0%
74063	209	13.0%
74104	129	13.0%
74134	154	13.0%
74112	200	12.0%
74132*	42	12.0%
74135	179	12.0%
74136	291	12.0%
74145	159	12.0%
74055	173	10.0%
74105	182	10.0%
74021*	83	9.0%
74033*	69	9.0%
74008	92	7.0%
74011	114	7.0%
74012	259	7.0%
74133	218	7.0%
74114	59	5.0%
74119*	6	5.0%
74137	52	5.0%
74037*	34	4.0%
74047	**	**
74103	**	**



births to teens 19 and younger

premature births

premature births

Indicator Definition

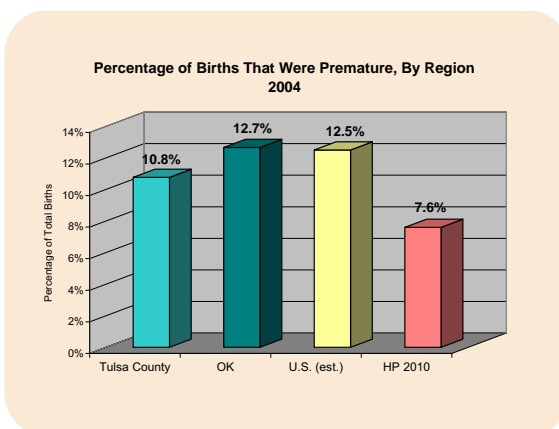
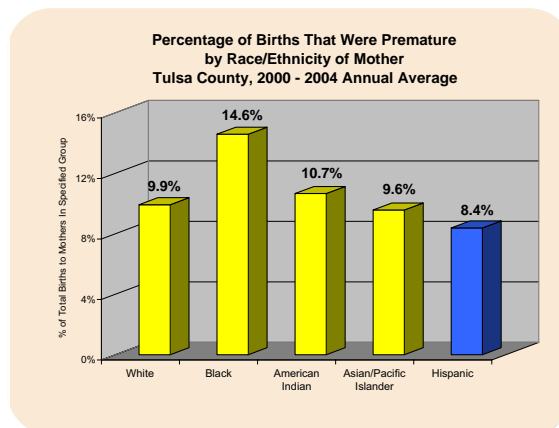
This indicator is defined as births that occur before the 37th week of pregnancy. It is presented as a percentage of all births to Tulsa County mothers, averaged over the years 2000-2004.

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 18 percent since 1990. 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 (10.6 percent) born to Tulsa County mothers during the years 2000-2004 were premature. The highest percentage occurred among Blacks mothers (14.6 percent). The percentage among White mothers was 9.9 percent and among American Indians was 10.7 percent. Hispanic mothers gave birth to premature infants at a rate of 8.4 percent.



In 2004, 10.8 percent of births to Tulsa County mothers were premature, compared with 12.7 percent for Oklahoma and 12.5 percent for the nation. Healthy People 2010 has set a national target goal for premature births of 7.6 percent.

The ZIP codes with the highest percentages of premature births (74126 and 74106) reflect the higher burden of preterm births within the Black population. The lowest percentages of prematurity tended to occur in the far southern suburbs and in the Owasso area (74055).

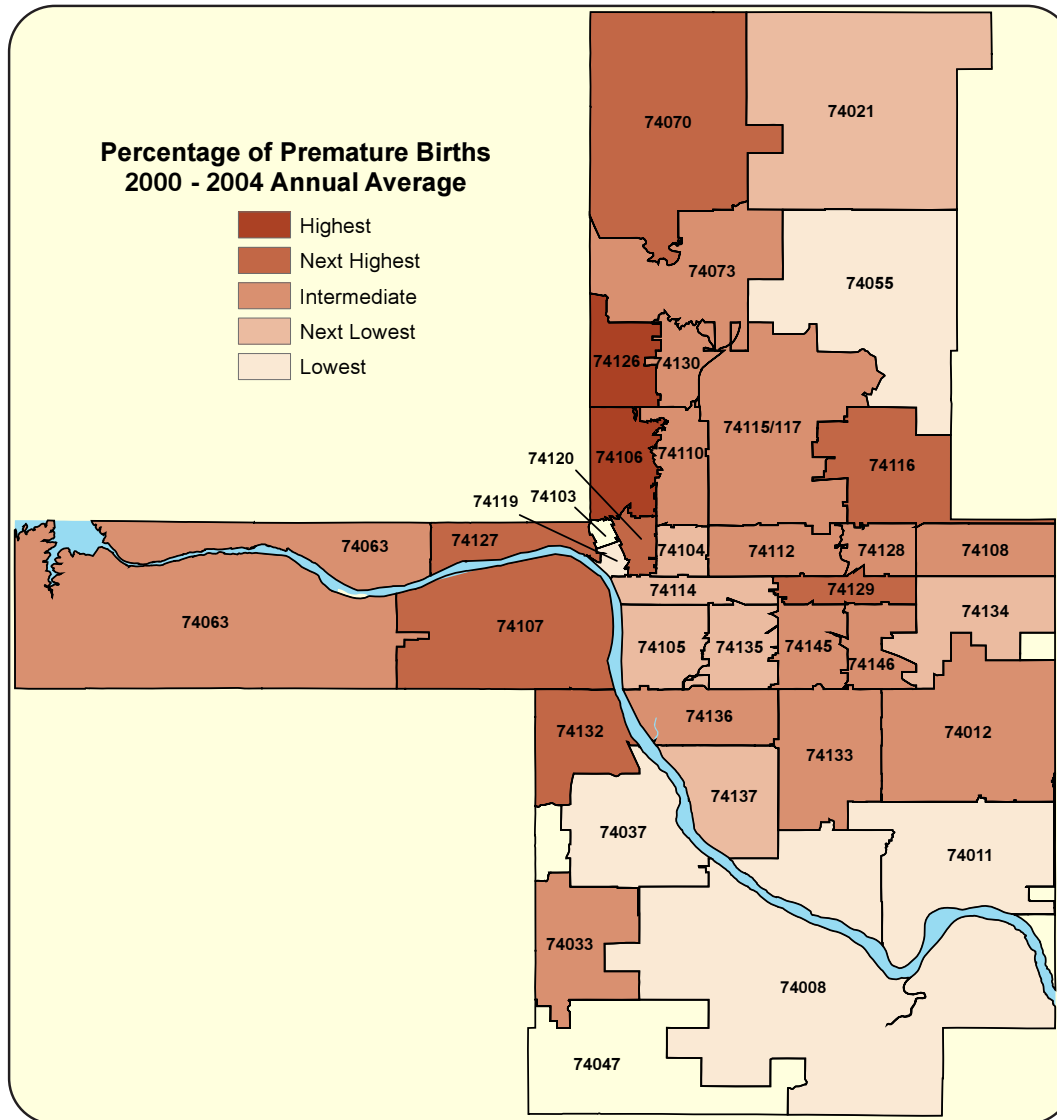
Public Health/Community Interventions

Educate women on the causes and serious consequences of prematurity and the warning signs of premature labor. Provide programs that assist mothers in receiving adequate pre-natal care and provide access to health care services for their premature infants.

Data Sources:

Health Care Information Division (HCI), OSDH. NCHS: Preliminary Births for 2004: Infant and Maternal Health, and Healthy People 2010.

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Preterm Births	Percentage Of All Births
74126	180	16%
74106	218	14%
74127	149	13%
74116*	65	13%
74070*	31	12%
74107	227	12%
74120*	45	12%
74132*	41	12%
74129	189	11%
74146	158	11%
74063	177	11%
74108*	63	11%
74033*	82	11%
74110	184	11%
74133	314	11%
74112	173	11%
74073*	26	11%
74136	244	11%
74128	111	10%
74145	133	10%
74115/117	231	10%
74130*	18	10%
74012	386	10%
74135	148	10%
74021*	93	10%
74114	107	10%
74134	118	10%
74137	111	10%
74105	182	10%
74104	96	9%
74011	132	9%
74055	149	9%
74008	112	9%
74037*	73	8%
74119*	10	8%
74047	**	**
74103	**	**



premature births

low birth weight

low birth weight

Indicator Definition

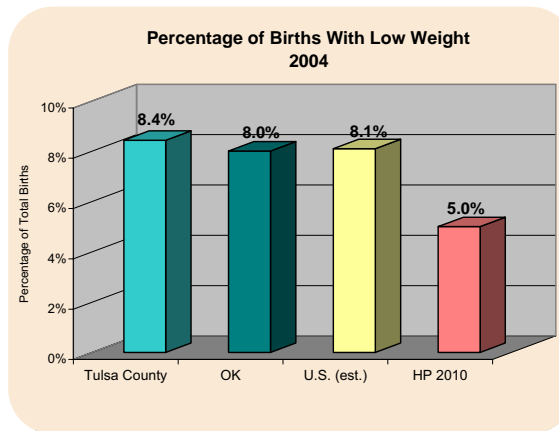
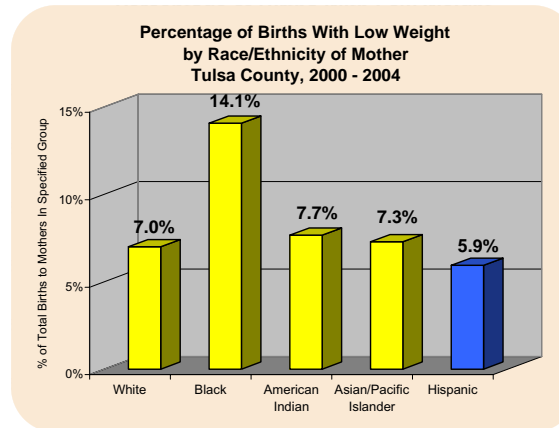
This indicator is defined as births that weigh less than 2500 grams (5 pounds, 8 ounces). It is expressed as a percentage of all births to Tulsa County mothers averaged over the years 2000-2004.

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 2000 to 2004, an average of 8.1 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 2.5 percent. Racial disparity was apparent, with Black mothers having twice the rate of low birth weight infants as White mothers (14.1 percent and 7 percent, respectively). The percentage of low birth weight among



Hispanic mothers was 5.9 percent.

The two ZIP codes with the highest percentages of low birth weight, 74126 and 74106, have predominantly Black populations. The lowest and next lowest percentages are seen generally in central Tulsa and the northern and southern suburbs.

Healthy People 2010

The Healthy People goal for low birth weights in 2010 is 5 percent. In 2004, Tulsa County, the state of Oklahoma, and the nation had not yet reached that goal; showing values of low birth weight infants around 8 percent.

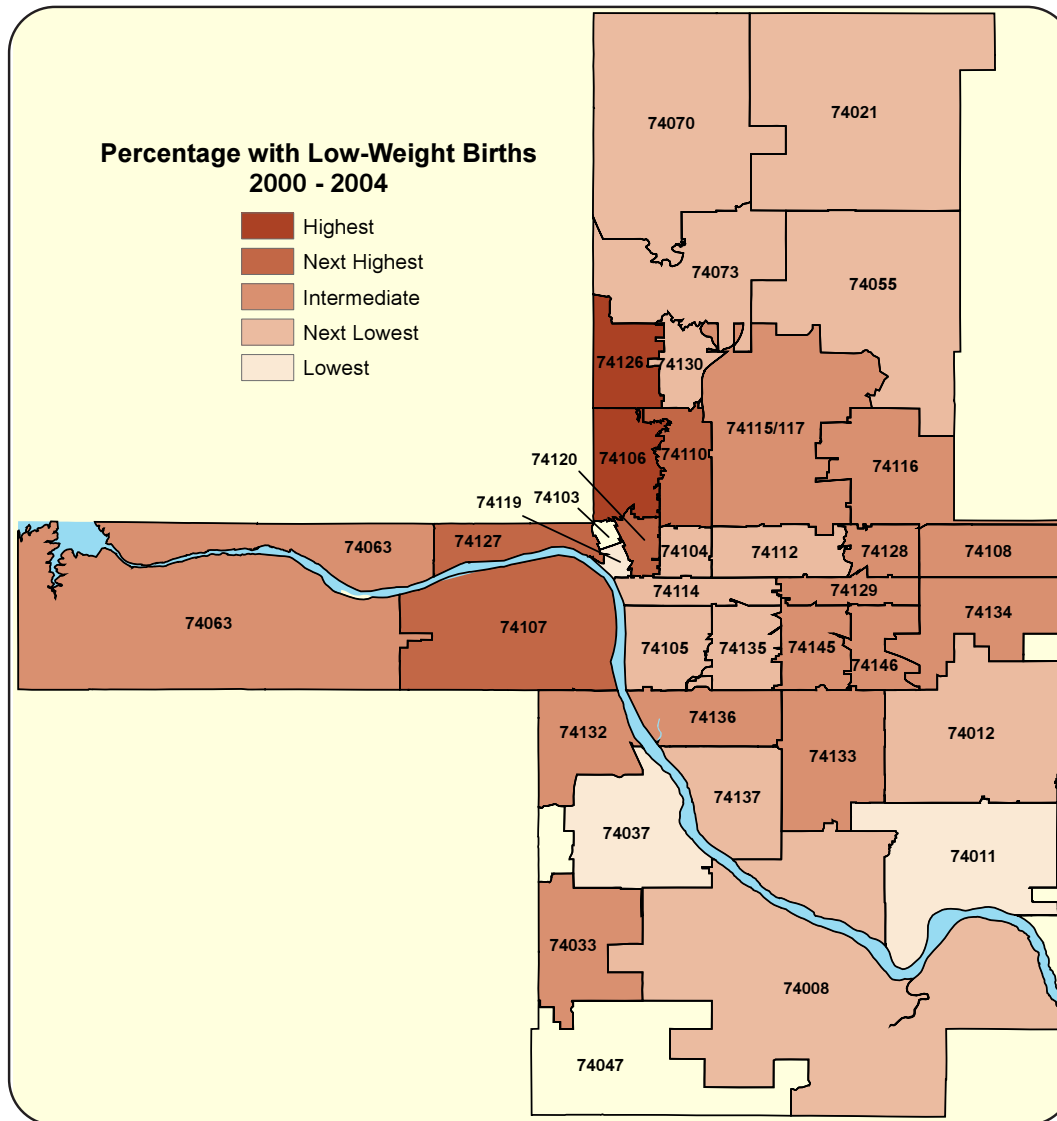
Public Health/Community Interventions

Continue to provide programs that encourage early prenatal care. Educate high-risk mothers on the potential risks to their infants from low birth weight.

Data Sources:

U.S. Census Bureau: Census 2000. Health Care Information Division (HCI), OSDH. NCHS, Healthy People 2010.

ZIP CODE (ZCTA)	Number of Low-Weight Births	Percent of All Births
74126	163	14.0%
74106	209	13.1%
74120*	42	10.8%
74127	120	10.2%
74110	165	9.6%
74107	176	9.5%
74116*	46	8.9%
74145	114	8.9%
74129	147	8.8%
74115/117	194	8.6%
74134	104	8.6%
74063	139	8.5%
74128	87	8.1%
74136	186	8.0%
74132*	28	7.9%
74146	111	7.8%
74133	226	7.7%
74033*	57	7.5%
74108*	43	7.5%
74130*	13	7.3%
74073*	18	7.2%
74105	138	7.2%
74012	267	7.1%
74112	115	7.1%
74135	104	7.0%
74070*	17	6.7%
74114	72	6.6%
74137	75	6.5%
74055	110	6.4%
74104	66	6.4%
74021*	59	6.3%
74008	81	6.1%
74011	84	5.5%
74037*	43	4.6%
74119*	6	4.6%
74047	**	**
74103	**	**



low birth weight

births to unmarried women

births to unmarried women

Indicator Definition

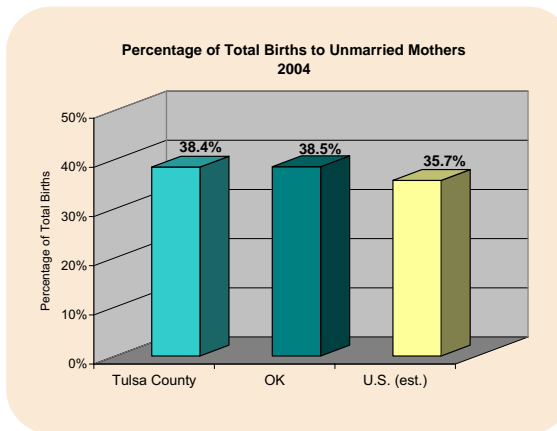
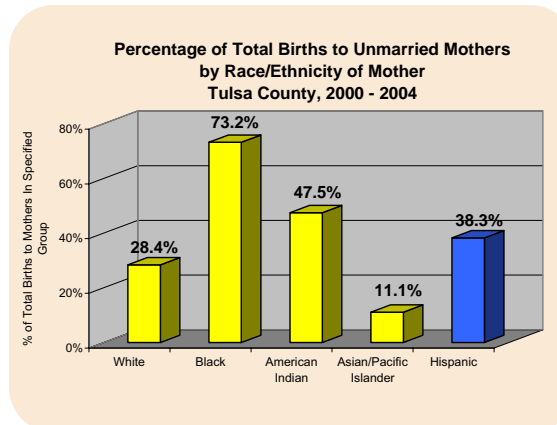
Unmarried birth mothers include those who have never married, are widowed, or are divorced. This indicator is presented as births to unmarried Tulsa County mothers, expressed as a percentage of all births averaged over the years 2000-04.

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 35.6 percent of births in Tulsa County were to unmarried mothers during the years 2000-04. Childbearing by single women was highest among Black mothers at 73.2 percent, compared to 28.4 percent among White mothers and 47.5 percent among American Indian mothers. Approximately 38.3 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 rising from 33.3 percent in 2000 to 38.4 percent in 2004. The estimated national percentage for 2004 was 35.7 percent.

The ZIP codes with the highest percentages of total births to unmarried mothers during 2000-04 were 74126 and 74106, where Blacks comprise more than 75 percent of the population. ZIP codes in the south generally had lower percentages than those in the central and northern parts of the county.

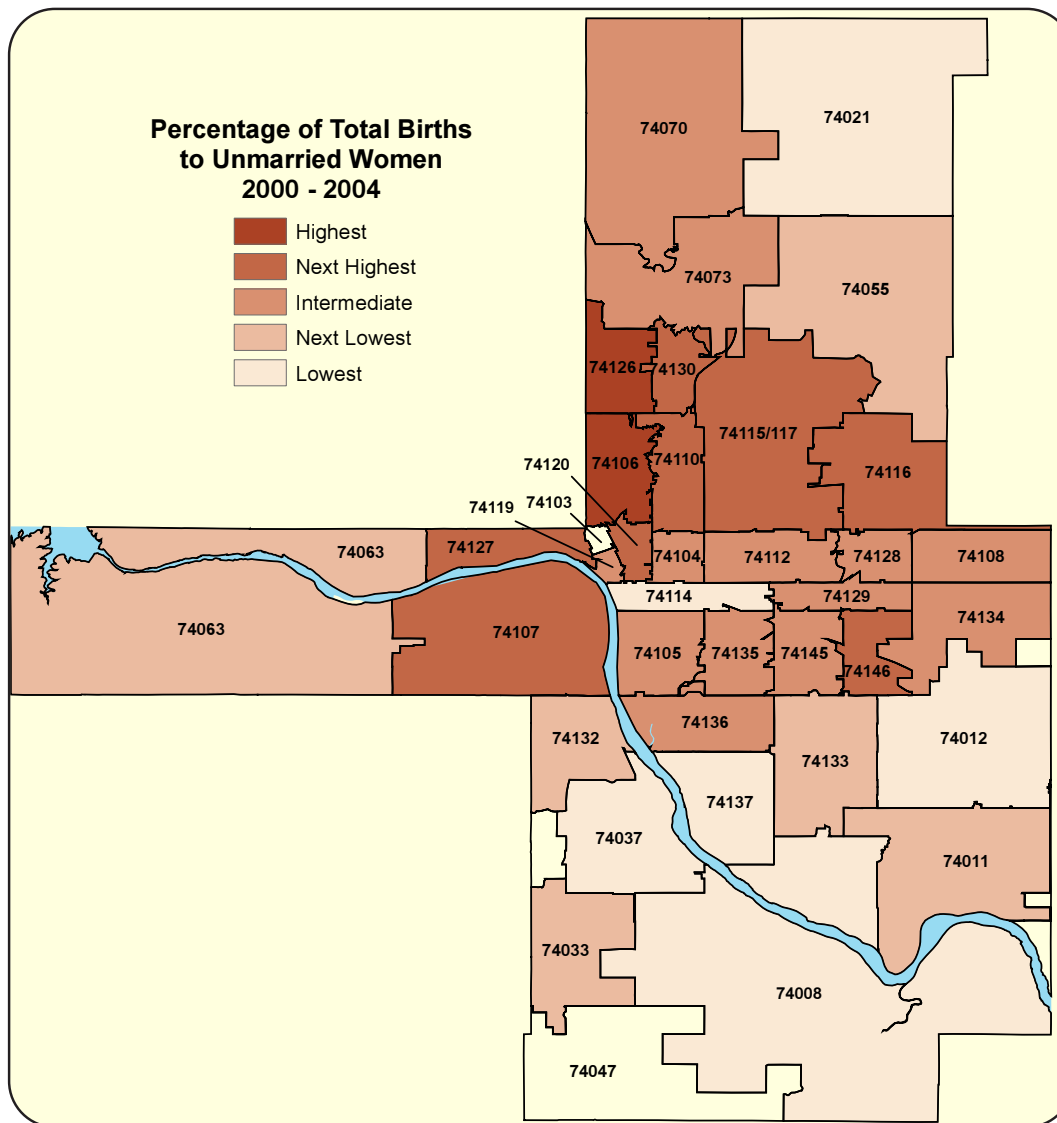
Public Health/Community Interventions

Expand on programs that provide assistance to disadvantaged mothers and their children.

Data Sources:

U.S. Census Bureau: Census 2000.
Health Care Information Division (HCI), OSDH. NCHS, Healthy People 2010.

ZIP CODE (ZCTA)	Number of Unmarried Birth Mothers	Percentage of All Births
74106	1,234	0.77
74126	892	0.77
74116*	312	0.6
74110	1,003	0.59
74127	607	0.52
74115/117	1,132	0.5
74130*	89	0.5
74107	906	0.49
74146	658	0.46
74120*	176	0.45
74128	451	0.42
74129	689	0.41
74108*	229	0.4
74119*	52	0.4
74136	901	0.39
74112	582	0.36
74135	527	0.36
74104	360	0.35
74105	664	0.35
74134	410	0.34
74145	437	0.34
74070*	83	0.33
74073*	82	0.33
74063	480	0.29
74132*	88	0.25
74033*	176	0.23
74055	370	0.22
74011	319	0.21
74133	625	0.21
74008	233	0.18
74012	633	0.17
74137	196	0.17
74021*	155	0.16
74114	169	0.15
74037*	96	0.1
74047	**	**
74103	**	**



births to unmarried women

late or no prenatal care

late or no prenatal care

Indicator Definition

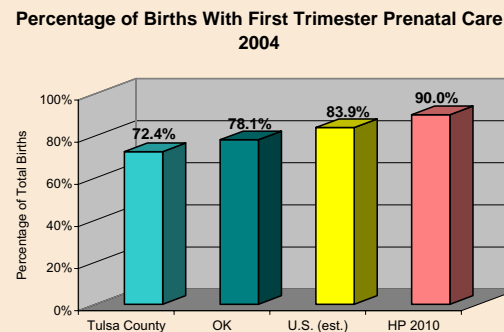
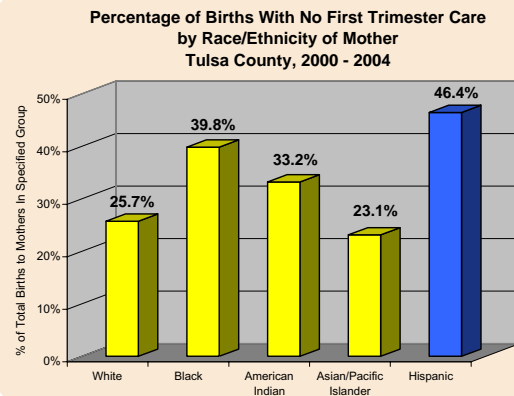
This indicator is defined as births to Tulsa County mothers who had no prenatal care or who did not begin prenatal care until after the first trimester (months 1 through 3). It is presented as a percentage of all births, averaged over the years 2000-2004.

Why Is This Indicator Important?

No or late 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 2000-2004, 28.2 percent of all Tulsa County birth mothers did not receive any prenatal care or delayed receiving care until the second trimester. There was racial disparity, with 39.8 percent of black mothers and 33.2 percent of American Indian mothers not receiving early prenatal care, compared with 25.7 percent of White birth mothers. Among Hispanic birth mothers, 46.4 percent did not receive early prenatal care.



The ZIP codes with the highest percentages of birth mothers receiving no or late prenatal care during 2000 through 2004 were 74126, 74106, 74110, and 74116, in north Tulsa.

Healthy People 2010

In 2004, 72.4 percent of Tulsa County birth mothers received prenatal care during the first trimester, well below the HP 2010 goal of 90 percent. Tulsa County lagged behind Oklahoma (with 78.1 percent) and the nation (83.9 percent).

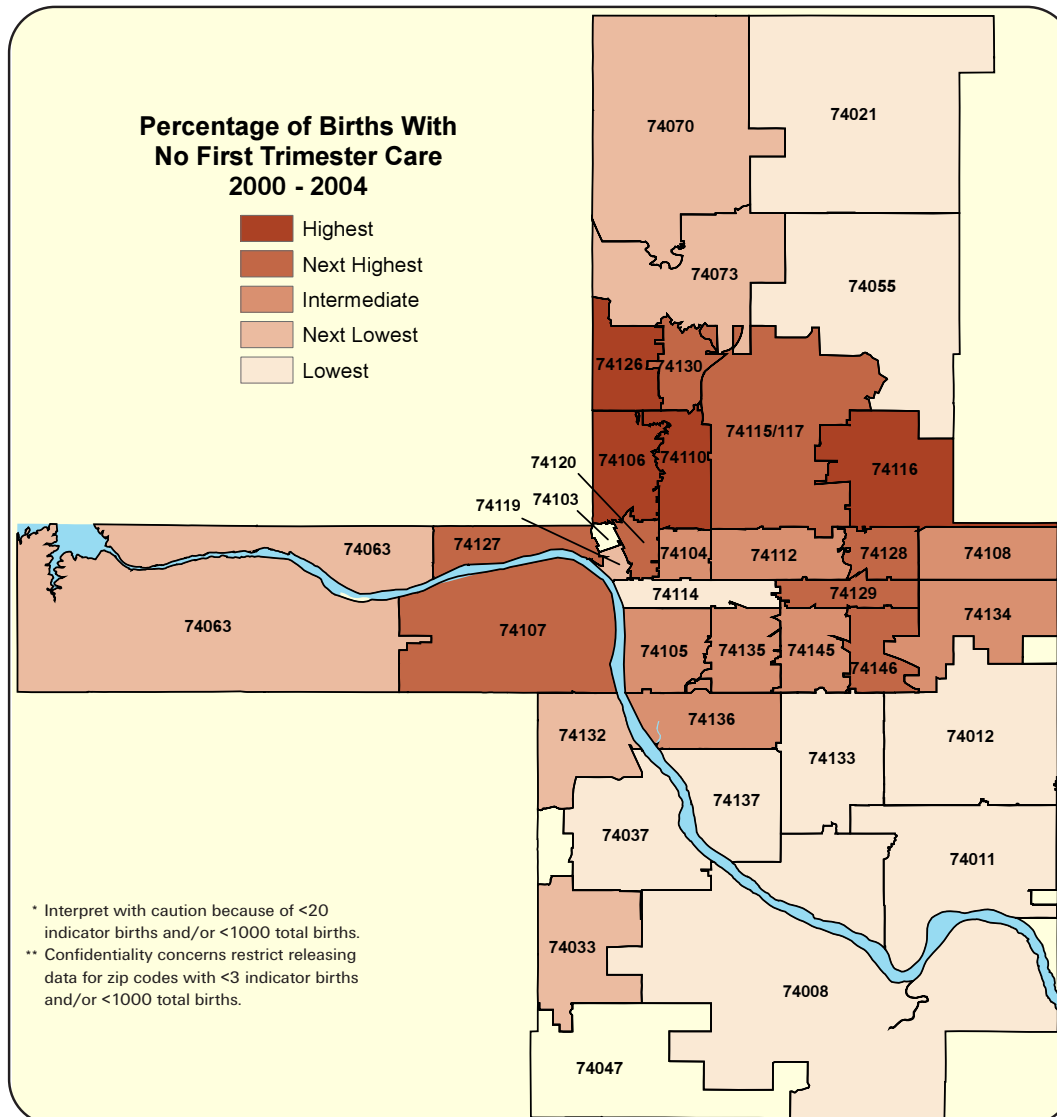
Public Health/Community Interventions

Reinforce efforts to increase the availability of prenatal care.

Data Sources:

U.S. Census Bureau: Census 2000.
Health Care Information Division (HCI),
OSDH. NCHS, Healthy People 2010.

ZIP CODE (ZCTA)	Number With No First Trimester Care	Percent of All Births
74106	692	46.1%
74116	219	45.2%
74110	716	43.9%
74126	466	42.7%
74146	546	39.7%
74115/117	850	39.4%
74127	404	37.5%
74129	581	36.1%
74130	59	35.3%
74128	365	35.2%
74107	608	34.9%
74120	131	34.5%
74108	176	31.6%
74136	709	31.5%
74104	312	31.4%
74134	364	31.1%
74135	422	29.6%
74112	449	28.7%
74145	342	27.2%
74105	484	26.5%
74073	61	24.9%
74063	372	23.6%
74070	56	22.7%
74033	151	20.3%
74119	25	20.3%
74132	69	20.1%
74133	538	18.8%
74055	308	18.3%
74008	228	17.7%
74012	636	17.2%
74021	159	17.2%
74137	192	17.0%
74011	248	16.5%
74114	173	16.0%
74037	135	14.6%
74047	**	**
74103	**	**



late or no prenatal care

maternal education

maternal education

Indicator Definition

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 2000-2004.

Why Is This Indicator Important?

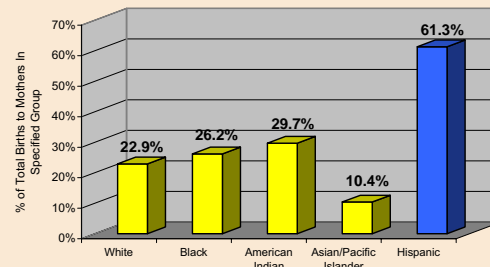
Birth mothers without a 12th grade education are less likely to receive early and adequate prenatal care and are at higher risk for poor pregnancy outcomes, including premature births, low birth weight infants, and infant deaths.

How Are We Doing?

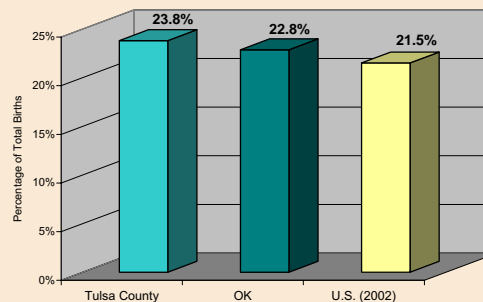
The 2000-2004 average percentage of birth mothers in Tulsa County with fewer than 12 years of education was 23.5 percent. American Indians were the racial minority with the highest percentage at 29.7 percent, while over 60 percent of Hispanic birth mothers did not have a 12th-grade education.

In 2004, 23.8 percent of Tulsa County birth mothers had fewer than 12 years of

Percentage of Birth Mothers With <12th-Grade Education by Race/Ethnicity of Mother
Tulsa County, 2000 - 2004



Percentage of Birth Mothers With <12th-Grade Education
2004



education, compared with 22.8 percent in Oklahoma. In 2002, the most recent year for which data are available, the national percentage was 21.5.

The ZIP codes with the highest percentages of birth mothers with less than a 12th-grade education are primarily in north, west, and east Tulsa, and the ones with the lowest percentages are mainly in southern Tulsa County.

