



# 2018 Health Equity Report



## Douglas County, Kansas



## A Message from Our Director



### Why Produce a Report on Health Equity?

Your health is more dependent upon your family, neighborhood and community than you might think. Our belief that our community is *Healthier Together* is rooted in the knowledge that social and economic factors influence our behaviors, which ultimately influences our health. These “social determinants of health” can be seen throughout this report from birth and early childhood to how long we are living. Place, race and income are powerful predictors for health. So, why produce a report on health equity? To raise awareness and conversation that we hope leads to progress on creating conditions in our community that lead to good health for all.

A handwritten signature in black ink, appearing to read 'Dan Partridge', with a stylized flourish at the end.

**Dan Partridge, Director**

*Lawrence-Douglas County Health Department*

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# Executive Summary

The 2018 Lawrence-Douglas County Health Department Health Equity Report represents an important step in our collective journey to health equity for Douglas County. It is a comprehensive composite of the health disparities and inequities that currently exist in the county. This report is a key element in the ongoing process to achieve health equity, meaning “that everyone has a fair and just opportunity to be as healthy as possible.”<sup>1</sup> Health inequities are conditions that are produced by the social and economic factors at play in a society. They are avoidable; they are not fixed in an individual’s DNA or hardwired into a population.<sup>2</sup> Therefore, vibrant data is critical to support identification of needs and addressing change with our vulnerable and/or marginalized populations through policies, systems, and the environment to build informed community-based decisions. The report outlines disparities in health by income and education, before examining some of the demographic characteristics of the county. Then it provides detailed information on existing racial and ethnic disparities related to the social determinants of health, followed by health outcomes, such as fertility, behavioral health, communicable disease, and life expectancy.

Health inequities are...

**“Systematic inequalities in health that are deemed to be avoidable by reasonable means.”**

*Sir Michael Marmot*

Key findings include:

- Residents with a high school degree or less are more likely to be smokers, be uninsured, have poor mental health, and report fair or poor general health.
- Residents earning less than \$35,000 are 6.6 times more likely to be uninsured and to be diagnosed with asthma. They are more likely to not go to the doctor due to cost and to have poor mental and physical well-being.
- Non-white populations in Douglas County have been growing at a higher rate than white populations since 1990.
- The black population in Douglas County is more likely than the white population to:
  - have an income lower than the county average;
  - struggle financially;
  - lose years of potential life to cardiovascular disease.
- In Douglas County, black infants are more likely to be born at a low birth weight; a more than two-fold difference from other population group.
- A Douglas County resident must earn \$16.25/hour (\$33,800/year) to afford a two-bedroom apartment in Lawrence. Black populations with a median income of \$31,042 and Asian populations with a median income of \$28,313 are below this benchmark and therefore may have additional burdens finding safe and affordable housing.
- All minority populations, except the Asian population, have lower educational attainment than the white population and the county average. Additionally, black and Native American male residents do not graduate at as high of rates as their counterparts.
- The black, Hispanic, Native American, Asian, and multiracial populations are uninsured at rates higher than both the white populations and the county average.
- The black non-Hispanic and Native American populations in Douglas County have statistically significant:
  - higher rates of sexually transmitted infections, including chlamydia, gonorrhea, and syphilis;
  - more years of potential life lost due to cancer;
  - lower life expectancies than the county average.

# Social Determinants of Health, Health Disparities, & Health Equity

America leads the world in medical research and medical care, and for all the resources that are spent on health care, Americans should be the healthiest people in the world. Yet on some important indicators, like average life expectancy, the United States is not even in the top 25. Health needs to be thought of as something more than what is provided in a doctor's office, but instead as something that starts with families and homes, schools and workplaces, and playgrounds and parks. Consider the following fictional, but realistic situation. A single-mom with young children struggles to afford rent on a monthly basis. Her job provides a steady income, but it is a small monthly paycheck and does not provide insurance. The apartment where the family lives has thin walls and poor ventilation and cigarette smoke from the neighbor's apartment often filters into the home. Sidewalks in the neighborhood are not well-maintained and it is not considered safe for the children to play outside without adult supervision. The younger child was recently diagnosed with asthma and mom is unsure of how they will afford the medication and treatments. The chronic stress from the situation is wearing her down.

