2016 Community Health Assessment

Wichita County, Texas

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Executive Summary

The purpose of a Community Health Assessment (CHA) is to identify the health needs and issues of a community. A detailed CHA for Wichita County was completed in 2011 and updated in 2012. A new CHA was conducted in late 2015 and early 2016 examining information about the health and quality of life of the residents of Wichita County.

Two broad areas of health and quality of life were examined, "Health Status and Outcomes" and "Health Influences and Factors." "Health Status and Outcomes" includes information about how long people live and the primary causes of death in Wichita County, as well as information about current health status including disease morbidity and perceptions about health status and quality of life. "Health Influences and Factors" includes information about the behaviors, health care resources, economic, and socio-cultural factors that influence health status.

A summary of the results of the CHA are presented in Figure 1. Figure 1 is only a summary and the full report that follows should be referred to for more detailed information. The summary in Figure 1 should be viewed as one tool for understanding the health and wellbeing of Wichita County.

Figure 1 is comprised of four different boxes. The two boxes on the left side of the figure are areas of strength and weakness that may affect health outcomes. It is possible for an item to be both a strength and a weakness. For example, it is a weakness that the current number of uninsured is high in Wichita County, but a strength that the number of uninsured is decreasing. The box labeled "Health Status and Outcome Problem Areas" includes those areas of most concern. In most, but not all instances, these were included based on numbers affected and severity. The fourth box, "Population Risk Issues," lists some of the factors and related population subgroups that are experiencing greater risk of poor health outcomes and status.

The information in Figure 1 provides some general guidelines for action. First, Wichita County's excess mortality, years of life lost from premature death, is high indicating the need to improve overall community health. Cardiovascular disease, cancer, and depression are among the specific areas of concern. The weaknesses in the figure suggest efforts are merited to increase the number of people who engage in healthy and active lifestyles. In addition, actions to reduce teenage pregnancy and sexually transmitted infections also should be considered. Steps to reduce the prevalence of tobacco use in Wichita County also should be sustained.

Considerations should be given to the risk issues in any activities to improve the health of Wichita County residents. These may include specifically targeting health issues among men and increasing attention to the County's Black population. There also are broad policy issues that go well beyond the purview of the county including Wichita County's uninsured population, poverty rate, and low household income. Nonetheless, local attention can be directed to ensuring access to affordable care for those with lower incomes and without insurance. In addition, health prevention strategies can be better tailored for lower-income individuals.

FIGURE 1

Forces Positively and Negatively Affecting Health Status

Factors Positively Affecting Community Health

- High rate of high school graduation
- Low rate of unemployment
- Gradual decline in tobacco use
- Leveling off of obesity rates
- Leveling off or gradual decline in diabetes prevalence
- Excellent availability of and access to many health services
- Decreasing number of uninsured

Factors Negatively Affecting Community Health

- High birth rate to women under 18
- High obesity rates
- High proportion of physically inactive adults
- High proportion of uninsured
- Low median household income
- High proportion of children living in poverty
- High tobacco use rate
- High incidence of sexually transmitted infections

Health Status and Outcomes Problem Areas

- High excess mortality across most disease and injury categories
- High cardiovascular disease morbidity and mortality rates
- High cancer morbidity and mortality rates
- High infant mortality rates
- High low-birth weight rates
- High prevalence of depressive disorders
- Emerging morbidity and mortality associated with an increasing population over age 65 including Alzheimer's disease

Population Risk Issues

- Higher risk of morbidity and mortality in most diseases among men
- Higher morbidity and mortality among those with lower incomes
- Higher rates of obesity, cigarette use, and inactivity among those with lower incomes
- Higher low birth weight births among Blacks and Hispanics
- Higher infant mortality rates among Blacks
- Higher overall mortality among Blacks ages 4 or less and 25 or older

Note: The items in the sections above should be viewed as equal and are not ranked.

Introduction

Information about the health and quality of life of the residents of Wichita County, Texas is provided in this report. The first section of the report, Health Status and Outcomes, includes information about how long people live and the primary causes of death in Wichita County, as well as information about current health status including disease morbidity and perceptions about health status and quality of life. The second section, Health Influences and Factors, includes information about the behaviors, health care resources, economic, and socio-cultural factors that influence health status. The report concludes with a section that brings together the information and identifies the primary health needs and issues for Wichita County.

Data Sources

There are several data sources that are used for the report. One source of data is the County Health Rankings provided by the University of Wisconsin Population Health Institute. This source provides a compilation of information on the health and quality of life of the populations within states and counties throughout the United States. It also provides rankings of counties within a state on various indicators of health and quality of life. This report is organized in a fashion similar to the framework used by the County Health Rankings to present information.

A second source of data is the Texas Department of State Health Services (TDSHS). TDSHS provides data from a number of sources on disease mortality, morbidity, health care facilities, and health care providers. The third source of data is the 2014 results of the Behavioral Risk Factor Surveillance System (BRFSS) questionnaire for Texas. This is a survey of individuals to gather information on current health status and behavior. 2014 is the most recent year of the BRFSS in which Wichita County was over sampled in order to increase the sample size for the county beyond that which would occur based on state-wide sampling.

In addition, there are a number of other sources of information that were used for the report including the Centers for Disease Control and Prevention (CDC), the Health Indicators Website, the United States Department of Agriculture, and the HealthData.gov website, to name a few. All the tables and charts presented in the report include either the name of the source or a link to the source's website.

About The Numbers

This report includes many different analyses and results. A few comments about these are warranted before jumping in. First, the report includes many of the rankings included in the County Health Rankings. The rankings and the associated information provide a useful snapshot of the health of Wichita County. It is natural to want to use the rankings as a basis of comparison, but even the authors of the ranking system point out that comparison of counties should be done with care. They state:

> It is important to note that we do not suggest that the rankings themselves represent statistically significant differences from county to county. That is, the top ranked county in a state (#1) is not necessarily significantly healthier than the second ranked county (#2).
> http://www.countyhealthrankings.org/ranking-methods/calculating-scores-and-ranks

Second, most of the results presented include confidence intervals, also referred to as error margins. A confidence interval tells you how good an estimate is. The larger the confidence interval, the more care that should be taken in applying the estimate reported. In general, when we compare estimates, they are considered statistically different if the confidence intervals do not overlap. It should be added, however, that differences that are observable but not statistical should not be ignored. Interpreting the information involves a number of considerations including how it compares to other similar data and convergence across various measures.

Finally, many of the numbers reported involve varying degrees of complexity in how they were developed. As a result, two different estimates of the same thing may not be directly comparable. In addition, the numbers are frequently reported as population rates, often a rate per 100,000 population. Percentages are rates per 100. A rate per 100,000 is used to adjust very small proportions to whole numbers. Rates are used to enable us to make comparisons across populations of different sizes.

Health Status and Outcomes

This section, Health Status and Outcomes, includes information about mortality and morbidity patterns in Wichita County, as well as perceptions of current health. Successful efforts to improve community health will be reflected in positive changes in measures of health status and outcomes.

Wichita County's overall "Health Outcomes" rank in the 2016 County Health Rankings was 144 out of the 241 Texas counties included. Wichita County's Health Outcomes rankings have fallen into the third quartile, the bottom 51% to 75% of Texas counties, over the past five years. The ranking suggests there is room for improvement. Much of the information that follows is to help us better understand what underlies this ranking, and the possible areas on which to focus to make improvements in health status and outcomes.