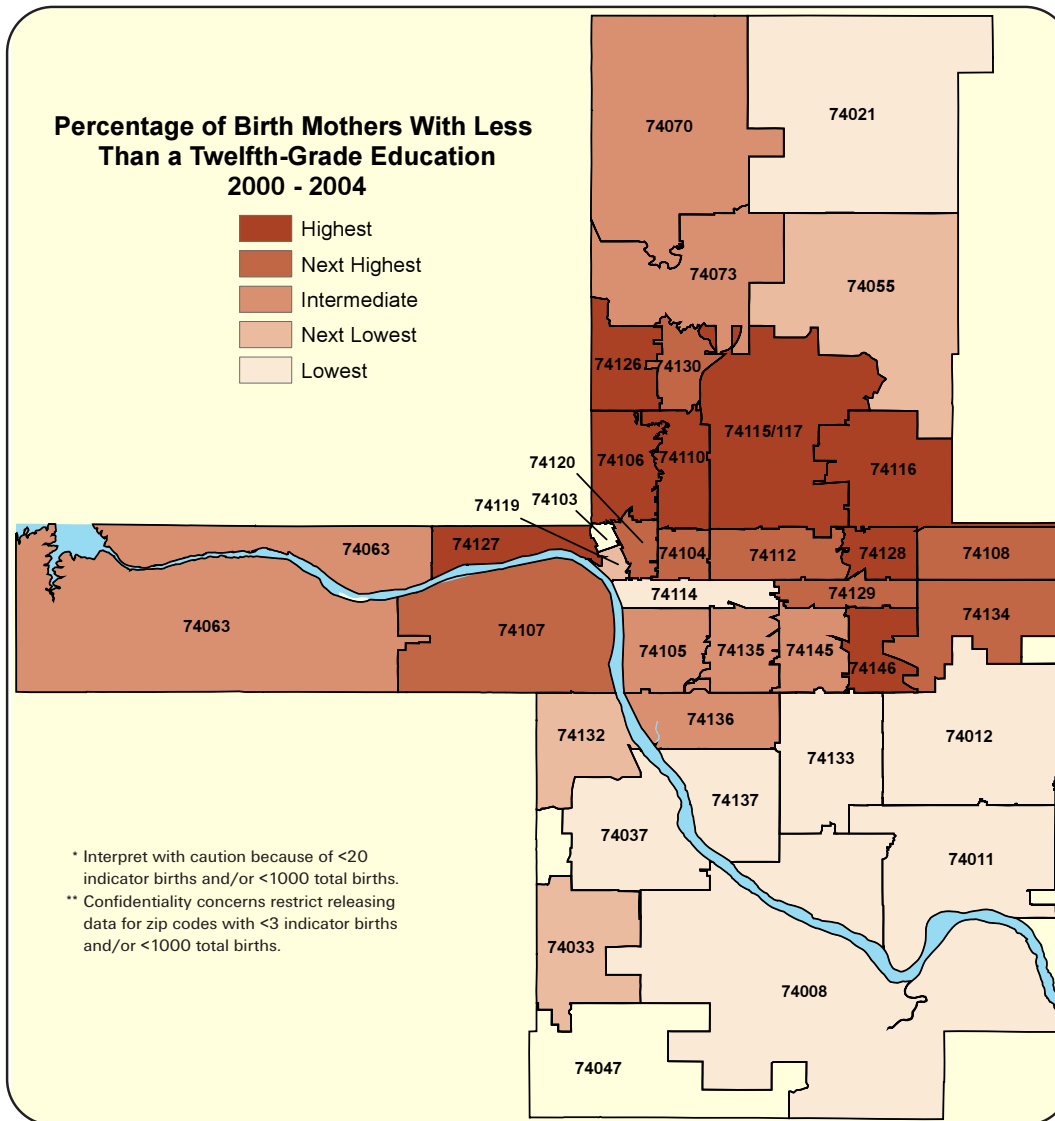
Public Health/Community Interventions

Provide continuing education programs that encourage and enable birth mothers to achieve educational equality with their peers.

Data Sources:

U.S. Census Bureau: Census 2000.
Health Care Information Division (HCI)
of the OSDH. NCHS.

ZIP CODE (ZCTA)	Number With Less Than 12th Grade Ed.	Percent of All Births
74110	857	50.4%
74116*	246	47.9%
74115/117	927	41.3%
74146	565	39.7%
74106	611	38.5%
74126	447	38.5%
74128	396	37.1%
74127	428	36.7%
74129	589	35.5%
74107	637	34.5%
74120*	129	33.1%
74104	332	32.6%
74108*	182	31.7%
74130*	51	29.0%
74134	337	28.1%
74112	440	27.2%
74135	350	23.6%
74073*	53	21.2%
74070*	53	21.1%
74136	475	20.4%
74145	247	19.3%
74105	344	18.1%
74063	286	17.5%
74119*	20	15.4%
74033*	113	14.9%
74055	248	14.5%
74132*	41	11.6%
74021*	103	10.9%
74008	133	10.1%
74133	288	9.8%
74012	306	8.1%
74011	121	7.9%
74114	75	6.9%
74137	75	6.5%
74037*	53	5.7%
74047	**	**
74103	**	**



maternal education

tobacco use during pregnancy

tobacco use during pregnancy

Indicator Definition

Information on this indicator was obtained from the birth certificate. Maternal smoking is defined simply as tobacco use during pregnancy, regardless of how much was used or during what trimester(s). It is expressed as a percentage of all Tulsa County resident births averaged over the years 2000-2004.

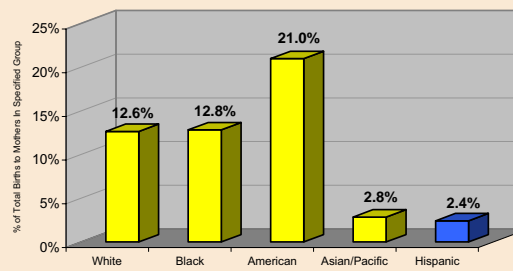
Why Is This Indicator Important?

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, conditions that contribute greatly to the human and economic costs of health care for infants.

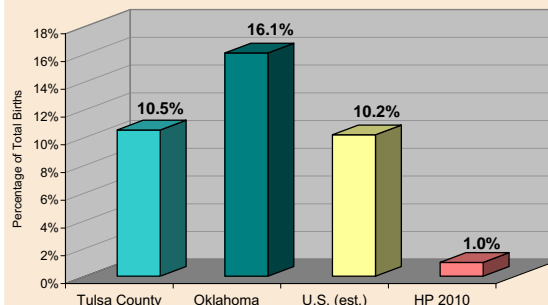
How Are We Doing?

During the time period examined, 5,918 births were to mothers who smoked during pregnancy, for a rate of almost 13 percent. Consistent with national trends, Tulsa County American Indian mothers had the highest rate at 21 percent, while Black mothers and White mothers had similar, lower rates (12.8 and 12.6 percent, respectively). The Hispanic prenatal smoking rate was very low at 2.4 percent.

Percentage of Mothers Who Smoked During Pregnancy by Race/Ethnicity
Tulsa County, 2000 - 2004 Annual Average



Percentage of Mothers Who Smoked During Pregnancy
2004



In 2004, Tulsa County birth mothers smoked during pregnancy at a rate (10.5 percent) similar to the nation's (10.2 percent). Prenatal smoking was more prevalent in Oklahoma birth mothers (16.1 percent). The Healthy People national target for the year 2010 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).

The ZIP codes with the highest percentages of mothers who smoked during pregnancy were located generally in north, west, and central Tulsa County, while ZIP codes in south Tulsa, the southern suburbs, and the Owasso area (74055) experienced the lowest rates.

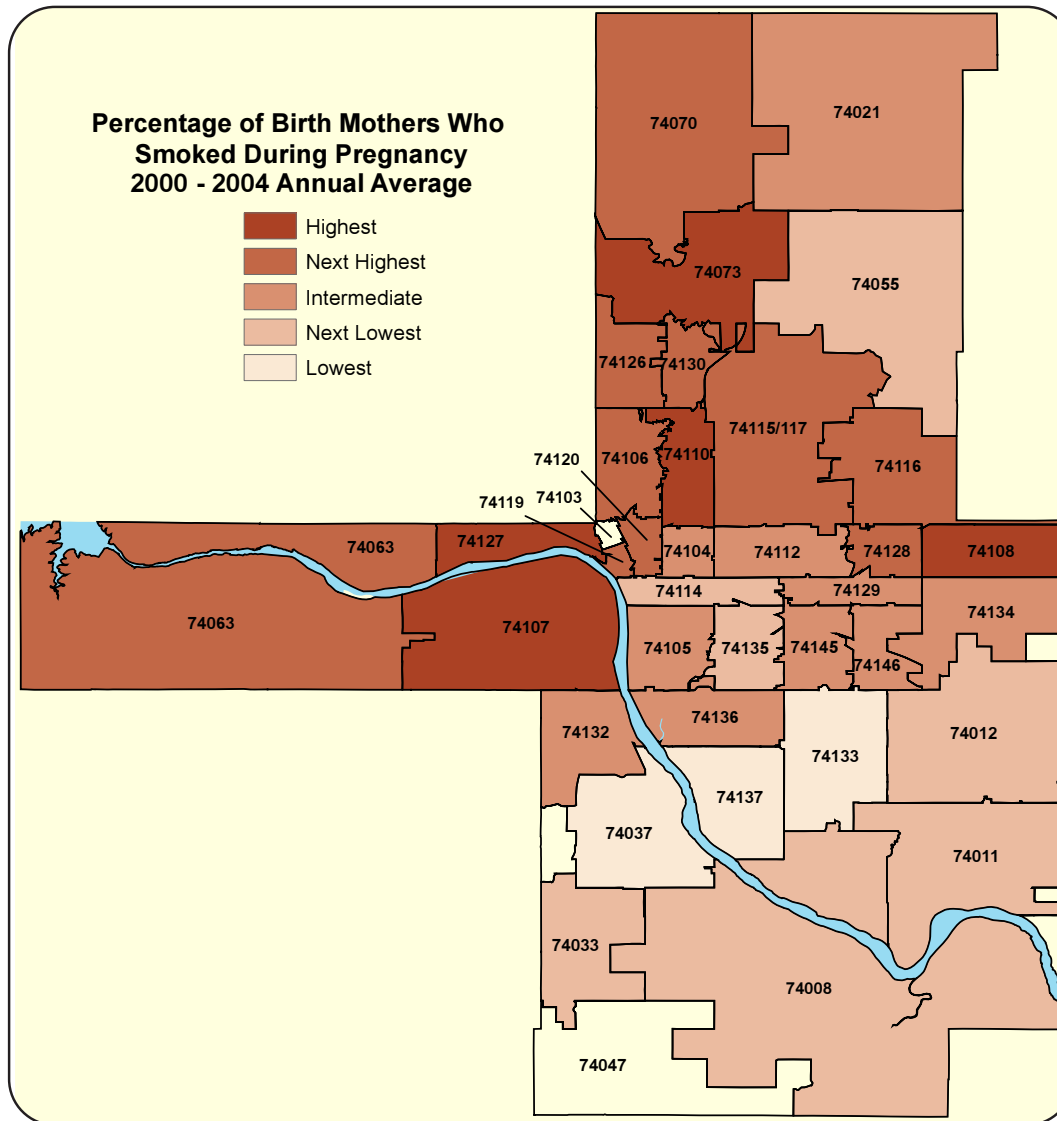
Public Health/Community Interventions

Provide educational programs to inform birth mothers of the dangers of prenatal smoking. Offer support in the form of smoking cessation programs.

Data Sources:

U.S. Census Bureau: Census 2000.
OSDH: Health Care Information Division (HCI). Maternal and Child Health Service
NCHS, Healthy People 2010.

2000 - 2004		
ZIP CODE (ZCTA)	Number of Who Smoked	Percentage of All Births
74127	302	25.8%
74073*	58	23.3%
74107	375	20.3%
74108*	115	20.0%
74110	339	19.9%
74116*	98	19.0%
74126	214	18.4%
74130*	32	18.1%
74115/117	401	17.9%
74070*	44	17.5%
74106	279	17.5%
74120*	67	17.2%
74063	265	16.2%
74128	160	15.0%
74119*	19	14.7%
74112	219	13.5%
74021*	119	12.7%
74105	239	12.5%
74129	197	11.8%
74104	116	11.3%
74134	136	11.3%
74146	159	11.2%
74145	143	11.1%
74136	252	10.8%
74132*	37	10.5%
74135	145	9.8%
74033*	73	9.6%
74055	152	8.9%
74008	114	8.6%
74011	122	8.0%
74012	297	7.9%
74114	81	7.4%
74133	172	5.9%
74037*	52	5.6%
74137	61	5.3%
74047	**	**
74103	**	**



tobacco use during pregnancy

infant mortality rate

infant mortality rate

Indicator Definition

Infant mortality is defined as the death of a child in the first year of life. The infant mortality rate is presented as the number of infant deaths per 1,000 live births, averaged over the years 2000-2004.

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 2000-2004, 362 Tulsa County infants died before the age of 1, for an average rate of 7.8 deaths per 1,000 live births. Racial disparity was evident, with the Black infant mortality rate (15.9) being almost twice that of other races. Hispanic babies died at about the same rate as White babies, while American Indians had the lowest rate at 5.3. There was only one infant death among Asian births.

The ZIP codes with the highest infant mortality rates were in north Tulsa (74126,

74106, and 74116) and west Tulsa (74107). The lower rates were generally confined to south Tulsa and the southern suburbs.

Healthy People 2010

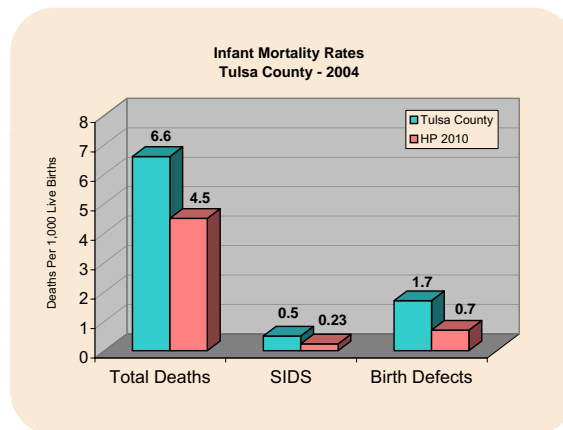
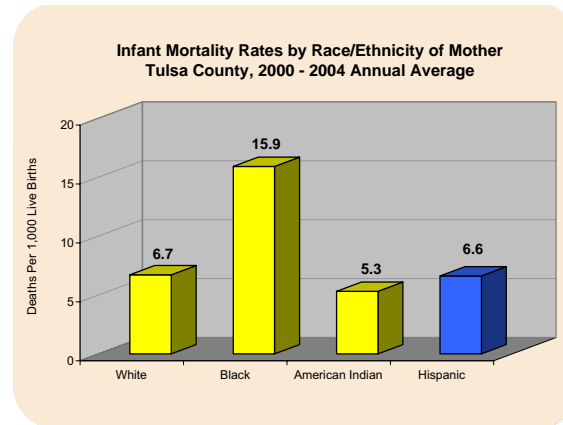
The infant mortality rate for Tulsa County fluctuated over the ten-year period from 1995-2004, with no trend evident. The rate of 6.6 in 2004 is about the same as the national rate of 6.8, but lower than Oklahoma's rate of 7.9. The Healthy People 2010 goal for total infant deaths is 4.5. In 2004, Tulsa County babies died at about twice the HP 2010 goal rate of 0.23 for infant deaths from Sudden Infant Death Syndrome (SIDS) and more than twice the goal rate of 0.7 for infant deaths from birth defects.

Public Health/Community Interventions

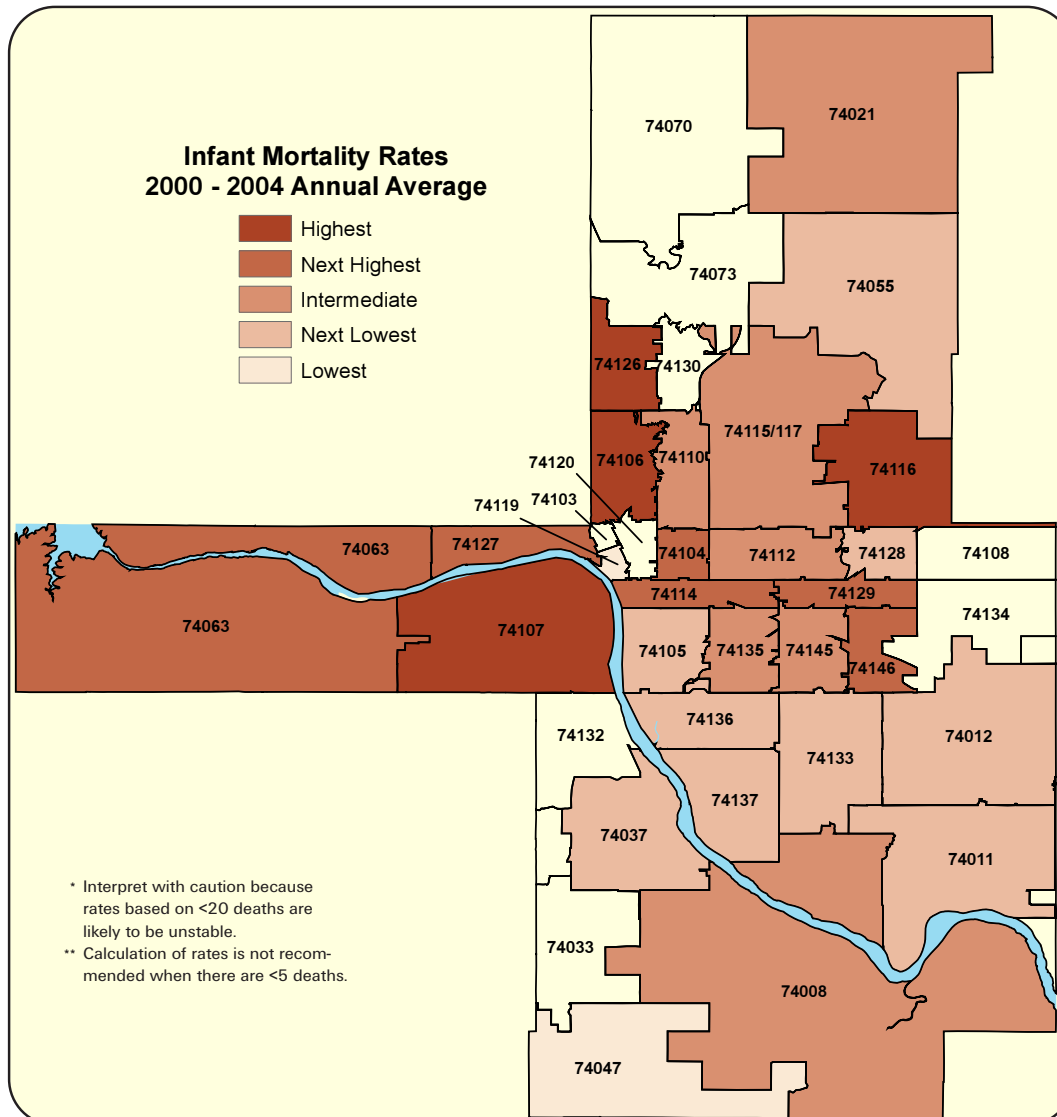
There are many causes of infant mortality. Some are not preventable but many are. Programs that offer education and support systems in pre- and post-natal preventive care, nutrition, violence prevention and infant care life skills can be very effective in reducing the infant death rate for preventable causes.

Data Sources:

U.S. Census Bureau: Census 2000.
Health Care Information Division (HCI),
OSDH. NCHS, Healthy People 2010.



ZIP CODE (ZCTA)	Number of Infant Deaths	Infant Mortality Rate
74126*	19	16.4
74106	25	15.7
74116*	8	15.5
74107	25	13.5
74146*	17	11.9
74114*	12	11.0
74127*	12	10.2
74063*	16	9.8
74104*	10	9.8
74129*	16	9.6
74135*	13	8.8
74145*	11	8.6
74110*	14	8.2
74008*	10	7.6
74115/117*	17	7.6
74021*	7	7.4
74112*	11	6.8
74128*	7	6.5
74037*	6	6.4
74105*	12	6.3
74137*	7	6.1
74055*	10	5.8
74133*	17	5.8
74012*	19	5.0
74136*	10	4.3
74011*	6	3.9
74047	0	0.0
74119	0	0.0
74120	4	**
74073	3	**
74103	3	**
74130	3	**
74134	3	**
74033	2	**
74070	2	**
74108	2	**
74132	1	**



infant mortality rate

infectious disease
indicators

foodborne illness

foodborne illness

Indicator Definition

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 cases for the four types of illness per 100,000 population, averaged over the years 2000-2004.

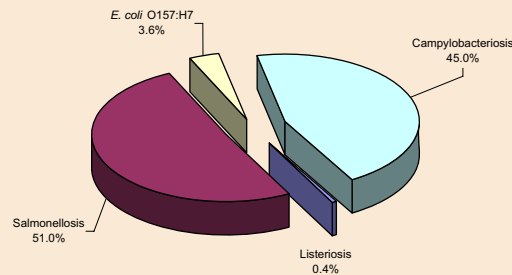
Why Is This Indicator Important?

Healthy People 2010 identified the following bacteria as key foodborne pathogens. 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.

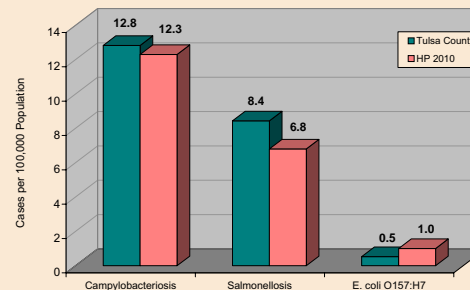
How Are We Doing?

Of the 714 key foodborne illnesses diagnosed in the county in 2000-2004, 51 percent were caused by Salmonella spp., 45 percent by Campylobacter spp., 3.6 percent by E. coli O157:H7, and less than 1 percent by L. monocytogenes. Seventy-six percent of the cases reported their race as White, 8 percent as

**Key Foodborne Bacterial Illnesses by Type
Tulsa County, 2000 - 2004**



**Incidence Rates of Key Foodborne Infections
per 100,000 Population
Tulsa County, 2004**



Black, 4 percent Native American, and 1 percent as Asian; 10 percent were classified as other or unknown. Children 10 and under comprised 35 percent of the foodborne illnesses.

In 2004, campylobacteriosis and salmonellosis were diagnosed at county-wide rates of 12.8 and 8.4 cases per 100,000 population, respectively, higher than their corresponding HP 2010 goals. The case rate for E. coli O157:H7, at 0.5 per 100,000, was lower than the 2010 goal of 1 per 100,000.

The highest rates of foodborne illness were in far north, west, and south Tulsa County and a few ZIP codes in north Tulsa. Lowest rates occurred in midtown and south Tulsa and the southeastern suburbs.

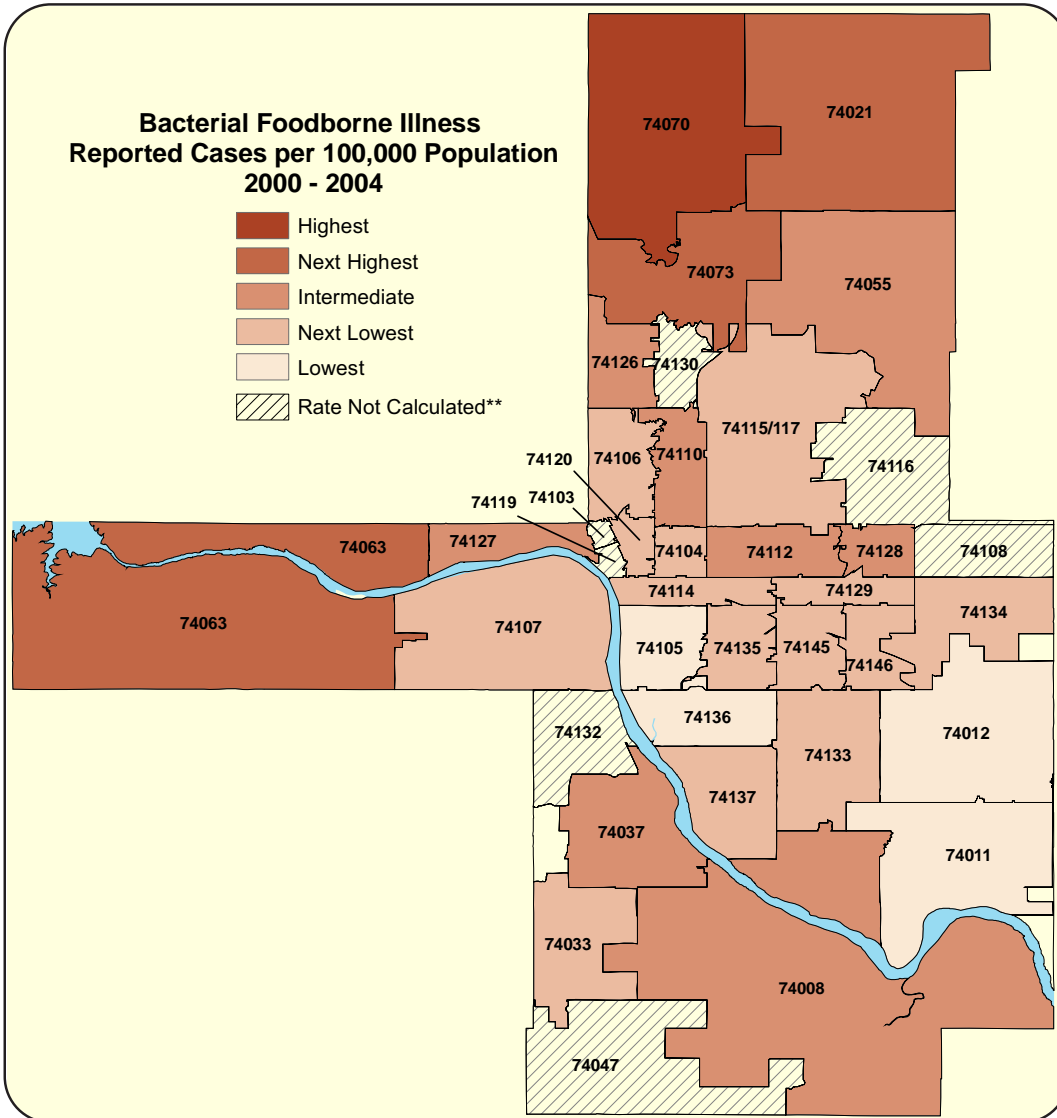
Public Health/Community Interventions:

Continue to educate workers in the food industry and the general public about fundamental food safety practices.

Data Sources:

U.S. Census Bureau: Census 2000 and Population Estimates Program
Healthy People 2010

2004		
ZIP CODE (ZCTA)	Number of Bacterial Foodborne	Cases per 100,000 Population
74070*	17	112.5
74021	32	67.2
74073*	8	53
74063	61	52.1
74037*	19	40.3
74127	22	38
74112	37	34.9
74128	20	32.2
74126*	19	32.1
74008	24	31.3
74110	22	28.8
74055	28	28.6
74120*	7	25.5
74137	29	25.3
74146*	18	25
74107	25	24.6
74135	26	24.4
74033*	10	23.9
74129	22	23.7
74115/117	28	23.5
74106	20	22.1
74104*	15	21.4
74134*	13	20
74114*	16	18.9
74145*	17	18.9
74133	29	15.4
74012	36	15.2
74105	21	14.8
74136*	19	11.6
74011*	11	9.6
74119	4	**
74130	4	**
74132	4	**
74108	2	**
74116	2	**
74047	1	**
74103	0	**



foodborne illness

hepatitis a

Indicator Definition

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 2000-2004.

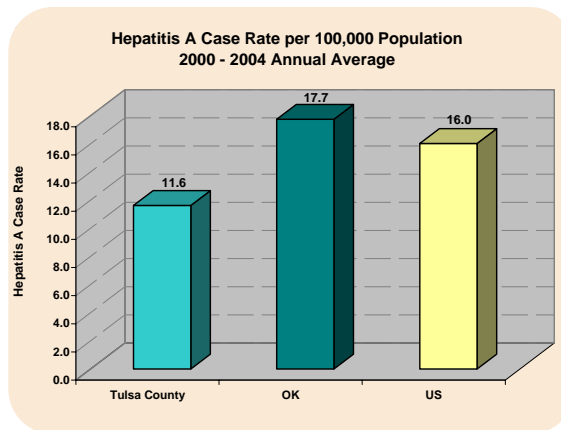
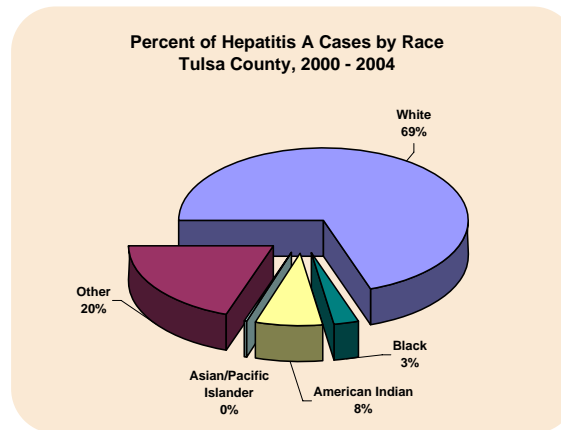
Why Is This Indicator Important?

Until 2004, hepatitis A was the most frequently reported type of hepatitis in the United States. It was also a problem for Tulsa County and resulted in many days lost from work and school. Hepatitis A is spread via a 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?

The number of hepatitis A cases decreased consistently during 2000-2004. In 2004 there was only 1 reported case compared to ten (10) years earlier in 1994 when Tulsa County experienced a high occurrence of the disease with 62 cases.

The following statistics define the cases observed during 2000-2004. Ninety-eight percent of the cases occurred in individuals over the age of 18. Of these, 70.4 percent were male and 29.6 percent were female. Whites



were disproportionately affected with 87.3 percent of cases.

Hepatitis A is often of greatest concern when associated with child care facilities and restaurants. In the past many of the cases investigated in Tulsa County were associated with these types of facilities. However, in 2000 - 2004, less than 1 percent of cases were associated with child care facilities and restaurants.

The highest average hepatitis A cases occurred in the 74104 ZIP code. The ZIP codes with the lowest rates were equally distributed across the county.

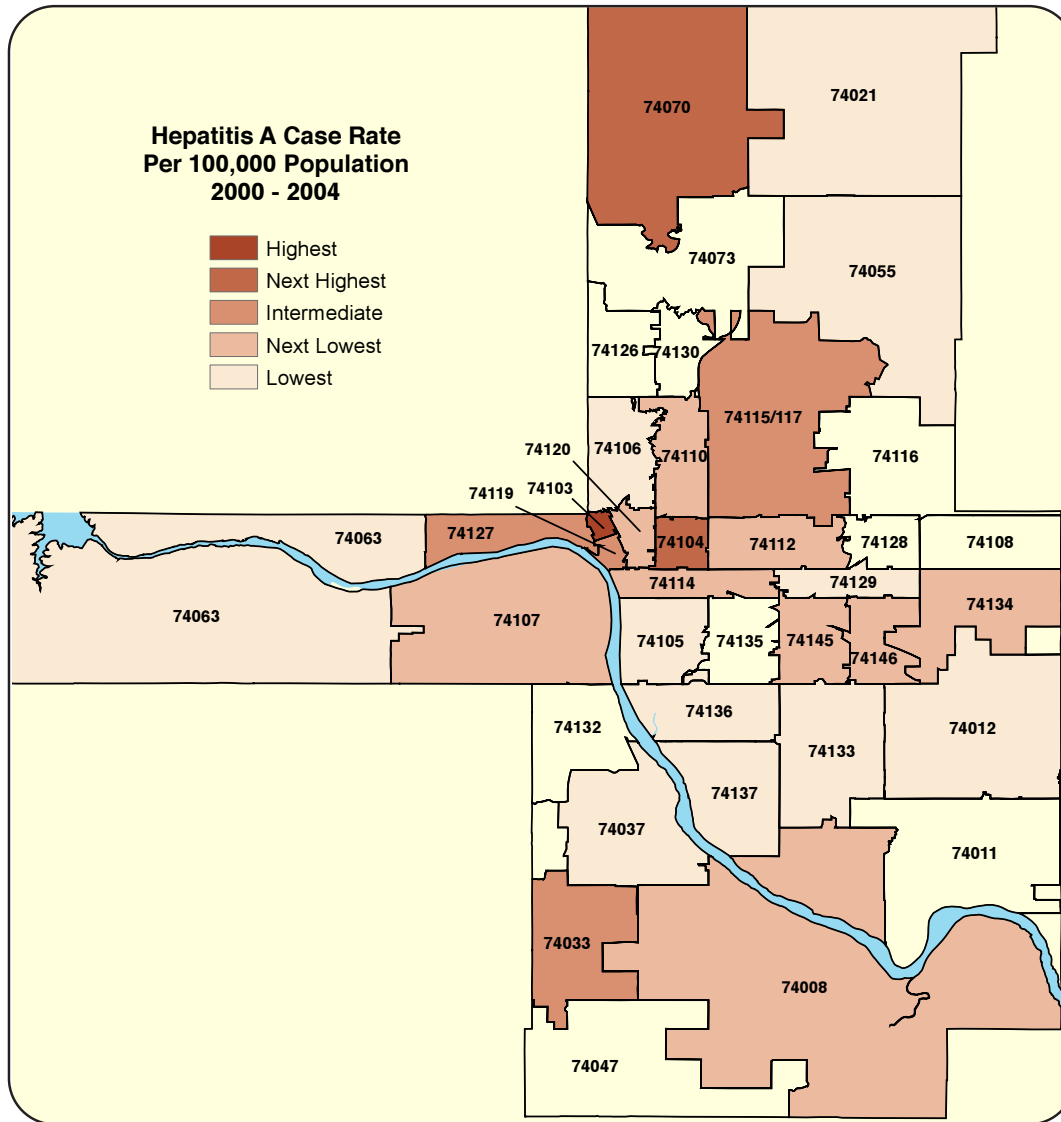
Public Health/Community Interventions:

Promote vaccination of the general public with an emphasis on individuals working in the food and childcare industries. Continue to educate the public on ways to prevent the transmission of hepatitis A.

Data Sources:

U.S. Census Bureau: Census 2000
HIV/STD Service, OSDH
Div. of STD Prevention, CDC
Epidemiology and Prevention of Vaccine-Preventable Diseases. 9th Edition, January 2006. Editors, William Atkinson et al.