The opportunity for health starts long before the need to visit a doctor. In recent years, public health professionals have critically examined the factors that impact an individual's health and have found that social, economic, and environmental factors are the biggest drivers of health status.<sup>3</sup> Health is defined as both physical and mental health and individual well-being.<sup>1</sup> To best understand an individual's health, it is not sufficient to simply examine the person at the time of injury, disease, or mortality. Health starts a long time before any one illness. Instead, it is imperative to examine the factors and conditions that are present at the time of birth and occur over the course of a lifetime. Those factors and conditions are called the social determinants of health (SDOH). Inequities exist as a result in how the social determinants of health differ and vary group to group.



[www.healthypeople.gov](http://www.healthypeople.gov)

There are various ways of defining the social determinants of health, but the framework used by the CDC and Healthy People 2020 aligns the social determinants along five primary areas:<sup>4</sup>

1. Economic Stability (employment, poverty)
2. Education (early childhood development, literacy)
3. Social & Community Context (discrimination, civic engagement)
4. Health & Health Care (access to health insurance, health literacy)
5. Neighborhood & Built Environment (housing quality, crime and violence)



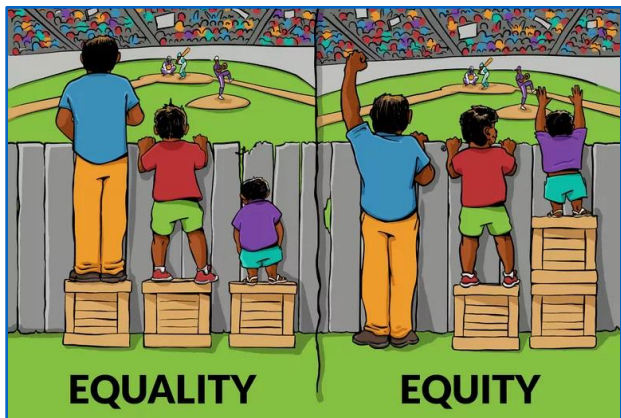


**World Health Organization<sup>5</sup>**

“The richer someone is, the healthier they are.” But the reality is much more complex. Wealth affects choices on living conditions, such as living in a low-crime area, near a park, or in a home without lead. It provides long-term opportunities for children, like higher education, which can lead to more financial and economic security for the child. On the other hand, lack of wealth can lead to negative health outcomes due to the impact of chronic stress. To make the situation even more complex, the accumulation of wealth in the United States has historical ties to race and ethnicity. Not too long ago, intentional discriminatory practices and policies created long-term consequences for people of color.<sup>6</sup> The example is a reminder that health inequities are systematic, yet avoidable, and every resident of Douglas County should have an equal opportunity for health.

According to the Health Equity Institute, health inequities are “differences in health that are avoidable, unfair, and unjust” and can be affected by a social condition (i.e. racial discrimination), an economic condition (i.e. lower socioeconomic status), or an environmental condition (i.e. neighborhoods with high lead levels).<sup>7</sup> It is very similar to the concept of health disparities, which are defined by the Robert Wood Johnson Foundation as “differences in health...that adversely affect marginalized or excluded groups.”<sup>1</sup>

It is important to note at this point the difference between equality and equity. Although similar to each other on the surface, they are in fact quite different from one another, especially in their operationalization. Equality is giving everyone the same thing, regardless of their needs. Equity is ensuring that every group gets what they need to improve their situation and, for the basis of this report, their health. The image on the right illustrates the two concepts neatly.



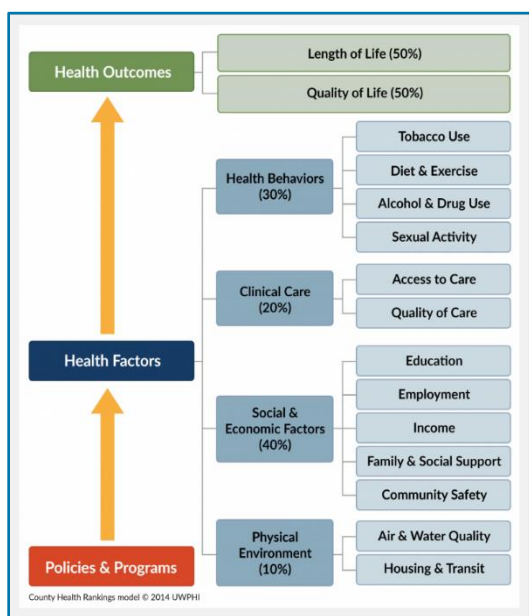
*The Interaction Institute for Social Change (artist Angus Maguire)*

