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Summer 9-1-2019

How the Behaviors of Some East Texans May Affect Their Health - September 2019

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Recommended Citation

Reyes-Loya, Manuel; Young, Marilyn; and Kumar, Ayush, "How the Behaviors of Some East Texans May Affect Their Health - September 2019" (2019). *Hibbs Newsletter*. Paper 8.

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Hibbs Newsletter

Hibbs Institute for Business & Economic Research

September 2019



In this issue, we complement our previous edition, discussing some additional aspects of Health Status in the U.S. with a focus on East Texas.

Smoking is the number one cause of preventable disease and death in the world. It is estimated that smoking-related diseases are responsible for more than 480,000 lives in the U.S. each year. Smoking is directly responsible for about 90% of lung cancer deaths and about 80% of deaths caused by chronic lower respiratory disease (CLRD).

As we mentioned in the first volume of the Health Status Newsletter (August issue), we have reserved this issue to discuss certain important factors affecting the overall health of a region. In particular, we explore recognized health factors such as smoking, physical inactivity and obesity.

The health behavior of East Texans could be said to be somehow inadequate. These health factors—tobacco use and diet and exercise—are the most extensively studied and have been determined to have the most negative effects. They clearly have a significant impact in people's health.

According to the U.S. Department of Health and Human Services, smoking ranks first among preventable causes of disease and death in the world. It is estimated that smoking-related diseases are responsible for more than 480,000 lives in the U.S. each year. Smoking is directly responsible for about 90% of lung cancer deaths and about 80% of deaths caused by chronic lower respiratory disease (CLRD).¹

Cancer is one of the leading causes of death in the nation. Lung and bronchus cancer alone is the one cancer type that kills more people in the U.S. It is estimated that 142,670 people will die this year of lung and bronchus cancer; almost three times the second most mortal type, the colorectal cancer (**Table 1**).²

Table 1. Estimated Deaths in the U.S. by the Types of Cancer, in 2019.

Types of Cancer	Estimated Deaths 2019
Lung & Bronchus Cancer	142,670
Colorectal Cancer	51,020
Breast Cancer	41,760
Prostate Cancer	31,620
Leukemia	22,840
Non-Hodgkin Lymphoma	19,970
Bladder Cancer	17,670
Kidney & Renal Cancer	14,770
Uterine Cancer	12,160
Melanoma of the Skin	7,230

Source: National Cancer Institute.

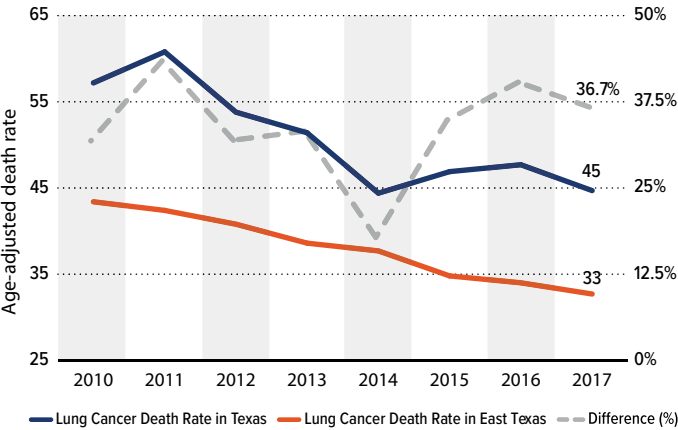
¹U.S. Department of Health and Human Services. The Health Consequences of Smoking – 50 Years of Progress: A Report of the Surgeon General.

²National Cancer Institute.

Deaths related to lung cancer are also significant in East Texas. Lung cancer caused 5,949 deaths in East Texas between 2010 and 2017. Remarkably, East Texas has had more lung cancer related deaths (proportional to its population count) than the state of Texas. While the East Texas population is about 4% of the state population, it reported almost 8% of the lung cancer related deaths in the state in 2017. **Figure 1** depicts a more formal comparison between Texas and East Texas. Lung cancer death rates (age-adjusted) in Texas ranged from 33 to 43 deaths per 100,000 people, while East Texas rates ranged from 45 to 61 deaths per 100,000 people (**Figure 1, left axis**). In 2017, lung cancer death rates in East Texas were 36.7% higher than what they were in the overall state of Texas. Since smoking is responsible for 90% of the lung cancer deaths, smoking rates become a major concern in East Texas.

Total U.S. deaths associated with heart disease, stroke, diabetes and hypertension (collectively known as cardiometabolic disease) have been increasing since 2011.³ This increase is, in large, due to the growing obesity rates. The number of U.S. states with adult obesity rates above 30% reached an all-time high of 23 in 2018 (**Table 2**). Although Texas ranks 31st with an adult obesity rate of 28%, East Texas experiences a higher rate. In fact, if East Texas were a state in the U.S., it would be ranked on the Top 10 list of adult obesity rates with 32%.