Length of Life and Mortality Patterns

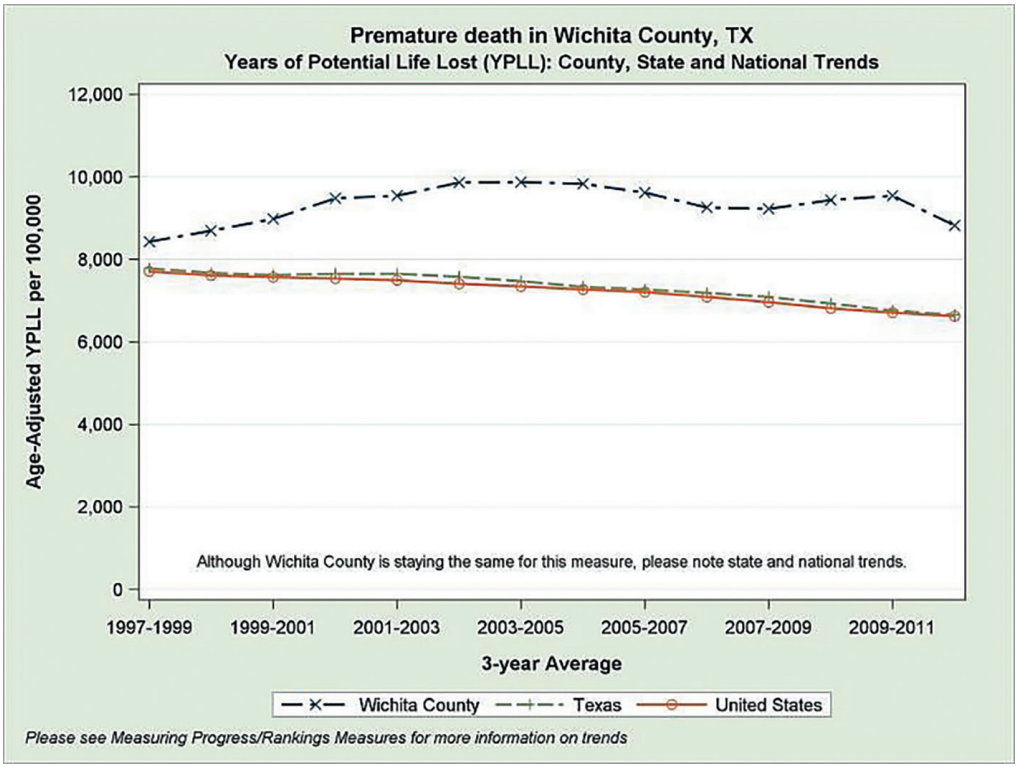
Potential Lost Life

Potential or premature lost life is an estimate of the number of years of life that are lost prior to an expected age that may reflect an estimate of life expectancy or expected work life. This measure provides an estimate of the number of years of lost life that could be saved through prevention. For example, if someone dies at age 50 and there is an expected age of 75, the number of years of life lost is 25.

The results presented in Table 1 and Figure 2 indicate that Wichita County has years of life lost that are somewhat higher than Texas and the national benchmark. According to the 2016 County Health Rankings, Wichita County ranked 155th among Texas counties on this measure. Wichita County fell in about the middle of Texas Counties based on a similar measure computed by TDSHS.

TABLE 1 - **Age Adjusted Premature Years of Life Lost**				
Ranking Year/Years Included in 3 Year Average	**Wichita County**	**Error Margin**	**National Benchmark**	**Texas**
2016/2011-2013	8,700	8,100-9,200	5,200	6,600
2016/2011-2013	8,822	8,257-9,388	5,200	6,650
2016/2011-2013	9,438	8,853-10,022	5,317	6,928
Source: 2016 County Health Rankings - Wichita County				

FIGURE 2



Source: 2016 County Health Rankings - Wichita County

These results suggest targeted prevention efforts have the potential to reduce premature lost life in Wichita County. Many of the sections that follow in this report provide information to help identify potential targets for prevention and intervention activities. Mortality patterns are examined in the next section of the report.

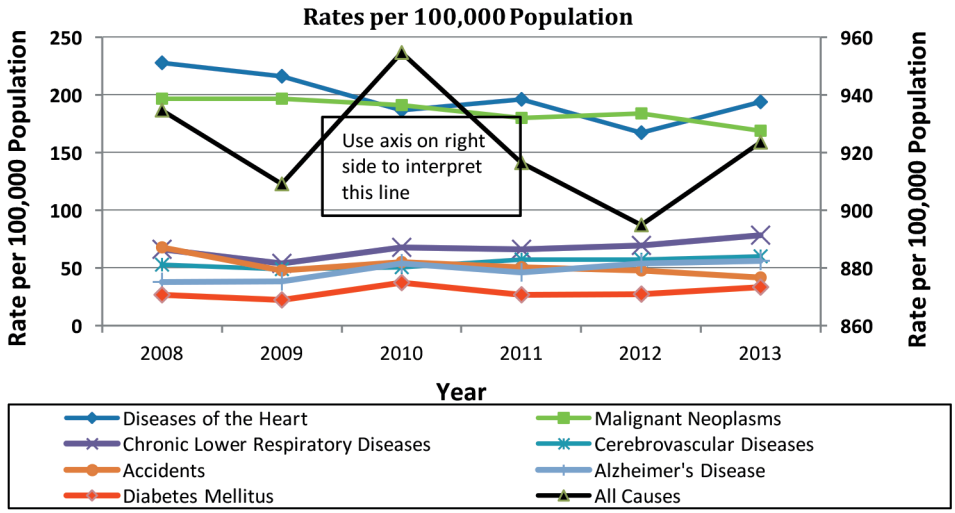
General Mortality Patterns

The age-adjusted[1] overall mortality rate for Wichita County was 923 per 100,000 population in 2013 compared to 749 per 100,000 for Texas overall. The slightly higher mortality rate in Wichita County compared to Texas reflects the higher potential lost years of life described above.

The overall age-adjusted mortality rate and the mortality rates for the leading categories of causes of death in Wichita County are presented in Figure 3. Because the overall mortality rate is much higher than the individual rates, it is graphed against the right axis in the chart. Except for Alzheimer's Disease and Diabetes Mellitus, these are broad categories that include a number of specific causes of death. For example, the heart disease category includes over ten more specific types of heart disease-related causes of death.

As Figure 3 shows, Heart Disease and Malignant Neoplasms (Cancer) are the two leading cause-of-death categories, with mortality rates over twice those of the other causes of death. The overall mortality rate and rates of the seven leading cause-of-death categories have not changed much in the six-year period. Visually, the mortality rates for heart disease and malignant neoplasms show slight downward trends, and several of the other causes of death show slight upward trends. Given the variability of the year-to-year data, the observed downward trends should be viewed as promising, but not conclusive.

FIGURE 3 - **Leading Causes of Death - Wichita County**



Source: Texas Department of State Health Services, http://soupfin.tdh.state.tx.us/death10.htm

Two other causes-of-death categories that were among the top ten were Chronic Liver Disease and Cirrhosis and Intentional Self-Harm (Suicide), but were not included in Figure 2 because data was not available for several years. The age-adjusted mortality rates per 100,000 population for these two causes of death are provided in Table 2. Even though these two cause-of-death categories were among the top ten, the rates are quite low when compared to those for heart disease and malignant neoplasms.

[1]Age adjustment is a process of adjusting the rates to address differences in the age structure of populations.

TABLE 2 - **Age-Adjusted Mortality Rates per 100,000 Population Chronic Liver Disease and Cirrhosis and Intentional Self-Harm** (Suicide)						
	2008	**2009**	**2010**	**2011**	**2012**	**2013**
Chronic Liver Disease and Cirrhosis	NA	22.7	24.3	16.8	NA	18.7
Intentional Self-Harm (Suicide)	NA	15.7	18.2	17.2	NA	17.2
Source: Texas Department of State Health Services, http://soupfin.tdh.state.tx.us/death10.htm						

The general information on mortality provides some important insights. First, of the nine cause-of-death categories listed, the only category without clear prevention options is Alzheimer's disease. In other words, there is a great deal of potential to reduce these mortality rates over time and to move them closer to the state and national rates. More specific information about the mortality patterns in Wichita County is presented in the next section of the report.

Specific Mortality Patterns

The broad mortality patterns presented thus far provide some important information about the health of the residents of Wichita County. Information to assist in identifying more specific subsets of the population who may be at risk is presented in this section. The results presented in this section are limited to identifying if there are different mortality patterns depending on ethnicity, gender, and age. There are several factors that limit the information that is presented. First, because the population of Wichita County is small, the actual number of deaths in some mortality categories is too small to report. Second, given the small population of Wichita County, the number of deaths, except for a few mortality categories, is too few to report for Blacks and Hispanics who comprise 10% and 20% of the total county population respectively.

Mortality Patterns For Ethnic Groups

The breakdown by ethnic group of age-adjusted mortality rates for "All Causes," "Malignant Neoplasms," and "Diseases of the Heart" is presented in Table 3. It is noteworthy that the rates for Hispanics are lower than for Blacks and Whites in all three categories. A similar pattern was found when rates were examined for Texas, suggesting that the pattern is not an anomaly specific to Wichita County. Analyses beyond the scope of this report are required to better understand the underlying reasons for the differences in rates. Suffice to say that no ethic group stands out as having higher risk for these three cause-of-death categories.

TABLE 3 - **Mortality by Ethnicity for Selected Cause-of-Death Categories** (Rates per 100,000 Population)									
	All Causes			**Malignant Neoplasms**			**Diseases of the Heart**		
	2011-2013 Combined			**2011-2013 Combined**			**2011-2013 Combined**		
Ethnicity	Number	Rate	Confidence Interval	Number	Rate	Confidence Interval	Number	Rate	Confidence Interval
White	3,338	940.0	907.8-972.5	647	180.9	167.1-195.6	693	192.2	177.9-214.4
Black	302	968.3	858.8-1,088.0	70	224.9	174.0-286.2	60	183.9	138.9-238.8
Hispanic	234	729.3	626.4-844.3	42	141.4	97.3-198.6	38	136.5	92.8-193.8
Source: Texas Department of State Health Services, http://soupfin.tdh.state.tx.us/death10.htm									

Gender-Specific Mortality

The mortality rates for males and females are examined in Table 4. Males have a higher mortality risk in every category except Alzheimer's disease. Male rates are markedly higher than female rates in several categories including "Malignant Neoplasms," "Heart Disease," "Chronic Lower Respiratory Disease," "Intentional Self Harm," and "Cirrhosis." An examination of mortality data for Texas indicated similar results. In addition, these results are consistent with long-standing evidence that the life expectancy for males is less than that of females. What they reveal, however, is that male's shorter life expectancy is attributable to multiple causes of death.