If identifying the health inequities or disparities is examining the gaps in health between various populations, then improving health equity is the imperative to work towards “the absence of systematic disparities in health (or in major social determinants of health) between social groups who have different levels of underlying social advantage/disadvantage.”<sup>8</sup> Too many Americans don’t have the opportunity to be as healthy as others. The work of health equity is giving everyone a chance to live a healthy life.

The Lawrence-Douglas County Health Department’s (LDCHD) Community Health Plan steering committee has agreed to adopt the Robert Wood Johnson Foundation definition of health equity (below) as a framework from which to work.

Health Equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments and health care.

*Robert Wood Johnson Foundation*



## Social & Economic Factors Influence Health Outcomes

When examining the County Health Rankings population health model to the left, it is important to note that social and economic factors comprise roughly 40% of the health factors that affect an individual’s health outcomes. In the United States, an individual’s educational level and income are considered key drivers in affecting health inequities and are commonly used measures to understand the effects of socioeconomic status on health.<sup>9</sup> Education is an indirect driver of health outcomes, meaning that it can influence other factors that can enhance the pathway to health. For example, education can lead to achievement of a higher socioeconomic status. Income is considered a more direct driver; directly influencing an individual’s health outcomes. Both income and education have a cyclical relationship with poverty. Income is a strong predictor of a child’s success in a classroom, while a child’s successful educational career can be

[www.countyhealthrankings.org](http://www.countyhealthrankings.org)

a protective factor against future poverty.<sup>10</sup> Education and income help to create opportunities that allow individuals to mitigate the barriers to better health throughout the course of a life. According to the World Health Organization, “Life expectancy is shorter and most diseases are more common further down the social ladder in each society.”<sup>11</sup>

A society dedicated to education from a young age sets the foundation for the development of capabilities and opportunities throughout the life course. Academic achievement helps to foster the development of both cognitive and non-cognitive skills for children, which is associated with employment, income, and physical and mental well-being, all of which can affect health outcomes.<sup>12</sup> According to the CDC, persons with lower educational levels are more likely to experience health risks, such as obesity and substance use disorder, while higher educational achievement is associated with better health outcomes and better understanding of health information and services.<sup>13</sup> Similar disparities based on education level are found in Douglas County. As seen in Figure 1, Douglas County residents with a high school degree or less are more likely to face the following inequities when compared to residents with higher educational levels: to be



uninsured (2.8 times more likely), to be a current smoker (2.3 times more likely), to report fair or poor perceived health (1.8 times more likely), and to report poor mental health status (1.8 times more likely).