2000 - 2004	
Zip Code (ZCTA)	Hepatitis A Case Rate
74103	55.2
74104	8.5
74070	6.6
74119	5.3
74127	5.2
74115/117	5.0
74033	4.8
74110	3.9
74120	3.6
74145	3.3
74134	3.1
74107	3.0
74112	2.8
74146	2.8
74008	2.6
74114	2.4
74012	2.1
74021	2.1
74037	2.1
74105	2.1
74055	2.0
74137	1.7
74106	1.1
74129	1.1
74133	1.1
74063	0.9
74136	0.6
74011	0.0
74047	0.0
74073	0.0
74108	0.0
74116	0.0
74126	0.0
74128	0.0
74130	0.0
74132	0.0
74135	0.0



hepatitis a

hepatitis b

hepatitis b

Indicator Definition

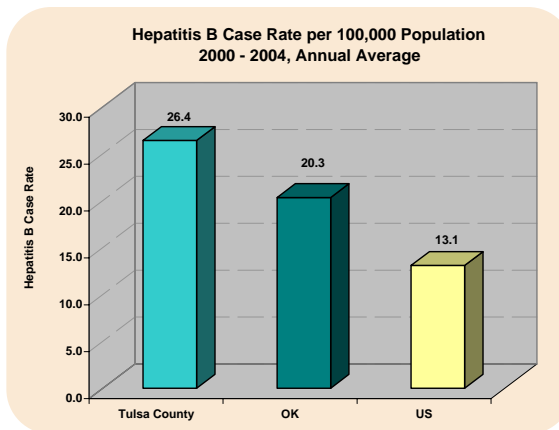
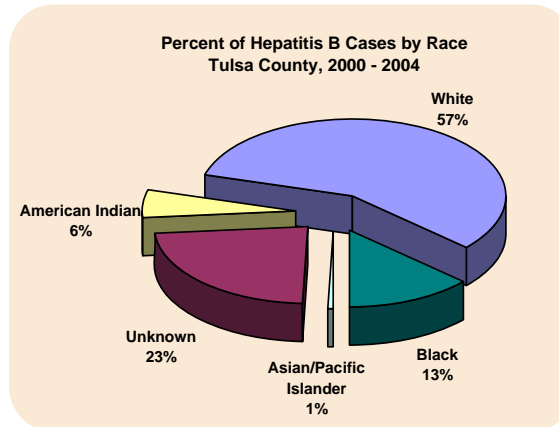
Hepatitis B (HBV) is a virus that causes inflammation of the liver. This indicator is presented as the number of cases of hepatitis B during the years 2000-04.

Why Is This Indicator Important?

HBV causes liver cell damage, leading to scarring, cancer, and death. It is the cause of up to 80 percent of liver cancer, and is second only to tobacco among known human carcinogens. It is 100 times more contagious than HIV, the virus that causes AIDS. More than 250,000 persons die worldwide each year of hepatitis-B associated liver disease.

How Are We Doing?

Ninety-eight percent of the cases occurred in individuals over the age of 18. Of these, the rates for 2000-04 were highest in the 25-39 age group (16.6 per 100,000 population), followed by those over age 39 (6.9 per 100,000), and were lowest in the 19-24 age range (2.1 case per 100,000 population).



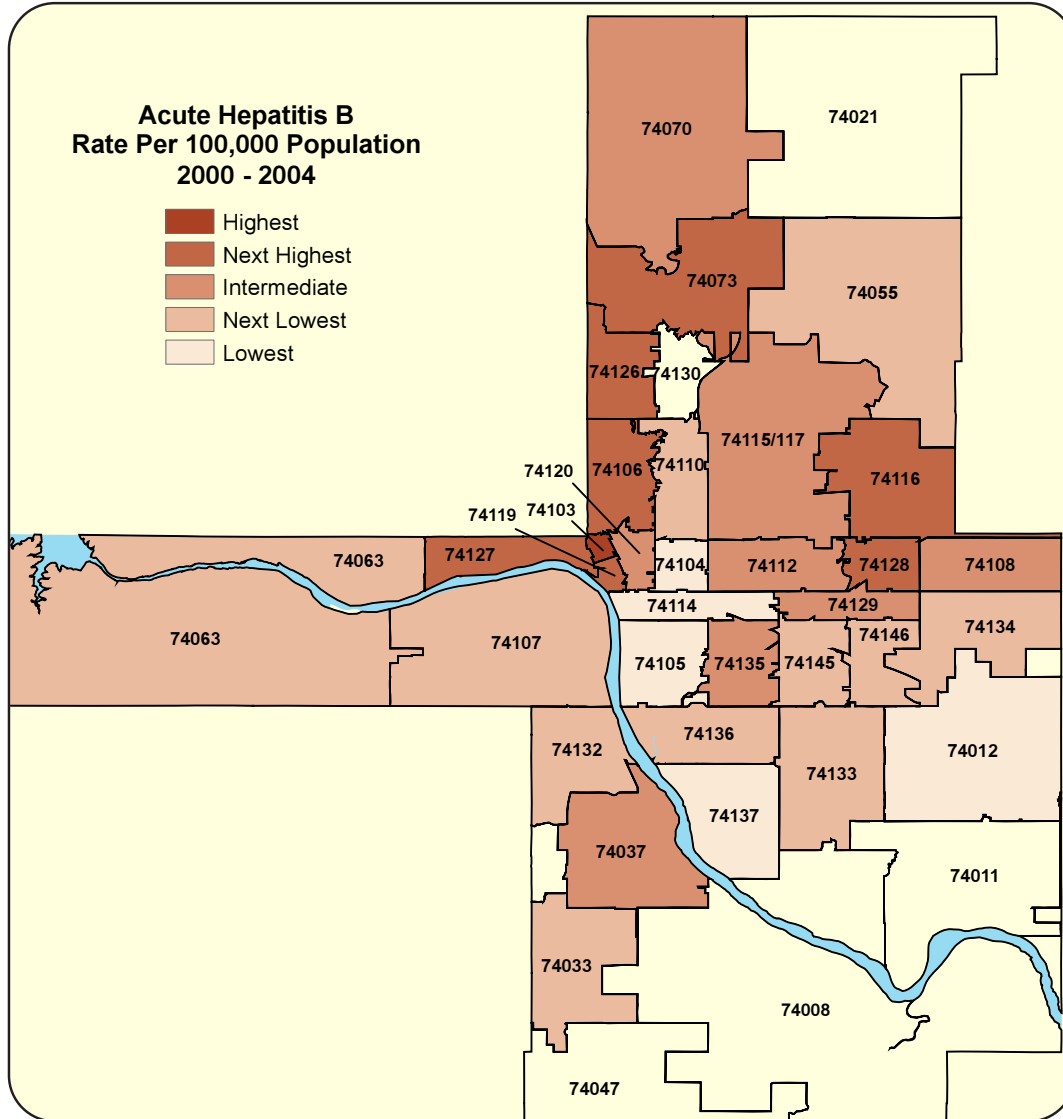
Public Health/Community Interventions:

The three major risk groups for hepatitis B are heterosexuals with contact with infected persons or multiple partners, injection-drug users, and men who have sex with men. It is important that immunization campaigns target these groups to eliminate the risk of transmission. Additionally, strategies to eliminate hepatitis B transmission should include prenatal testing of pregnant women, routine vaccination of infants, vaccination of adolescents and vaccination of other adults who are at high risk for infection.

Data Sources:

U.S. Census Bureau: Census 2000
HIV/STD Service, OSDH
Div. of STD Prevention, CDC
Epidemiology and Prevention of Vaccine-Preventable Diseases, 9th Edition. January 2006. Editors: William Atkinson, Jennifer Hamborsky, Lynne McIntyre, and Charles Wolfe.

2000-2004	
Zip Code (ZCTA)	Hepatitis B Case Rate
74103	55.2
74127	19.0
74116	15.9
74119	15.8
74073	13.2
74126	11.8
74128	11.3
74106	11.0
74115/117	9.2
74120	7.3
74070	6.6
74108	6.6
74112	6.6
74135	6.6
74129	6.5
74037	6.4
74110	5.2
74055	5.1
74063	5.1
74107	4.9
74033	4.8
74134	4.6
74132	4.5
74145	4.4
74136	4.3
74146	4.2
74133	3.7
74105	2.8
74137	2.6
74012	2.5
74114	2.4
74104	1.4
74008	0.0
74011	0.0
74021	0.0
74047	0.0
74130	0.0



hepatitis b

hepatitis c

hepatitis c

Indicator Definition

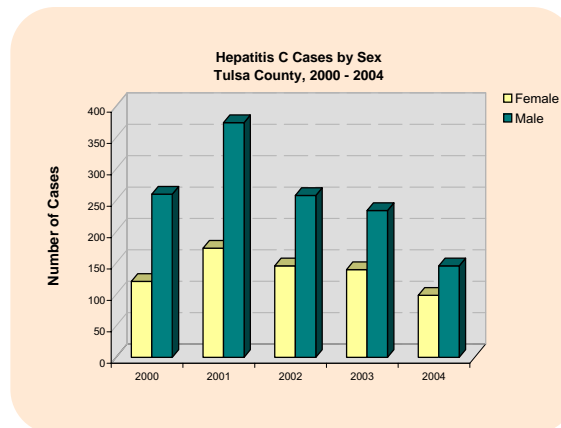
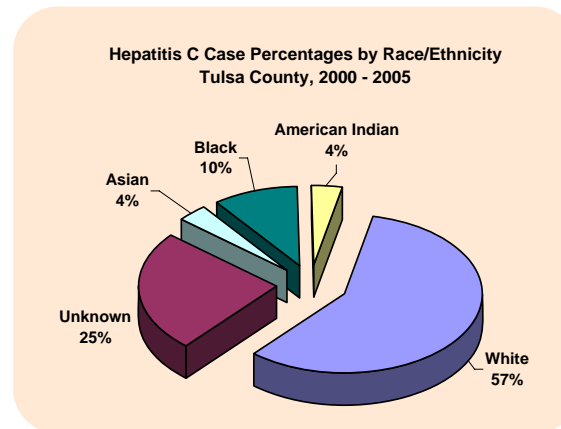
Hepatitis C (HCV) is a liver disease caused by the hepatitis C virus, which is found in the blood of persons who have the disease. The infection is spread by contact with the blood of an infected person. This indicator is presented as the total number of cases reported during 2000-2004.

Why Is This Indicator Important?

Hepatitis C is a serious disease for some persons. It is one of the known causes of liver damage, cirrhosis and liver failure. It has also been identified as a cause of liver cancer. Hepatitis C accounts for the majority of cases that are investigated by Tulsa Health Department epidemiologists.

How Are We Doing?

During 2000-2004, almost two thousand (2,000) cases of hepatitis C were investigated. Racial, ethnic, gender and age data were unavailable for 22 percent of these cases for several reasons, the most common of which was lack of response to attempts to contact the individuals by telephone or mail.



Of the cases investigated, 64.3 percent were males and 35.7 percent were females. Fifty-seven percent of cases identified themselves as White, representing the racial group most affected by the disease in Tulsa County. Approximately 10 percent of cases were Black, followed by 4 percent of cases representing themselves as Indian/Asian.

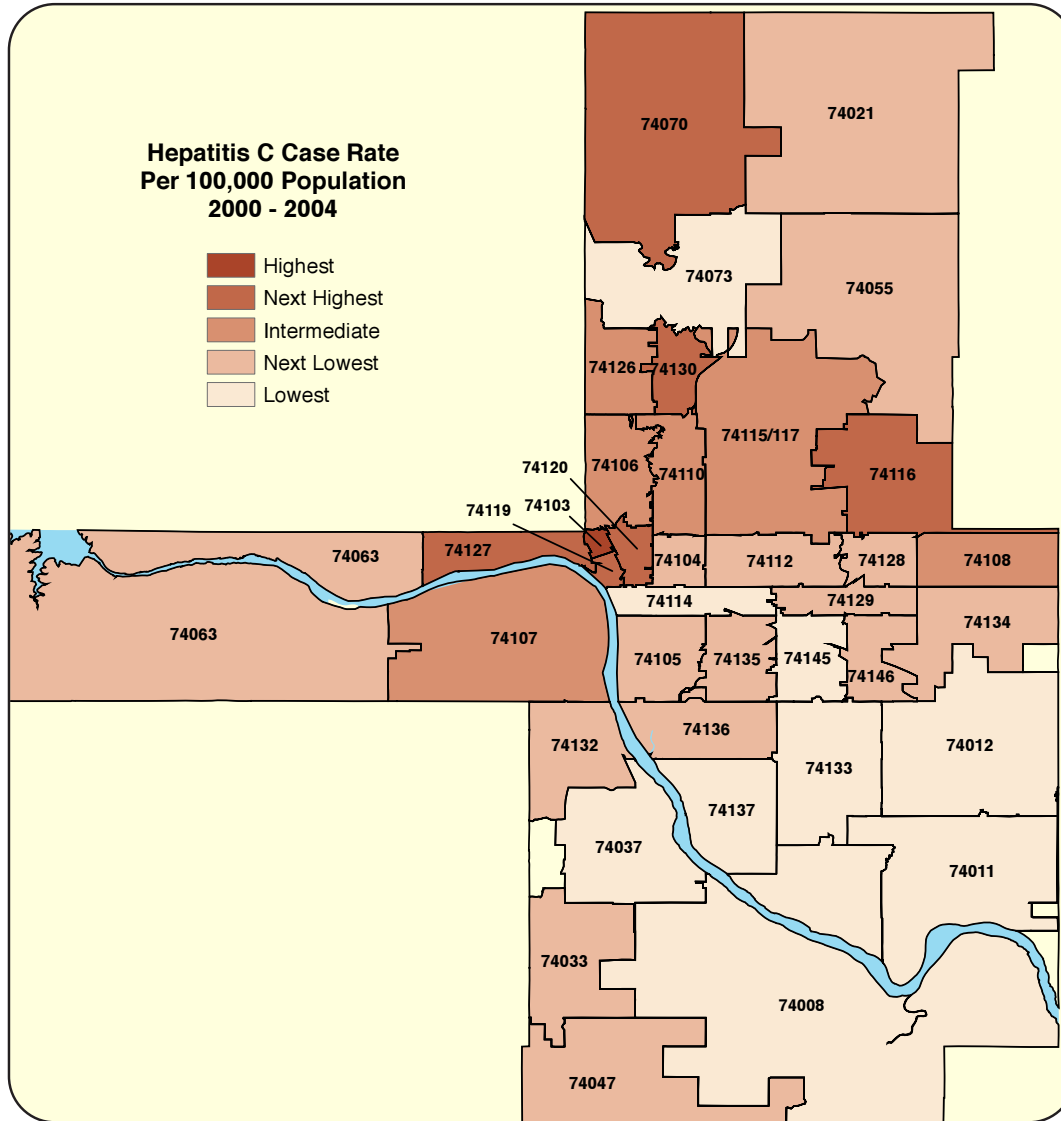
Public Health/Community Interventions:

There is no vaccine to prevent hepatitis C, therefore, strategies to reduce transmission should focus on promoting awareness of the disease and continuing to educate the public on ways to prevent transmission of the disease. Interventions should also promote programs that allow easy access to HCV testing.

Data Sources:

U.S. Census Bureau: Census 2000
HIV/STD Service, OSDH
Div. of STD Prevention, CDC

2000 - 2004	
Zip Code (ZCTA)	Hepatitis C Case Rate
74103	303.7
74127	143.3
74119	126.6
74070	125.7
74130	114.3
74120	109.2
74116	103.4
74108	92.7
74115/117	84.9
74107	80.9
74106	76.2
74110	76.0
74126	72.7
74134	69.2
74105	66.8
74112	66.0
74063	65.8
74135	64.7
74129	63.6
74132	63.4
74047	62.5
74104	61.2
74128	57.9
74033	54.9
74055	54.0
74136	53.2
74146	52.9
74021	50.4
74133	43.4
74114	42.6
74145	41.1
74008	40.4
74037	36.1
74012	34.7
74073	33.1
74011	27.8
74137	20.9



hepatitis c

gonorrhoea gonorrhoea

Indicator Definition

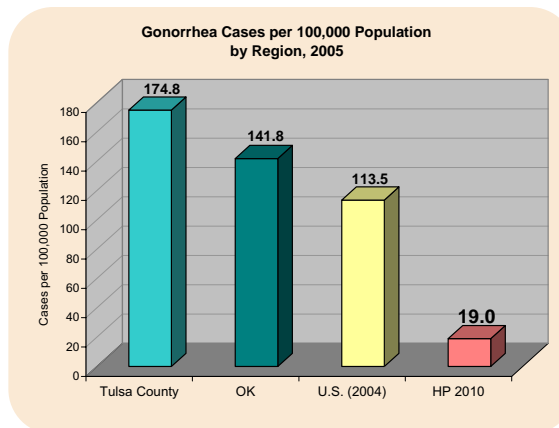
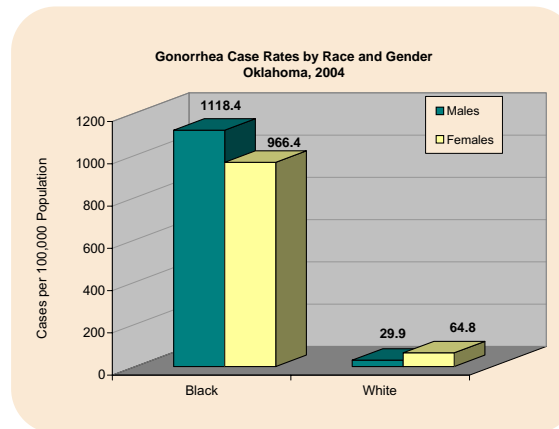
Gonorrhoea is a sexually transmitted disease (STD) caused by the organism *Neisseria gonorrhoeae*. This indicator is presented as the number of reported cases of gonorrhoea per 100,000 population, averaged over the years 2001-2005.

Why Is This Indicator Important?

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

How Are We Doing?

No data were made available at the county level on racial, ethnic, gender, or age differences in gonorrhoea case rates. According to the OSDH 2004 Annual Summary of Infectious Diseases, at the state level 61 percent of gonorrhoea cases reported their race as Black, 28 percent as White. Four percent said they were Hispanic. A rate of 1,118.4 per 100,000 was reported among Black males compared to 29.9 per 100,000 among White males. A higher incidence rate was also



observed in Black females compared to White females (966.4 and 64.8 per 100,000, respectively).

In 2005, Tulsa County reported 1,103 gonorrhoea cases, for a rate of 174.8 cases per 100,000 population. For the same year, Oklahoma's case rate was 141.8 per 100,000. The case rate for the United States for the year 2004 (the most recent data available) was 113.5. These rates are all considerably higher than the Healthy People 2010 goal of 19 cases per 100,000 population.

During 2001-2005, the highest average gonorrhoea case rates were in north Tulsa, with ZIP codes 74126 and 74106 having the highest. The lowest rates generally occurred in far northern, western, and southern Tulsa County.

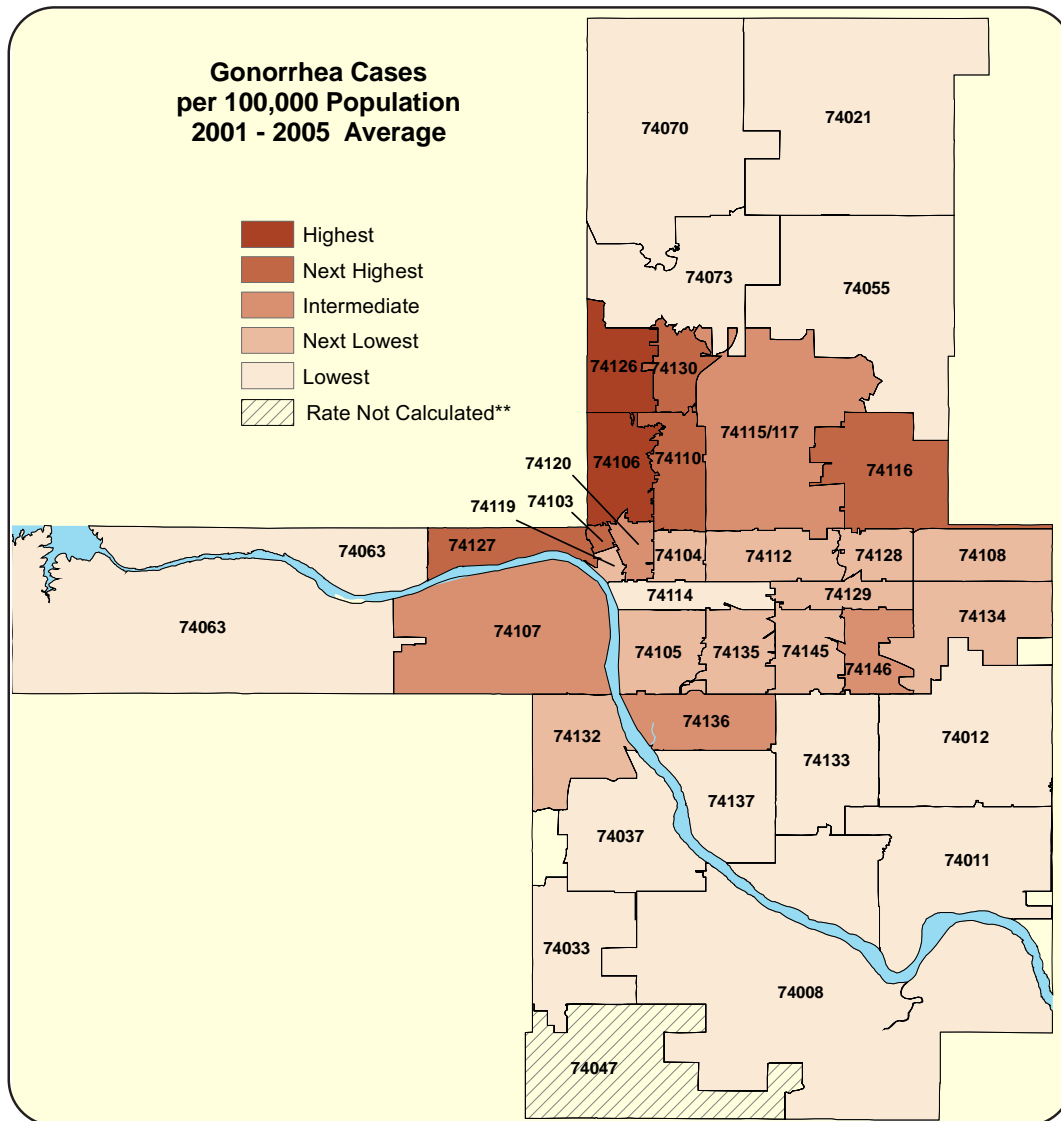
Public Health/Community Interventions:

Focus STD prevention efforts on high-risk populations. Continue gonorrhoea surveillance.

Data Sources:

U.S. Census Bureau: Census 2000 and Population Estimates Program
HIV/STD Service, OSDH
Health People 2010
Div. of STD Prevention, CDC

2001 - 2005		
ZIP CODE (ZCTA)	Number of Cases	Gonorrhea Case Rate
74126	664	1121.9
74106	880	972.1
74116	79	628.5
74103	51	469.4
74110	346	453.3
74130	53	404.0
74127	220	379.9
74115/117	346	290.7
74120	76	276.6
74146	181	251.7
74136	358	218.9
74107	221	217.9
74104	133	189.3
74105	260	182.7
74129	169	182.3
74134	106	163.1
74119	29	153.0
74128	93	149.6
74108	45	149.0
74135	156	146.3
74112	149	140.4
74145	107	118.8
74132	24	108.7
74073*	12	79.5
74133	146	77.3
74063	78	66.7
74070*	9	59.6
74114	45	53.2
74033	22	52.5
74055	48	48.9
74037	20	42.4
74137	47	40.9
74021*	19	39.9
74012	92	38.9
74011	39	33.9
74008	22	28.7
74047	**	**



g o n o r r h e a

chlamydia

chlamydia

Indicator Definition

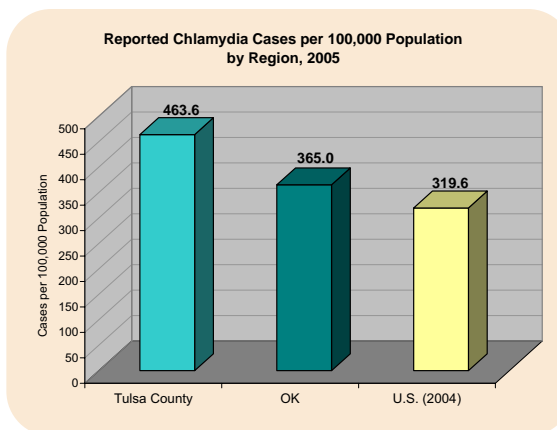
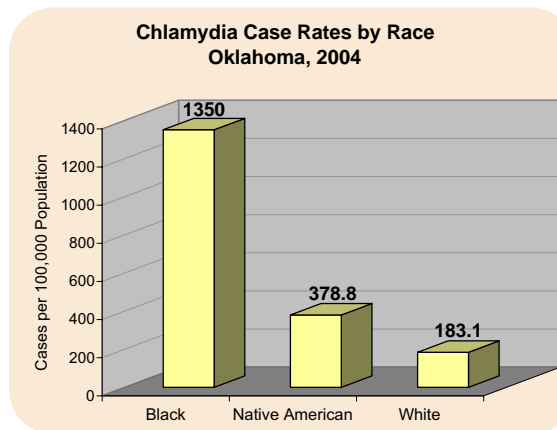
Chlamydia is a sexually transmitted disease (STD) caused by the bacterium *Chlamydia trachomatis*. This indicator is presented as the number of reported cases of chlamydia per 100,000 population, averaged over the years 2001-2005.

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?

No data were made available at the county level on racial, ethnic, gender, or age differences in chlamydia case rates. According to the OSDH 2004 Annual Summary of Infectious Diseases, screening for chlamydia has been directed largely toward females, resulting in 80 percent of cases in the state being reported in females. In 2004, 34 percent of state cases reported their race as Black, with a rate of 1,350 per 100,000



population. The rate for Native Americans was 378.8 per 100,000 (10 percent of cases), and the rate for Whites was 183.1 per 100,000 (46 percent of cases). Seventy-nine percent of year 2004 cases were reported in 15-24 year-olds. Racial disparity was particularly evident among 15-19 year olds, where the rate for Blacks was 5,422.4 per 100,000 compared with 989.4 per 100,000 among whites.

In 2005, Tulsa County reported 10,371 cases of chlamydia, for a rate of 463.6 cases per 100,000 population. Oklahoma's case rate was 365 per 100,000 in 2005. These rates were much higher than the rate for the United States (319.6 per 100,000) for the year 2004 (the most recent data available).

During 2001-05, the highest average gonorrhea case rates were in north Tulsa, with ZIP codes 74126, 74106, and 74116 having the highest. The lowest rates generally occurred in southern Tulsa County.

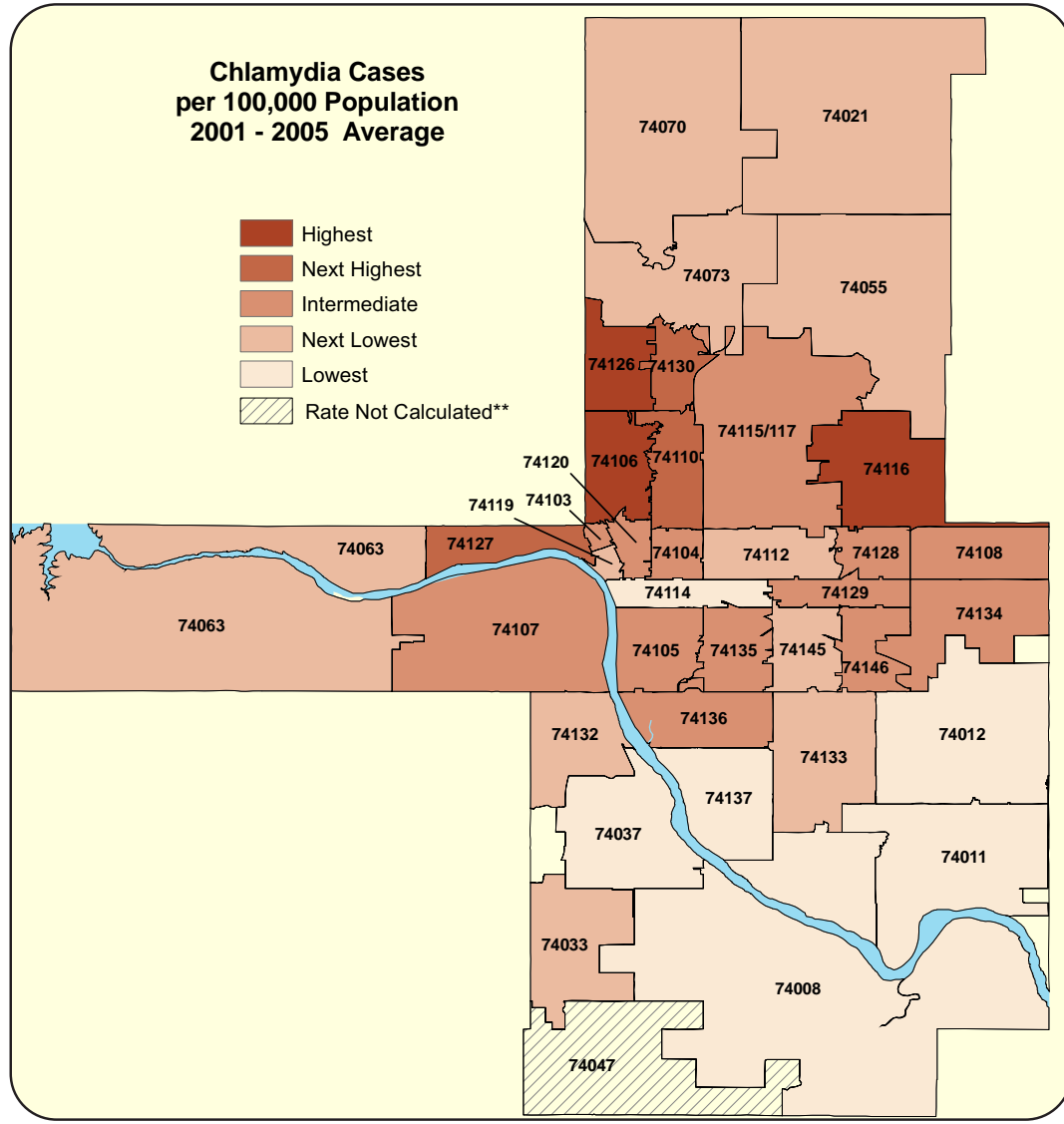
Public Health/Community Interventions:

Promote responsible sexual behaviors.
Continue chlamydia surveillance.

Data Sources:

U.S. Census Bureau: Census 2000 and Population Estimates Program
HIV/STD Service, OSDH

2001 - 2005		
ZIP CODE (ZCTA)	Number of Cases	Chlamydia Case Rate
74126	782	1321.3
74106	1,122	1239.4
74116	148	1177.4
74127	482	832.3
74110	621	813.5
74130	93	708.8
74115/117	693	582.2
74146	388	539.6
74107	517	509.8
74103	52	478.6
74120	127	462.2
74136	732	447.5
74129	394	425.0
74134	263	404.7
74108	115	380.9
74105	519	364.8
74135	384	360.2
74128	223	358.8
74104	251	357.3
74112	315	296.9
74145	266	295.2
74132	58	262.7
74063	280	239.3
74119	45	237.5
74133	416	220.2
74073	33	218.6
74070	33	218.4
74055	205	209.0
74021	92	193.2
74033	79	188.7
74008	124	161.7
74011	170	147.6
74012	347	146.9
74037	66	140.0
74114	118	139.5
74137	138	120.2
74047	*	*



chlamydia

tuberculosis

tuberculosis

Indicator Definition

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 2000-2005.

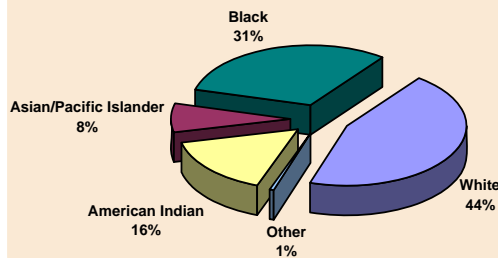
Why Is This Indicator Important?

TB causes more deaths worldwide than any other infectious disease. Approximately eight million new cases of TB are reported globally each year. Persons sick with TB are likely to infect another 10 – 15 people each year. In addition individuals can acquire Multiple Drug Resistant (MDR) TB which is at least 100 times harder to cure than regular TB. MDR TB can develop when a patient gets the wrong drugs, drug supply is unreliable, or when patients stop taking medications because they feel better. Healthy individuals can also become infected with MDR TB from exposure to individuals having that form of tuberculosis.

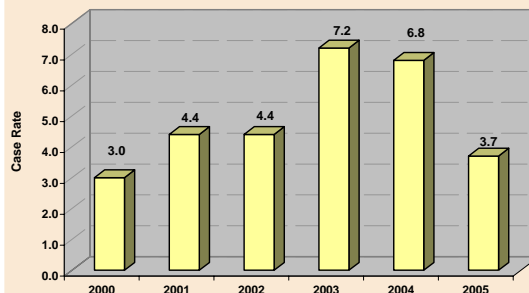
How Are We Doing?

During the years 2000 - 2005, incidence was greatest among individuals with ages ranging from 25 – 64 years and lowest among those

Percent of TB Cases by Race
Tulsa County, 2000 - 2005



Tulsa County TB Rate Per 100,000 Population



5 – 14 years. Except for the years 2000 and 2003, incidence was highest among individuals age 45 – 64 years. The racial distribution over these six years is as follows: 44% White, 31% Black, 16% American Indian, 8% Asian/Pacific Islander and 1% other.