TABLE 4 - **Mortality Rates per 100,000 Population by Gender and Mortality Category**

	Gender			
	Male		**Female**	
Mortality Category	Rate	Confidence Interval	Rate	Confidence Interval
Malignant Neoplasms*	218.9	197.9-241.5	147.8	132.6-164.2
Heart Disease*	237.3	215.1-261.2	144.3	129.7-160.1
Diabetes Mellitus*	33.9	26.0-43.4	24.7	18.6-32.1
Chronic Lower Respiratory Disease*	88.4	75.0-103.5	60.0	50.6-70.6
Alzheimer's Disease*	50.9	40.5-63.3	53.3	45.0-62.8
Cerebrovascular Diseases*	63.3	52.0-76.3	58.0	51.1-65.7
Accidents*	51.8	42.2-63.0	40.5	32.0-50.4
Intentional Self Harm (Suicide)**	22.9	17.9-28.8	7.6	4.7-11.5
Cirrhosis**	28.5	22.9-35.0	10.2	7.0-14.3

*Rates based on 2011-2013 combined, **Rates based on 2009-2013 combined

Source: Texas Department of State Health Services, http://soupfin.tdh.state.tx.us/death10.htm

Age-Specific Mortality Patterns

In general, mortality rates increase with age. There are, however, mortality patterns among age groups that merit consideration. The mortality rates by ethnic group noted above were age-adjusted and did not show clear differences among the groups. Age-specific mortality rates in order from highest to lowest are presented in Table 5.

The mortality rates presented in Table 5 reveal several noteworthy differences among the three ethnic groups. First, infant mortality, mortality under age 1, is the age group with the fifth highest mortality rate. Second, Hispanic mortality rates are lower across all age categories. Second, mortality rates among Blacks tend to be higher in all the age categories. These differences are most pronounced in several age groups including ages under four and ages 25 and above. In short, even though age-adjusted mortality among Blacks appeared to be slightly higher than that of Whites, age-specific rates indicated mortality among Blacks is higher than that of both Whites and Hispanics.

TABLE 5 - **Mortality Rates per 100,000 Population by Age and Ethnicity Ordered from Highest to Lowest 2009-2013 Combined**			
	Ethnicity		
Age Group	**White**	**Black**	**Hispanic**
85 and over	14,683.1	13,706.1	11,917.1
75 to 84	5,100.4	5,695.3	4,252.3
65 to 74	1,951.7	2,630.6	1,616.4
55 to 64	912.2	1,320.3	750.9
Under 1	526.9	1,145.1	514.3
45 to 54	440.5	587.2	324.7
35 to 44	185.5	252.0	127.9
25 to 34	114.4	152.2	77.0
15 to 24	77.9	80.5	59.5
1 to 4	30.0	47.3	24.8
5 to 14	13.4	19.5	12.1
Source: Texas Department of State Health Services, http://soupfin.tdh.state.tx.us/death10.htm			

Although mortality rates for most of the cause-of-death categories increase with age, there are specific causes of death within the broad categories that are more likely among certain age groups. Mortality from various types of malignant neoplasms is very uncommon before age 15 except for Leukemia. Alzheimer's disease as a cause of death tends to first show up around age 45, but is most common after age 75.

Two causes of death, "Intentional Self Harm" and "Motor Vehicle Accidents," however, have mortality in nearly every age group. As shown in Table 6, the total number of deaths from "Intentional Self-Harm" is quite small, a total of 99 from 2009-2013 and a rate per hundred thousand population of 15.0. The total number was nearly evenly split between "Discharge of a Firearm" and "Other Unspecified Means." Intentional self-harm first occurs in the 15-24 age group and is highest among the 45-54 age group, although there are not statistical differences in the age groups. What can be concluded is that "Intentional Self Harm" is a cause of death that occurs in every age category over age 15, unlike many causes of death that occur among those over age 50.

TABLE 6 - **Age-specific Mortality Rates per 100,000 Population for Intentional Self-Harm** (Suicide) **for 2009-2013 Combined**						
	Intentional Self-Harm (Suicide) **by Discharge of Firearms**		**Intentional Self-Harm** (Suicide) **by Other and Unspecified Means**		**Total**	
Age Category	Rate	Confidence Interval	Rate	Confidence Interval	Rate	Confidence Interval
15 to 24	9.6	4.6 to 17.6	4.3	1.4 to 10.2	13.9	7.8 to 23.0
25 to 34	5.2	1.4 to 13.3	10.4	4.7 to 19.7	15.5	8.7 to 25.6
35 to 44	8	2.9 to 17.3	15.9	8.2 to 27.8	23.9	13.9 to 38.2
45 to 54	15.1	7.8 to 26.4	14	7.2 to 24.4	29.1	18.6 to 43.3
55 to 64	NA	NA	8.4	3.1 to 18.3	12.6	5.8 to 24.0
65 to 74	NA	NA	NA	NA	13.5	4.9 to 29.3
75 to 84	23.0	9.2 to 47.3	NA	NA	23.0	9.2 to 47.3
85 and over	NA	NA	NA	NA	NA	NA
All Ages	7.7	5.7 to 10.1	7.3	5.3 to 9.6	15.0	12.1 to 18.2
Source: Texas Department of State Health Services, http://soupfin.tdh.state.tx.us/death10.htm						

The age-specific mortality rates for "Motor Vehicle Accidents" are provided in Table 7. As expected, the rates tend to be slightly higher in the "15 to 24" and "25 to 34" age categories, although there is no statistical difference in the rates among the age groups. Like mortality from "Intentional Self-Harm," "Motor Vehicle Accident" mortality occurs in nearly every age group beginning at age 15.

TABLE 7 - Motor Vehicle Accidents Mortality Rate Per 100,000 Population 2009-2013 Combined

Age Group	Number	Rate	Confidence Interval
15 to 24	20	17.4	10.6 to 26.9
25 to 34	18	18.6	10.9 to 29.9
35 to 44	10	13.3	6.4 to 24.4
45 to 54	9	10.5	4.8 to 19.9
55 to 64	8	11.2	4.5 to 23.1
65 to 74	5	11.2	3.1 to 28.7
75 to 84	6	19.7	7.2 to 42.8
85 and over	3	NA	NA
All Ages	85	12.8	10.2 to 15.9

NA—Insufficient data for calculation

Source: Texas Department of State Health Services, http://soupfin.tdh.state.tx.us/death10.htm

Infant Mortality

Infant mortality is considered a proxy measure of the health and quality of care in a community. The Healthy People 2020 objective for infant mortality is six per 1,000 live births. Although the number of infant deaths in Wichita County is low, the rates are somewhat higher than the Healthy People 2020 target (See Table 8). In addition, as shown in Table 5 above, the mortality rate for the age group under age one for Blacks is markedly higher than that of Whites and Hispanics.

TABLE 8 - Infant, Neonatal, Fetal, and Perinatal Mortality Rates per 1,000 Live Births by Year

	Live Births	Infant Deaths		Neonatal Deaths		Fetal Deaths		Perinatal Deaths	
Year	**No.**	**No.**	**Rate**	**No.**	**Rate**	**No.**	**Rate**	**No.**	**Rate**
2013	1,764	15	8.5	10	5.7	8	4.5	18	10.2
2012	1,766	12	6.8	6	3.4	11	6.2	17	9.6
2011	1,835	21	11.4	14	7.6	8	4.4	22	11.9

Infant death is death in the first year of life. Neonatal is death in first 28 days of life.
Fetal death is the spontaneous termination of a gestation at > 20 weeks.
Perinatal death is the rate of fetal and neonatal death combined.

Source: Texas Department of State Health Services, Table 28,
http://www.dshs.state.tx.us/chs/vstat/annrpts.shtm

Quality of Life: Morbidity and Perceptions of Health

Two aspects of the quality of life of residents of Wichita County, morbidity and perceptions of health, are examined in this section. Morbidity is the prevalence of a disease in a specific period of time. Perceptions of health are self-reported views of what individuals believe about their health. Where mortality data helps us understand disease and injury outcomes, morbidity and perceptions of health provide information about the current health and wellbeing of our community. It is the information that informs us about potential mortality in the future.