Figure 1. Lung Cancer Death Rates in Texas and East Texas (left axis) and Difference of Rates in Percentage (right axis)



Note: Death Rates are age-adjusted per 100,000 people.
Source: Centers for Disease Control and Prevention.

Table 2. Adult Obesity Rates in the U.S., by State, in Percentages (Top 23 States and East Texas)

State		Obesity Rates (%) 2018
1	West Virginia	36%
2	Alabama	35%
3	Arkansas	35%
4	Louisiana	35%
5	Mississippi	35%
6	Kentucky	34%
7	Oklahoma	33%
	East Texas	32%
8	Indiana	32%
9	Iowa	32%
10	Kansas	32%
11	Missouri	32%
12	North Dakota	32%
13	Ohio	32%
14	South Carolina	32%
15	Tennessee	32%
16	Delaware	32%
17	Michigan	31%
18	Nebraska	31%
19	South Dakota	31%
20	Wisconsin	31%
21	Georgia	30%
22	North Carolina	30%
23	Pennsylvania	30%

Source: County Health Rankings; Population Health Institute at the University of Wisconsin.

³“Total heart disease deaths on the rise.” (August 2018) American Association for the Advancement of Science (AAAS)
https://www.eurekalert.org/pub_releases/2019-08/nu-thd082219.php

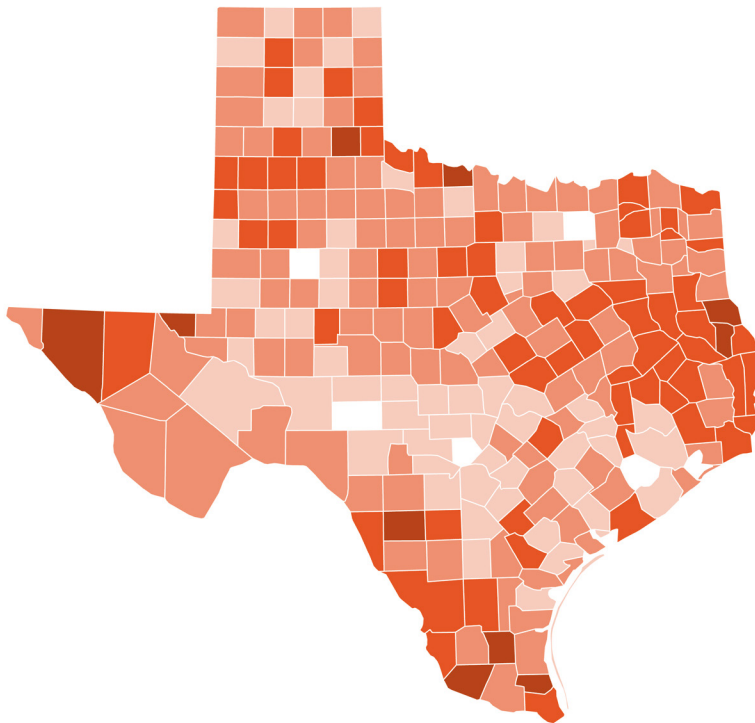
THE HEALTH STATUS OF EAST TEXAS

Health Behavior – Adult Smoking

Adult smoking rate is defined as the percentage of adults age 20 and over who are current smokers. This rate is relatively high in East Texas (**Figure 2**). In 2018, of the 23 counties in East Texas, only Rains does not have an adult smoking rate above the overall Texas estimated rate of 14% (**Table 3**). Anderson, Bowie, Cherokee, and Lamar have the highest rate in East Texas with 18%. This rate is slightly below the Texas maximum of 20% in counties such as Hudspeth, San Augustine, Starr, Wichita, Willacy, and Zavala. Although the adult smoking rate is currently higher in East Texas (compared to other regions in Texas), this rate has dropped significantly in the last seven years or so for most of the examined counties with the exception of Rusk County.

View the [online interactive graph](#)

Figure 2. Adult Smoking in East Texas, 2018
(Darker indicates Higher Percentage)



Source: County Health Rankings; Population Health Institute at the University of Wisconsin.