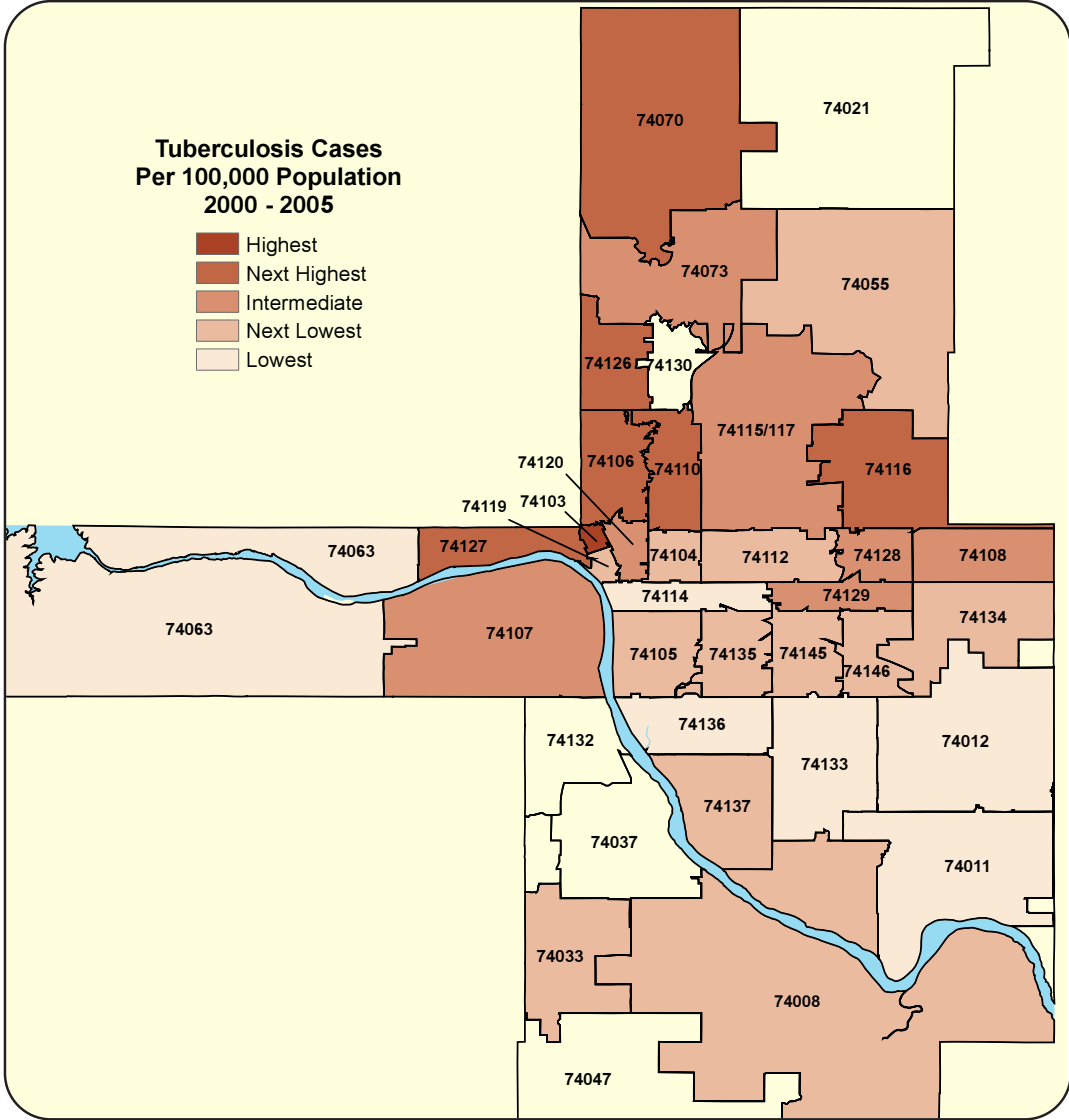
Public Health/Community Interventions:

TB has many economic considerations which can send many self-sustained families into poverty. For this and other reasons, prevention efforts are critical and should, at a minimum, include educating the community about TB and screening to identify the disease in its earliest stages to decrease the risk of transmission. Methods of TB screening include skin testing and x-rays. Individuals who work with TB patients should be screened every three months. Those working in the health care industry, but not necessarily exposed to TB, should be screened every year. Anyone else should be screened only if the need arises.

Data Sources:

U.S. Census Bureau: Census 2000
HIV/STD Service, OSDH
Div. of STD Prevention, CDC
Epidemiology and Prevention of Vaccine-Preventable Diseases. 9th Edition, January 2006. Editors, William Atkinson et al.

2000 - 2005	
Zip Code (ZCTA)	TB Case Rate
74103	53.7
74116	26.5
74106	13.8
74127	11.5
74126	11.3
74070	11.0
74110	10.9
74107	9.9
74128	8.0
74115/117	7.0
74129	6.3
74120	6.1
74073	5.5
74108	5.5
74119	4.4
74033	4.0
74112	3.9
74104	3.6
74055	3.4
74135	3.1
74105	2.9
74137	2.9
74145	2.8
74134	2.6
74146	2.3
74008	2.2
74133	1.8
74136	1.5
74012	1.4
74063	1.4
74114	1.0
74011	0.7
74021	0.0
74037	0.0
74047	0.0
74130	0.0
74132	0.0



t u b e r c u l o s i s

Indicator Definition

The human immunodeficiency virus (HIV) is the virus that causes AIDS. This indicator is presented as the total number of newly reported HIV infections in Tulsa County residents 2001-2005. ZIP code specific rates were not calculated because of small numbers.

Why Is This Indicator Important?

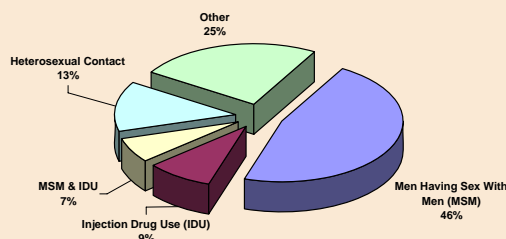
HIV progressively damages the immune system, lowering the body's ability to fight infections and certain cancers. It is spread through blood-to-blood and sexual contact. A pregnant woman can pass HIV to her baby. People infected with HIV may eventually get AIDS. An estimated one-fourth of those infected with HIV are unaware they are infected. HIV infections are growing most rapidly among minority populations.

How Are We Doing?

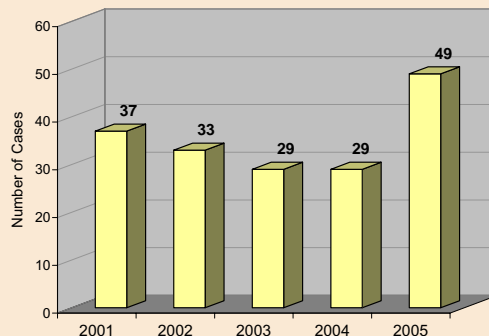
During the years 2001-2005, there were 177 new reported cases of HIV, some of which likely developed into AIDS cases reported during this time period. The estimated number of residents living with HIV/AIDS, as of December 31, 2005, was 1.032 per 100,000 population, for a prevalence rate of 183.2 per 100,000 population.

No data were available at the county level on racial, ethnic, gender, or age differences in case rates. According to the OSDH, of the actual number of Oklahoma HIV/AIDS infections in 2004

**Adult/Adolescent HIV Cases by Exposure
Oklahoma, 2004**



**Reported HIV Infections
Tulsa County, 2001 - 2005**



(exclusive diagnosis of HIV or AIDS) 85 percent were male and 15 percent were female. The rate of infection was 11.1 per 100,000 in males, 1.9 per 100,000 in females. The case rate for Whites was 5.1 per 100,000 population, compared with a Black case rate of 38.0 per 100,000. The highest age-specific rate was among those aged 30 to 39 (16.8 per 100,000 population); the second highest rate was seen among the 20 to 29-year-old age group (12.6 per 100,000 population).

Locally, the ZIP codes with the highest number of reported HIV infections during 2001-2005 were in midtown, south, and west Tulsa, while the lowest rates were generally in county border ZIP codes.

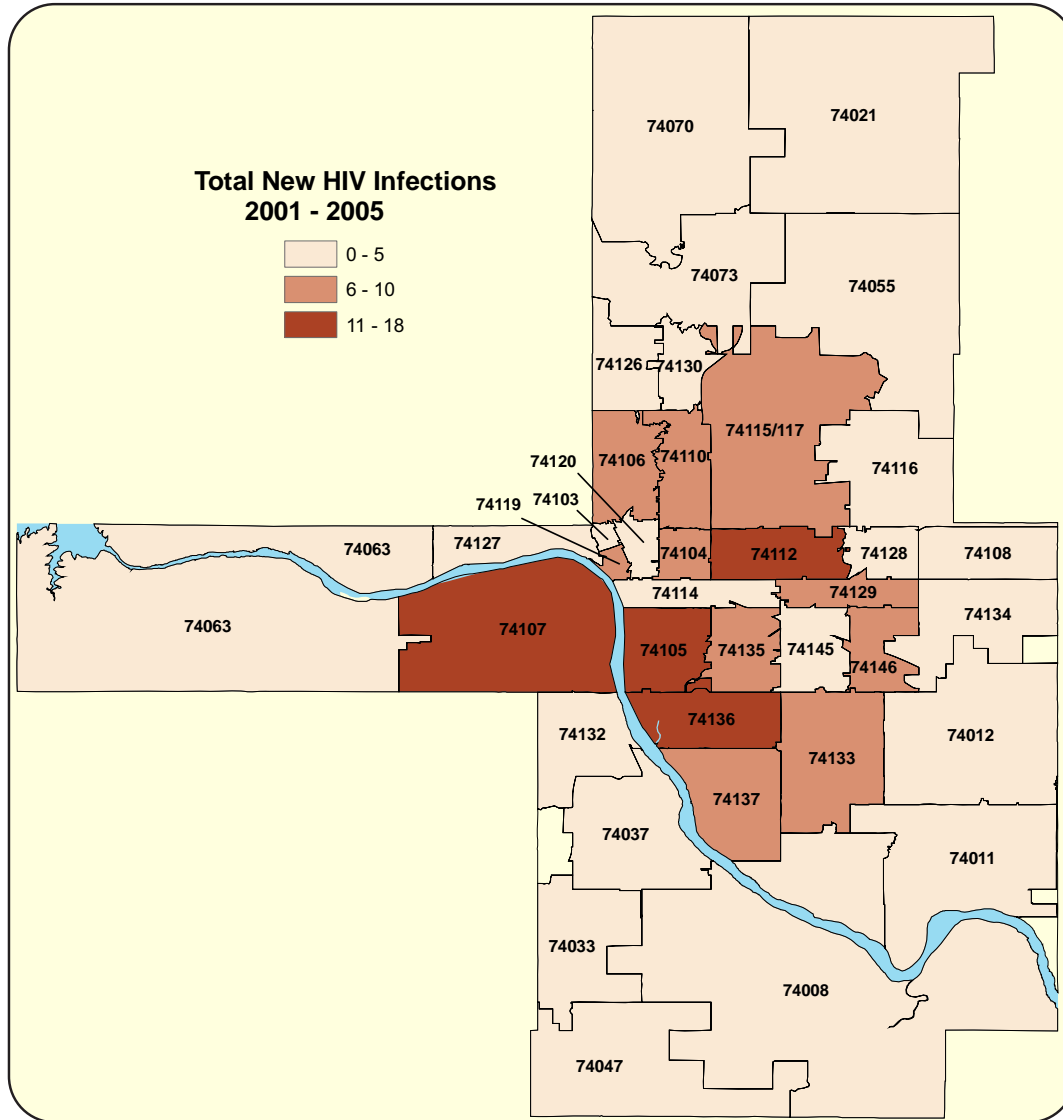
Public Health/Community Interventions:

HIV/AIDS is a disease transmitted by contact with blood and body fluids that contain the HIV virus – often during sexual activity. Educational programs aimed at changing high-risk behaviors by promoting self-protection through prevention are effective in reducing new infections. Other effective programs include those targeting condom use, promiscuous sexual behavior, and reducing contaminated needle sharing among illicit drug users.

Data Sources:

HIV/STD Service, OSDH
HIV/AIDS Prevention, CDC

2001 - 2005	
ZIP CODE (ZCTA)	Number of HIV Cases
74105	18
74112	16
74136	12
74107	11
74110	10
74135	10
74104	9
74106	9
74137	8
74115/117	7
74129	7
74133	7
74146	7
74119	6
74063	5
74108	4
74114	4
74120	4
74126	4
74127	4
74145	4
74103	*
74130	*
74134	*
74012	*
74021	*
74055	*
74128	*
74132	*
74008	*
74011	*
74033	*
74037	*
74047	*
74070	*
74073	*
74116	*



h i v

a i d s

aids

Indicator Definition

Acquired immune deficiency syndrome (AIDS) refers to the most serious stage of HIV infection. This indicator is presented as the total number of new AIDS cases reported in Tulsa County residents during 2001-2005. ZIP code specific rates were not calculated because of small numbers.

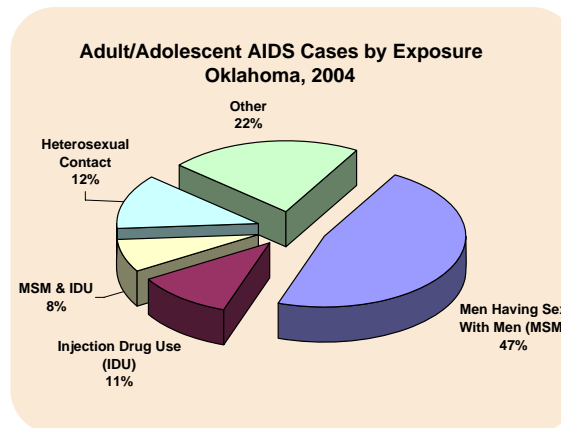
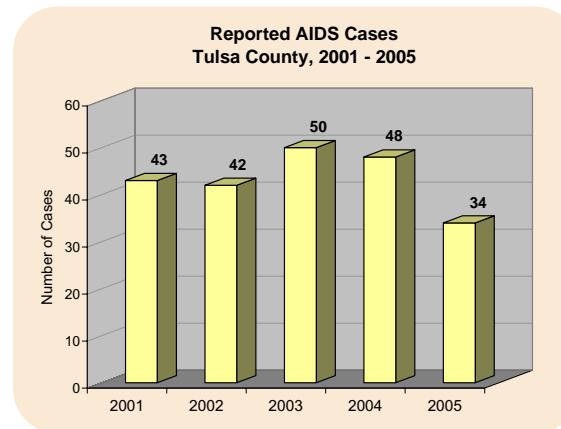
Why Is This Indicator Important?

People 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. While new therapies have greatly reduced the number of AIDS deaths, the HIV virus, though reduced in number, remains in people who have been treated.

How Are We Doing?

During the years 2001-2005, 217 new cases of AIDS were reported in Tulsa County residents. As of June 30, 2006, the estimated number of persons living with AIDS in the county was 551, for a prevalence rate of 97.8 per 100,000 population.

No data were available at the county level on racial, ethnic, gender, or age differences in AIDS cases. According to the OSDH, of the



actual number of Oklahoma HIV/AIDS infections in 2004 (exclusive diagnosis of HIV or AIDS), 85 percent were male and 15 percent were female. The rate of infection was 11.1 per 100,000 in males, 1.9 per 100,000 in females. Blacks were disproportionately affected, having an HIV/AIDS case rate of 38.0 per 100,000 compared with 5.1 per 100,000 population for Whites. The highest age-specific rate was among those aged 30 to 39 (16.8 per 100,000 population); the second highest rate was seen among the 20-to-29-year-old age group (12.6 per 100,000 population). Unprotected sex was the primary means of transmission.

Locally, the ZIP codes with the highest number of reported AIDS cases during 2001-2005 were in south and north Tulsa. The ZIP codes with the lowest numbers were in east Tulsa and the northern and southern suburbs.

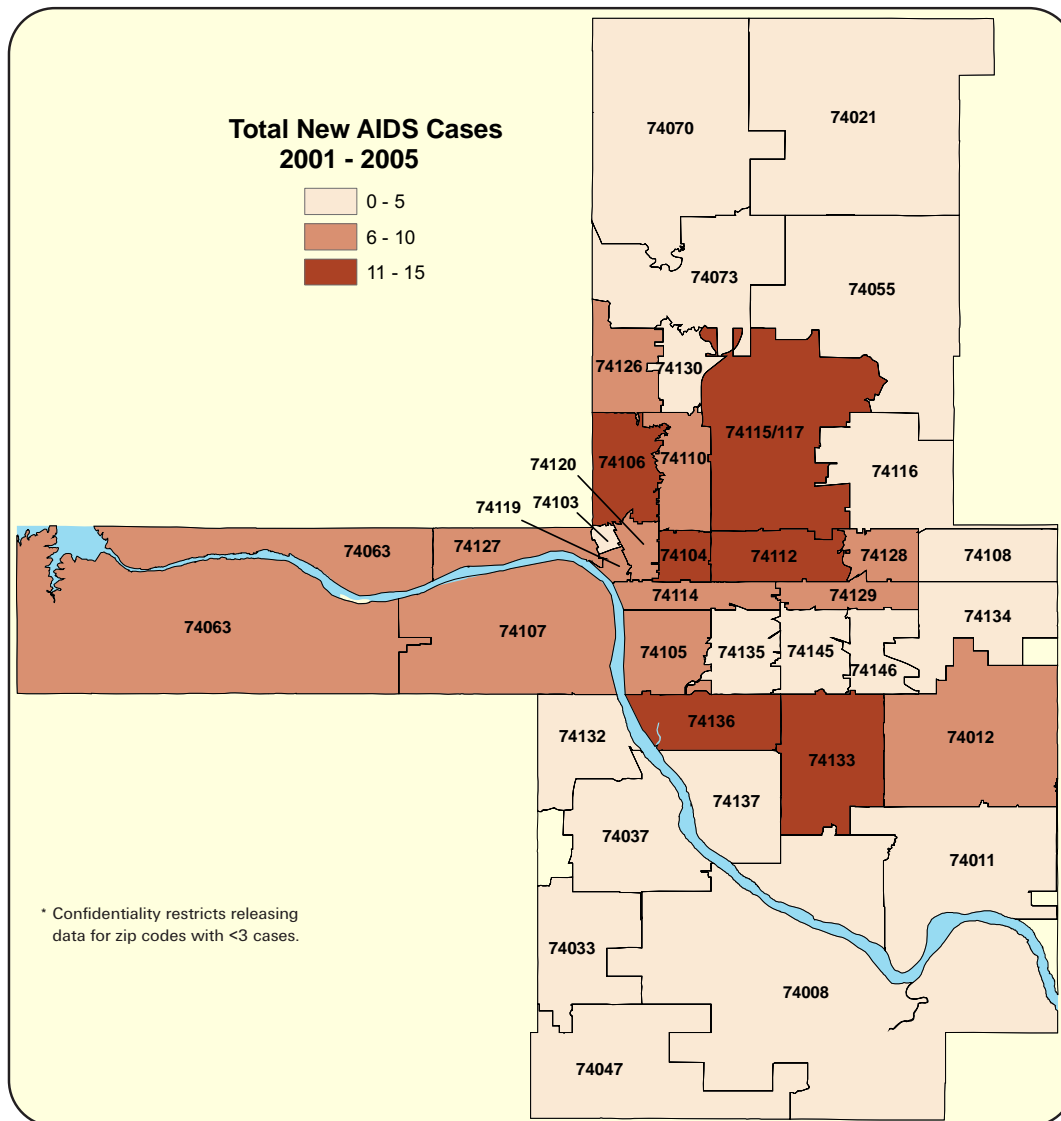
Public Health/Community Interventions:

Continue to educate the public on ways to prevent the transmission of HIV. Promote programs that allow easy access to HIV testing and adequate health care to those who are infected with HIV/AIDS.

Data Sources:

HIV/STD Service, OSDH
HIV/AIDS Prevention, CDC

2001 - 2005	
ZIP CODE (ZCTA)	Number of AIDS Cases
74136	15
74106	14
74115/117	14
74104	13
74112	11
74133	11
74126	10
74127	10
74110	9
74105	8
74107	8
74128	8
74012	7
74129	7
74063	6
74114	6
74119	6
74120	6
74130	5
74145	5
74146	5
74116	4
74135	4
74008	3
74055	3
74137	3
74011	*
74021	*
74033	*
74037	*
74047	*
74070	*
74073	*
74103	*
74108	*
74132	*
74134	*



a i d s

injury & violence
indicators

deaths from all accidents

Indicator Definition

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 injuries per 100,000 population, age adjusted and averaged over the years 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

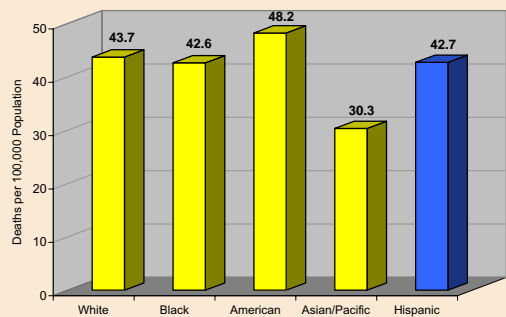
Why Is This Indicator Important?

Accidents were the fifth leading cause of death among Tulsa County residents in the years 2000-2004, but above age 1 accidents were the number one cause for the younger age groups through age 35. Motor vehicle accidents accounted for one-third of these deaths.

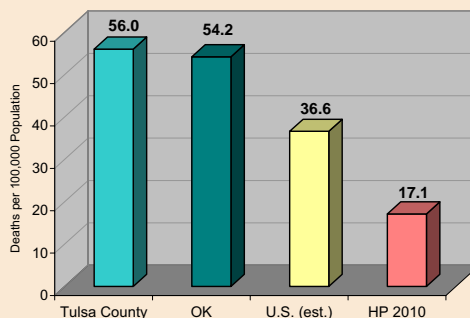
How Are We Doing?

Accidents killed 1,214 Tulsa County residents in 2000-2004, for an average age-adjusted mortality rate of 43.8 per 100,000 population. Males, with a rate of 57.7 deaths per 100,000, were almost twice as likely as females (31.5 per 100,000) to die in an accident. Consistent with the national trend, American Indians (48.2 per 100,000) had a higher accident death rate than other races, and the rate for Whites slightly exceeded that of Blacks (43.7

Unintentional Injury (Accident) Death Rates by Race/Ethnicity
Tulsa County, 2000 - 2004 Average (Age Adjusted)



Unintentional Injury (Accident) Death Rates by Region
2004 (Age Adjusted)



and 42.6 per 100,000, respectively).

The 2004 accident death rate for Tulsa County (56 per 100,000) was higher than the state rate of 54.2 per 100,000, and both had rates almost 1.5 times that of the nation (36.6 per 100,000). The Healthy People target for deaths from unintentional injuries in 2010 is 17.1 per 100,000.

Across Tulsa County, age-adjusted accident death rates above the average of 43.8 per 100,000 tended to occur in border ZIP codes, with the highest rates dispersed along the eastern and western boundaries. The lowest rates occurred in south Tulsa and Broken Arrow (74011).

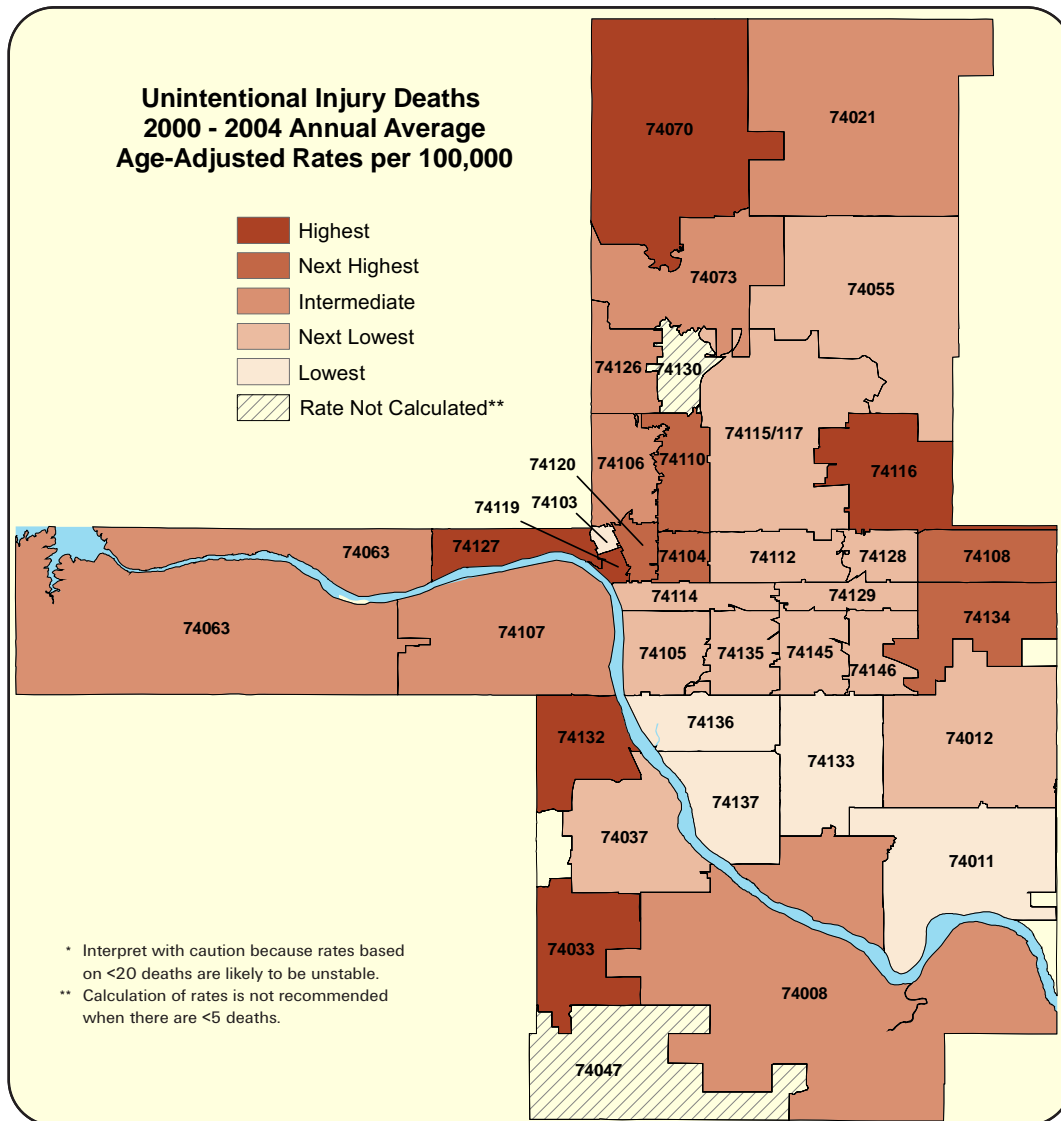
Public Health/Community Interventions:

Educate the public on effective ways to prevent accidents from occurring in the first place, such as using smoke detectors, using safety equipment while operating motor vehicles, and heeding warnings on product safety labels.

Data Sources:

U.S. Census Bureau: Census 2000; Health Care Information Division (HCI), OSDH; Health People 2010

2000 - 2004		
ZIP CODE (ZCTA)	Number of Deaths	Accident Death Rate
74116*	8	94.6
74033*	12	89.0
74070*	11	85.8
74127	47	83.9
74119*	18	80.0
74132*	12	77.1
74120*	16	69.2
74110	45	61.4
74104	41	61.3
74134	25	60.6
74108*	15	58.4
74106	50	56.7
74063	62	55.1
74021	25	54.5
74008	38	53.4
74107	51	52.7
74073*	8	52.2
74126	22	52.0
74128	27	46.2
74012	89	46.0
74115/117	48	44.7
74112	51	43.7
74105	67	43.4
74146	24	43.4
74114	42	41.2
74055	37	39.0
74135	53	38.6
74129	37	38.2
74037*	16	37.3
74145	35	36.1
74137	32	31.1
74133	46	25.9
74103*	5	25.3
74011	23	25.2
74136	44	25.1
74047	2	**
74130	3	**



deaths from all accidents

deaths from motor vehicle accidents

Indicator Definition

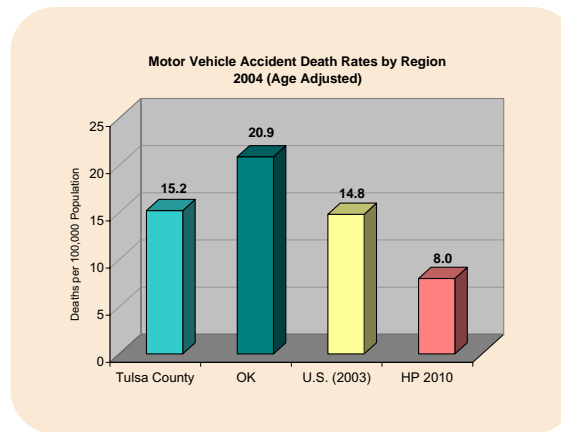
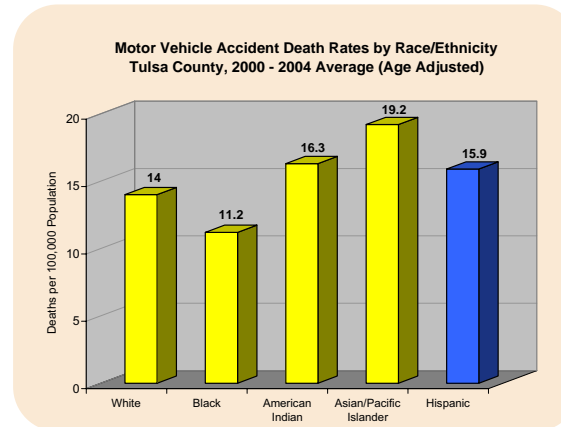
The death rate from motor vehicle accidents (including motorcycle and automobile accidents) is the number of deaths from motor vehicle accidents per 100,000 population, age adjusted and averaged over the years 2000-04. The ZIP code populations were estimated from the 2000 U.S. Census.

Why Is This Indicator Important?

Motor vehicle accidents accounted for about one-third of the deaths from all accidents in Tulsa County over the period 2000-2004. Deaths from motor vehicle accidents can many times 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 2000-2004, 397 Tulsa residents died in motor vehicle accidents, for an average age-adjusted death rate of 14 per 100,000 population. Males died at a rate about twice that of females (19.2 and 9.3 per 100,000, respectively). The motor vehicle accident rate for the White population was 14 per 100,000, which exceeded the rate for the Black population (11.2 per 100,000), but was lower than that of the American Indian popula-



tion (16.3 per 100,000). The value of 19.2 per 100,000 for Asian/Pacific Islanders is based on only 9 deaths.

In 2004, the motor vehicle accident rate for Tulsa County residents was 15.2 per 100,000, 27 percent lower than the state rate of 20.9 per 100,000. The nation's rate in 2003 was 14.8 per 100,000. These rates are much higher than the Healthy People 2010 goal of 8 motor vehicle accident deaths per 100,000 population.

In Tulsa County, age-adjusted motor vehicle accident death rates tended to be higher in far north, western, and southern Tulsa County, as well as in several ZIP codes in the central part of the county. The lowest and next lowest rates occurred in a band across south Tulsa to the east, and in 74126 and 74115/117 in north Tulsa.

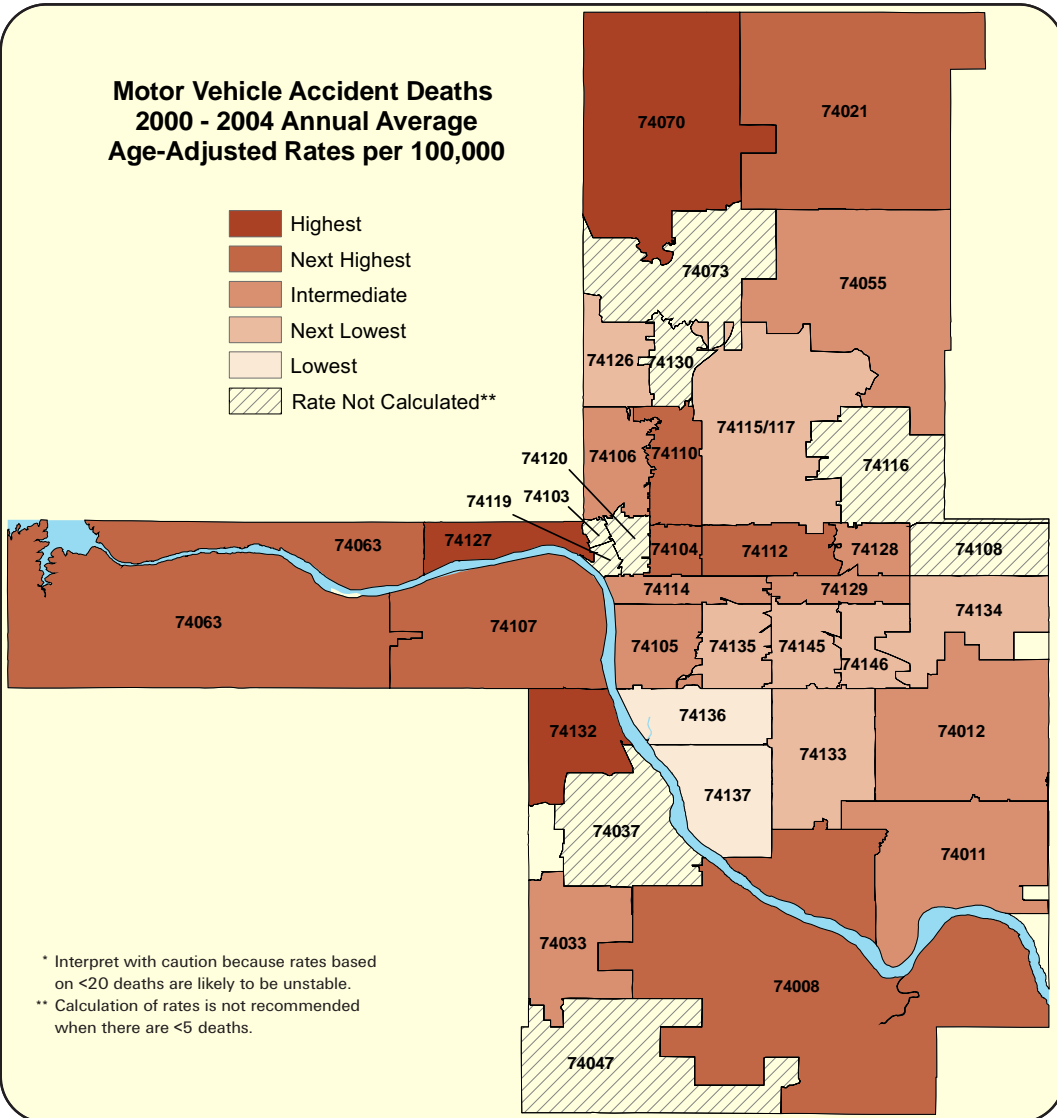
Public Health/Community Interventions:

Promote seatbelt use and safe driving habits, especially among teenaged male drivers.