A summary for Wichita County of "Quality of Life" indicators taken from results reported in 2016 County Health Ranking is provided in Table 9. As shown, Wichita County ranked 137th out of 241 counties based on the approach used by the County Health Rankings. While Wichita County's results are not much different than those for Texas, they do vary from those for the "Top U.S. Performers."

The information in Table 9 suggests there is potential to improve the "Quality of Life" in Wichita County, but more information is needed to identify possible targets. More detailed and expanded information is provided in the sections that follow.

TABLE 9 - **Summary of Quality of Life Scores from 2016 County Health Rankings Wichita County Rank 137 out of 241**

	Wichita County	Error Margin	Top U.S. Performers	Texas
Estimated percent of population rating health poor or fair	18%	18-19%	12%	19%
Estimated average number of poor physical health days	3.7	3.6-3.8	2.9	3.5
Estimated average number of poor mental health days	3.3	3.2-3.4	2.8	3.1
Proportion of low birth weight births (live births < 2500 grams)	8%	8-9%	6%	8%

Source: 2016 County Health Rankings - Wichita County

Perceptions of Health

Three of the items in Table 9 above are estimates of perceived health based on results from the Behavioral Risk Factor Surveillance System (BRFSS) survey. In 2014, the sample size for Wichita County was increased within the statewide BRFSS sample providing a sufficiently large number of respondents to look in some detail at the responses including gender, income, and age groups.

Gender

The ratings of general health by gender are presented in Table 10. These results indicate about 21% of the residents of Wichita County perceived their health as "fair" or "poor." Although not directly comparable to the results in Table 9 above because of differences in calculations, both estimates are similar. Just as important, however, is that an estimated 40% of residents perceive their health as "very good" or "excellent."

TABLE 10 - **Rating of Health by Gender**						
	Male		**Female**		**Total**	
Health Rating	**Percent**	**Confidence Interval**	**Percent**	**Confidence Interval**	**Percent**	**Confidence Interval**
Excellent	11.81	[6.744-19.88]	10.61	[6.133-17.72]	11.22	[7.596-16.27]
Very good	28.73	[19.92-39.52]	29.87	[21.84-39.35]	29.29	[23.08-36.38]
Good	42.46	[31.25-54.50]	34.22	[25.64-43.98]	38.42	[31.10-46.30]
Fair	13.63	[7.873-22.55]	15.07	[10.00-22.08]	14.34	[10.24-19.71]
Poor	3.37	[1.695-6.572]	10.23	[5.663-17.79]	6.74	[4.166-10.72]
Source: 2014 Texas BRFSS						

There are observable differences in the ratings of males and females, although the differences are not statistically significant. The results indicate slightly less favorable ratings of health among women than men. The results of a different way of looking at perceived health, the numbers of days not healthy in the past 30, are presented in Table 11. As shown, there also is very little observable difference between men and women.

TABLE 11 - **Number of Days in Past 30 Physical Health Not Good by Gender**				
	None to 14		**14 or more**	
	Percent	**Confidence Interval**	**Percent**	**Confidence Interval**
Male	85.31	[71.67-93.02]	14.69	[6.978-28.33]
Female	83.54	[76.16-88.96]	16.46	[11.04-23.84]
Source: 2014 Texas BRFSS				

It is important to keep in mind that these are perceptions and may reflect differences in how men and women view health rather than actual differences in health. As noted above, males tend to have higher mortality rates than females, results somewhat inconsistent with the perceptions of health. Perceiving that our health is positive is desirable, but it is possible that it is not predictive of health outcomes as reflected in mortality.

The results of gender and perceived health do not reveal clear differences between males and females. They do suggest that finding out more about how perceptions of health are formed, what part they may play in health behavior, and if there are differences between men and women may be worthwhile as part of the development of prevention strategies.

Income

An examination of perceptions of health and income is presented in Table 12. As can be seen, the percent of the estimated population who indicates their health is "fair or poor" rather than "good, very good, or excellent" decreases as the income category increases ($p \leq .001$). A similar examination was completed to control for age by looking at two age groups, "65 and older" and "18 to 65," to determine if lower income groups may have had a higher proportion of older individuals who may be less healthy. The results indicated that perceptions of health were statistically lower for individuals with less than $25,000 income irrespective of the age group.

TABLE 12 - **Perception of Health as Fair or Poor by Income Level**				
	Health Rated as Fair or Poor			
	Yes		**No**	
Income Level	Percent	Confidence Interval	Percent	Confidence Interval
< $25,000	37.84	[24.74-52.99]	62.16	[47.01-75.26]
$25,000 to $50,000	18.19	[10.92-28.74]	81.81	[71.26-89.08]
$50,000+	8.153	[4.55-14.20]	91.85	[85.80-95.45]
Total	20.42	[15.13-26.97]	79.58	[73.03-84.87]
Source: 2014 Texas BRFSS				

These results suggest that one factor that is related to perceptions of health is income. Data were not available to look at mortality rates by income, but research has found that counties with lower income populations have higher rates of premature mortality related to a variety of risk factors such as tobacco use.[2] A number of these risk factors are examined later in the report.

Mental Health Perceptions

Perceptions of mental health including stress, depression, and problems with emotion are presented in Tables 13 and 14. About 10% of the respondents indicated having 14 or more days where their mental health was not good. A slightly higher proportion of women than men indicated 14 or more mental health days that were not good, although the differences between them are not statistically significant. The differences are, however, consistent with statewide results for Texas. Mental health perceptions, like health perceptions, were related to income with higher percentages of those with lower incomes indicating experiencing 14 or more mental health days than those with higher incomes (See Table 14).

TABLE 13 - **Days Mental Health Not Good in Past 30 Days by Gender**				
	None to 14		**14 or more**	
	Percent	Confidence Interval	Percent	Confidence Interval
Male	92.03	[85.04-95.92]	7.97	[4.084-14.96]
Female	83.54	[76.16-88.96]	16.46	[11.04-23.84]
Both Genders Combined	90.34	[86.01-93.44]	9.66	[6.563-13.99]
Source: 2014 Texas BRFSS				

TABLE 14 - **Days Mental Health Not Good in Past 30 Days by Income**				
	None to 14		**14 or more**	
Income Level	Percent	Confidence Interval	Percent	Confidence Interval
< $25,000	79.13	[66.42-87.91]	20.87	[12.09-33.58]
$25,000 to $50,000	89.74	[77.90-95.59]	10.26	[4.41-22.1]
$50,000+	98.71	[96.20-99.57]	1.291	[.43-3.80]
Total	90.14	[85.17-93.58]	9.857	[6.42-14.83]
Source: 2014 Texas BRFSS				

[2]Cheng ER- Kindig DA. Disparities in premature mortality between high- and low-income US counties. Prev Chronic Dis 2012;9:110120. DOI: http://dx.doi.org/10.5888/pcd9.110120

Summary of Perceptions of Health

About 20% of Wichita County residents rated their general health as only "fair" or "poor," and about 10 percent indicated having 14 or more days in the past 30 with mental health problems. The results suggest that those with lower incomes tend to have lower rating of general health and are more likely to have 14 or more days with mental health problems. In other words, those with lower incomes may be at higher risk of general and mental health problems. The results also suggest that understanding the differences among men and women about how perceptions of health are formed and affect behavior may be useful for prevention planning.

Morbidity and Health Status

Estimates of a number of indicators of morbidity and health status are presented in this section. The focus of this section is to look at the relationship of factors including ethnicity, gender, and income with various indicators of morbidity and health status. While the previous section looked at perceptions of health, estimates of the prevalence of disease, injury, and other aspects of health status are presented in this section.

Low Birth Weight

Low birth weight children are more likely to have adverse health outcomes. The Healthy People 2020 target for low birth weight is 7.8 per 100 live births. The results from the County Health Rankings in Table 9 above indicated that 8 of every 100 live births, based on data from 2006 through 2012, were low birth weight in Wichita County. This rate is slightly higher than the 2020 target and the rate of the top performers in the U.S.

Low birth rates for Wichita County for 2010-2013 by ethnicity are presented in Table 15. The overall rate for that time period was 8.8. Although there is quite a bit of variation from year-to-year, the rate among Blacks is generally higher than that of both Whites and Hispanics. This result is consistent with the higher mortality rate among Blacks for the under age 1 group reported in Table 5 above.

TABLE 15 - Low Birth Weight Births by Ethnicity

	2010		2011		2012		2013		All years combined
Race	**No.**	**Rate**	**No.**	**Rate**	**No.**	**Rate**	**No.**	**Rate**	**Rate**
White	85	7.2	99	8.3	98	8.7	96	8.9	8.3
Black	31	15.8	24	11.6	14	8.8	33	17.7	13.6
Hispanic	32	8.6	21	5.4	39	9.6	38	8.8	8.1
Other	4	10	4	8	4	5.3	0	0.0	9.1
All Races	152	8.5	148	8.1	155	8.8	167	9.5	8.8

Low Birth Weight = birth weight of less than 2,500 grams (5.5 pounds).
Denominator - Births with known birth weight

Source: Texas Department of State Health Services, Vital Statistics, http://healthdata.dshs.texas.gov/VitalStatistics/Birth

Selected Disease Morbidity

Cardiovascular disease. Information estimating the prevalence of a number of diseases is presented in this section. The primary source of data for the results presented in this section is the 2014 BRFSS. It should be noted that the size of the sample in Wichita County limits the ability to detect statistical differences among different subgroups.