Table 3. Adult Smoking in East Texas, in Percentages (2011 & 2018)

County	Adult Smoking (%)	
	2011	2018
Anderson	23%	18%
Bowie	23%	18%
Camp	-	17%
Cass	-	16%
Cherokee	-	18%
Delta	-	17%
Franklin	-	16%
Gregg	21%	16%
Harrison	24%	16%
Henderson	22%	17%
Hopkins	-	17%
Lamar	24%	18%
Marion	-	17%
Morris	-	16%
Panola	-	16%
Rains	-	14%
Red River	-	16%
Rusk	16%	17%
Smith	22%	16%
Titus	-	17%
Upshur	-	16%
Van Zandt	25%	15%
Wood	24%	15%
Range in Texas (Min-Max):		11-20%
Overall in Texas:		14%

Note: Adult Smoking rates were not available for several counties in East Texas for 2011.
Source: County Health Rankings; Population Health Institute at the University of Wisconsin.

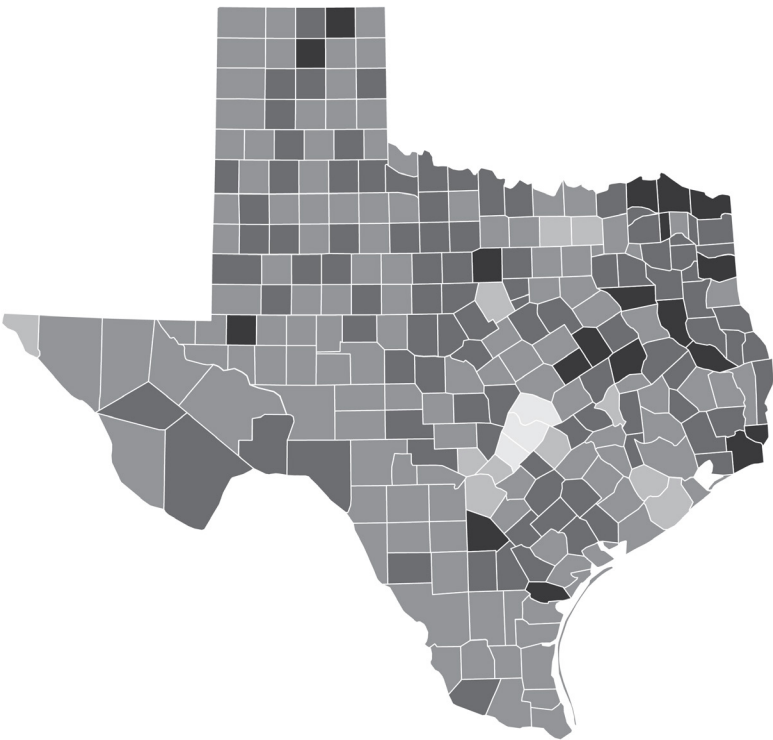
THE HEALTH STATUS OF EAST TEXAS (CONTINUED)

Health Behavior – Physical Inactivity

The physical inactivity rate is defined as the percentage of adults age 20 and over reporting no leisure-time physical activity. This rate is fairly high in East Texas (Figure 3). In 2018, several counties in East Texas are among the highest rates in the entire state (above 30%). In fact, Henderson County has the highest physical inactivity rate in Texas with a rate of 35% in 2018 (the most recent year available). On the other hand, counties such as Anderson, Panola, Rains and Titus have the lowest rates in East Texas (Table 4). Physical inactivity rates across time in East Texas do not show a clear pattern. An upward or downward trend in the seven-year period cannot be observed or determined. Yet, Cass County depicts the largest improvement of the 23 counties in East Texas with a 5% decrease; Cherokee and Harrison, conversely, experienced the largest increase with a physical inactivity rate by 5%.

View the [online interactive graph](#)

Figure 3. Physical Inactivity in East Texas, 2018
(Darker indicates Higher Percentage)



Source: County Health Rankings; Population Health Institute at the University of Wisconsin.

Table 4. Physical Inactivity in East Texas,
in Percentages (2011 & 2018)

County	Physical Inactivity (%)	
	2011	2018
Anderson	30%	27%
Bowie	30%	33%
Camp	28%	28%
Cass	34%	29%
Cherokee	29%	34%
Delta	30%	30%
Franklin	31%	33%
Gregg	31%	30%
Harrison	28%	33%
Henderson	31%	35%
Hopkins	31%	31%
Lamar	30%	32%
Marion	30%	29%
Morris	31%	30%
Panola	30%	27%
Rains	28%	27%
Red River	34%	34%
Rusk	28%	31%
Smith	26%	30%
Titus	27%	27%
Upshur	31%	31%
Van Zandt	30%	29%
Wood	30%	29%
Range in Texas (Min-Max):		16-35%
Overall in Texas:		24%

Source: County Health Rankings; Population Health Institute at the University of Wisconsin.