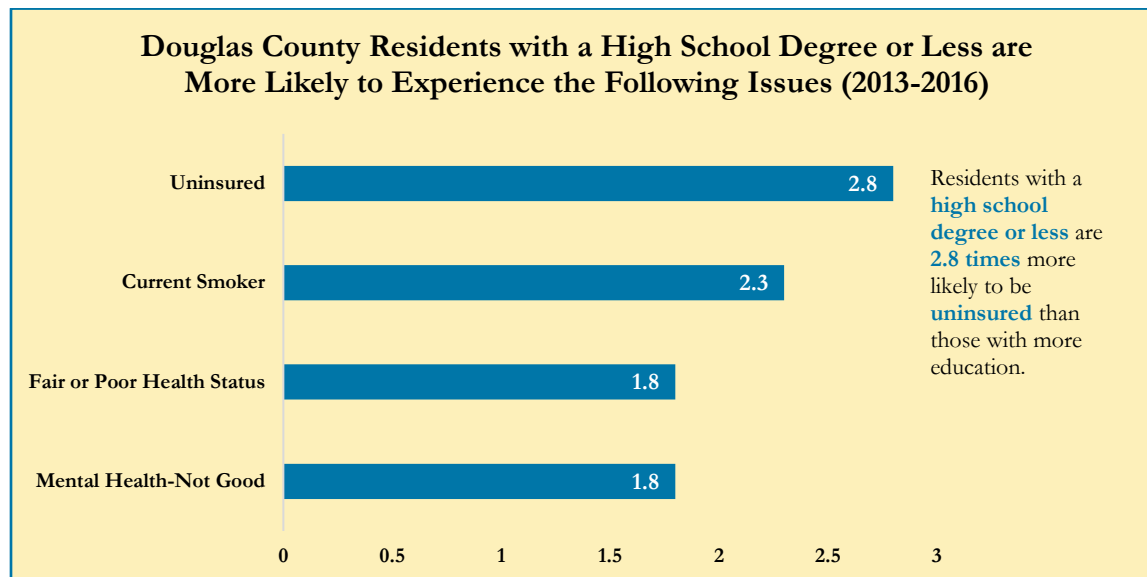
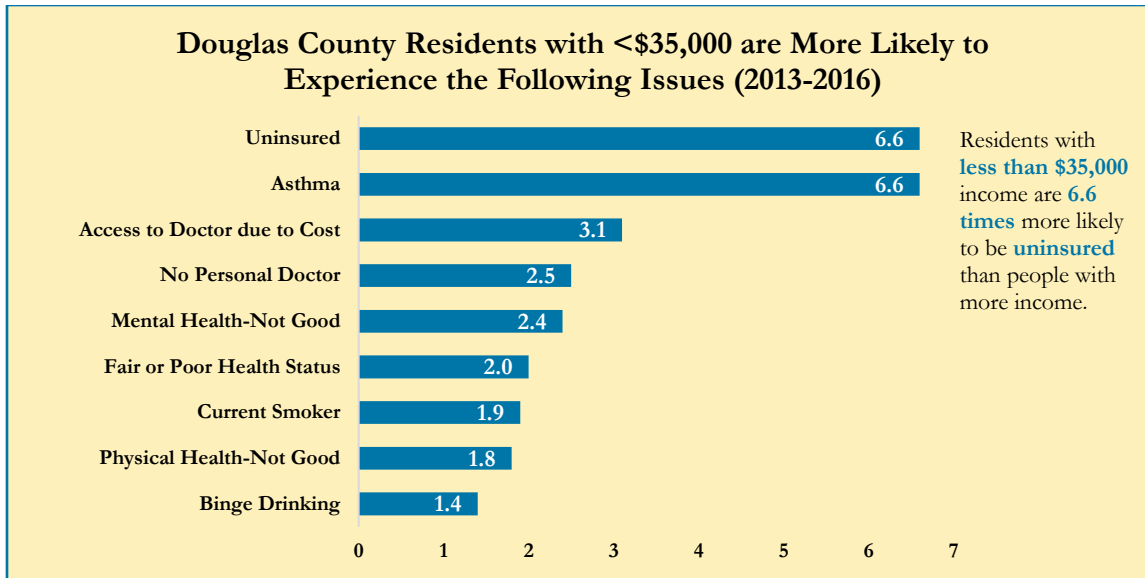


Figure 1  
Data Source: Behavioral Risk Factor Surveillance System, KDHE

There are well-established linkages between income and health outcomes. At the most basic level, a minimum level of income is required to afford the basic living necessities for good health. For example, higher income allows for the purchase of healthier foods over cheaper, unhealthier (higher caloric, lower nutritional value) options, to buy or rent safe housing, or to pay for needed health services, such as visiting a doctor or filling a prescription. Additionally, there is research that suggests that a lower income can lead to lower levels of socializing, which can increase social exclusion and isolation.<sup>12</sup>

When looking at residents who are struggling financially in Douglas County, numerous inequities exist in health factors and outcomes (Figure 2). Most notably, residents who earn less than \$35,000 annually are 6.6 times more likely to both be uninsured and be diagnosed with asthma when compared to residents who earn more than \$35,000. This is a striking difference. However, uninsured status and asthma diagnosis are not the only inequities that stand-out in Douglas County. In addition to a greater likelihood to be uninsured, those earning less than \$35,000 annually are 3.1 times more likely not to see a doctor because of cost and 2.5 more likely to report not having a personal doctor. There are also inequities in overall well-being with those struggling financially 2.4 times more likely to report their mental health as not good, 2.0 times more likely to report fair or poor health status, and 1.8 times more likely to report their physical health as not good. Again, these are striking inequities that exist within Douglas County.