The estimated prevalence of cardiovascular disease by gender is presented in Table 16. This table includes respondents who indicated having been diagnosed by a doctor for heart attack, angina, heart disease, or stroke. An individual is counted only once in the estimate. It is estimated that about 11% of the residents of Wichita County have had a heart disease diagnosis. Although male proportions are visibly higher than female proportions, they are not statistically different. They are, nonetheless, consistent with the higher rate of heart disease mortality among men. The results also are similar to those for Texas.

TABLE 16 - **Estimated Cardiovascular Disease by Gender**

	Yes		No	
Gender	Percent	Confidence Interval	Percent	Confidence Interval
Male	12.38	[6.95-21.08]	87.62	[78.92-93.05]
Female	9.37	[6.49-13.34]	90.63	[86.66-93.51]
Total	10.91	[7.56-15.48]	89.09	[84.52-92.44]
Rates include heart attack, angina, heart disease, stroke combined				
Source: 2014 Texas BRFSS				

The estimated prevalence of cardiovascular disease by income is presented in Table 17. The proportions increase as income decreases, although there is no statistically significant difference. The pattern, however, is consistent with the higher risk for health problems among lower income individuals and similar to the pattern for Texas overall.

TABLE 17 - **Estimated Cardiovascular Disease by Income**

	Yes		No	
Income Level	Percent	Confidence Interval	Percent	Confidence Interval
< $25,000	15.12	[7.06-29.46]	84.88	[70.54-92.94]
$25,000	10.04	[5.75-16.97]	89.96	[83.03-94.25]
$50,000+	6.887	[3.66-12.59]	93.11	[87.41-96.34]
Total	10.35	[6.80-15.45]	89.65	[84.55-93.20]
Rates include heart attack, angina, heart disease, stroke combined				
Source: 2014 Texas BRFSS				

Cancer. The incidence of new cases of cancer in 2012 was an age-adjusted rate of 407.7 per 100,000 population based on data from the Texas Cancer Registry (See: http://www.cancer-rates.info/tx/). As shown in Table 18, lung and breast cancer have the highest estimated number of new cases in Wichita County.

TABLE 18 - **Estimated New Cancer Cases and Expected Deaths**						
	Expected New Cases			**Expected Deaths**		
Type	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**
All Sites	571	282	289	247	133	114
Lung and Bronchus	109	55	54	69	39	30
Breast	76	1	75	16	0	16
Colon excluding Rectum	36	20	16	18	10	9
Prostate	34	34	0	12	12	0
Melanoma of the Skin	32	19	14	4	3	1
Source: http://www.cancer-rates.info/tx/						

Total prevalence estimates and estimates by gender and by income for any type of cancer are presented in Tables 19 and 20. The overall prevalence of cancer is estimated to be slightly less than nine percent. The estimate is based on if a person has ever been diagnosed with cancer. Female rates are slightly higher than male rates, but the differences are not statistically significant. In addition, these results do not match those for Texas where males have higher rates of cancer. There also is no statistical difference in the proportions among income groups.

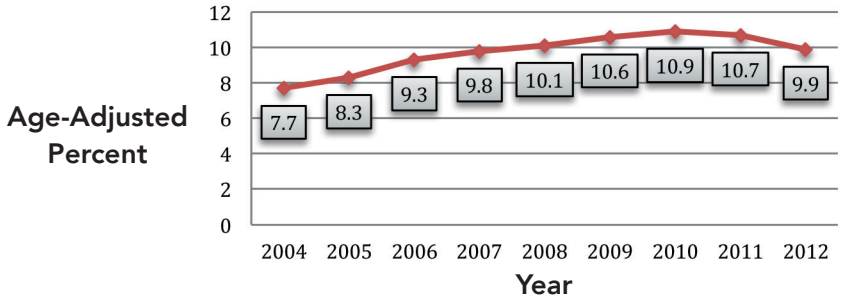
TABLE 19 - **Estimated Cancer Prevalence by Gender**				
	Cancer Diagnosis		**No Cancer Diagnosis**	
Gender	Percent	Confidence Interval	Percent	Confidence Interval
Male	7.99	[4.69-13.29]	92.01	[86.71-95.31]
Female	9.41	[6.75-12.97]	90.59	[87.03-93.25]
Total	8.69	[6.41-11.68]	91.31	[88.32-93.59]
Source: 2014 Texas BRFSS				

TABLE 20 - **Estimated Cancer Prevalence by Income**				
	Cancer Diagnosis		**No Cancer Diagnosis**	
Income Level	Rate	Confidence Interval	Rate	Confidence Interval
< $25,000	6.96	[4.14-11.47]	93.04	[88.53-95.86]
$25,000	12.10	[6.47-21.50]	87.90	[78.50-93.53]
$50,000+	8.49	[4.762-14.68]	91.51	[85.32-95.24]
Total	8.94	[6.36-12.43]	91.06	[87.57-93.64]
Source: 2014 Texas BRFSS				

The cancer prevalence presented here includes any type of cancer which includes types of cancer that are typically specific to males or females. Consequently, the results may be affected by the types of cancer within the respondent population, as well as the mix of males and females. It should not be concluded from the results that gender and income are not related to cancer prevalence given the limitations of the data. As noted, statewide data indicated higher cancer prevalence among males and data presented above indicate males have higher cancer mortality rates. Data from the Texas Cancer Registry indicate that males and females have nearly equal incidence rates for lung cancer, but the mortality rate for males is higher. This suggests that even when males and females have similar risk of cancer, males have higher mortality rates.

Diabetes. The age-adjusted diabetes prevalence from 2004-2012 is presented in Figure 4. There has been an increase until 2010, followed by slight decreases in 2011 and 2012. It is too soon, however, to conclude a downward trend.

FIGURE 4 - **Age-Adjusted Diabetes Prevalence**



Source: http://www.cdc.gov/diabetes/atlas/countydata/County_ListofIndicators.html

Additional prevalence estimates by gender and by income for diabetes are presented in Tables 21 and 22. Although female proportions are visibly higher, they are not statistically different. For Texas over all, diabetes rates are higher among males. Likewise, as noted above, diabetes mortality rates are higher for men. The proportion of diabetes decreases with income, although the proportions are not statistically different. The pattern, however, is consistent with the pattern for Texas overall.

TABLE 21 - **Estimated Diabetes Prevalence by Gender**

	Yes		No	
Gender	Rate	Confidence Interval	Rate	Confidence Interval
Male	12.70	[7.75-20.12]	87.30	[79.88-92.25]
Female	17.40	[11.93-24.67]	82.60	[75.33-88.07]
Total	14.99	[11.07-19.97]	85.01	[80.03-88.93]

Source: 2014 Texas BRFSS

TABLE 22 - **Estimated Diabetes Prevalence by Income**

	Yes		No	
Income Level	Rate	Confidence Interval	Rate	Confidence Interval
< $25,000	21.34	[11.68-35.76]	78.66	[64.24-88.32]
$25,000	14.52	[8.084-24.72]	85.48	[75.28-91.92]
$50,000+	11.58	[6.881-18.82]	88.42	[81.18-93.12]
Total	15.48	[11.02-21.31]	84.52	[78.69-88.98]

Source: 2014 Texas BRFSS

Depression. Estimates of the proportion of people diagnosed with depression by gender and income are provided in Tables 23 and 24. There is a statistically significant higher proportion of females indicating a depression diagnosis than males. In addition, there is a statistically significant relationship between income and depression diagnosis, with the proportion diagnosed with mental health problems increasing with income.

TABLE 23 - **Estimated Depression Prevalence by Gender**				
	Yes		**No**	
Gender	Rate	Confidence Interval	Rate	Confidence Interval
Male	13.35	[7.94-21.58]	86.65	[78.42-92.06]
Female	28.71	[20.74-38.25]	71.29	[61.75-79.26]
Total	20.87	[15.71-27.19]	79.13	[72.81-84.29]
Source: 2014 Texas BRFSS				

TABLE 24 - **Estimated Depression Prevalence by Income**				
	Yes		**No**	
Income Level	Rate	Confidence Interval	Rate	Confidence Interval
< $25,000	32.83	[20.83-47.58]	67.17	[52.42-79.17]
$25,000	18.56	[10.62-30.44]	81.44	[69.56-89.38]
$50,000+	9.633	[5.066-17.56]	90.37	[82.44-94.93]
Total	19.48	[14.25-26.05]	80.52	[73.95-85.75]
Source: 2014 Texas BRFSS				

Health Factors

Health factors are the factors that affect health outcomes. They include individual behaviors that affect health, availability of and access to health services, and the quality of health services. Wichita County's County Health Rankings overall rank in the Health Factors area was 121st out of the 241 Texas counties that were ranked.