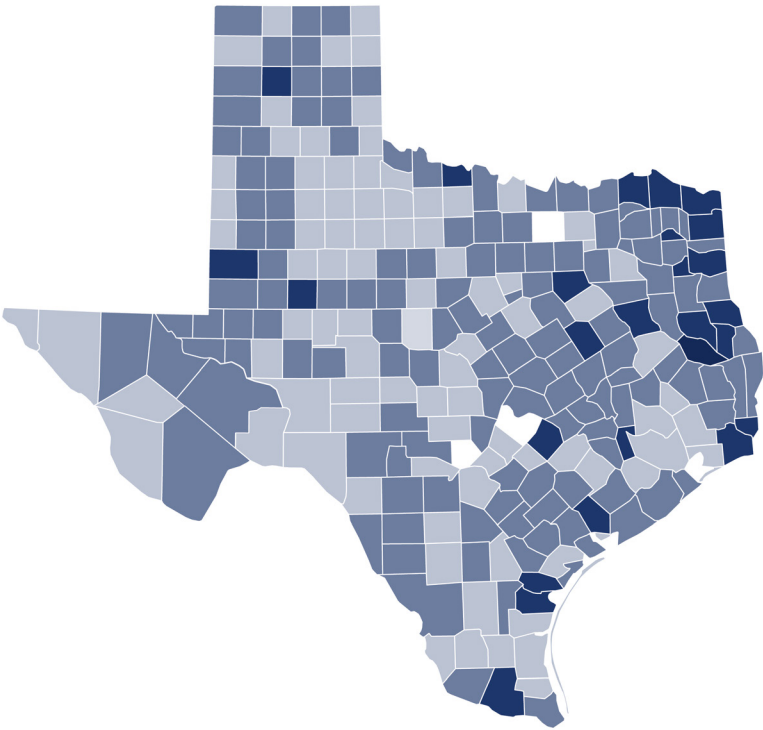
THE HEALTH STATUS OF EAST TEXAS (CONTINUED)

Health Behavior – Adult Obesity

The adult obesity rate is defined as the percentage of adults age 20 and over who report a body mass index (BMI) greater or equal than 30kg/m2. This rate is considerably high for several counties in East Texas (**Figure 4**). In 2018, counties such as Bowie, Gregg and Red River depicted the highest adult obesity rates in East Texas with 35%, five points below the Texas highest (Angelina County, with 40%). Remarkably, the adult obesity rate in East Texas is 28% or higher for all counties (**Table 5**). The lowest rate was experienced by Van Zandt with 28%, compared to the state lowest, Travis County, with only 21%. Moreover, all counties in East Texas have worsened from the estimated rates in 2011; Red River, Lamar, Bowie, Gregg and Camp gained 5-7% within a seven-year period from 2011 to 2018.

[View the online interactive graph](#)

Figure 4. Physical Inactivity in East Texas, 2018
(Darker indicates Higher Percentage)



Source: County Health Rankings; Population Health Institute at the University of Wisconsin.

Table 5. Adult Obesity in East Texas, in Percentages (2011 & 2018)

County	Adult Obesity (%)	
	2011	2018
Anderson	28%	33%
Bowie	29%	35%
Camp	29%	34%
Cass	29%	33%
Cherokee	30%	31%
Delta	28%	29%
Franklin	27%	29%
Gregg	29%	35%
Harrison	30%	34%
Henderson	29%	32%
Hopkins	29%	32%
Lamar	26%	33%
Marion	29%	30%
Morris	29%	32%
Panola	28%	32%
Rains	28%	31%
Red River	28%	35%
Rusk	28%	32%
Smith	28%	29%
Titus	29%	30%
Upshur	28%	29%
Van Zandt	26%	28%
Wood	28%	29%
Range in Texas (Min-Max):		21-40%
Overall in Texas:		28%

Source: County Health Rankings; Population Health Institute at the University of Wisconsin.

HEALTH BEHAVIOR IN THE TYLER AREA (SELECTED MEASURES)

Health behavior (selected measures) in the Tyler area is shown below. **Figures 5, 6 and 7** depict adult smoking, adult obesity and physical inactivity rates for the three most populated counties in the Tyler Area in 2018 (Anderson, Henderson and Smith).⁵ Most of the counties in the Tyler area reduced their adult smoking rates within a five-year span. Remarkably, Henderson County significantly reduced its adult smoking rate by 9% in a five-year period. Some counties in the Tyler area were among the counties with the highest rates of physical inactivity in the entire state of Texas. Henderson and Cherokee are among the least physically active counties in the state. Adult obesity rates in the Tyler area in 2018 were on, or above, the overall estimate in Texas of 28%.