**Figure 2**  
**Data Source: Behavioral Risk Factor Surveillance System, KDHE**

Although there are notable disparities and inequities stemming from educational opportunity and income inequality, the majority of the analysis completed in this report is examined primarily through a lens of inequities based on race and ethnicity. This is done for a variety of reasons. Principally, health inequities for various racial and ethnic groups are pervasive and often difficult to address. Studies suggest that even when socioeconomic status is controlled, race and/or ethnicity are linked to a variety of negative health outcomes.<sup>14</sup> Secondly, since income and education are key drivers in affecting health outcomes, it is important to note that race and ethnicity are often linked with disparities in those areas. As shown later in this report, inequities for racial and ethnic groups exist in Douglas County for income, education, and employment. Regardless of income or educational background, all residents should have the opportunity to make the choices that allow them to live long, healthy lives.

## LDCHD & Health Equity

The Lawrence-Douglas County Health Department is committed to promoting health equity among all citizens of Douglas County. Within the Community Health Plan (CHP), finalized in 2018, health equity is identified as the foundation upon which the plan is built and is integrated across each of the four identified issue area goals. The primary focus areas for the 2018 LDCHD CHP are:

1. Affordable Housing
2. Behavioral Health
3. Food Security & Healthy Built Environment
4. Poverty & Jobs

LDCHD believes that for there to truly be health for all, it is critical to target work on the policies, systems, and environments that either intentionally or unintentionally create health disparities. This framework has influenced decisions regarding the four primary concern areas for the CHP. The priority concern areas are meant to improve the conditions in which people live (the social determinants of health) and thus improve their chances at being healthy.

**“A commitment to health equity requires constant monitoring not only of overall (average) levels of health and the resources needed for health in a whole population, but also routinely comparing how more and less advantaged groups within that population are faring on those indicators.”**

*Robert Wood Johnson Foundation*

The first step in the long journey towards health equity is identifying the health disparities to understand the health story for the variety of marginalized populations that live in the community. LDCHD has previously completed analysis of health inequities, but previous reports have not been as robust as this report nor have focused as extensively on disparities by various racial or ethnic populations. The goal of this report is as full and complete understanding as possible of the health disparities that exist by population within Douglas County to make progress on the overall goal of health equity. According to the Robert Wood Johnson Foundation, progress on health equity is measured by a reduction in the gaps in health disparity over time.<sup>1</sup> This report will serve as a baseline of the current health disparities with a goal to make progress in the reduction in differences over time.

LDCHD is committed to health for all residents of Douglas County, which means that we are committed to the pursuit of health equity. This is the first iteration of this report, but the goal will be to update this report on an annual basis, expanding and contracting analysis and recommendations as needed.

## **A Note on Methodology**

As with any report examining subdivisions of populations, there are limitations in the analysis related to small sample sizes. In some cases, populations are excluded due to small numbers of incidence (generally with counts of less than 6). In other cases, analysis was included; however, it is recommended to use caution when interpreting as the margin of error could be quite large. Mitigations include: grouping multiple years together to obtain large sample sizes for analysis, notes for the reader for when to interpret a statistic with caution, and grouping non-white racial and ethnic groups together. In general, this is avoided as much as possible to allow for a more granular analysis to be completed, but in some instances it is unavoidable due to small counts.

Specific datasets and data platforms used in this report are outlined in Appendix 1. Analysis is Douglas County, Kansas specific unless otherwise noted.

## What We Look Like as a County

Douglas County is the 5th most populous county in the state of Kansas and is home to an estimated 120,793 people according to 2017 U.S. Census Bureau estimate.<sup>15</sup> The majority of Douglas County residents live in and around the City of Lawrence (estimated 99,000), the largest of Douglas County’s four incorporated communities and home to the University of Kansas and the Haskell Indian Nations University. The remaining 20,000 residents live in one of Douglas County’s three remaining incorporated communities (Eudora, Lecompton, and Baldwin City) or in one of its 15 unincorporated townships.<sup>16</sup> The county’s third university, Baker University, is located in Baldwin City.