Health Behaviors

There are a number of behaviors that may have a negative effect on someone's health. The results of the summary of nine of these factors for Wichita County provided in the 2016 County Health Rankings are presented in Table 25. Wichita County's rank on health behaviors was 214th out of the 241 counties ranked. More detailed information on health behaviors is provided in the sections that follow.

TABLE 25 - **Summary of Health Behaviors Scores from 2016 County Health Rankings, Wichita County Rank 214**				
	Wichita County	**Error Margin**	**Top U.S. Performers**	**Texas**
Adult smoking	19%	18-19%	14%	15%
Adult obesity	29%	23-35%	25%	28%
Food environment index *	5.5	NA	8.3	6.4
Physical inactivity	29%	24-36%	20%	24%
Access to exercise opportunities	84%	NA	91%	84%
Excessive drinking	17%	17-18%	12%	18%
Alcohol-impaired driving deaths	30%	23-36%	14%	32%
Sexually transmitted infections **	515.4	NA	134.1	498.3
Teen births	58	55-60	19	52
* Index of factors that contribute to a healthy food environment where 0 is worst and 10 is best ** Rate per 100,000 population				
Source: 2016 County Health Rankings - Wichita County				

Tobacco Use

A summary of adult smoking estimates for a number of demographic groups based on the data from the 2014 BRFSS is provided in Table 26. About 19% of the adult population is identified as a current smoker. There is little difference in the proportions of smokers among males and females. There also is no statistical difference based on marital status. The proportion of smokers is observably less among college graduates, but the difference is not statistically significant. This is, however, similar to the results for Texas.

Three of the factors in Table 26 did have statistically significant differences. First, the proportion of smokers for those over 65 was lower than that of those under 65. Further analysis indicated that those over 65 were more likely to be former smokers than those under 65. In other words, the proportion of smokers is lower among those over 65 partly because people have quit smoking by that age.

Second, those with incomes of less than $50,000 are more likely to be smokers than those in the over $50,000 income group. This is a pattern that also was visible in the morbidity data, suggesting the link between income, behavior, and health. Relatedly, those who were identified as having some form of disability also were more likely to be smokers.

Further examination of the data supports the link between smoking and health. Smokers were found to be more likely to rate their health as "fair" or "poor" than nonsmokers. In addition, statistically significant relationships were found between smokers and a diagnosis of Chronic Obstructive Pulmonary Disease (COPD) and Depression. The relationship between health problems and smoking is well documented. These results simply indicate that Wichita County is no exception.

TABLE 26 - **Smoking Status by Demographic Attribute**

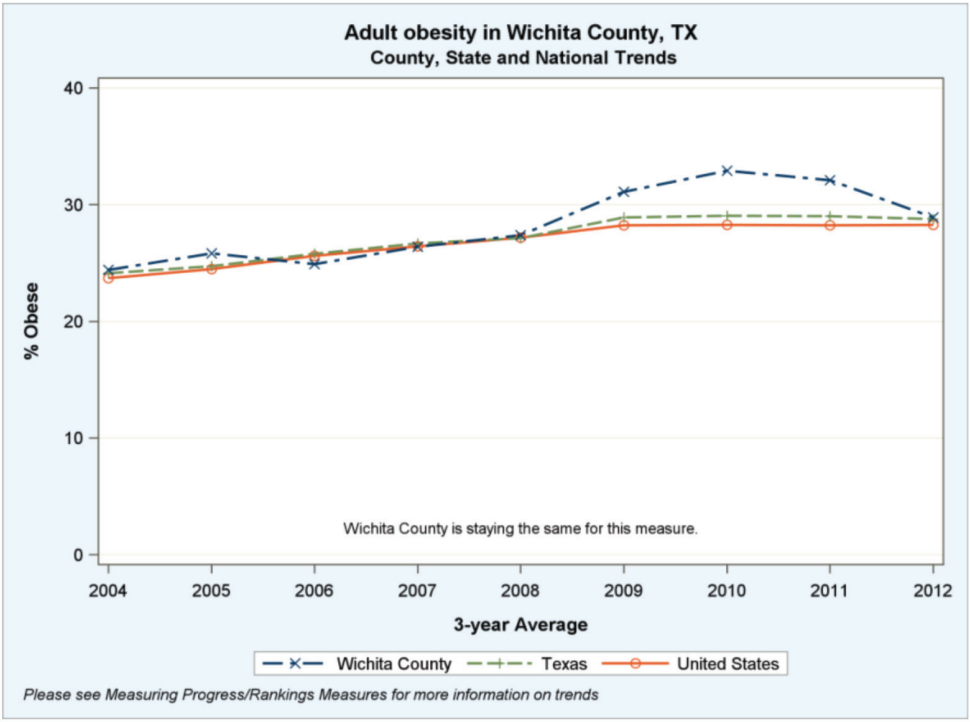
Demographic Group		Current Smoker		Not a Current Smoker	
		Percent	Confidence Interval	Percent	Confidence Interval
Total	Total	18.7	(13.7-25.1)	81.3	(74.9-86.3)
Gender	Male	18.5	(11.5-28.3)	81.5	(71.7-88.5)
	Female	19.0	(12.4-27.9)	81.0	(72.1-87.6)
Age*	18 to 64	20.5	(14.5-28.2)	79.5	(71.8-85.5)
	65+	10.4	[6.5-16.4]	89.6	(83.6-93.5)
Education	<High School	20.1	(8.6-40.3)	79.9	(59.7-91.4)
	High School	22.0	(12.2-36.3)	78.0	(63.7-87.8)
	Some College	20.4	(12.3-31.8)	79.6	(68.2-87.7)
	College Graduate	10.7	(4.9-21.5)	89.3	(78.5-95.1)
Income*	<$25,000	26.7	(16.0-41.1)	73.3	(58.9-84.0)
	$25,000-50,000	23.5	(13.0-38.8)	76.5	(61.2-87.0)
	$50,000+	6.6	(3.1-13.4)	93.4	(86.6-96.9)
Marital Status	Yes	14.8	(9.2-23.0)	85.2	(77.0-90.8)
	No	23.7	(15.3-34.8)	76.3	(65.2-84.7)
Disability Status*	Yes	32.4	(21.8-45.1)	67.6	(54.9-78.2)
	No	12.7	(8.0-19.6)	87.3	(80.4-92.0)

* Statistically significant differences, $p < .05$, Source: 2014 Texas BRFSS

Adult Obesity

There is national concern over increases in the number of children and adults who are obese. Figure 5 below indicates that after a period of increasing rates, the rates in Wichita County, like those for Texas and the U.S., have leveled off. It is, however, too soon to determine if they have begun to move downward.

FIGURE 5



Source: 2016 County Health Rankings - Wichita County

As shown in Table 27, there is not much difference between men and women across the three different weight groups. There is a statistical relationship between income and the weight category, with those in the mid- and higher-income groups having lower percentages of obesity. There is a somewhat unusual result with the $50,000 income group having the lowest normal weight proportion, but it is possible this is an artifact of the sample.

TABLE 27 - **Weight Classification by Demographic Attributes**

		Normal*		Overweight**		Obese***	
		Percent	Confidence Interval	Percent	Confidence Interval	Percent	Confidence Interval
Total	**Total**	30.19	[23.25-38.18]	39.16	[32.00-46.83]	30.65	[24.39-37.71]
Gender	**Male**	28.22	[18.06-41.23]	42.27	[31.75-53.54]	29.51	[20.80-40.01]
	Female	32.42	[23.99-42.16]	35.65	[26.40-46.11]	31.94	[23.54-41.69]
Income^	**< $25,000**	34.55	[21.14-50.97]	26.74	[15.78-41.55]	38.71	[25.30-54.07]
	$25,000	42.26	[26.15-60.21]	28.37	[17.56-42.42]	29.37	[17.70-44.55]
	$50,000+	17.08	[11.02-25.52]	53.50	[41.60-65.02]	29.42	[20.19-40.72]

*BMI < 25, **BMI 25-29, *** BMI ≥ 30, ^Statistically significant, p < .01, Source: 2014 Texas BRFSS

The results examining perceptions of health by weight category are presented in Table 28. The proportion who see their health as "fair" or "poor" is observably higher among those identified as obese than the other two categories. Although the difference is not statistically significant, it did approach significance at p < .07.