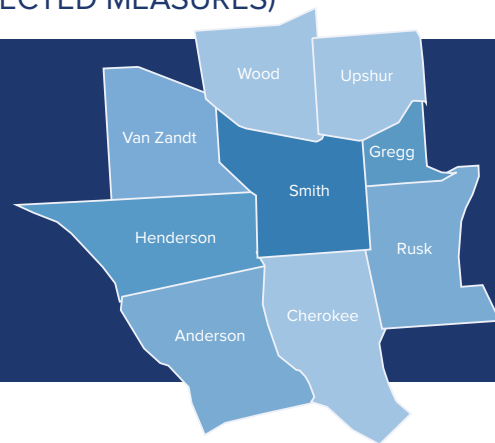
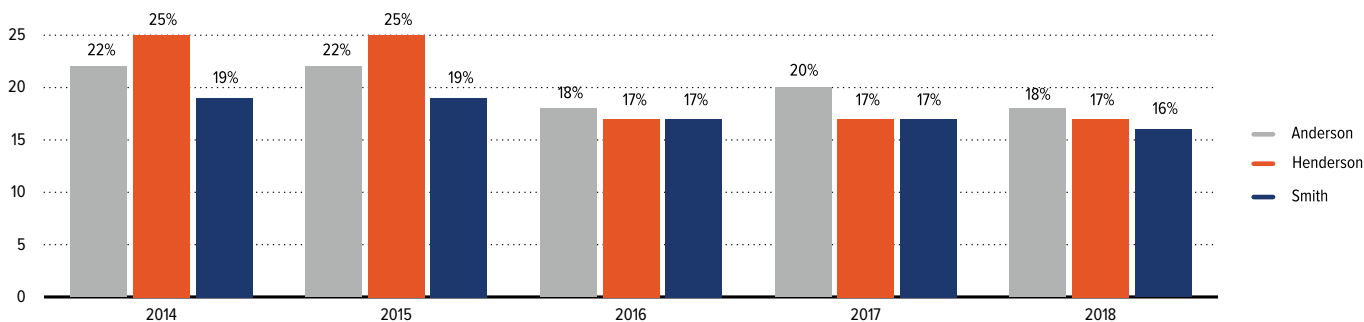
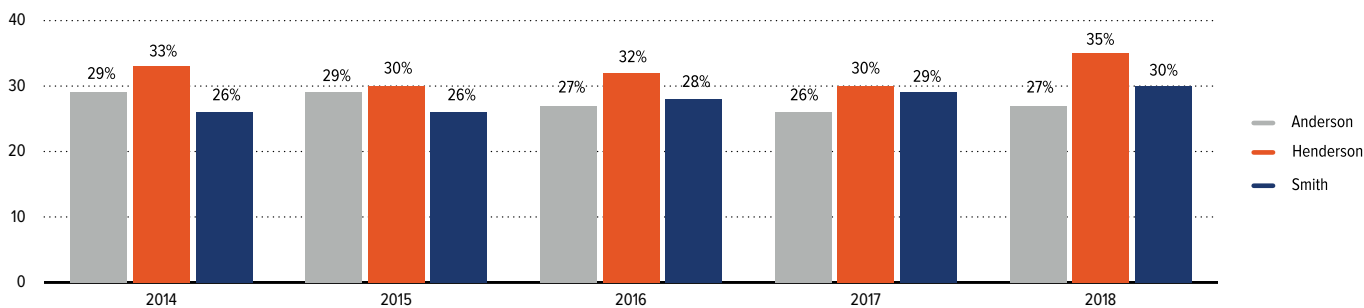


Figure 5. Adult Smoking - Selected Counties in the Tyler Area, in Percentages (2014–2018)



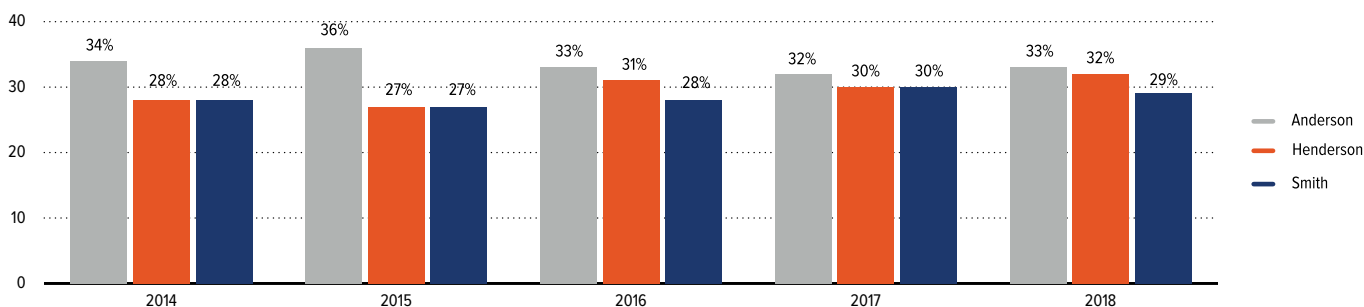
Source: County Health Rankings; Population Institute at the University of Wisconsin.