Data Sources:

U.S. Census Bureau: Census 2000; Health Care Information Division (HCI), OSDH; Health People 2010

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Deaths	MVA Death Rate
74070*	5	43.1
74127*	17	30.3
74132*	6	29.2
74008*	19	25.4
74021*	11	23.4
74104*	15	20.7
74112	23	20.3
74110*	16	20.1
74107*	19	19.3
74063	22	19.2
74033*	7	15.9
74129*	14	15.0
74012	30	14.5
74105	22	14.3
74128*	8	13.8
74106*	11	13.6
74055*	13	13.0
74114*	11	12.5
74011*	13	12.3
74134*	9	11.8
74146*	8	10.5
74115/117*	12	10.4
74145*	10	10.4
74135*	11	9.9
74133*	17	9.2
74126*	5	8.4
74137*	7	7.0
74136*	10	5.0
74120	4	**
74116	3	**
74037	2	**
74108	2	**
74130	2	**
74073	1	**
74119	1	**
74047	0	**
74103	0	**



deaths from motor vehicle accidents

deaths from homicide

deaths from homicide

Indicator Definition

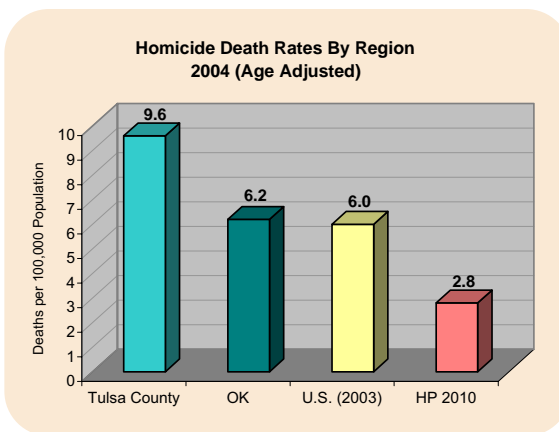
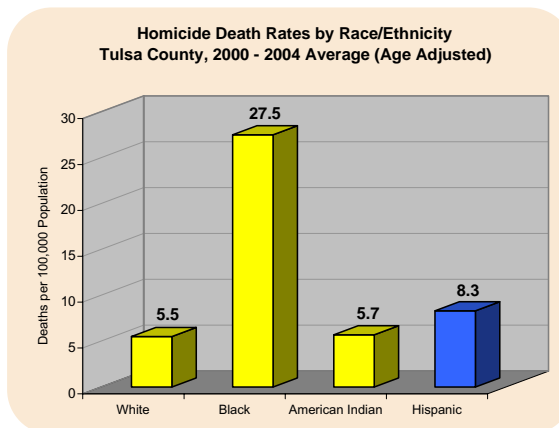
The death rate from homicide (murder) is the number of deaths from homicides per 100,000 population, age adjusted and averaged over the years 2000-2004. The rates are based on the residence of the victim, not the location of the crime. The ZIP code populations were estimated from the 2000 U.S. Census.

Why Is This Indicator Important?

Violence is a major concern in Tulsa County. Homicide was the second and third leading cause of death for 15-24-year-olds and 25-35-year-olds, respectively, during 2000-2004. 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 2000-2004 was 8.3 per 100,000 persons. The death rate for males was almost 4 times that for females (13.1 and 3.4 per 100,000, respectively). There was marked racial disparity, with Blacks dying from homicide at a rate 5 times that of Whites and American Indians. There were only 3 deaths in the Asian/Pacific Islander population and a rate is not shown. The homicide death rate for



Hispanics was the same as the county average – 8.3 per 100,000.

In 2004, Tulsa County's homicide death rate was 9.6 per 100,000, 1.5 times that of Oklahoma (6.2) and the United States (6 per 100,000 in 2003). Healthy People has set a national target of 2.8 homicide deaths per 100,000 population by the year 2010.

Because of the low number of homicides in many Tulsa County ZIP codes, a limited number of homicide death rates could be calculated. Of those ZIP codes with at least 5 homicides, the highest rates during the years 2000-2004 occurred among those living in northwest Tulsa, and the lowest rates occurred among residents of midtown and south Tulsa, Broken Arrow (74012) and Owasso (74055).

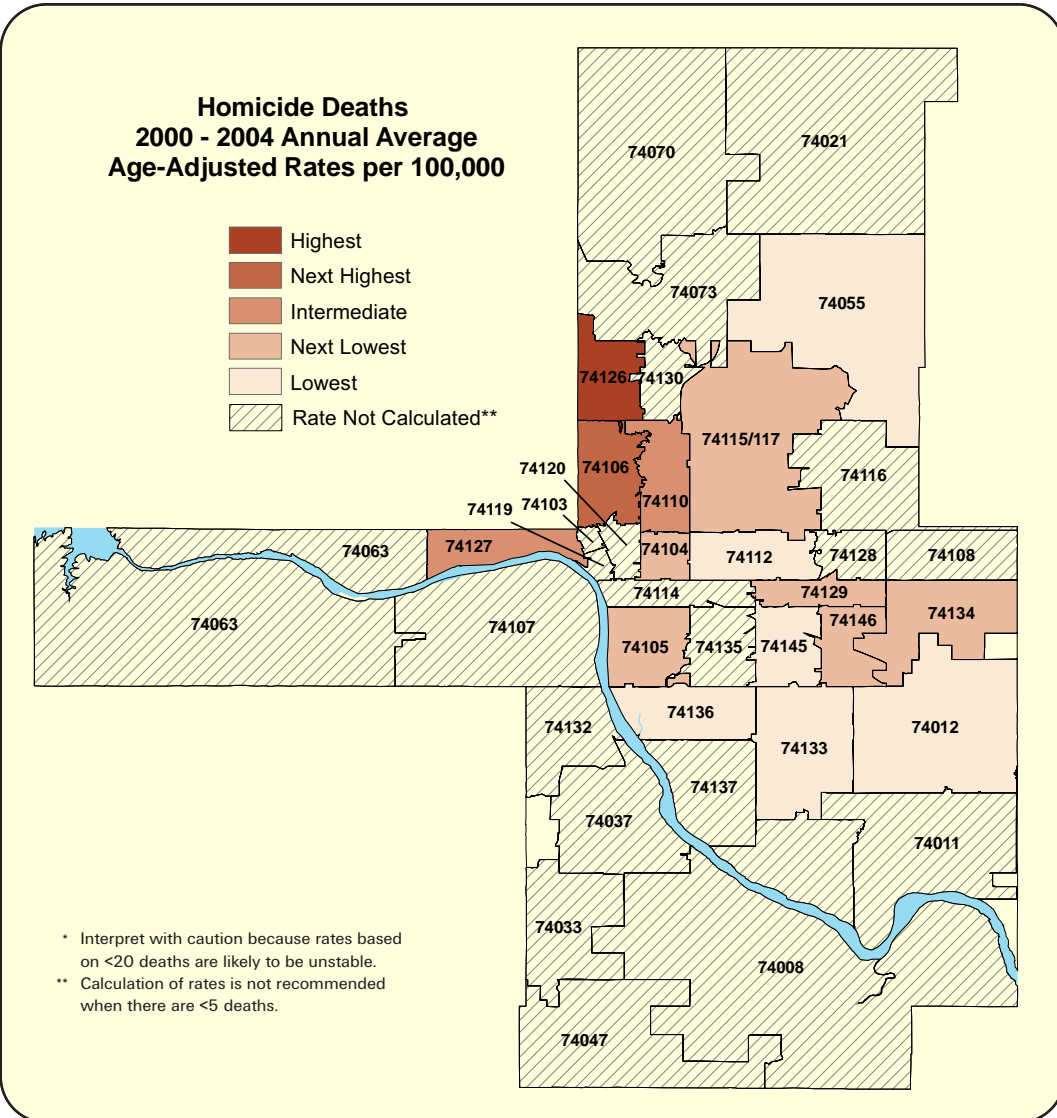
Public Health/Community Interventions:

Increase public awareness of the underlying causes of violence, particularly in youth. Provide family programs that support parents in their efforts to help their children avoid violence.

Data Sources:

U.S. Census Bureau: Census 2000
Health Care Information Division (HCI), OSDH
Health People 2010

2000 - 2004		
ZIP CODE (ZCTA)	Number of Deaths	Homicide Death Rate
74126	31	54.1
74106	25	29.9
74127*	12	21.3
74110*	15	18.9
74104*	12	15.1
74129*	12	13
74134*	5	12
74115/117*	11	9.9
74105*	14	9.4
74146*	7	9
74112*	7	6.5
74145*	6	6
74136*	11	5
74012*	12	5.1
74055*	5	5.0
74133*	5	3
74008	4	**
74011	4	**
74021	4	**
74107	4	**
74114	4	**
74135	4	**
74033	3	**
74063	3	**
74120	3	**
74116	2	**
74128	2	**
74130	2	**
74037	1	**
74073	1	**
74103	1	**
74108	1	**
74047	0	**
74070	0	**
74119	0	**
74132	0	**
74137	0	**



deaths from homicide

deaths from suicide

deaths from suicide

Indicator Definition

The death rate from suicide is the number of deaths from suicide per 100,000 population, age adjusted and averaged over the years 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

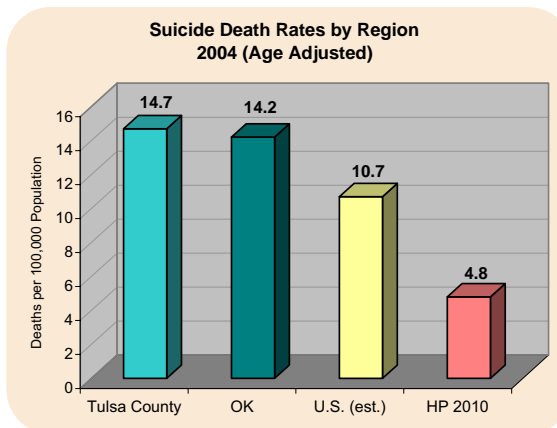
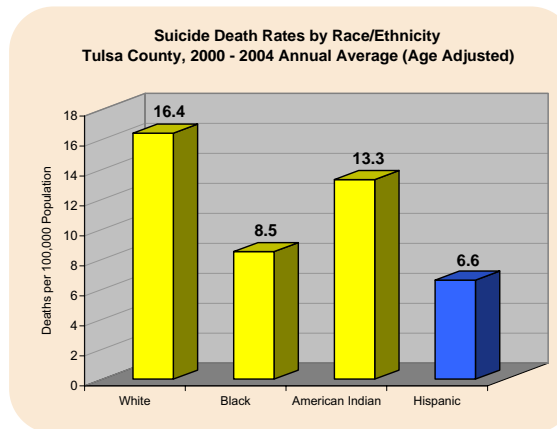
Why Is This Indicator Important?

Suicide was the ninth leading cause of death for Tulsa County residents over the years 2000-2004, and for the age group 15-34, it was among the top three causes. 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 2000-2004, 430 Tulsa County residents committed suicide. Males complete suicides at five times the rate for females (25.2 and 5.6 per 100,00, respectively). At 16.4 per 100,000, Whites had a suicide death rate almost twice that of Blacks (8.5 per 100,000). Hispanics had a relatively low suicide death rate of 6.6 per 100,000.

The suicide death rate for Tulsa County in 2004 was 14.7 per 100,000, about the same as the rate in 2000; in the intervening years the rate reached a high of 17.4 in 2003. The



county's 2004 rate was about the same as the state's rate of 14.2, and both rates exceeded the national rate of 10.7. The Healthy People 2010 goal for suicide deaths is 4.8 per 100,000.

The highest and next highest suicide death rates occurred in several contiguous ZIP codes in north Tulsa and also in 74105 in southwest Tulsa. The lowest rates were in ZIP codes 74136, 74146, and 74129 in the central part of the county, and 74126 and 74055 (Owasso) in northern Tulsa County.

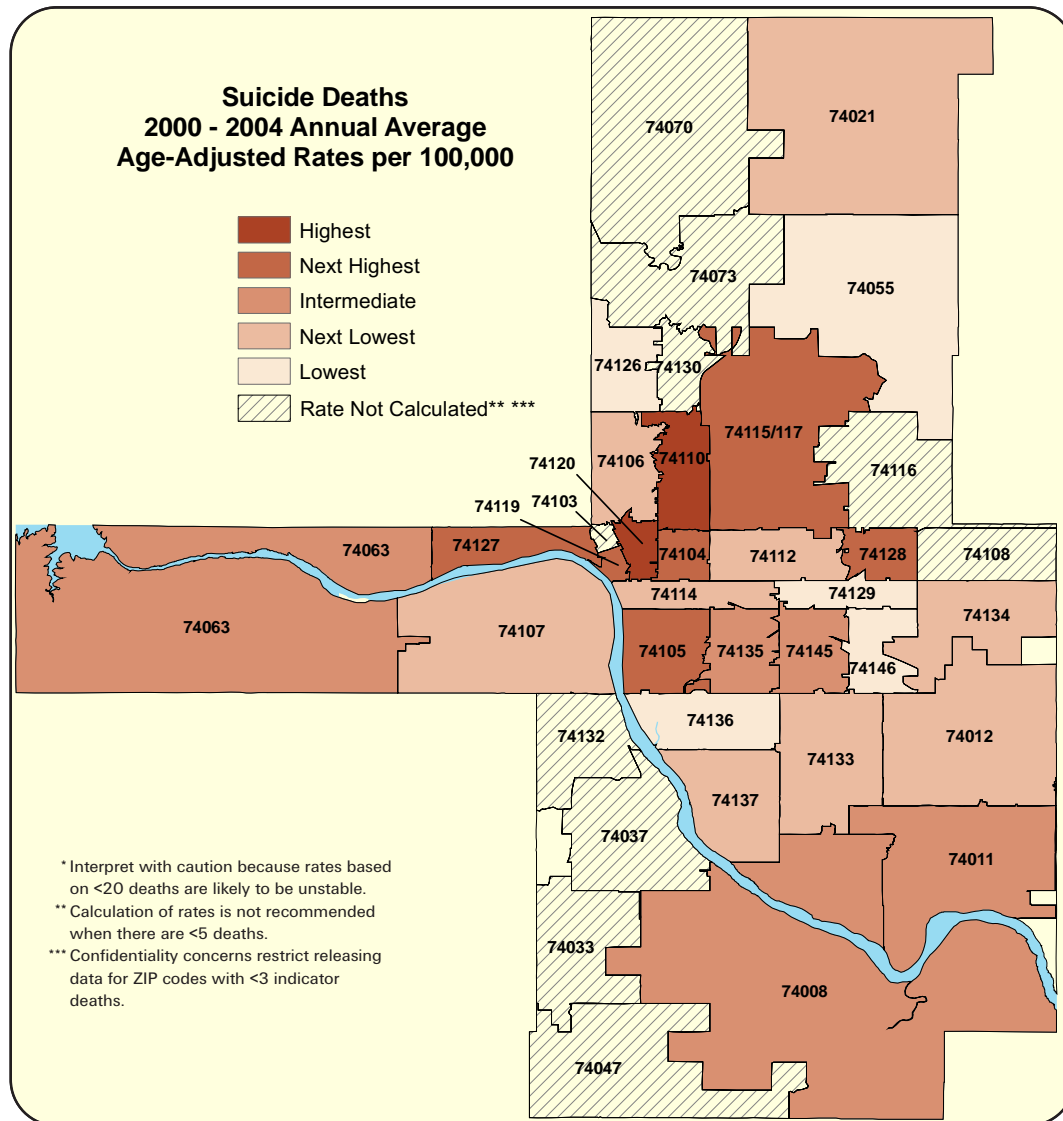
Public Health/Community Interventions:

Educate the public on the signs/symptoms of depression, drug abuse, and other conditions that can precipitate suicide. Provide guidance on where to seek treatment.

Data Sources:

U.S. Census Bureau: Census 2000; Health Care Information Division (HCI), OSDH; Health People 2010; CDC/NCHS, Division of Vital Statistics

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Suicides	Suicide Death Rate
74110	23	32.6
74120*	7	30.6
74115/117	29	26.6
74105	37	25.1
74104*	15	23.8
74119*	6	23.4
74128*	14	23.1
74127*	13	22.4
74008*	15	19.7
74145*	17	18.9
74135*	18	16.2
74063*	18	15.5
74011*	17	15.4
74137*	15	14.6
74114*	13	14.3
74107*	14	14.2
74021*	6	13.5
74112*	14	13.4
74012	30	13.3
74106*	10	12.3
74134*	7	12.2
74133	22	11.6
74126*	6	10.6
74129*	8	8.6
74136*	15	8.4
74146*	6	8.1
74055*	8	8.0
74033	4	**
74070	4	**
74073	4	**
74037	***	***
74108	***	***
74116	***	***
74130	***	***
74103	***	***
74047	***	***
74132	***	***



deaths from suicide

mortality
indicators

deaths from all causes

deaths from all causes

Indicator Definition

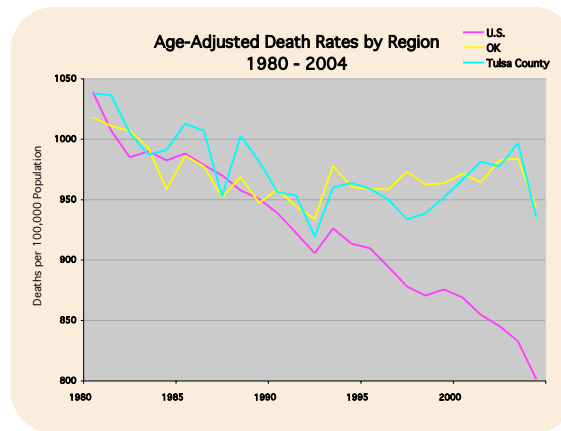
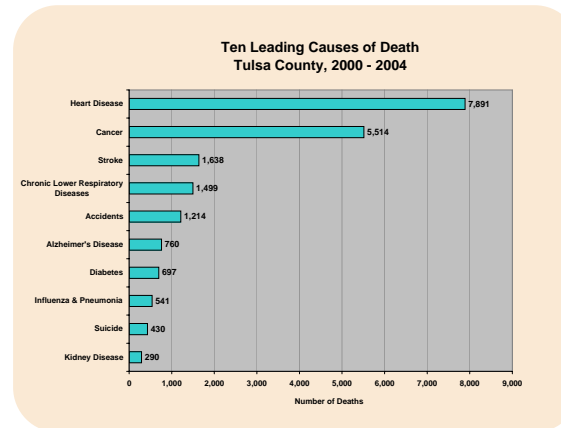
The mortality rate from all causes is presented as the number of deaths per 100,000 population averaged over the years 2000-2004, based on the 2000 census. The rates were age adjusted to account for differences in age distribution among ZIP codes and regions over time.

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 as a whole, experienced a drop in overall mortality rates, although the county rates tended to be higher. Beginning in the early 1990s, however, while the nation's death rates continued to drop, the overall death rates for Tulsa County and Oklahoma departed from this trend and began to rise again, although both the county and state experienced a drop in rates from 2003 to 2004. The nation's 2004 death rate was estimated to be 800 per 100,000, while the county and state death rates stood at 935.4 and 942.8 per 100,000, respectively.



Heart disease was the number one cause of death, and along with cancer, stroke, and chronic lower respiratory diseases accounted for about 64% of the approximately 26,000 deaths that occurred during 2000-2004.

ZIP codes 74130, in north Tulsa, and 74033, Glenpool, had the highest overall mortality rates. In general the higher rates tended to be in north, west, and east Tulsa County, while downtown, midtown and south Tulsa and the Bixby (74008) area had lower rates.

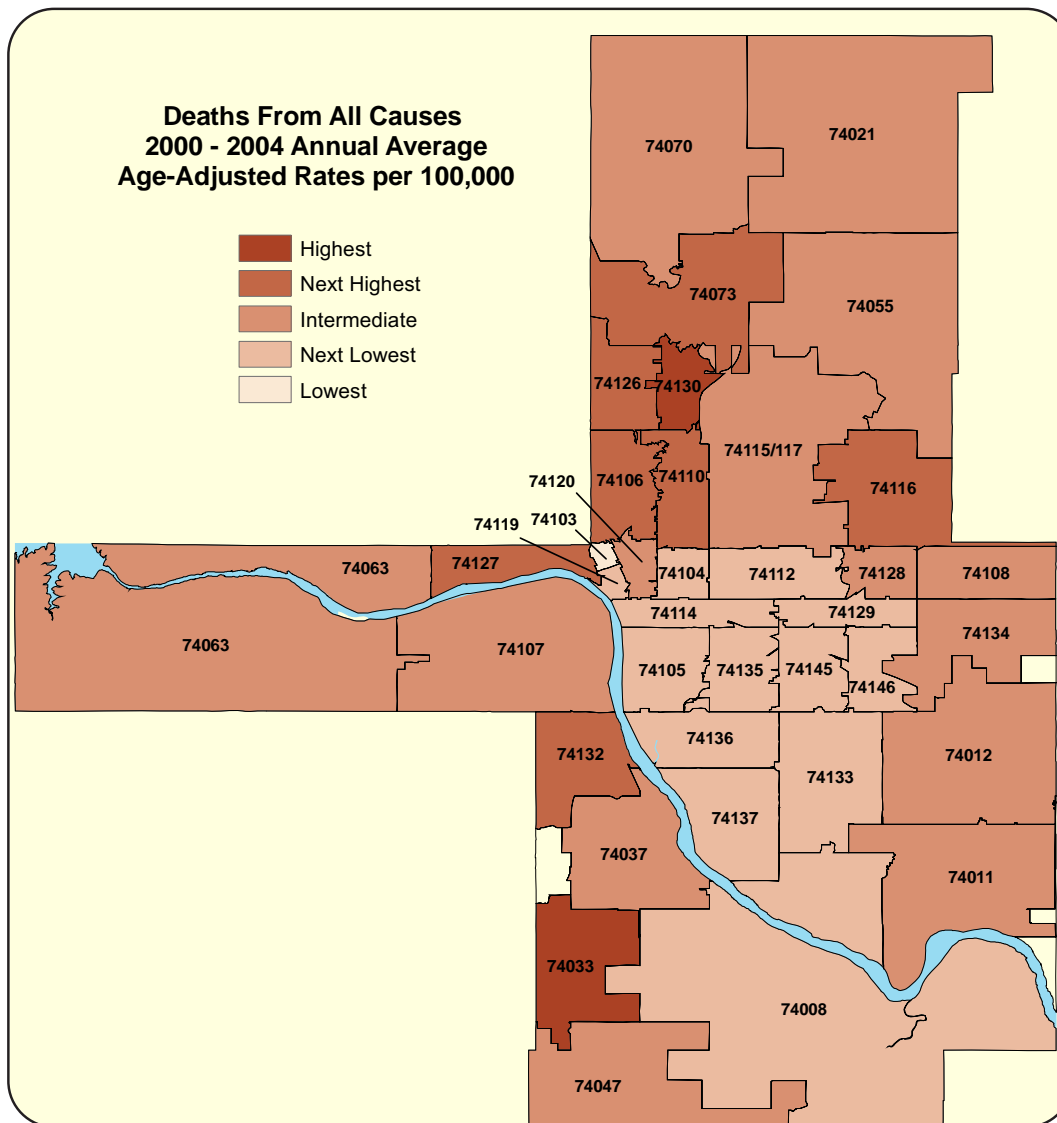
Public Health/Community Interventions:

Continue to support programs that raise awareness of the relationship between lifestyle choices, such as smoking, and the major causes of death in Tulsa County.

Data Sources:

U.S. Census Bureau: Census 2000; CDC/NCHS, Division of Vital Statistics; Health Care Information Division (HCI), OSDH

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Deaths	Age-Adjusted Rate
74130	135	3487.7
74033	249	3024.6
74116	126	1907.6
74132	192	1494.9
74127	885	1486.9
74126	617	1461.0
74073	169	1384.6
74106	1,370	1343.9
74110	830	1308.3
74037	415	1258.1
74070	155	1188.5
74134	272	1173.5
74128	689	1159.8
74108	224	1130.1
74120	223	1129.8
74115/117	1,166	1112.7
74012	1,690	1104.9
74107	1,004	1065.5
74063	1,122	1044.8
74055	844	1043.5
74021	485	1033.8
74047	29	1013.0
74011	638	996.7
74008	602	969.9
74104	546	945.7
74119	239	937.5
74112	1,186	906.1
74129	907	885.2
74146	390	882.5
74133	1,317	855.4
74105	1,496	841.2
74137	816	825.0
74135	1,497	814.9
74136	1,236	780.2
74114	900	740.5
74145	810	709.6
74103	39	356.9



deaths from all causes

deaths from heart disease

Indicator Definition

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 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

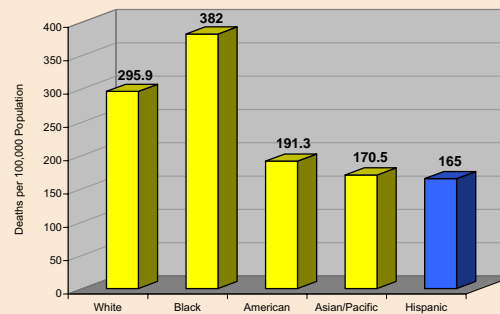
Why Is This Indicator Important?

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 – high blood cholesterol, high blood pressure, and diabetes – can be controlled through medication and changes in diet.

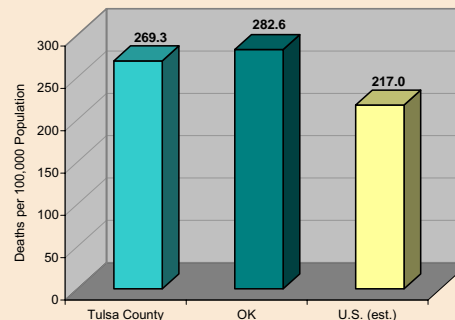
How Are We Doing?

From 2000 to 2004, the average age-adjusted heart disease death rate for Tulsa County was 298.5 deaths per 100,000 people. Deaths from heart disease occurred at about 1.5 times the rate among men (365.8 per 100,000) as among women (250.5 per 100,000). Among the races, the heart

Heart Disease Death Rates by Race/Ethnicity
Tulsa County, 2000 - 2004 Average (Age Adjusted)



Heart Disease Death Rates by Region
2004 (Age Adjusted)



disease death rate was highest in the Black population (382 per 100,000). The Hispanic population had a heart disease death rate of 165 per 100,000 population.

In 2004, Tulsa County's heart disease death rate was 269.3, lower than the state value of 282.6, but 1.2 times that of the nation (217 per 100,000).

The Tulsa County ZIP codes with the highest heart disease death rates were 74033 (Glenpool) and 74130 in north Tulsa. The ZIP codes with the lowest rates were in downtown, midtown and south Tulsa.

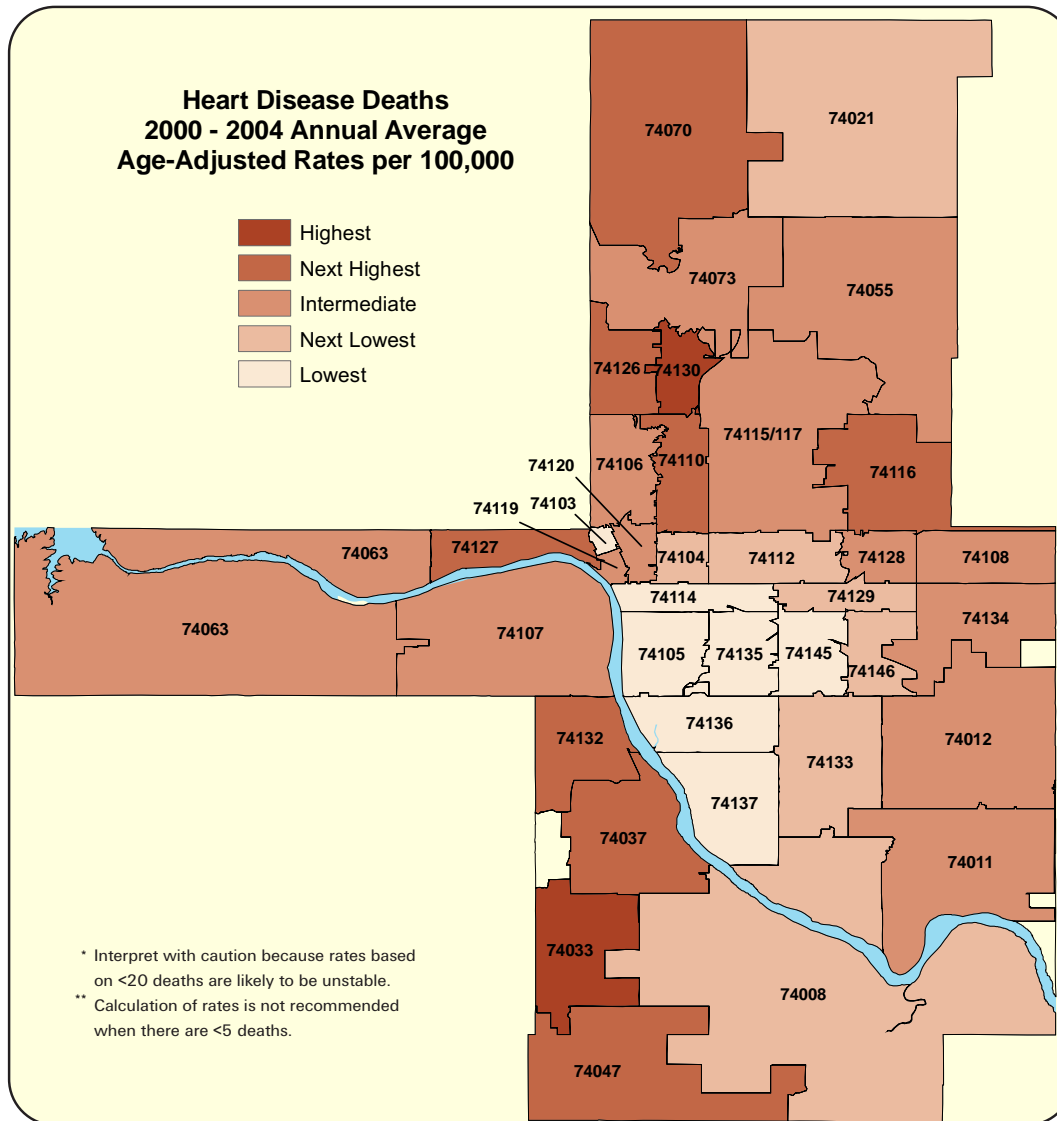
Public Health/Community Interventions:

Educate the public about how lifestyle changes can reduce the risk of developing heart disease. Support smoking cessation programs. Promote changes in dietary habits including reductions in consumption of saturated and trans fats and excessive caloric intake that leads to overweight conditions. Promote increased levels of physical activity.

Data Sources:

U.S. Census Bureau: Census 2000; CDC/NCHS, Division of Vital Statistics; American Heart Association; Health Care Information Division (HCI), OSDH

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Deaths	Heart Disease Death Rate
74033	71	1353.1
74130	47	1045.0
74116	37	613.1
74047*	13	511.2
74132	56	455.2
74127	264	447.9
74070	55	430.4
74126	165	424.2
74037	132	421.1
74110	255	410.1
74128	223	381.2
74012	544	374.3
74106	377	361.4
74120	65	359.8
74055	290	350.2
74011	190	347.2
74115/117	355	347.1
74107	324	346.7
74073	42	334.3
74108	65	329.1
74134	68	322.8
74119	84	321.9
74063	326	312.3
74021	141	300.8
74146	112	282.8
74129	292	281.9
74104	155	274.7
74008	165	273.9
74133	399	264.3
74112	334	249.2
74105	442	241.2
74135	473	240.5
74137	238	236.5
74136	377	229.9
74114	281	215.4
74145	250	214.6
74103*	10	133.5



deaths from heart disease

deaths from cancer

deaths from cancer

Indicator Definition

The death rate from cancer is the number of deaths from all cancers per 100,000 population, age adjusted and averaged over the years 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

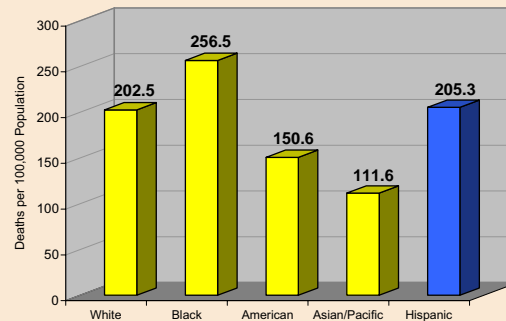
Why Is This Indicator Important?