TABLE 28 - **Rating of General Health by Weight Classification**				
Weight	**General Health Rated as Fair or Poor**			
	Yes		No	
	Percent	Confidence Interval	Percent	Confidence Interval
Normal*	18.53	[10.85-29.82]	81.47	[70.18-89.15]
Overweight**	18.35	[11.02-28.97]	81.65	[71.03-88.98]
Obese***	29.77	[19.76-42.19]	70.23	[57.81-80.24]
*BMI < 25, **BMI 25-29, *** BMI ≥ 30, Source: 2014 Texas BRFSS				

Physical Activity

Estimates of the proportion of Wichita County residents who engage in physical activities are presented in Table 29. An estimated 67% of residents engage in exercise or physical activities in a month, a proportion mirroring Texas's. There was no statistical difference among males and females, income groups, or age groups. The results are similar to those for Texas with higher proportions for males than females and among younger age groups.

TABLE 29 - **Involvement in Physical Activity by Demographic Attribute**					
		Participate in Any Physical Activities or Exercise in Past Month			
		Yes		No	
		Percent	Confidence Interval	Percent	Confidence Interval
Total	**Total**	67.68	[60.52-74.09]	32.32	[25.91-39.48]
Gender	**Male**	73.22	[62.84-81.55]	26.78	[18.45-37.16]
	Female	61.87	[52.06-70.8]	38.13	[29.20-47.94]
Income	**< $25,000**	66.70	[51.67-78.96]	33.30	[21.04-48.33]
	$25,000	59.49	[43.69-73.53]	40.51	[26.47-56.31]
	$50,000+	78.31	[67.7-86.15]	21.69	[13.85-32.30]
Age Group	**18 to 44**	73.21	[56.62-85.12]	26.79	[14.88-43.38]
	45 to 64	66.35	[56.69-74.81]	33.65	[25.19-43.31]
	65+	60.14	[52.82-67.03]	39.86	[32.97-47.18]
Source: 2014 Texas BRFSS					

The relationship between physical activity and perceived health is examined in Table 30. As expected, those who indicated engaging in physical activity were less likely to rate their health as "fair or poor." In addition, an examination of the relationship of physical activity and a diagnosis of cardiovascular disease indicated that those with a diagnosis of cardiovascular disease were less likely to engage in physical activity than those without a diagnosis ($p < .01$).

It is important to keep in mind that these results are a relationship at one point in time and do not indicate a cause and effect direction. For example, someone may not engage in physical activity because of cardiovascular disease, or someone who engages in physical activity may be less likely to have cardiovascular disease.

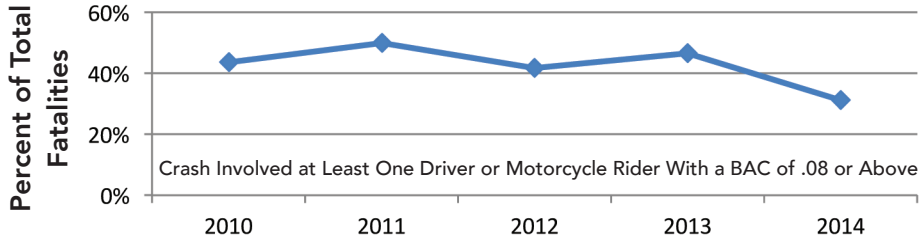
TABLE 30 - **Involvement in Physical Activity by Perceived Health**				
Health Rated Fair or Poor	**Participate in Any Physical Activities or Exercise in Past Month**			
	Yes		No	
	Percent	Confidence Interval	Percent	Confidence Interval
Yes	43.82	[30.80-57.76]	56.18	[42.24-69.20]
No	73.47	[65.22-80.36]	26.53	[19.64-34.78]
Statistically significant, $p < .01$, Source: 2014 Texas BRFSS				

Alcohol

The data available on alcohol consumption are very limited. Although questions about alcohol consumption are included in the BRFSS, there were too few respondents identified as either binge or heavy drinkers to allow for meaningful estimates. The estimate of excessive drinking, which includes heavy and binge drinking, in the County Health Rankings in Table 25 above is 17%. This is similar to the rate for Texas, but higher than the U.S. top performers. Using data from the Texas BRFSS, it is estimated that 6.4% (Confidence Interval = 3.1-12.7) of Wichita County adults were told by a doctor to cut back on or quit drinking.

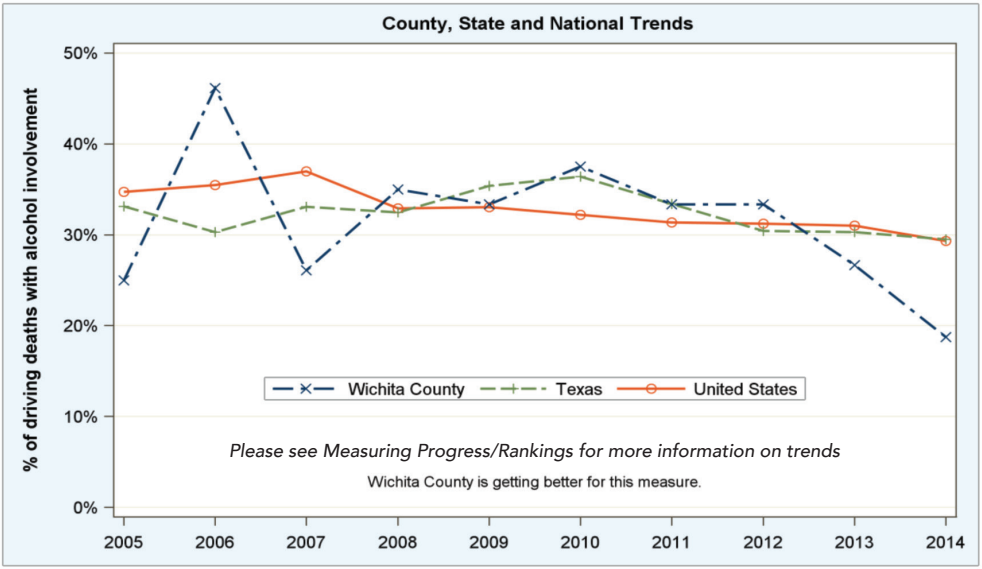
Figures 6 and 7 provide two different estimates of alcohol-impaired driving fatalities. The first includes all traffic-related mortality including motorcycles and the second includes driving deaths only. Both charts suggest that alcohol-related traffic fatalities may be declining.

FIGURE 6 - **Alcohol-Related Traffic Fatalities as a Percent of Total**



Source: http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/48_TX/2014/Counties/Texas_Wichita%20County_2014.HTM

FIGURE 7 - **Alcohol-Impaired Traffic Driving Deaths in Wichita County**



Source: 2016 County Health Rankings - Wichita County

It is difficult given the data limitations to draw many conclusions about alcohol abuse in Wichita County. The data that is available indicates that there are alcohol-related problems and that the proportion of those who are heavy or binge drinkers is higher than the U.S. top performers.

Teen Births

There are a number of health risks associated with teen births including sexually transmitted infections, low birth weight babies, and poor prenatal care. Wichita County's teen birth rate, women age 15 through 19, was 58 per thousand female population in the County Health Rankings (See Table 25 above). Although the rate was not much different than the rate for Texas, the rate was much higher than that of the top performers in the U.S.

Birth rates, calculated as the proportion of live births for women age 17 and under, by ethnic group are presented in Table 31 below.[3] As shown in the table, teen birth rates for Blacks and Hispanics are generally higher than those for Whites.

TABLE 31 - Number and Percent of Live births of Mothers Age 17 and Under by Ethnicity and Year

	Total		White*		Black		Hispanic	
Year	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
2013	71	4.0	22	1.9	14	7.5	35	8.1
2012	66	3.7	32	2.7	7	4.4	27	6.6
2011	76	4.1	25	2.0	21	10.1	30	7.7
2010	77	4.3	29	2.4	15	7.7	33	8.9
2009	98	5.4	41	3.3	25	13.0	32	7.7

* Includes Other and Unknown Race/Ethnicity.

Source: Texas Department of State Health Services, Vital Statistics, http://healthdata.dshs.texas.gov/VitalStatistics/Birth

[3]The County Health Rankings and TSDHS use slightly different age categories for the calculation of teen birth rates.

Clinical Care

The clinical care area of this assessment is an examination of the availability of and access to various health services. A summary of the results from the 2016 County Health Rankings for Wichita County is presented in Table 32 below. Wichita County ranked 13th among the 241 counties ranked in this area. The results presented in the table suggest that Wichita County had estimates for most indicators that were similar to those of Texas and the U.S. top performers.