Figure 6. Physical Inactivity - Selected Counties in the Tyler Area, in Percentages (2014–2018)



Source: County Health Rankings; Population Institute at the University of Wisconsin.

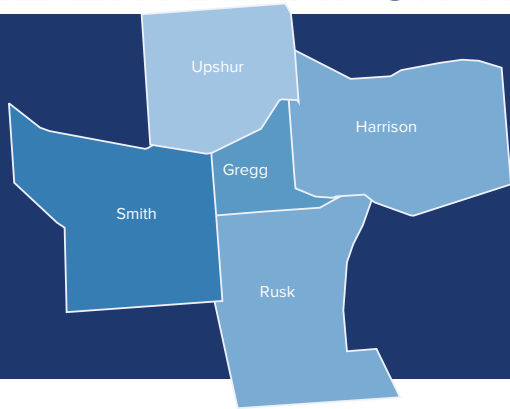
Figure 7. Adult Obesity - Selected Counties in the Tyler Area, in Percentages (2014–2018)



Source: County Health Rankings; Population Institute at the University of Wisconsin.

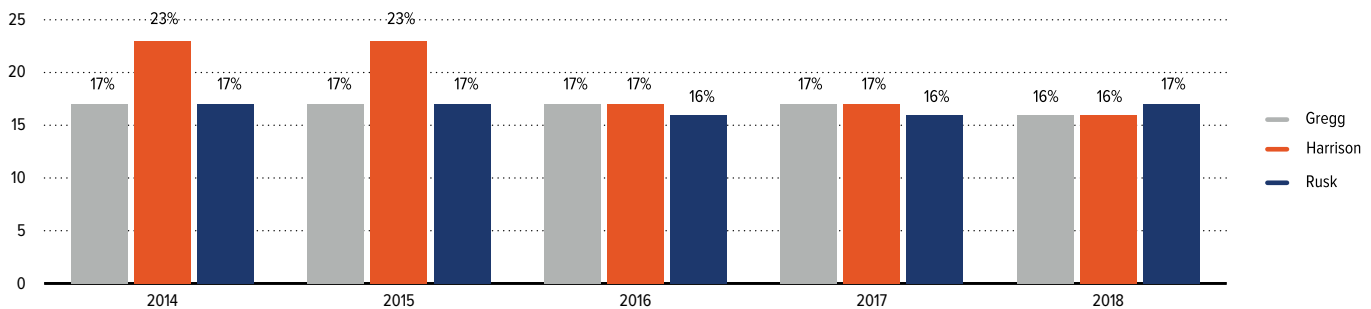
⁵ Although Gregg County is one of the most populous counties in the Tyler area, it is not included in this section because it is examined in the following section.

HEALTH BEHAVIOR IN THE LONGVIEW AREA (SELECTED MEASURES)



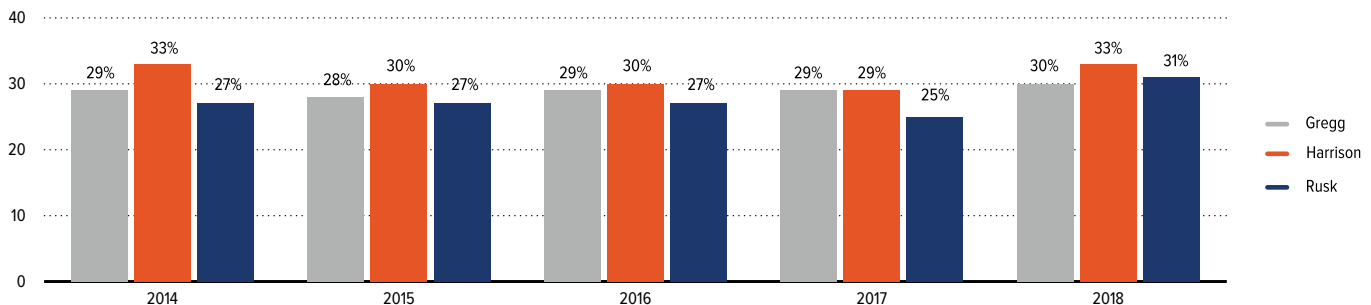
Health behavior (selected measures) in the Longview area is shown below. **Figures 8, 9 and 10** depict adult smoking, adult obesity and physical inactivity rates for the three most populated counties at the Longview area in 2018 (Gregg, Harrison and Rusk). All counties in the Longview area experienced an adult smoking rate of 16-17%, moderately higher than the overall Texas estimate of 14%. Physical inactivity rates have worsened in the past five-year period in the Longview area. In 2018 (the most recent available), more than 30% of the adult population in the Longview area were considered physically inactive and fairly above the overall estimate in Texas of 24%. Consequently, 29% or more of the adult population in the Longview area are considered obese.