Cancer was the second leading cause of death in Tulsa County during the period 2000-2004. 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 5,514 cancer deaths among Tulsa County residents during 2000-2004, for an average age-adjusted death rate of 203.4 per 100,000 population. Men died from cancer at 1.5 times the rate for women (253.7 and 172.7, respectively). Lung cancer was the leading cause of cancer death in men (33.8 percent of all cancers), followed by prostate cancer (10.4 percent) and colon cancer (9.4 percent). After lung cancer (29.3 percent of all cancers), breast cancer (16.7 percent), colon cancer (8.9 percent), and ovarian and cervical cancer (8.5 percent) were the leading causes of cancer deaths in women.

Cancer Death Rates by Race/Ethnicity
Tulsa County, 2000 - 2004 Average (Age Adjusted)

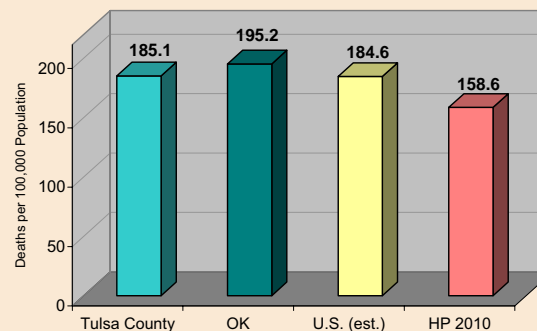


Cancer deaths occurred at a higher rate (256.5 per 100,000) in the Black population than in other races. The Hispanic population had a cancer death rate of 205.3 per 100,000.

In 2004, the cancer death rate was lower in Tulsa County (185.1 per 100,000) than in the state (195.2 per 100,000), and about the same as the national rate (184.6 per 100,000). Healthy People has set a national goal of 158.6 overall cancer deaths per 100,000 population by the year 2010.

The Tulsa County ZIP codes with the highest cancer death rates were 74130 and 74116 in north and east Tulsa and 74132 and 74033 (Glenpool) in southwest Tulsa County. Lower rates tended to occur in midtown and south Tulsa.

Cancer Death Rates by Region
2004 (Age Adjusted)



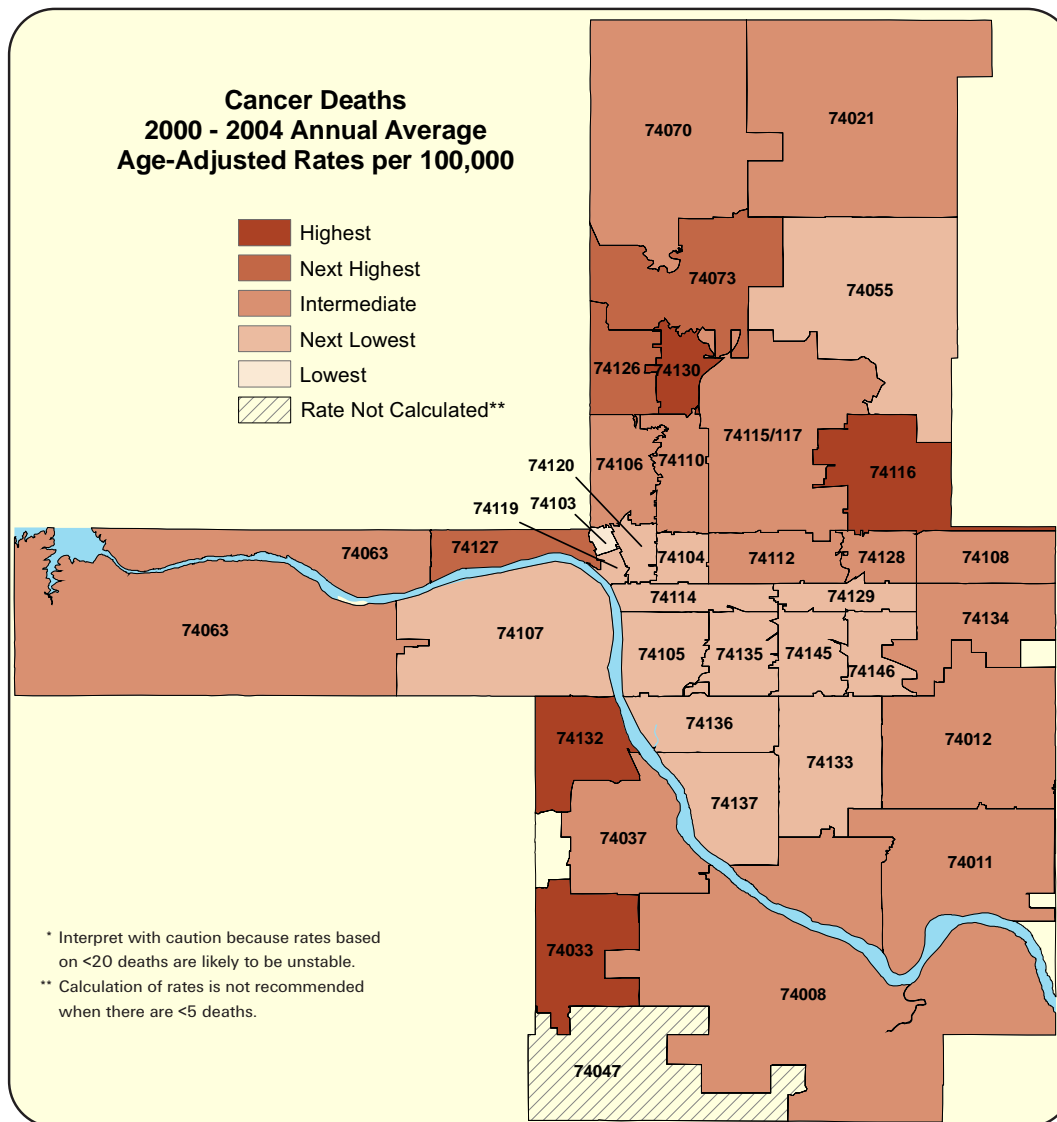
Public Health/Community Interventions:

Educate the public about how lifestyle changes can reduce the risk of developing cancer. Support smoking cessation programs.

Data Sources:

U.S. Census Bureau: Census 2000; Health Care Information Division (HCI), OSDH; Health People 2010; CDC/NCHS, Division of Vital Statistics

2000 - 2004		
ZIP CODE (ZCTA)	Number of Deaths	Cancer Death Rate
74130	25	482.5
74116	26	419.6
74033	60	414.9
74132	55	402.5
74073	46	331.4
74126	144	323.8
74127	195	320.8
74106	263	266.1
74108	52	262.9
74110	157	257.6
74134	62	244.1
74063	267	239.1
74115/117	252	238.3
74012	351	226.9
74112	279	220.9
74037	80	220.6
74070	29	214.3
74128	144	213.3
74011	163	213.1
74008	137	209.3
74021	98	207.9
74146	86	196.5
74133	300	193.7
74129	191	188.2
74137	185	185.3
74107	178	183.6
74120	33	182.6
74135	316	182.0
74055	138	181.6
74104	92	181.1
74136	264	179.0
74119	45	178.4
74105	306	173.0
74114	182	161.2
74145	193	158.6
74103*	5	46.7
74047	2	**



deaths from cancer

deaths from lung cancer

deaths from lung cancer

Indicator Definition

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 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

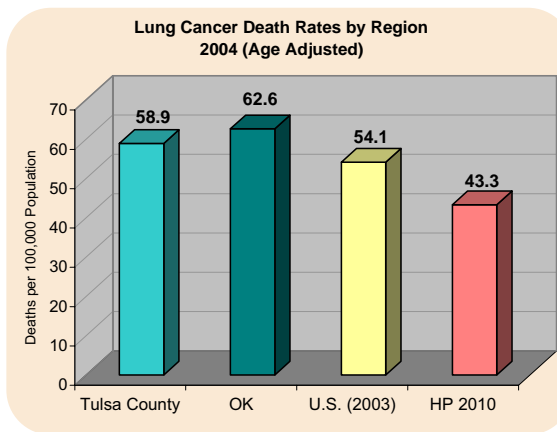
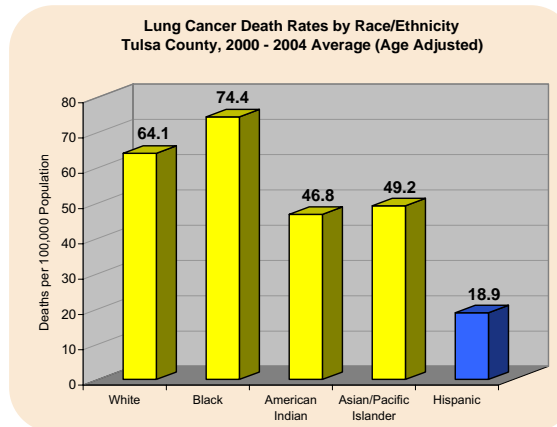
Why Is This Indicator Important?

Cancer was the second leading cause of death in Tulsa County during the period 2000-2004, and 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 2000-2004, 1,739 Tulsa County residents died from lung cancer, which accounted for 31.5 percent of all cancer deaths. The lung cancer death rate for the Black population (74.4 deaths per 100,000 population) was higher than the rate for the White population (64.1 per 100,000). Hispanics died from lung cancer at a rate of 18.9 per 100,000 population.

Tulsa County had a lung cancer death rate of 58.9 in 2004, an improvement over the five-year high rate of 69.8 in 2002. Oklahoma's lung cancer death rate was 62.6



per 100,000 in 2004, and the national rate in 2003 was 54.1 per 100,000. The national Healthy People 2010 target goal for lung cancer deaths in 2010 is 43.3 per 100,000 population.

In general, the highest lung cancer death rates in 2000-2004 occurred in north, west, and east Tulsa County. ZIP codes 74033 (Glenpool) and 74116 had the highest rates. By contrast, the lower rates tended to occur in a band from downtown Tulsa through south Tulsa and the south-southeastern county suburbs.

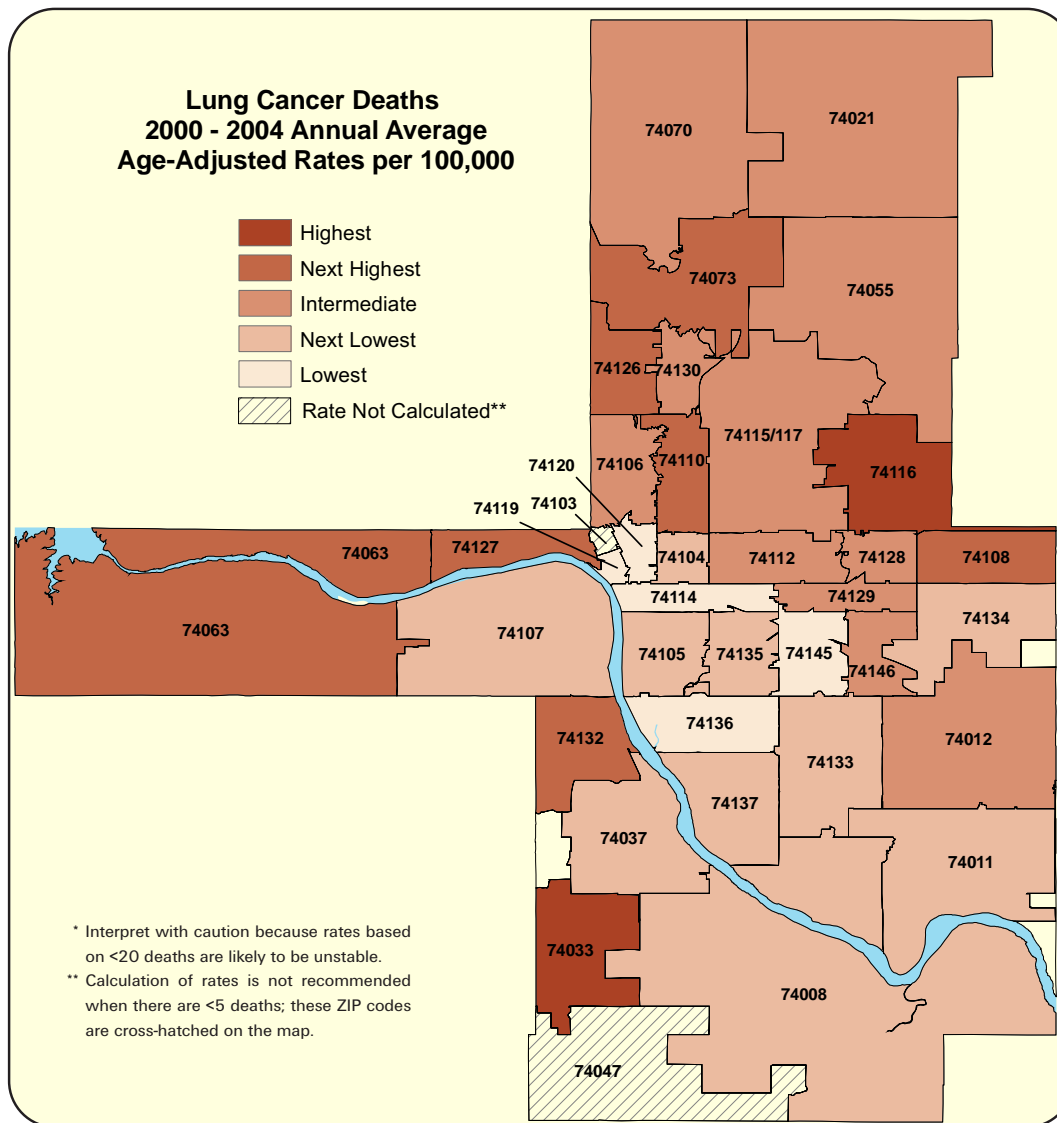
Public Health/Community Interventions:

Educate the public on the dangers of smoking. Sponsor programs that provide support and advice to those who want to quit smoking.

Data Sources:

U.S. Census Bureau: Census 2000; Health People 2010; Health Care Information Division (HCI), OSDH

2000 - 2004		
ZIP CODE (ZCTA)	Lung Cancer Deaths	Lung Cancer Death Rate
74116*	9	144.1
74033	21	142.3
74132*	17	115.3
74073*	17	114.3
74126	51	113.2
74110	63	105.3
74127	65	105.3
74108*	19	92.7
74063	103	91.3
74130*	11	82.3
74128	55	80.5
74115/117	84	78.8
74146	31	75.1
74106	74	73.9
74055	52	69.9
74012	106	69.5
74112	84	68.2
74021	32	66.7
74129	67	65.1
74070*	9	64.6
74133	93	61.5
74008	39	59.0
74037	23	58.5
74105	102	58.5
74011	46	57.6
74135	96	57.5
74107	54	54.0
74104	25	52.7
74137	49	52.4
74134*	14	51.0
74145	60	48.4
74120*	9	45.9
74119*	12	43.5
74114	46	40.4
74136	58	40.2
74103	4	**
74047	0	**



deaths from lung cancer

deaths from stroke

deaths from stroke

Indicator Definition

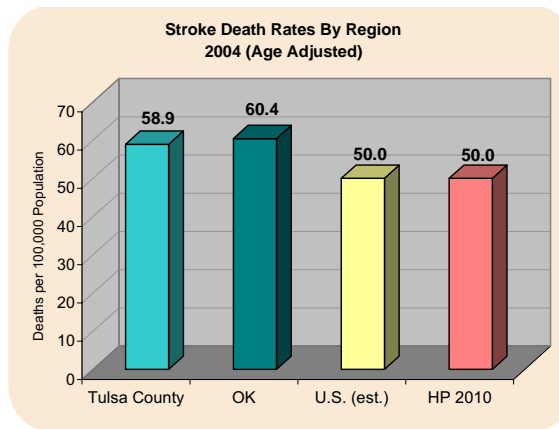
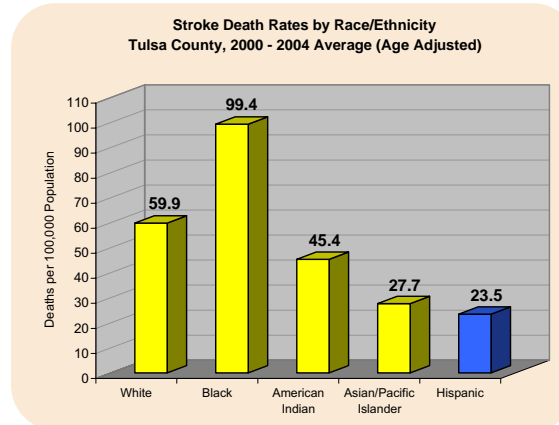
The death rate from stroke (cerebrovascular disease) is the number of deaths from stroke per 100,000 population, age adjusted and averaged over the years 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

Why Is This Indicator Important?

Stroke was the third leading cause of death in Tulsa County during the years 2000-2004, and is a major cause of long-term disability. The most powerful modifiable risk factor for stroke is hypertension. Smoking, high cholesterol, and obesity are also major risk factors that can be modified through lifestyle changes.

How Are We Doing?

During 2000-2004, stroke was responsible for 6.3 percent of all deaths, killing 1,638 Tulsa County residents for an average age-adjusted death rate of 62.3 per 100,000. Most strokes occurred in persons 65 years and older, and the death rate for men (62.4) only slightly exceeded that of women (61.3). There was a major racial disparity in stroke deaths, with the Black population dying at a rate 1.7 times that of the White population (99.4 and 59.9 per 100,000, respectively) and over twice that



of American Indians (45.4). The Hispanic population had a low risk of dying from stroke (23.5 per 100,000).

The Tulsa County stroke death rate was 58.9 per 100,000 in 2004, lower than the state rate of 60.4. The estimated national stroke death rate in 2004 was 50 per 100,000, which was right at the Healthy People 2010 goal for this indicator.

The Tulsa County ZIP codes with the highest stroke death rates were 74033 (Glenpool) and 74130 in north Tulsa, and these were generally contiguous with the ZIP codes having the next highest rates, with the exception of 74116 in northeast Tulsa. The lowest rates occurred across central Tulsa County, expanding into south Tulsa and into the Bixby area (ZIP code 74008).

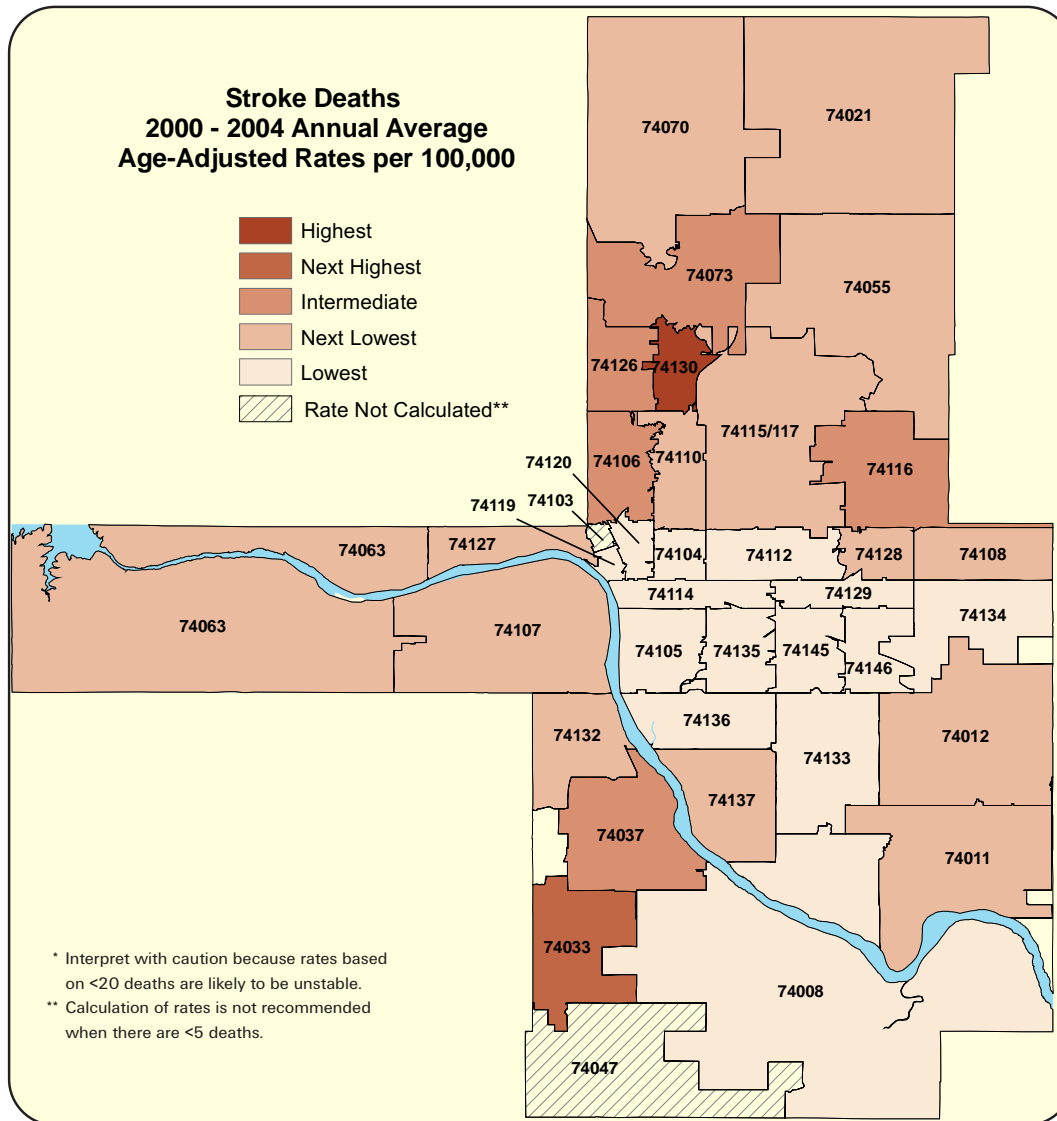
Public Health/Community Interventions:

Educate the public about how lifestyle choices such as exercise and a healthy diet can reduce the risk of developing stroke.

Data Sources:

U.S. Census Bureau: Census 2000; Health Care Information Division (HCI), OSDH; Health People 201; OCDC/NCHS, Division of Vital Statistics

2000 - 2004		
ZIP CODE (ZCTA)	Number of Deaths	Stroke Death Rate
74130*	7	438.6
74033*	19	192.1
74073*	13	130.4
74126	41	107.7
74116*	6	101.1
74037	28	96.2
74106	102	96.1
74011	44	81.6
74127	47	80.2
74021	37	78.1
74055	61	77.6
74012	110	77.4
74110	48	76.7
74137	72	74.7
74132*	9	71.0
74115/117	72	70.0
74070*	9	68.6
74108*	12	67.7
74107	59	66.7
74128	34	61.7
74063	65	60.3
74105	104	55.0
74008	32	54.3
74104	34	53.9
74112	75	53.0
74133	78	52.9
74129	55	52.5
74136	82	51.0
74134*	12	50.1
74119*	12	48.2
74114	64	46.2
74135	91	42.5
74145	42	36.9
74120*	9	35.7
74146*	16	32.2
74047	2	**
74103	1	**



deaths from stroke

deaths from diabetes

deaths from diabetes

Indicator Definition

The death rate from diabetes is the number of deaths from diabetes mellitus per 100,000 population, age adjusted and averaged over the years 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

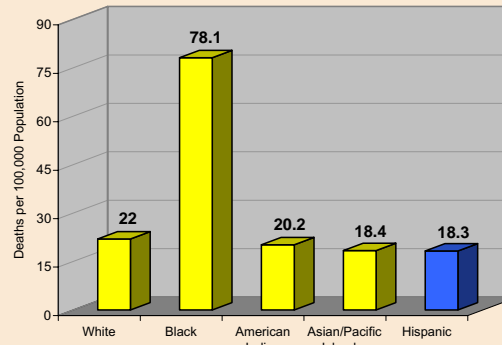
Why Is This Indicator Important?

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 2000-2004. Health problems associated with diabetes, including blindness, amputations, and end-stage renal disease, may be prevented with timely managed care.

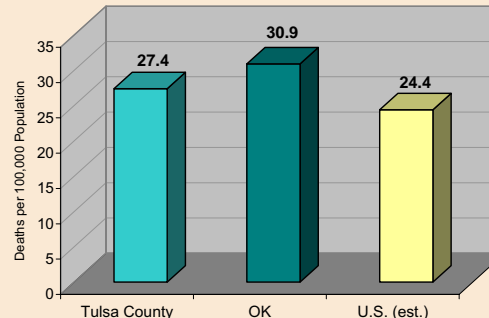
How Are We Doing?

A total of 697 Tulsa County residents died from diabetes during the years 2000-2004, for an average age-adjusted death rate of 25.8 per 100,000. Racial and ethnic minorities are considered high-risk populations. A disparity in diabetes death rates between Blacks (78.1 deaths per 100,000 population) and Whites (22 per 100,000) was seen. The rates for American Indians, Asian/Pacific Islanders, and Hispanics were low, but these rates are based on a relatively small number of deaths and are less reliable.

Diabetes Death Rates by Race/Ethnicity
Tulsa County, 2000 - 2004 Average (Age Adjusted)



Diabetes Death Rates by Region
2004 (Age Adjusted)



Region-specific mortality for 2004 saw the highest rate for Oklahoma (30.9 per 100,000). The rate for Tulsa County was lower at 27.4 per 100,000, but still higher than the U.S. rate of 24.4 per 100,000.

The ZIP codes with the highest age-adjusted diabetes death rates included 74037 (Jenks) and a cluster in northwest Tulsa where a high percentage of the population is Black (74126, 74106, 74110). ZIP codes in northern Tulsa County, east Tulsa, and 74127 in west Tulsa also had rates that exceeded the county average of 25.8. The lowest rates were seen in midtown Tulsa and 74133 in south Tulsa.

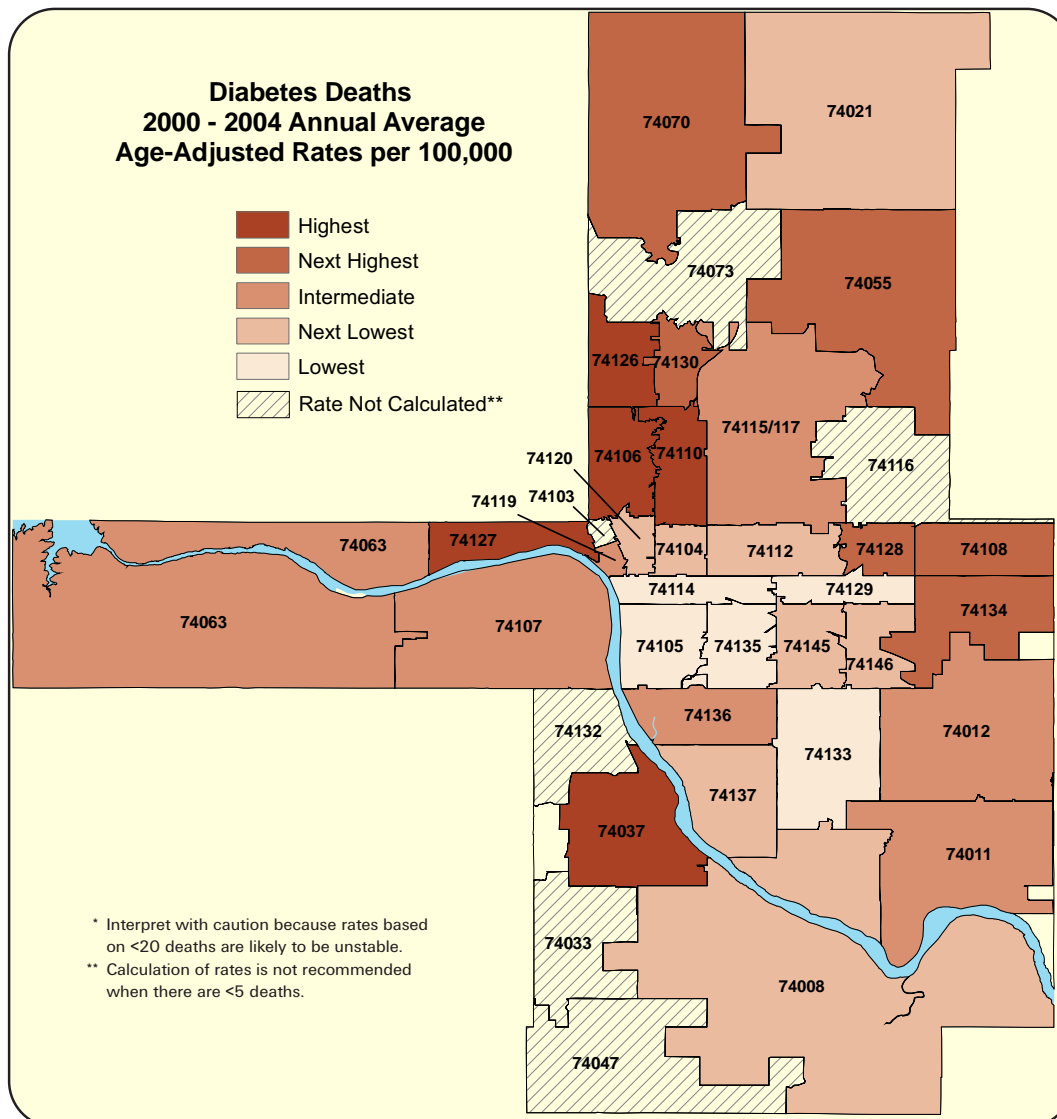
Public Health/Community Interventions:

Emphasize primary prevention through education. Provide screening programs for early diagnosis. Improve access and quality of care for patients with diabetes.

Data Sources:

U.S. Census Bureau: Census 2000; Health Care Information Division (HCI), OSDH; CDC/NCHS, Division of Vital Statistics; Healthy People 2010

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Deaths	Diabetes Death Rate
74106	75	74.2
74126	23	54.4
74127	32	53.5
74037*	19	52.6
74110	32	51.2
74070*	6	46.6
74134*	8	44.2
74130*	6	42.7
74128	21	35.8
74108*	7	35.7
74055	26	34.8
74115/117	36	33.1
74011	23	30.5
74107	27	28.0
74012	43	27.5
74119*	6	25.8
74136	38	25.5
74063	27	25.0
74008*	16	23.6
74146*	11	23.5
74021*	12	23.4
74120*	6	23.3
74112	28	21.7
74145	21	20.2
74104*	10	19.2
74137*	18	18.9
74135	25	17.0
74133	23	14.5
74105	23	13.6
74129*	12	11.8
74114*	14	11.1
74073	4	**
74033	3	**
74103	3	**
74116	3	**
74132	2	**
74047	0	**



deaths from diabetes

deaths from chronic lower respiratory diseases

deaths from chronic lower respiratory diseases

Indicator Definition

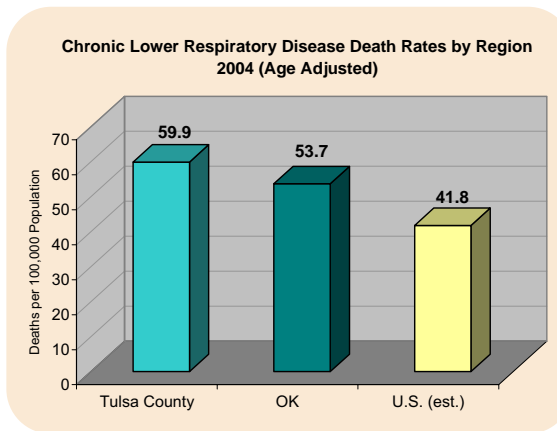
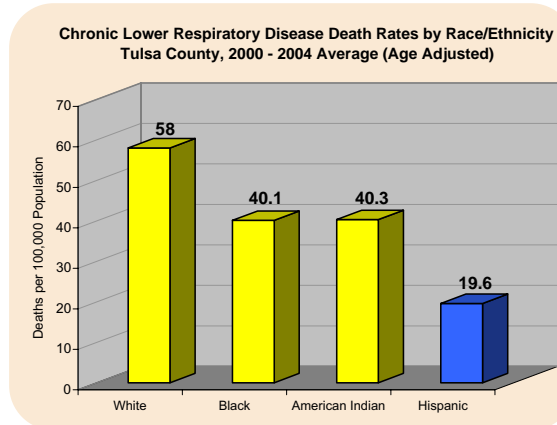
Chronic lower respiratory disease (CLRD) includes chronic bronchitis and emphysema (collectively referred to as chronic obstructive lung disease, or COPD), and asthma. The death rate from CLRD is the number of deaths from CLRD per 100,000 population, age adjusted and averaged over the years 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

Why Is This Indicator Important?

The fourth leading cause of death for Tulsa County residents in 2000-2004 was CLRD, and COPD (primarily chronic bronchitis) accounted for 97 percent of these deaths. Asthma accounted for 3 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 1,499 Tulsa County residents during 2000-2004, for an average age-adjusted death rate of 56 per 100,000 population. Overwhelmingly, these deaths occurred in persons aged 45 and older. Death occurred at 1.4 times the rate among men as among women (69.6 versus 48.7 per 100,000). Whites died more frequently from CLRD than



other races, with the rate of 58 per 100,000 being 1.5 times that of Blacks and American Indians (about 40 per 100,000).

Regionally, in 2004 Tulsa County had a CLRD age-adjusted death rate (59.9 per 100,000) higher than that of the state (53.7 per 100,000). The national rate was much lower than both at an estimated 41.8 deaths per 100,000.