TABLE 32 - Summary of Clinical Care Scores from 2016 County Health Rankings, Wichita County Rank 13

	Wichita County	Error Margin	Top U.S. Performers	Texas
Uninsured	22%	20-24%	11%	25%
Primary Care Physicians	1,260:1		1,040:1	1,680:1
Dentists	1,190:1		1,340:1	1,880:1
Mental Health Providers	700:1		370:1	990:1
Preventable Hospital Stays	54	50-57	38	58
Diabetic Monitoring	84%	80-88%	90%	84%
Mammography Screening	60%	55-64%	71%	58%

Source: 2016 County Health Rankings - Wichita County

The County Health Ranking results for "Clinical Care" clearly are very positive. Some additional information and clarification of "Clinical Care" are provided in the sections that follow.

Uninsured

The estimates of the insured population provided by the County Health Rankings in Table 32 above are from 2013. The number of insured is changing, however, as the requirements of the Patient Protection and Affordable Care Act (ACA) are phased in. An estimate of the uninsured population in Wichita County based on data from the 2014 Texas BRFSS is provided in Table 33 below. The estimate of 15.99% is lower than that in Table 32, although not statistically different. An estimate from the 2014 American Community Survey was even lower, indicating 12.9% uninsured in Wichita County. The results suggest that the expected decline in the uninsured population resulting from the ACA may be occurring in Wichita County.

TABLE 33 - **Proportion With Any Kind of Health Care Coverage Including Health Insurance**

	Percent	Confidence Interval
Yes	84.01	(76.79-89.30)
No	15.99	(10.70-23.21)

Source: 2014 Texas BRFSS

The relationship of the ability to afford to see a doctor when needed and health insurance coverage is presented in Table 34 below. As the table shows, the proportion without health insurance coverage who indicated they could not afford to see a doctor when needed was 46.91% compared to 10.9% who had health insurance coverage.

TABLE 34 - **Health Insurance Coverage by Affording to See a Doctor When Needed**

	Needed to See a Doctor in the Past 12 Months but Could Not Afford One			
Have Health Insurance	Yes		No	
	Percent	Confidence Interval	Percent	Confidence Interval
Yes	10.9	[6.81-17.00]	89.1	[83.00-93.19]
No	46.9	[26.21-68.73]	53.1	[31.27-73.79]

Statistically significant, $p < .01$, Source: 2014 Texas BRFSS

The results in this section suggest that the number of uninsured in Wichita County may be declining. They further suggest that access to needed care from a doctor will improve as more residents of Wichita County are insured. Even with health coverage, access to needed care requires the availability of the needed health care services.

Health Care Providers

The results provided by the County Health Rankings in Table 32 above indicate that Wichita County has a primary care provider ratio similar to that of the top U.S. performers and better than that of Texas. The ratio for primary care physicians reported by TSDHS for 2015, 1171:1, was comparable to that of the County Health Rankings. Wichita County ranked 30th among Texas counties as reported in the TSDHS data.

The ratio of dentists in Table 32 is 1190:1. Data from TSDHS indicated that Wichita County ranked 36th among Texas Counties with a ratio of general dentists to population of 2814:1. Although Wichita County's ranking for general dentists is quite high, the TSDHS ratio is nearly double that reported in the County Health Rankings. Wichita County's ratio of mental health providers was slightly better than Texas's, but above the ratio for U.S. top performers.

In general, these are favorable results, but they should be viewed with some caution. First, physicians in Wichita County frequently serve the surrounding counties. The ratios do not include those populations and may be overestimates. Second, the data do not include access to physicians other than primary care. Certain areas of specialization are not readily available within the county. Third, there is a marked difference between the data on dentists from the County Health Rankings and TSDHS, although Wichita County ranks well based on both sets of data. Finally, the availability of health care providers cannot be considered in isolation of the ability to pay for services. The results in Table 34 above indicate that people may not see a needed health care provider if they lack the resources to do so.

Summary of Clinical Care

Wichita County's rank in the Clinical Care area of the County Health Rankings was 13 out of 241 counties. The evidence suggests that the county is doing well in this area with the needed primary care physicians and dentists, although there may be need for more mental health providers. Wichita County has a preventable hospital stay rate similar to Texas's, also suggesting favorable access to care. The results indicate that people without insurance are more likely to delay or not receive needed care due to cost. The results, however, also suggest the uninsured population is declining which should reduce the number of individuals who cannot afford needed care.

Social & Economic Factors

Social and economic factors are examined in this section. A summary table of these factors from the Community Health Rankings is provided in Table 35. Wichita County has a number of areas of strength. It has a low unemployment rate. The unadjusted unemployment rate in February 2016 was 4.3. The county also has a high rate of high school graduation. Finally, Wichita County has a fairly low income inequality ratio. This is the ratio of the income level of households in the upper 20% of income to the income level of households in the bottom 20% of income. A community with higher levels of income inequality may experience a lower sense of community and more distrust among segments of the community.[4]

TABLE 35 - **Summary of Social and Economic Factors Scores Wichita County Rank 132**

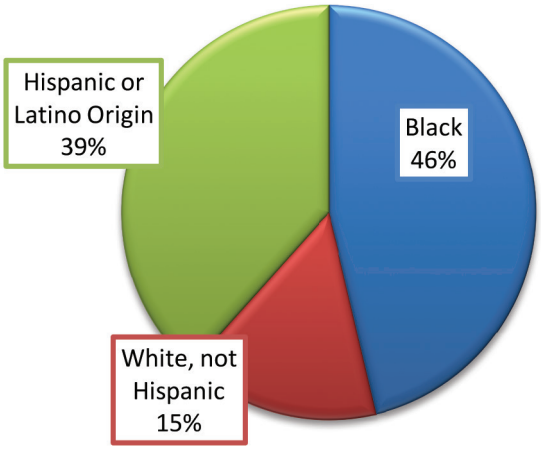
	Wichita County	Error Margin	Top U.S. Performers	Texas
High school graduation	93%		93%	88%
Some college	57%	54-60%	72%	59%
Unemployment	4.9%		3.5%	5.1%
Children in poverty	29%	25-34%	13%	25%
Income inequality	4.4	4.1-4.7	3.7	4.9
Children in single-parent households	39%	34-43%	21%	33%
Social associations	10.6		22.1	7.8
Violent crime	405		59	422
Injury deaths	72	65-78	51	54

Source: 2016 County Health Rankings - Wichita County

[4]See: http://www.countyhealthrankings.org/app/texas/2016/measure/factors/44/description for more information on this measure.

There are, however, some areas of weakness. The estimated number of children living in poverty in Wichita County is quite high at 29%. According to the American Community Survey,[5] Wichita County's median household income was $44,854 compared to Texas's of $52,576. Twenty-nine percent of the households had incomes of less than $25,000. There are disparities in poverty rates among ethnic groups as shown in Figure 8, with the proportions of Blacks and Hispanics below poverty much higher than Whites.

FIGURE 8 - **Percent Below Poverty Level by Ethnic Group 2010-2014**



Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

Wichita County also has a relatively low rate of social associations. These are the number of associations per 10,000 population including membership organizations such as civic organizations, bowling centers, golf clubs, fitness centers, sports organizations, religious organizations, political organizations, labor organizations, business organizations, and professional organizations. Finally, the injury death rate for Wichita County is quite high compared to Texas and the U.S. Top Performers.

[5]See: http://factfinder.census.gov/bkmk/cf/1.0/en/county/Wichita County, Texas/POPULATION/PEP_EST

Conclusions

A great deal of information about the health and wellbeing of the residents of Wichita County has been covered in this report. Figure 1 is provided as a way of pulling the information together. Without question, any summary of so much information is bound to be incomplete in some way. The summary should be viewed as only one tool for understanding the health and wellbeing of Wichita County.

Figure 1 is comprised of four different boxes. The two top boxes of the figure are areas of strength and weakness that may affect health outcomes. It is possible for an item to be both a strength and a weakness. For example, it is a weakness that the current number of uninsured is high in Wichita County, but a strength that the number of uninsured is decreasing. The box labeled "Health Status and Outcomes Problem Areas" includes those areas of most concern. In most, but not all instances, these were included based on numbers affected and severity. The fourth box, "Population Risk Issues," lists some of the factors and groups that are related to greater risk of poor health outcomes and status.

The information in Figure 1 provides some general guidelines for action. First, Wichita County's excess mortality, years of life lost due to premature morality, is high indicating the need to improve overall community health. Cardiovascular disease, cancer, and depression are among the specific areas of concern. The weaknesses in the figure suggest efforts are merited to increase the number of people who engage in healthy and active lifestyles. In addition, actions to reduce teenage pregnancy sexually transmitted disease infections also should be considered. Steps to reduce the prevalence of tobacco use in Wichita County also should be sustained.

Considerations should be given to the risk issues in any activities to improve the health of Wichita County residents. These may include specifically targeting health issues among men and increasing attention to the County's Black population. There also are broad policy issues that go well beyond the purview of the county including Wichita County's uninsured population, poverty rate, and low household income. Nonetheless, local attention can be directed at ensuring access to affordable care for those with lower incomes and with insurance. In addition, health prevention strategies can be better tailored for lower-income individuals.