Figure 8. Adult Smoking - Selected Counties in the Longview Area, in Percentages (2014–2018)



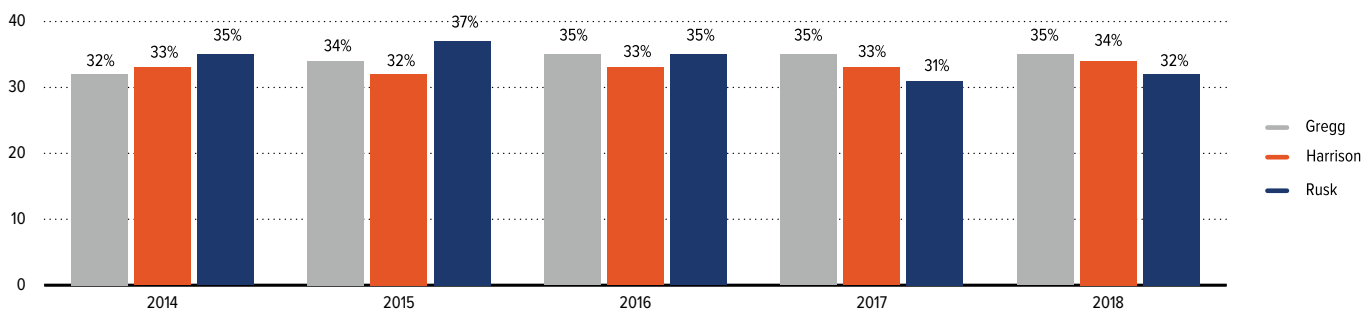
Source: County Health Rankings; Population Institute at the University of Wisconsin.

Figure 9. Physical Inactivity - Selected Counties in the Longview Area, in Percentages (2014–2018)



Source: County Health Rankings; Population Institute at the University of Wisconsin.

Figure 10. Adult Obesity - Selected Counties in the Longview Area, in Percentages (2014–2018)



Source: County Health Rankings; Population Institute at the University of Wisconsin.

HEALTH BEHAVIOR IN THE TEXARKANA AREA (SELECTED MEASURES)

Health behavior (selected measures) in the Texarkana area is shown below. **Figures 11, 12 and 13** depict adult smoking, adult obesity and physical inactivity rates for the three most populated counties in the Texarkana Area in 2018 (Bowie, Cass and Miller). All counties contained in the Texarkana area are above the overall estimated rate in Texas of 14%. Remarkably, Miller County, Arkansas, the only non-Texas county examined in this communique, has a higher adult smoking rate than any other county in the Texarkana area, East Texas or the entire estate of Texas. Both physical inactivity and adult obesity rates in the Texarkana area have been consistently high (29-30% or above) during the five-year period examined in this communique.