Within Tulsa County, the CLRD death rate was highest in the north and west, and in a cluster of ZIP codes in east Tulsa. The lowest rates were generally found in midtown Tulsa, expanding to the east-southeast.

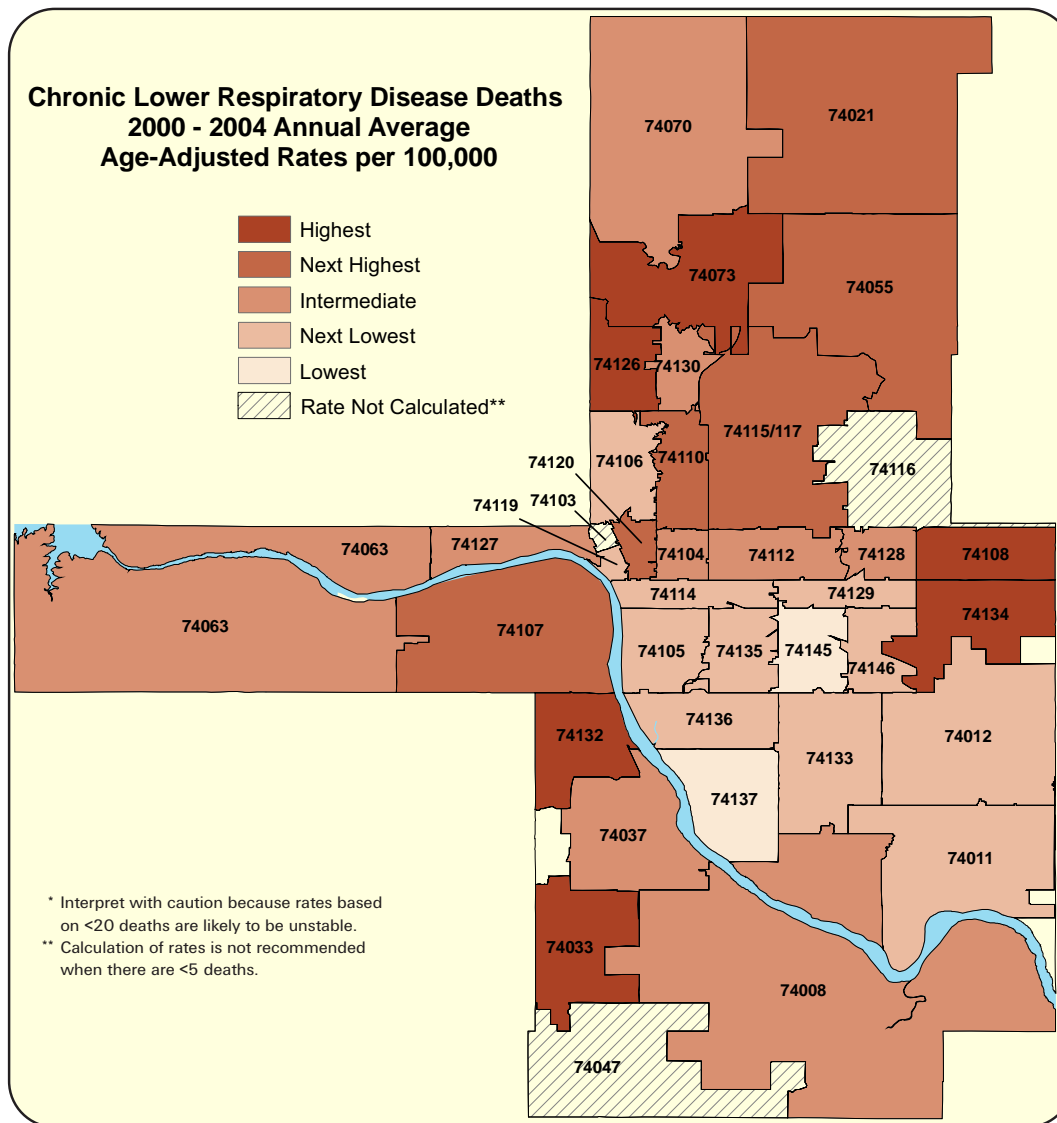
Public Health/Community Interventions:

Provide programs that educate the public on the relationship between smoking and CLRD and other chronic diseases. Provide support and guidance to those who desire to quit smoking.

Data Sources:

U.S. Census Bureau: Census 2000; Health Care Information Division (HCI), OSDH; CDC/NCHS, Division of Vital Statistics

ZIP CODE (ZCTA)	2000 - 2004	
	Number of Deaths	CLRD Death Rate
74033*	15	124.9
74108	20	100.0
74073*	12	96.4
74134*	18	95.8
74132*	12	94.0
74126	38	93.9
74110	51	83.7
74021	37	78.7
74120*	13	78.0
74115/117	82	77.4
74055	58	76.7
74107	72	73.7
74127	42	68.7
74130*	7	64.5
74070*	9	64.4
74112	85	62.9
74063	65	60.3
74008	37	60.1
74104	32	59.8
74128	37	57.8
74037	20	57.7
74012	79	55.6
74011	35	54.6
74133	79	53.3
74119*	12	52.4
74129	54	51.4
74105	94	50.4
74135	94	50.1
74146	20	48.7
74136	72	48.6
74114	57	47.5
74106	44	40.2
74137	27	28.4
74145	30	23.2
74103	4	**
74116	4	**
74047	1	**



deaths from chronic lower respiratory diseases

years of potential life lost years of potential life lost

Indicator Definition

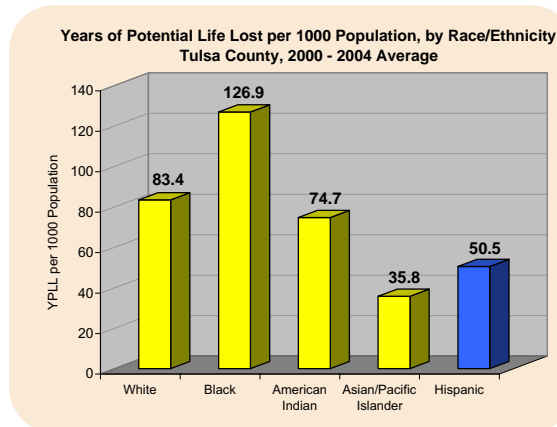
The years of potential life lost (YPLL) is the number of years people would have lived had they not died prematurely. It is calculated as the age at death subtracted from the expected lifespan (here assumed to be 75, the life expectancy for Tulsa County residents in 2000). Each infant death (under 1 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 2000-2004. The ZIP code populations were estimated from the 2000 U.S. Census.

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 the deaths 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 2000-2004 was approximately 234,000 years, for an average rate of 87.5 YPLL per 1,000 population. The rate for males (109 per 1,000) was 1.7 times that for females



**Years of Potential Life Lost (Prior to Age 75), by Cause
Tulsa County, 2004**

Diagnosis	Percentage of all YPLL
Accidents	19.7%
All cancer	17.7%
Heart disease	15.8%
Infant death	10.0%
Suicide	5.0%
Homicide	4.6%
Congenital malformations (non-infant)	4.3%
Chronic lower respiratory diseases	3.2%
Stroke	2.8%
Diabetes	2.6%
Chronic liver disease/cirrhosis	2.0%
All other	12.3%

(65.9 per 1,000). Racial disparity was evident, with Blacks having the highest YPLL rate at 126.9 per 1,000, followed by Whites at 83.4 per 1,000. The Hispanic population had an average YPLL of 50.5 per 1,000.

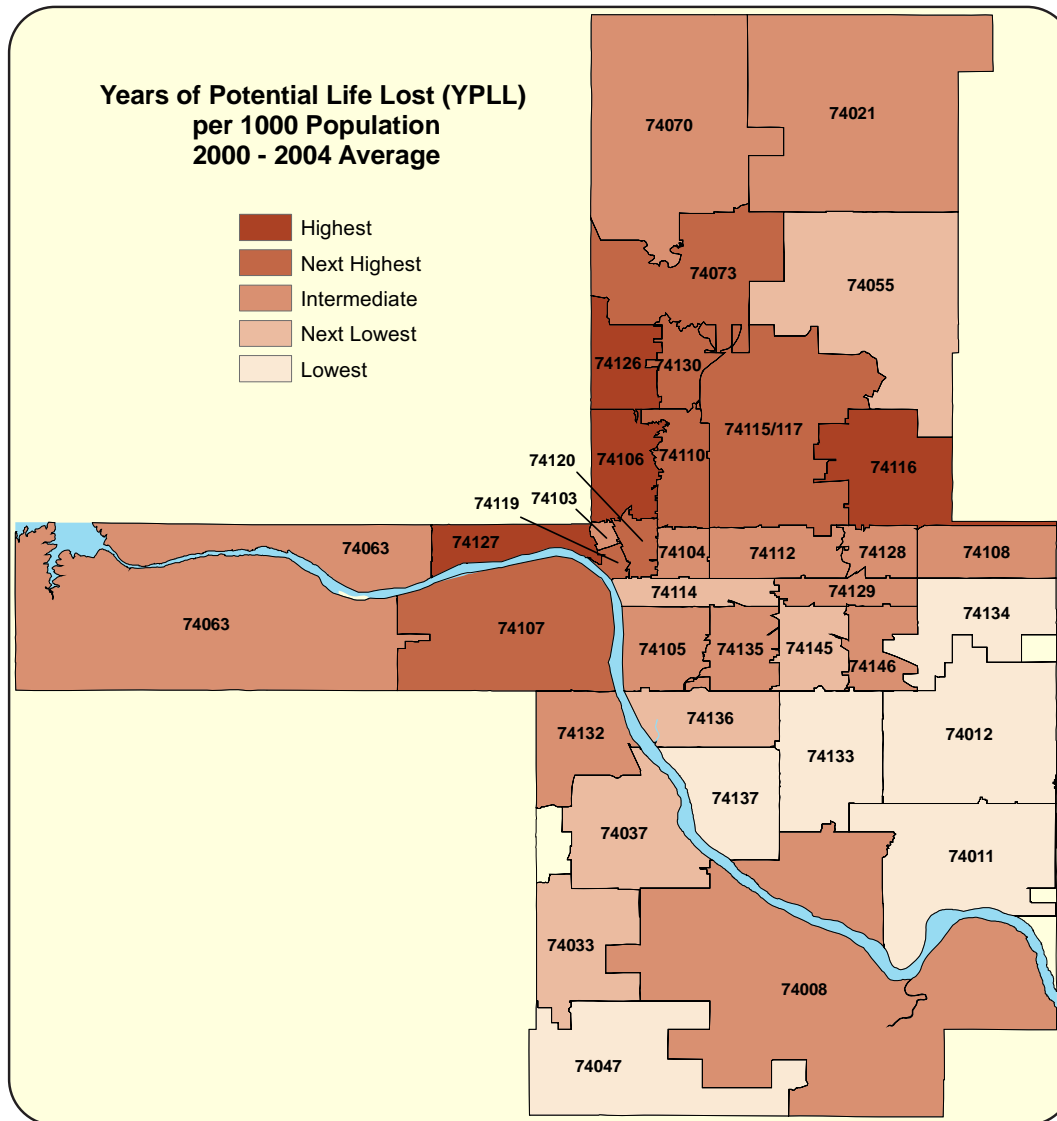
In the year 2004, accidents were responsible for almost 20 percent of the YPLL. Cancer and heart disease accounted for the next highest percentages, and infant deaths represented 10 percent of the YPLL. Suicide and homicide caused more YPLL than stroke, diabetes, and chronic lower respiratory diseases combined.

During 2000-2004, the ZIP codes with the highest YPLL rates were 74127, 74126, and 74106 in northwest Tulsa and 74116 in east Tulsa. The lowest rates were seen in contiguous ZIP codes in east Tulsa County and 74047 in the south.

Data Sources:

U.S. Census Bureau: Census 2000. Health Care Information System (HCI), OSDH

ZIP CODE (ZCTA)	2001 - 2004	
	Total YPLL <75	YPLL Rate/1000
74127	9,856	181.5
74126	9,562	167.3
74106	13,886	165.3
74116	2,030	164.8
74110	10,167	141.1
74119	2,261	134.3
74120	3,326	125.8
74130	1,576	125.7
74073	1,652	114.8
74115/117	12,489	110.6
74107	10,399	108.5
74128	5,813	99.9
74021	4,357	97.0
74104	6,281	94.0
74070	1,333	92.9
74063	10,009	90.3
74129	7,596	88.4
74103	954	87.9
74112	8,518	87.8
74108	2,510	86.2
74146	5,921	84.7
74008	6,176	84.1
74135	7,751	83.1
74105	10,562	81.4
74132	1,728	80.6
74145	6,324	76.4
74114	5,632	73.7
74037	3,084	68.1
74055	6,230	66.7
74033	2,676	65.7
74136	9,836	63.7
74134	3,847	60.1
74012	13,298	58.3
74133	10,069	55.9
74011	5,853	52.5
74047	306	49.2
74137	4,819	44.0



years of potential life lost

health care access

indicators

hospital admissions

hospital admissions

Indicator Definition

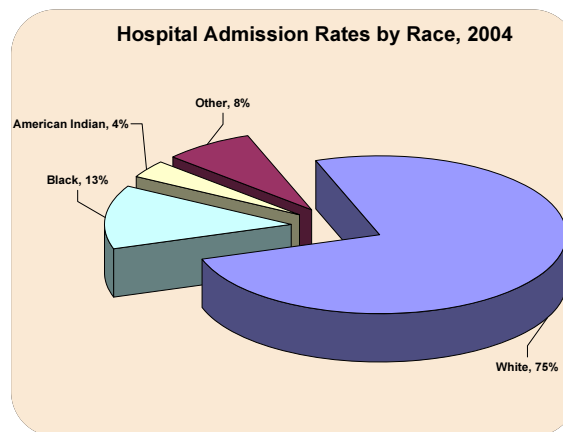
This indicator is an estimate of the use of short-stay hospitals by Tulsa County residents during the year 2004. It is presented as the number of hospital discharges per 1,000 population. The 2000 Census was the source of the ZIP code populations. See Technical Notes for details on how the number of hospital discharges was derived.

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 2004 was approximately 137 per 1,000 population. For the same year, the state's utilization rate was approximately 145.6 per 1,000. Females accounted for the majority of the discharges. Whites comprised 75 percent of the discharges, Blacks 13 percent, and American Indians 3.5 percent; 7.7 percent were classified as "Other."



**Top 10 Principal Discharge Diagnoses
Tulsa County, 2004**

Diagnosis	Percentage of Discharges
Single live birth	11.2%
Symptoms involving respiratory system	3.6%
Other forms of chronic ischemic heart disease	2.8%
Pneumonia, organism unspecified	2.5%
Heart failure	2.5%
Trauma to perineum and vulva during delivery	2.2%
Care involving use of rehabilitation procedures	2.1%
Acute myocardial infarction (heart attack)	1.9%
General symptoms	1.7%
Osteoarthritis and allied disorders	1.6%

Newborns accounted for 11.2 percent of total discharges. Three of the top 10 discharge diagnoses were related to the heart and made up 7.1 percent of the total. Thirty-one percent of patients were aged 65 and older. Since 1970, the national rate of hospitalization for this age group has been increasing (to 362.9 per 1,000 population in 2004), while the rates for those younger than 65 have declined significantly.

Locally, 2004 hospital utilization was highest in north and west Tulsa County and was lowest in midtown and south Tulsa and the southern suburbs.

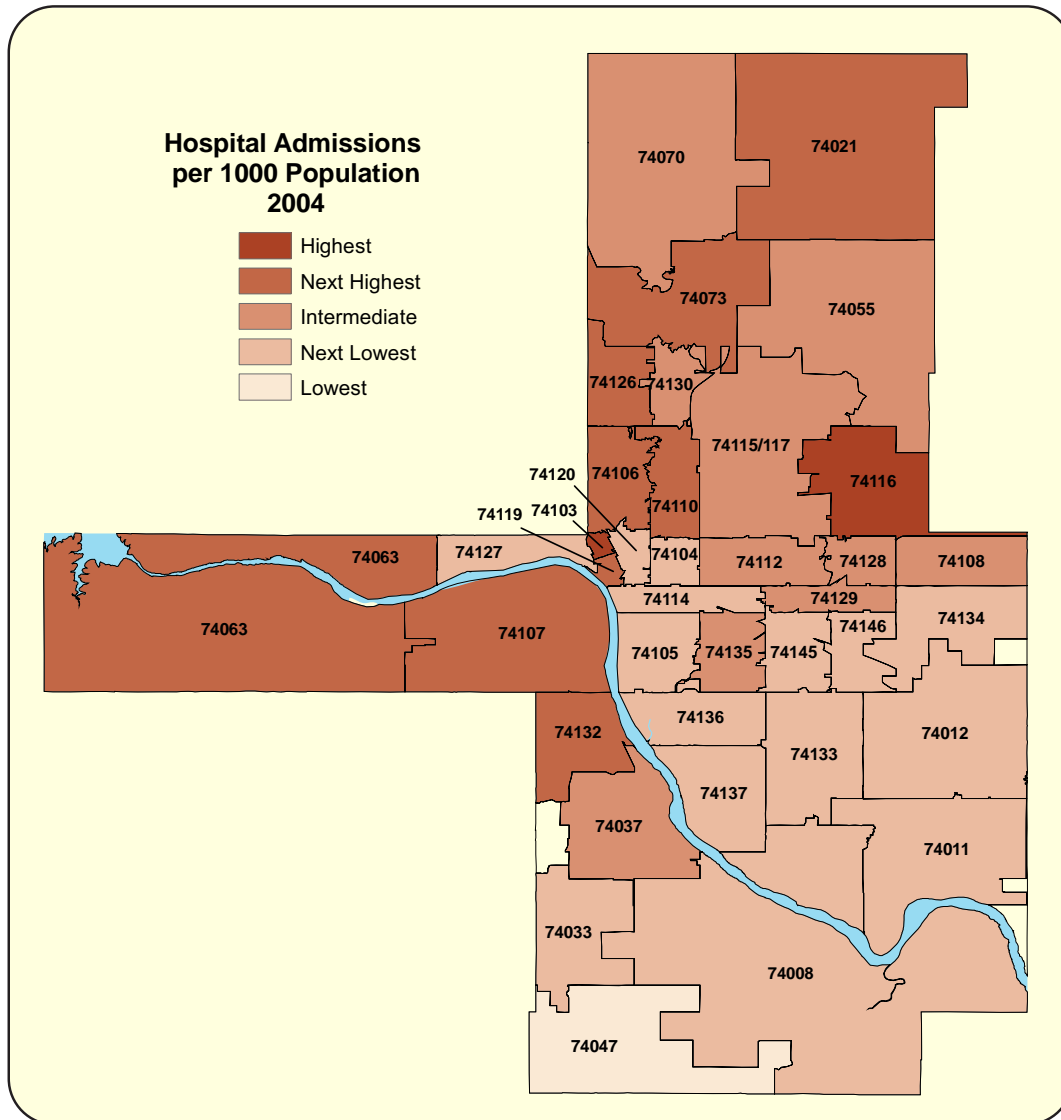
Potential Public Health/Community Interventions

Continue to monitor inpatient utilization rates for trends to ensure future needs of changing populations are met.

Data Sources:

U.S. Census Bureau: Census 2000 and the Population Estimates Program. Health Care Information System (HCI), OSDH. 2004 National Hospital Discharge Survey, CDC.

ZIP CODE (ZCTA)	2004 Number of Discharges	Utilization Rate
74103	623	286.7
74116	656	260.9
74073	562	186.0
74106	3,331	184.0
74021	1,719	180.5
74110	2,677	175.3
74132	745	168.7
74126	1,931	163.1
74063	3,778	161.5
74107	3,265	161.0
74119	609	160.7
74070	480	158.9
74055	3,051	155.5
74135	3,258	152.8
74108	915	151.5
74115/117	3,598	151.1
74037	1,416	150.2
74112	3,034	143.0
74128	1,772	142.6
74129	2,588	139.6
74130	352	134.1
74120	698	127.0
74008	1,910	124.5
74033	1,040	124.2
74105	3,525	123.9
74145	2,209	122.6
74104	1,684	119.9
74127	1,386	119.7
74146	1,699	118.2
74133	4,302	113.9
74114	1,842	108.9
74136	3,540	108.2
74134	1,342	103.2
74012	4,854	102.7
74011	2,143	93.0
74137	2,084	90.8
74047	37	28.9



hospital admissions

emergency room visits

emergency room visits

Indicator Definition

This indicator is the number of emergency room (ER) visits to six acute-care hospitals by Tulsa County residents, per 1,000 population, during the year 2005. The 2000 Census was the source of the ZIP code populations. See Technical Notes for details on how the number of emergency room visits was derived.

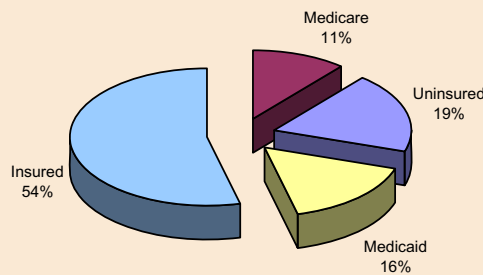
Why Is This Indicator Important?

Lack of access to adequate and timely outpatient preventive 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. In reference relation to the bar chart on this page 'urgent' is defined as patients situations that are not emergencies but should seek medical attention within 48 hours while 'non-urgent' patients should have scheduled a regular medical office visit.

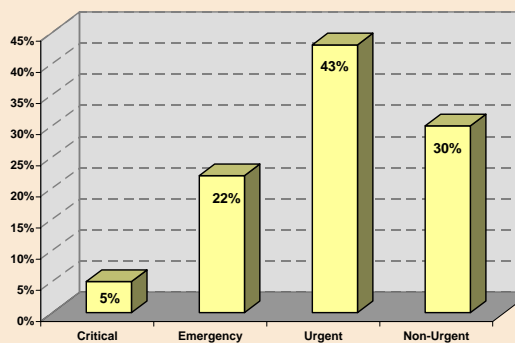
How Are We Doing?

In 2005, over 22,800 visits were made to the six ERs, for an approximate overall rate of 398 per 1,000 population. This is an overestimate for county residents because the ZIP code was unknown for 10 percent of visits. The 2004 rates were 385 and 383 per 1,000 for Oklahoma and the United States, respectively.

Sources of Health Insurance, Tulsa County Residents 2005



Inappropriate Tulsa Hospital Emergency Room Visits, 2004



Nationally, the number of ER visits increased by 18 percent from 1994 to 2004. Leading patient complaints in 2004 were abdominal pain, chest pain, fever, and back symptoms.

A recent pilot study on ER utilization at Hillcrest Medical Center found that 50 percent of the sample cases were non-emergency, and 89 percent could have been handled at a non-ER facility. Most of these patients were low-income families, and adult females and children used the ER more frequently than adult males.

Geographically, ER use in 2005 was highest in north and west Tulsa, and lower rates were seen in the northern and southern suburbs of the county.

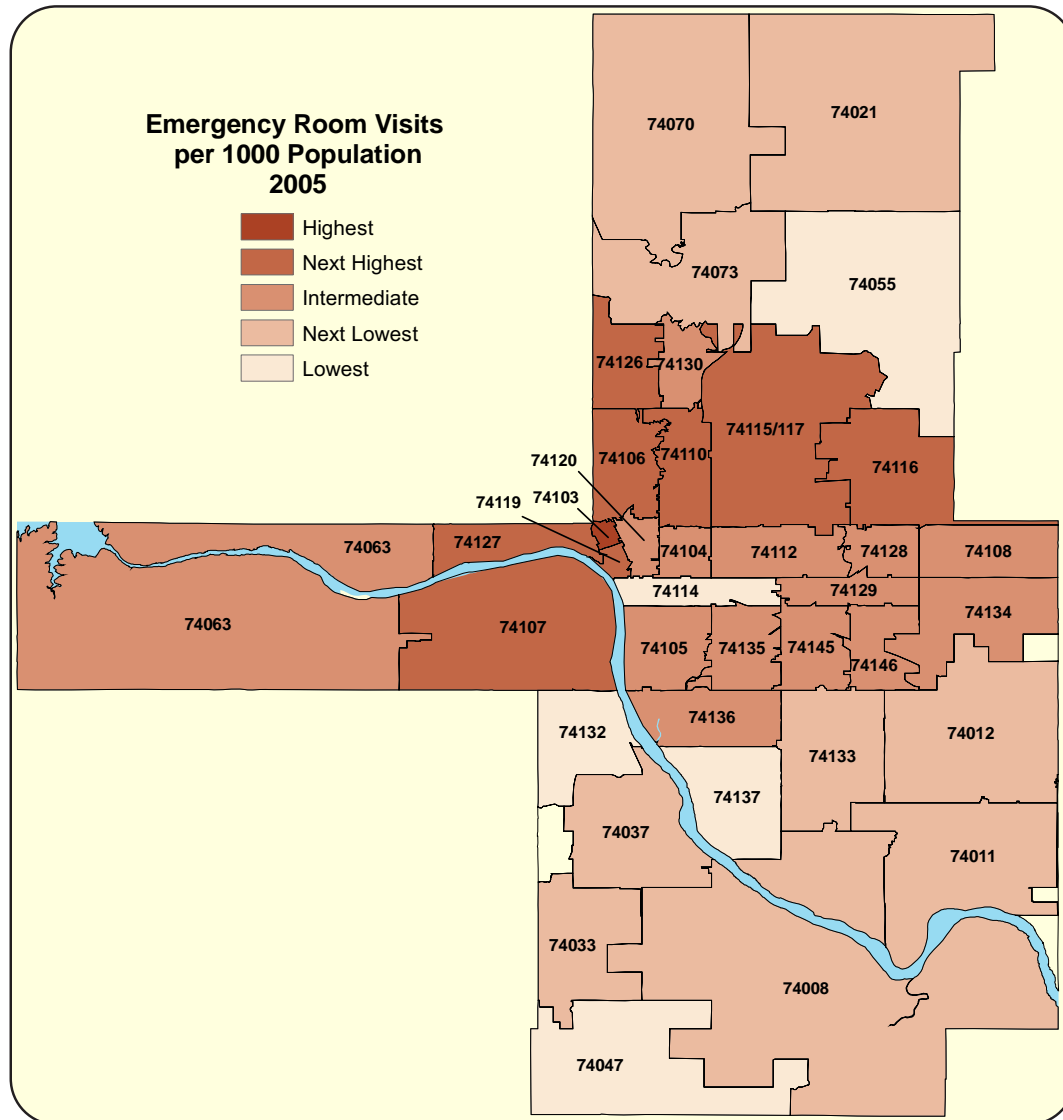
Potential Public Health/Community Interventions

Expand on studies of needs assessments of the target populations. Increase access to health care outside of the ER setting.

Data Sources:

U.S. Census Bureau: Census 2000 and the Population Estimates Program. TASSS. THD. Kaiser Family Foundation. statehealthfacts.org. 2004 Emergency Department Summary; CDC. Ehrlich et al. 2004. Pilot study of ER utilization at Tulsa hospitals.

ZIP CODE (ZCTA)	2005 Number of ER Visits	ER Visit Rate
74103	2,866	1318.9
74106	11,546	637.7
74110	9,423	617.2
74126	7,219	609.9
74116	1,334	530.8
74127	6,007	518.7
74115/117	12,229	513.7
74107	10,332	509.4
74119	1,896	500.3
74120	2,229	405.6
74130	1,048	399.4
74108	2,281	377.7
74129	6,760	364.6
74146	5,146	357.9
74135	7,601	356.5
74128	4,409	354.7
74112	7,448	351.0
74104	4,743	337.6
74105	9,401	330.4
74063	7,550	322.7
74136	10,306	315.1
74145	5,666	314.4
74134	4,000	307.7
74008	4,374	285.1
74012	13,280	281.1
74073	820	271.7
74070	819	270.9
74011	5,852	254.1
74037	2,378	252.2
74133	9,375	248.2
74033	2,077	248.1
74021	2,295	241.0
74047	300	234.5
74132	1,031	233.5
74055	4,208	214.6
74114	3,558	210.4
74137	3,964	172.6



emergency room visits

avoidable hospitalizations

avoidable hospitalizations

Indicator Definition

Potentially avoidable hospitalizations are those that may not have occurred had certain medical conditions, such as pneumonia and congestive heart failure (CHF), been prevented or controlled through appropriate outpatient treatment. This indicator is presented as the number of avoidable hospitalizations in 2004 per 100,000 population. The ZIP code populations were taken from the 2000 U.S. Census. See Technical Notes for details on how the number of avoidable hospitalizations was derived.

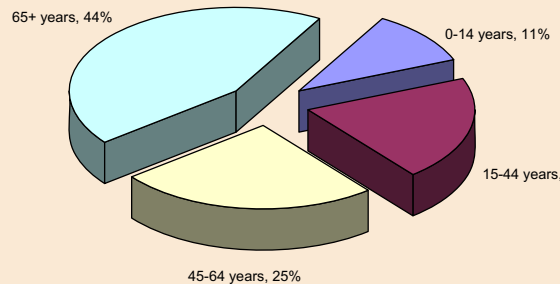
Why Is This Indicator Important?

Avoidable hospitalizations generate substantial direct and indirect economic costs, and may be an indicator of inadequate primary care or insufficient outpatient management and follow-up.

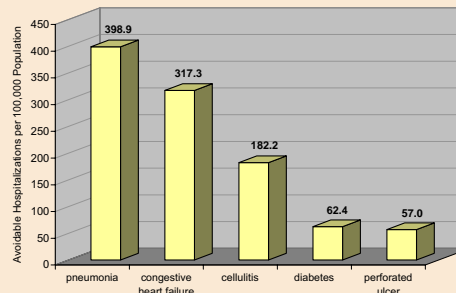
How Are We Doing?

Tulsa County residents were admitted to the hospital for potentially avoidable conditions at an overall rate of 1,072 per 100,000 population in 2004. These admits accounted for about 8.5 percent of all hospital admissions. The average charge per stay was approximately \$13,500.00. Seniors 65 and over comprised 44 percent of the admissions.

**Avoidable Hospitalization Rates by Age Group
Tulsa County, 2004**



**Potentially Avoidable Hospitalizations by Condition
per 100,000 Population
Tulsa County, 2004**



According to a 2001 CDC report, hospitalization rates had increased over the last two decades for pneumonia, CHF, and cellulitis, the top three avoidable conditions for Tulsa County in 2004. The admission rate for pneumonia was highest at 398.9 admits per 100,000 population, followed by CHF and cellulitis at 317.3 and 182.2 admits per 100,000, respectively. Together with diabetes and perforated ulcer, these illnesses accounted for almost 90 percent of all avoidable hospitalizations.

Geographically, residents with the highest avoidable hospitalization rates were concentrated in contiguous ZIP codes in northwest and west Tulsa and ZIP code 74116 in east Tulsa. In general, higher rates were seen in areas having lower income populations. Lower avoidable hospitalization rates occurred primarily in south Tulsa County.

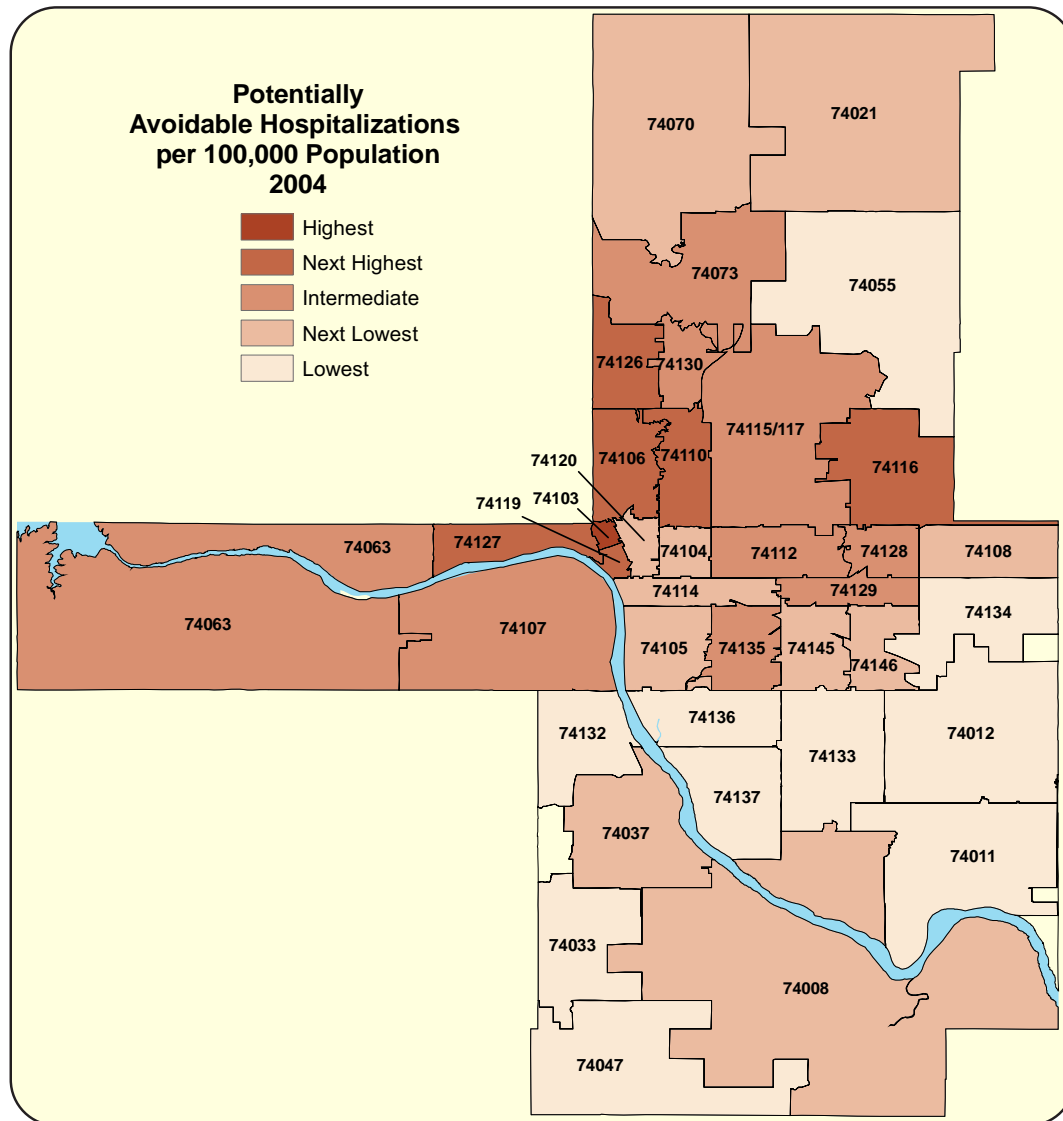
Potential Public Health/Community Interventions

Promote primary care interventions, especially among vulnerable populations.