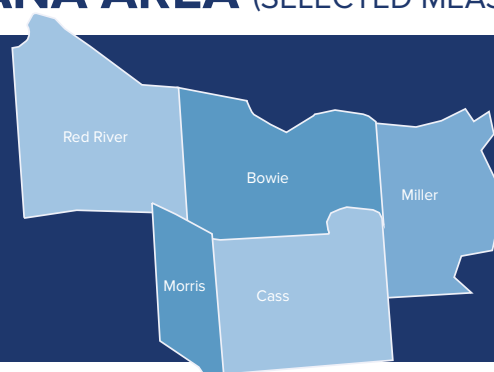
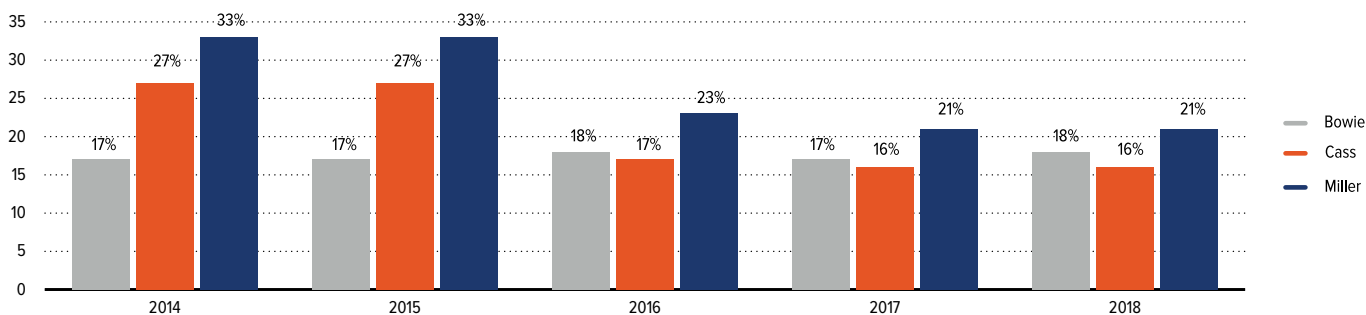
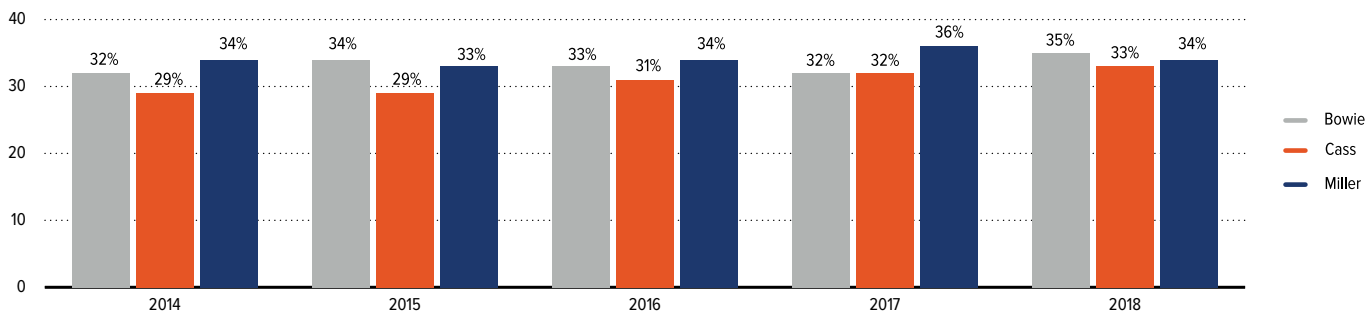


Figure 11. Adult Smoking - Selected Counties in the Texarkana Area, in Percentages (2014–2018)



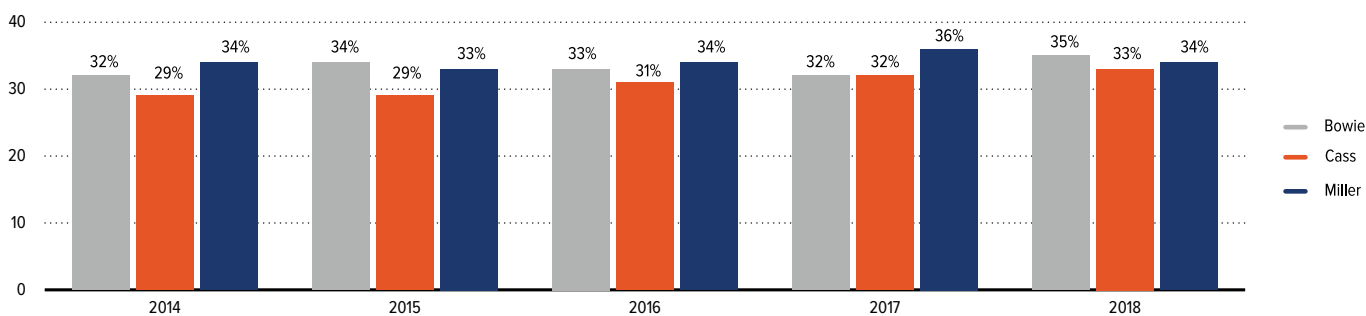
Source: County Health Rankings; Population Institute at the University of Wisconsin.

Figure 12. Physical Inactivity - Selected Counties in the Texarkana Area, in Percentages (2014–2018)



Source: County Health Rankings; Population Institute at the University of Wisconsin.

Figure 13. Adult Obesity - Selected Counties in the Texarkana Area, in Percentages (2014–2018)



Source: County Health Rankings; Population Institute at the University of Wisconsin.

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The Hibbs Institute for Business and Economic Research is a unit of The University of Texas at Tyler's Soules College of Business. The mission of the Hibbs Institute is to provide expert research and analysis for businesses, local government and economic development councils with the common goal of increasing economic activity and personal income in East Texas.

Services provided: economic impact analysis; industry/firm economic contribution studies; policy analysis; strategic planning; project analysis; and business and economic forecasting.

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