Data Sources:

U.S. Census Bureau: Census 2000 and the Population Estimates Program. Health Care Information System (HCI), OSDH. CDC: National Health Care Survey, 2001

ZIP CODE (ZCTA)	2004	
	Number of Avoid. Hosp.	Avoidable Rate
74103	79	3635.5
74116	59	2346.9
74106	381	2104.3
74073	56	1854.3
74126	204	1720.0
74110	261	1709.6
74119	58	1530.3
74135	307	1440.0
74112	300	1413.6
74107	285	1405.0
74063	326	1394.7
74115/117	329	1382.1
74108	83	1377.1
74021	129	1353.7
74070	41	1344.3
74132	58	1324.7
74129	237	1278.2
74130	33	1257.6
74127	145	1255.7
74128	153	1230.9
74120	62	1128.1
74055	214	1089.8
74105	304	1068.4
74104	149	1060.5
74008	155	1011.9
74037	91	965.2
74146	135	938.8
74114	158	934.2
74145	167	926.7
74033	70	836.0
74136	263	804.0
74133	270	714.7
74137	158	688.2
74012	323	683.6
74134	83	638.6
74011	140	607.9
74047	3	*



avoidable hospitalizations

physicians physicians

Indicator Definition

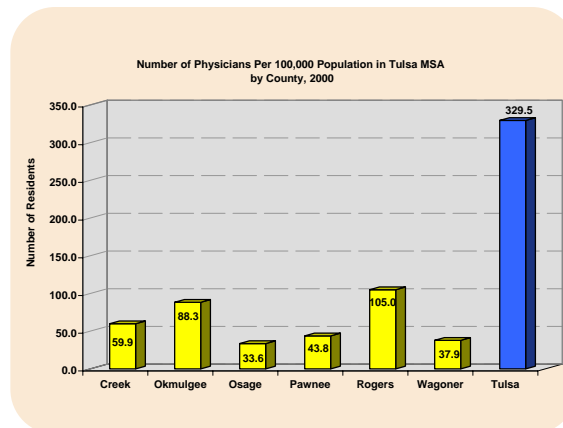
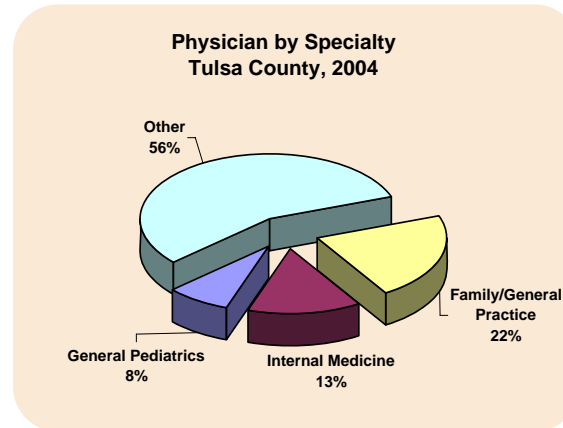
A primary care physician is a physician who serves as the entry point for most all of a patient's initial medical and health care needs, and provides continuing care to that patient. For this indicator, primary care physicians include general practitioners, family practitioners, internists, pediatricians, and obstetricians/gynecologists.

Why Is This Indicator Important?

Lack of or delayed access to primary care physicians can lead to poor health outcomes in general because of inadequate preventive care and delayed treatment. Lack of convenient access to a physician or clinic can result in the use of hospital emergency rooms as a source of primary care.

How Are We Doing?

Address mapping of over 700 licensed primary care physicians in Tulsa County shows that most are located in the central part of the county. As expected,



most of the primary care physicians can be found near the county's major acute-care hospitals. Most of the physicians are in private practice in the complex of office buildings near St. Francis Hospital in south Tulsa (ZIP code 74136), and near Hillcrest Medical Center and St. John Medical Center in midtown Tulsa (ZIP code 74104).

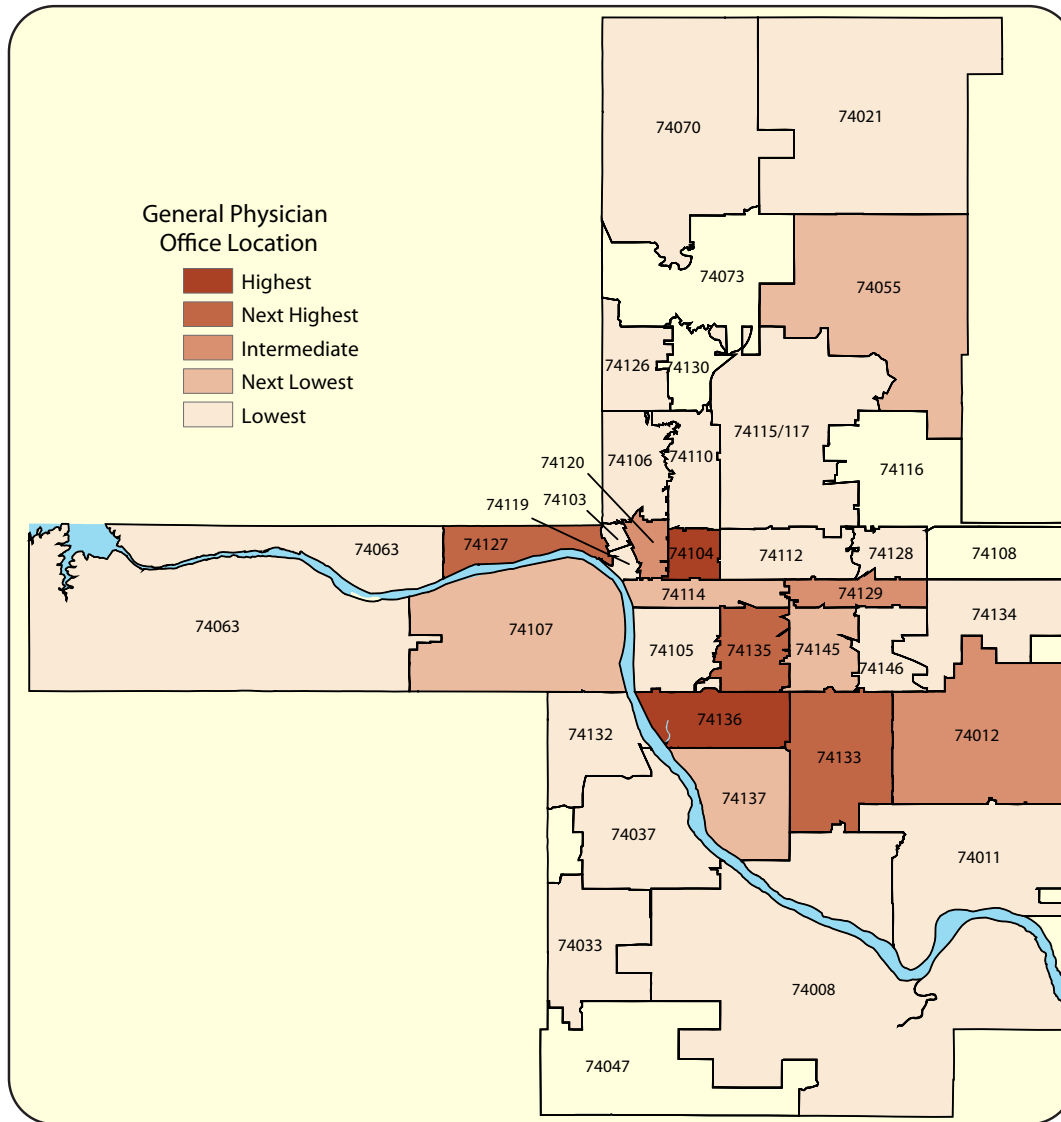
Public Health/Community Interventions

Lack of insurance prevents many indigent Tulsa area residents from seeking physician services. Many rely instead on minor emergency centers and hospital emergency departments for medical care, overloading these facilities with non-emergency patients. Access to transportation for medical appointments frequently is also a challenge for low income residents.

Data Sources:

OUHSC, OK Board of Medical Licensure, OK Osteopathic Association, US Census Bureau

Zip Code (ZCTA)	Number of Physician Offices, 2000
74136	123
74104	101
74135	70
74133	64
74127	53
74012	42
74120	40
74129	35
74055	27
74145	22
74114	21
74137	19
74107	16
74106	13
74105	12
74063	11
74008	9
74037	9
74112	8
74070	7
74021	5
74119	5
74128	5
74115/117	3
74103	2
74011	1
74033	1
74110	1
74126	1
74132	1
74134	1
74146	1
74047	0
74073	0
74108	0
74116	0
74130	0



physicians

tulsa health department
services

tulsa health department services tulsa health department services

Effective public health systems have been a vital necessity as the world has grown and developed. Effective public health services include monitoring the health and well-being of citizens, identifying problems in the environment and among community members, and establishing public health practices to address community problems such as health care accessibility and disease prevention.

Today, the Tulsa Health Department continues to strive for organizational excellence by providing public health services to every person in Tulsa County. The Tulsa Health Department believes that a healthy community begins with people making healthy choices. Our vision is a community free from hazards, diseases, injuries, and barriers to vital health services that impede any of our citizens from reaching their full potential.

The Tulsa Health Department achieves its mission through four major service groups: Personal Health, Community Health, Emergency Preparedness and Administrative and Supporting Services.

PERSONAL HEALTH SERVICES

THD is committed to working within the community to improve the health of every resident. Many essential health care services, from disease screening to immunizations, are available at THD health centers located throughout Tulsa County. Special emphasis is placed on prevention and early detection, while promoting healthy lifestyle choices.

Child Health

Healthy choices you make for your infant or child can affect his or her well-being for a lifetime. THD is here to help with essential health care services and guidance for infants and children in Tulsa County who are uninsured or have minimal benefits. Caring health care pro-

fessionals provide physical examinations, treatment for common childhood illnesses, immunizations, dental care, counseling, health education, and evaluation of growth, development, nutrition, vision, hearing and emotional health. THD also provides referrals to other THD programs and community resources.

Adult Health

THD encourages you to take an active role in your personal health and well-being; if not for yourself, then for those who love you. Make smart, healthy choices like not smoking, always wearing your seatbelt and washing your hands often. Programs and services for adults can also help, by keeping you informed, identifying health problems early on, and empowering you to lead a healthy lifestyle. Adult Health services include cancer and chronic disease screening, smoking cessation and adult immunizations.

Maternal Health

THD is dedicated to providing education, services, and referrals for additional assistance to help pregnant women and mothers lead healthy lives. Early prenatal care is always encouraged. By promoting the health of mothers, THD impacts the health of their infants and children as well.

Immunizations

By helping prevent or lessen the severity of certain diseases, immunizations are key to promoting a healthier community. They cost less than disease treatment, are recommended by doctors, and are often required prior to attending school or child care. THD provides age-appropriate immunizations according to recommended guidelines for children and adults, including overseas immunizations and flu vaccinations.

Children First

Children First is a family-centered program that utilizes home visits by registered nurses (RNs) to help first-time mothers and their families

prepare for parenthood. Mothers receive information on promoting a healthy, safe lifestyle for their family while gaining a greater understanding of the types of help and resources available to them in the community.



Family Planning

THD offers comprehensive family planning services including physical examinations, laboratory services, pregnancy testing, contraceptives, vasectomies, counseling, and referrals for other THD and community services. THD staff and health care providers speak English and Spanish, and are here to listen as well as counsel.

Community Dentistry Clinic

THD provides preventative dental care and treatment of dental-related conditions for Tulsa County children who are uninsured or have minimal benefits. Services include dental examinations and cleanings, fluoride treatments, and the use of sealants, as well as fillings, crowns, endodontics and, when necessary, extractions.

Communicable Disease Control

Communicable Disease Control (CDC) focuses on the prevention aspect of infectious diseases. CDC offers services in the areas of sexually transmitted diseases (STD's), immunizations, and tuberculosis (TB). The THD's Sexually Transmitted Disease Clinic provides diagnostic testing for STDs, treatment for STDs, and education and counseling of sexual behavior and disease processes. Human immunodeficiency virus, or HIV, progressively destroys the body's ability to fight infections and certain cancers. HIV causes AIDS - Acquired Immune Deficiency Syndrome.

Testing for HIV is offered through the CDC clinic. The THD's community-wide Tuberculosis Control Program utilizes education, primary prevention, testing and TB treatment to help stop the spread of TB.

Vital Records

THD's Vital Records program provides certified copies of Oklahoma birth and death records for individuals.

COMMUNITY HEALTH SERVICES

THD's far-reaching community health programs focus on prevention and education to promote healthy lifestyle choices. Community health programs also seek to remove the barriers to care for the uninsured and underserved who are vulnerable in our community. Whether directly touched by a THD community health program or not, all in Tulsa County benefit, because a safer, healthier community means a brighter future for all.

Child Guidance

Child Guidance is a statewide pro-

gram that promotes and supports healthy family relationships and child development. It provides prevention, education, screenings, diagnostics and short term treatment to children and families, in addition to classes and workshops for parents and professionals. Child Guidance's caring staff of masters and doctoral degree-level professionals include: an audiologist, child development specialists, speech/language pathologists and behavioral health specialists.



Tulsa Healthy Start

Tulsa Healthy Start works to help reduce Tulsa's infant mortality rate by providing healthy messages and support for the

entire family. The federally funded program also seeks to ensure continuity of care for women and children. Tulsa Healthy Start outreach workers, case managers and health educators work closely with clients while providing the needed services.

Health Education/School Health Program

On-going education that introduces and reinforces healthy attitudes and behaviors strengthens all efforts at THD. The Health Education Program/School Health Program works with the media to spread the word about smart choices, and keeps our community informed about current health issues. In addition, it directly reaches our youth through exciting and informative presentations in public schools and area juvenile agencies. The THD Health Education Program also coordinates the THD's drama, essay and poster contests and the "It's All About Kids" program. By encouraging young people to participate, we influence those who, in turn, will influence our community's healthy future.

Outreach

A home and community-based outreach program of Tulsa Health Department, the REACH staff find and help families in need of family planning, prenatal care or health services for children. A bilingual/Spanish speaking worker is also available. Through educational home visits, REACH workers provide a variety of health promotion messages. These include family planning services such as spacing births and early entry into prenatal care. Other services such as preventive well-child check-ups which include current immunizations for children are also offered.

Social Work

Public health social work services are available upon referral from staff or self-referral for clients receiving clinic services at THD. A professional social worker with a master's degree is on staff at THD to help assess needs, facilitate referrals, and provide case management for THD clients.

Tulsa Fetal and Infant Mortality Review Program (TFIMR)

The TFIMR program studies fetal and infant deaths in the community in order to identify trends and implement preventive measures to reduce the infant mortality rate. A TFIMR Case Review



Team examines local cases of fetal or infant death by reviewing information collected from physician and hospital records, parent interviews, relevant documents, etc. The team also identifies barriers to care and trends in service delivery, and suggests ideas to improve policies and systems that affect families. A TFIMR Community Action Team then puts these recommendations into action appropriate for our community

and participates in implementing interventions designed to address the identified problems. The TFIMR program is a collaborative effort of the Tulsa Health Department, the Oklahoma State Department of Health, the Tulsa Healthy Start Initiative, and the Family Health Coalition.

Healthy Community Access Program

The Healthy Community Access Program (HCAP) is a collaborative effort to improve the coordination of medical and dental care for the uninsured and underinsured in the Tulsa community. Central to HCAP's mission is CareLink, a series of technology infrastructure systems that channel the flow of care in a continuum from prevention to tertiary care. CareLink includes: NurseLink, ShareLink, and HealthLink. HCAP also conducts community health needs assessments and other studies to determine health patterns and identify barriers to health care for people in our community. HCAP studies include the most recent Community

Health Needs Assessment and the Emergency Room Utilization Study in partnership with the OU College of Public Health. HCAP is a collaborative effort of THD and Community HealthNet, Inc.

WIC

WIC is a supplemental nutrition program that serves to safeguard the health of income-eligible women, infants and children up to age five who are at nutritional risk. The program provides food vouchers for nutritious foods to supplement diets, information on healthy eating, and referrals for health care. More than 7.5 million people nationwide benefit from WIC each month.

MATCH

The MATCH Project is a program that works in conjunction with the Oklahoma State Department of Health to implement a comprehensive tobacco use reduction and cessation program. The MATCH Project aims to prevent the start of tobacco use among our youth, protect children, workers, and the public

from second-hand smoke, promote quitting among youth and adults, and eliminate the disparities of tobacco use among population groups. The MATCH Project sponsors a tobacco cessation quit line, 1-800-PITCH-EM and is a key player in the Breath Easy Campaign.



EMERGENCY PREPAREDNESS

Being prepared in the event of a terrorist attack, natural disaster, or other large-scale emergency or public health threat is a necessary part of today's world. On a national level, agencies such as the U.S. Department of Homeland Security, the Federal Emergency Management Agency and the Centers for Disease

Control and Prevention vigilantly work to protect and secure America. Here in Tulsa, local organizations including THD, Tulsa-area hospitals, EMSA, Tulsa Police Department, Tulsa Fire Department, the Tulsa Mayor's Action Center, Tulsa Area Chapter of the American Red Cross, Tulsa Area Emergency Management Agency and more have come together to create a community disaster preparedness and response plan. THD has developed special emergency plans to address infectious disease outbreaks, natural occurring emergencies or a bioterrorism event that could potentially affect the citizens of Tulsa County.

Planning & Epidemiology

Planning and Epidemiology is provided in two components. The first area, Planning, concentrates on overseeing the development of and updating THD's emergency operations plan and its annexes. This plan is a comprehensive guide on THD's response to emergencies. Additional planning functions

include assistance with exercise and training as well providing support to other program areas. The other functional area within P&E is Epidemiology. Epidemiology is the study of how diseases and conditions are distributed in a population. The basic tenets of epidemiology involve determining where, when, why and how things occurred. Their efforts also provide the foundation for developing public policy and regulations regarding disease prevention.

Incident Response Team

The Tulsa City-County Health Department is committed to working with other first responders in the Tulsa area to enhance our response to a bioterrorism (WMD) event. THD will provide a team that is trained to respond to biological, chemical, and other WMD incidents 24/7. The response team will provide sample collection kits, analyze data, and provide technical support to requesting agencies. The response team will also maintain sampling and detection equipment, PPE, and decontam-

ination equipment. Particular emphasis will be placed on the identification of suspected biological agents. The THD response team will coordinate with other emergency response agencies, and the team's operation will be fully integrated with other first responders under the Incident Command System.



Volunteer Program

During a large-scale community disaster THD will coordinate with other agencies to maximize community recovery efforts. Public health relies on a variety of professional experience to establish a prepared local community, enhance services and enrich the quality of life in Tulsa County. Equipped and trained

volunteers are critical in establishing a prepared local response. THD welcomes and appreciates volunteer support at all times. In order to ensure a clear plan of action for the utilization and mobilization of emergency volunteers, THD partners with the Oklahoma Medical Reserve Corps (MRC) to organize and prepare volunteers to assist in local emergency operations. MRC volunteers will be able to use their skills and abilities in many public health initiatives including: immunization, vaccination, education and local level emergency planning and preparedness.

Information Technology Services

THD's Information Technology Services is responsible for all computers, networking, and technology issues within the Tulsa Health Department.

CONSUMER AND ENVIRONMENTAL HEALTH SERVICES

Consumer Protection

The Consumer Protection division

mission is to protect public health, to prevent the transmission of disease, and to meet the public expectations for a cleaner, safer environment through the use of effective education and all available community resources. This is accomplished through education, technical assistance, and inspections of food service establishments, swimming pools, lodging facilities, barber-shops, and body piercing facilities. Food safety and swimming pool operation classes are provided to assist in providing a safe environment.

Environmental Health

Health and well-being are influenced by many environmental factors, including the intentional and unintentional exposure to environmental agents. THD Environmental Health Services works to enforce state laws and city and county regulations to decrease negative environmental factors and health nuisances. Areas addressed include sanitation, housing code compliance and the air quality concerns about commercial enterprises. This department also

provides rodent and mosquito control, as well as a dead bird surveillance program for the purpose of monitoring for West Nile Virus activity. Environmental laboratory services are also available for water testing, lead-based paint testing and more.



ADMINISTRATIVE AND SUPPORTING SERVICES

The Administrative and Supporting Services within the Tulsa Health Department include but are not limited to programs needed for the health department to function on a daily basis.

Director's Office

THD's Director's Office is responsible for the oversight of the day to day activities of THD's health services and activities to improve the health of Tulsa County residents.

Human Resources

THD's Human Resources is responsible for workforce and leadership development. In addition, all personnel records are housed here. Human Resources is also responsible for new hires with THD.

Accounting/Finance

THD's Accounting/Finance department is responsible for purchasing, accounts payable, grant & contract reimbursement (receivables), financial reporting, submission of payroll claims, and preparation of the department's consolidated budget. This department also works closely with independent auditors during annual Department audit.

Maintenance and Operations (M&O)

M&O is responsible for facility

management, maintenance, building operations, office services, shipping/receiving, grounds and housekeeping.

Marketing and Creative Services

THD's Marketing and Creative Services program is responsible for graphics, creative development, and print shop operations for all programs within the health department.

COMMUNITY HEALTH FOUNDATION

The Community Health Foundation (CHF) is a non-profit organization that serves as an advocate of healthy lifestyle choices in our community. CHF works to raise public awareness of current health issues through partnerships, planning, fund development, and other programs. By helping individuals and organizations to work together, CHF helps maximize available resources and avoid duplication of services. The efficient collaborations that result further the mission of THD and improve the physical and mental well-being of the citizens of

Tulsa County. CHF partnerships focus on positive exercise and nutrition programs that promote healthy lifestyle choices - choices that can prevent or reduce heart disease, stroke and arteriosclerosis. The CHF also coordinates the annual Tour de Tulsa cycling event each spring.



TURNING POINT

Turning Point is a community-based partnership that brings together our citizens, businesses and health care professionals to make Tulsa a healthier community. Understanding that improving public health is a responsibility we all share, Turning Point promotes new

perceptions and attitudes that encourage prevention and early intervention, greater access to health services for our families, comprehensive health education for our children, and community efforts to improve our senior citizens' health.

For additional information regarding the Tulsa Health Department or to learn more about the services offered visit our website at www.tulsa-health.org or call (918) 582-9355.

overall zipcode
ratings

Indicators		Socioeconomic						Health Care Access			Maternal & Child Health								
Risk/Outcome Measures		Mdn HH Inc	Pop Below Pov	Female Head of HH	Educational Attainment	Unemp. Rate	Pop on Medicaid	Hospital Admissions	ER Visits	Avoidable Hospital Admits	Births to Teens < or = 17	Births to Teens < or = 19	Premature Births	Low Birth Rate	Births to Unmarried Women	Late or No Prenatal Care	Maternal Education	Tobacco Use During Pregnancy	Infant Mortality
Page Number		32	34	36	38	40	42	114	116	118	46	48	50	52	54	56	58	60	62
ZCT A	Avg Rating																		
74137	1.36	1	1	2	1	1	1	2	1	1	1	1	2	2	1	1	1	1	2
74114	1.56	2	1	2	1	1	1	2	1	2	1	1	2	2	1	1	1	2	4
74133	1.62	2	1	2	1	1	2	2	2	1	1	1	3	3	2	1	1	1	2
74011	1.65	2	1	2	1	1	2	2	2	1	1	1	1	1	2	1	1	2	1
74012	1.76	2	1	2	2	2	2	2	2	1	1	1	3	2	1	1	1	2	2
74047	1.92	2	1	3	3	1	2	1	1	**	**	**	**	**	**	**	**	**	1
74008	1.94	2	1	2	2	2	2	2	2	2	1	1	1	2	1	1	1	2	3
74037	1.97	2	1	3	2	1	2	3	2	2	1	1	1	1	1	1	1	1	2
74055	2.03	2	1	2	2	1	2	3	1	2	2	2	1	2	2	1	2	2	2
74105	2.08	3	2	2	1	2	2	2	3	2	1	2	2	2	3	3	3	3	2
74136	2.08	3	2	2	2	3	3	2	3	1	2	3	3	3	3	3	3	3	2
74145	2.11	3	1	2	1	2	3	2	3	2	2	3	3	3	3	3	3	3	3
74135	2.26	3	1	2	2	2	2	3	3	3	2	3	2	2	3	3	3	2	3
74021	2.35	3	1	2	3	2	3	4	2	3	1	2	2	2	1	1	1	3	3
74134	2.47	3	2	2	2	1	3	2	3	1	2	3	2	3	3	3	4	3	**
74119	2.52	4	2	1	2	2	2	4	4	3	**	1	1	1	3	2	2	4	1
74112	2.57	3	2	2	3	2	3	3	3	3	3	3	3	2	3	3	4	3	3
74033	2.64	3	1	2	2	2	1	2	2	1	2	2	3	3	2	2	2	2	**
74129	2.68	3	2	3	3	3	4	3	3	3	3	4	4	3	3	4	4	3	4
74146	2.70	4	2	3	4	3	4	2	3	2	3	4	3	3	4	4	5	3	4
74104	2.73	4	3	2	4	4	3	2	3	2	3	3	2	2	3	3	4	3	4
74063	2.75	3	1	2	4	2	3	4	3	3	3	3	3	3	2	2	3	4	4
74132	2.80	2	1	2	1	2	2	4	1	3	2	3	4	3	2	2	2	3	**
74070	3.09	3	2	2	3	2	3	3	2	3	2	4	4	2	3	2	3	4	**
74128	3.11	3	2	3	4	2	4	3	3	3	4	4	3	3	3	4	5	4	2
74120	3.15	4	3	2	4	2	3	2	3	2	4	4	4	4	4	4	4	4	**
74073	3.23	4	2	3	4	3	3	4	2	4	4	4	3	2	3	2	3	5	**
74108	3.26	3	2	3	4	2	4	3	3	3	4	4	3	3	3	3	4	5	**
74115/117	3.30	4	3	4	5	3	4	3	4	3	4	4	3	3	4	4	5	4	3
74107	3.33	4	3	4	4	3	4	4	4	3	4	4	4	4	4	4	4	5	5
74103	3.60	5	5	1	5	5	2	5	5	5	**	**	**	**	**	**	**	**	**
74130	3.89	4	2	3	5	4	4	3	3	3	4	3	3	2	4	4	4	4	**
74127	3.92	4	3	3	5	4	5	2	4	3	4	4	4	4	4	4	5	5	4
74110	3.95	5	4	4	5	4	5	4	4	4	5	5	3	4	4	5	5	5	3
74106	4.00	5	4	5	5	4	5	4	4	4	5	5	5	5	5	5	5	4	5
74126	4.25	5	4	5	5	4	5	4	4	4	5	5	5	5	5	5	5	4	5
74116	4.43	5	4	5	5	3	5	5	4	4	5	5	4	3	4	5	5	4	5

** - No cases reported for that zip code/indicator or that there were too few cases to reliably report.

Indicators		Infectious Disease						Injury and Violence				Mortality								
Risk/Outcome Measures	Page Number	Foodborne Illness	Hepatitis A	Hepatitis B	Hepatitis C	Gonorrhea	Chlamydia	TB	Deaths All Accidents	Deaths from MVAs	Deaths from Homicide	Deaths from Suicide	Deaths from all Causes	Heart Disease Deaths	Cancer Deaths	Lung Cancer Deaths	Stroke Deaths	Diabetes Deaths	Chronic Lwrr Resp Dis Deaths	YPLL
		66	68	70	72	74	76	78	86	88	90	92	96	98	100	102	104	106	108	110
ZCT A	Avg Rating																			
74137	1.36	2	1	1	1	1	1	2	1	1	**	2	2	1	2	2	2	2	1	1
74114	1.56	2	2	1	1	1	1	1	2	3	**	2	2	1	2	1	1	1	2	2
74133	1.62	2	1	2	1	3	2	1	1	2	1	2	2	2	2	1	1	2	1	1
74011	1.65	1	**	**	1	1	1	1	1	3	**	3	3	3	3	2	3	2	1	1
74012	1.76	1	1	1	1	1	1	1	2	3	1	2	3	3	3	3	2	3	2	1
74047	1.92	**	**	**	2	**	**	**	**	**	**	**	3	4	**	**	**	**	**	1
74008	1.94	3	2	**	1	1	1	2	3	4	**	3	2	2	3	2	1	2	3	3
74037	1.97	3	1	3	1	1	1	**	2	**	**	**	3	4	3	2	3	5	3	2
74055	2.03	3	1	2	2	1	2	2	2	3	1	1	3	3	2	3	2	4	4	2
74105	2.08	1	1	1	2	2	3	2	2	3	2	4	2	1	2	2	1	1	2	3
74136	2.08	1	1	2	2	3	3	1	1	1	1	1	2	1	2	1	1	3	2	2
74145	2.11	2	2	2	1	2	2	2	2	2	1	3	2	1	2	1	1	2	1	2
74135	2.26	2	**	3	2	2	3	2	2	2	**	3	2	1	2	2	1	1	2	3
74021	2.35	4	1	**	2	1	2	**	3	4	**	2	3	2	3	3	2	2	4	3
74134	2.47	2	2	2	2	2	3	2	4	2	2	2	3	3	3	2	1	4	5	1
74119	2.52	**	3	4	4	2	2	2	5	**	**	4	2	3	2	1	1	3	2	4
74112	2.57	3	2	3	2	2	2	2	2	4	1	2	2	2	3	3	1	2	3	3
74033	2.64	2	3	2	2	1	2	2	5	3	**	**	5	5	5	5	4	**	5	2
74129	2.68	2	1	3	2	2	3	3	2	3	2	1	2	2	2	3	1	1	2	3
74146	2.70	2	2	2	2	3	3	2	2	2	2	1	2	2	2	3	1	2	2	3
74104	2.73	2	4	1	2	2	3	2	4	4	2	4	2	2	2	2	1	2	3	3
74063	2.75	4	1	2	2	1	2	1	3	4	**	3	3	3	3	4	2	3	3	3
74132	2.80	**	**	2	2	2	2	**	5	5	**	**	4	4	5	4	2	**	5	3
74070	3.09	5	4	3	4	1	2	4	5	5	**	**	3	4	3	3	2	4	3	3
74128	3.11	3	**	4	2	2	3	3	2	3	**	4	3	3	3	3	2	4	3	3
74120	3.15	3	2	3	4	3	3	3	4	**	**	5	3	3	2	1	1	2	4	4
74073	3.23	4	**	4	1	1	2	3	3	**	**	**	4	3	4	4	3	**	5	4
74108	3.26	**	**	3	3	2	3	3	4	**	**	**	3	3	3	4	2	4	5	3
74115/117	3.30	2	3	3	3	3	3	3	2	2	2	4	3	3	3	3	2	3	4	4
74107	3.33	2	2	2	3	2	3	3	3	4	**	2	3	3	2	2	2	3	4	4
74103	3.60	**	5	5	5	4	3	5	1	**	**	**	1	1	1	**	**	**	**	3
74130	3.89	**	**	**	4	4	4	**	**	**	**	**	5	5	5	3	5	4	3	4
74127	3.92	3	3	4	4	4	4	4	5	5	3	4	4	4	4	4	2	5	3	5
74110	3.95	3	2	2	3	4	4	4	4	4	3	5	4	4	3	4	2	5	4	4
74106	4.00	2	1	4	3	5	5	4	3	3	4	2	4	3	3	3	3	5	2	5
74126	4.25	3	**	4	3	5	5	4	3	2	5	1	4	4	4	4	3	5	5	5
74116	4.43	**	**	4	4	4	5	5	5	**	**	**	4	4	5	5	3	**	**	5

glossary

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

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.

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

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).

Incidence Rate

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

Indicator

A measure of health status or a health outcome.

Infant Death

Infants who died before their first birthday.

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 and viruses) that then grow and multiply there; often used synonymously with communicable disease.

Life Expectancy

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

Low Birth Weight (LBW)

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 below.

Mortality

The event or rate of death.

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

Race

Based on self-identification by respondents. In the 2000 Census, a person could report a single race, or multiple races.

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.

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 of patients become sick. TASSS data includes ZIP codes and was used to estimate ER use in various areas of the county.

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 Tabulation Areas (ZCTAs)

ZIP Code Tabulation Areas are a new statistical entity developed by the U.S. Census Bureau for tabulating summary statistics from Census 2000. ZCTAs are generalized area representations of U.S. Postal Service (USPS) ZIP Code service areas. Each one is built by aggregating the Census 2000 blocks, whose addresses use a given ZIP Code. They represent the majority USPS five-digit ZIP Code found in a given area.

g l o s s a r y