Figure 3: Map of Douglas County (mySidewalk)

## Age Distribution

The largest age group in Douglas County are college-aged adults (20-24 years old), followed by teenagers (15-19 years old) as seen in Figure 4. This is likely due to Douglas County being home to three universities: the University of Kansas and Haskell Indian Nations University in Lawrence and Baker University in Baldwin City.

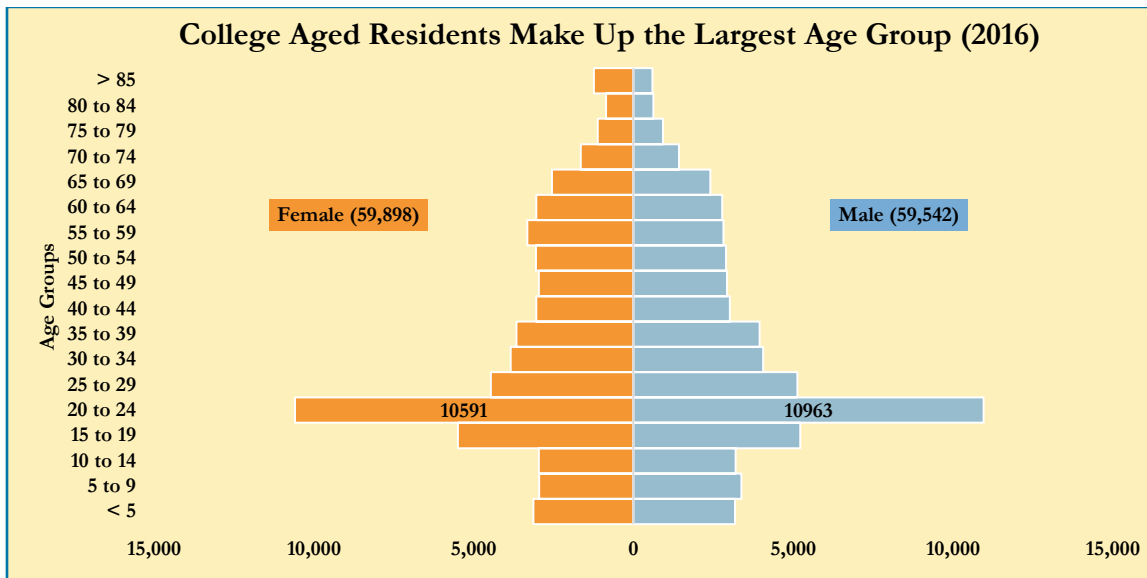


Figure 4  
Data Source: U.S. Census Bureau, ACS 2012-2016 (Table DP05)

## Population Count by Race and Ethnicity

The racial and ethnic demographic breakdowns of Douglas County compared to the state of Kansas are presented in Figure 5. Primary differences between the county and the state (noted in dark blue) include: a smaller proportion of Hispanic population and slightly higher proportions of Asian and Native American populations.

RACE/ETHNICITY	DOUGLAS COUNTY (2017) N (%)	KANSAS (2017) N (%)
White, Non-Hispanic	96,785 (80.1%)	2,247,297 (77.1%)
Hispanic/Latino	7,746 (6.4%)	347,459 (11.9%)
Asian, Non-Hispanic	6,638 (5.5%)	96,411 (3.3%)
Black, Non-Hispanic	6,519 (5.4%)	193,235 (6.6%)
Native American, Non-Hispanic	3105 (2.6%)	28721 (1.0%)
Total	120,793	2,913,123

Figure 5  
Data Source: Bureau of Epidemiology and Public Health Informatics, KDHE

### Growth in Racially and Ethnically Diverse Populations

As seen in Figure 6, the minority population in Douglas County, including Hispanic/Latino, black, Asian, and Native American populations, has been consistently growing since 1990. The Native American population shows a slight increase in numbers from 1990, but otherwise is fairly stable. Black, non-Hispanic shows a steady increase, while Hispanics are experiencing large growths. The Asian population has been experiencing large increases from 2010 to present day.

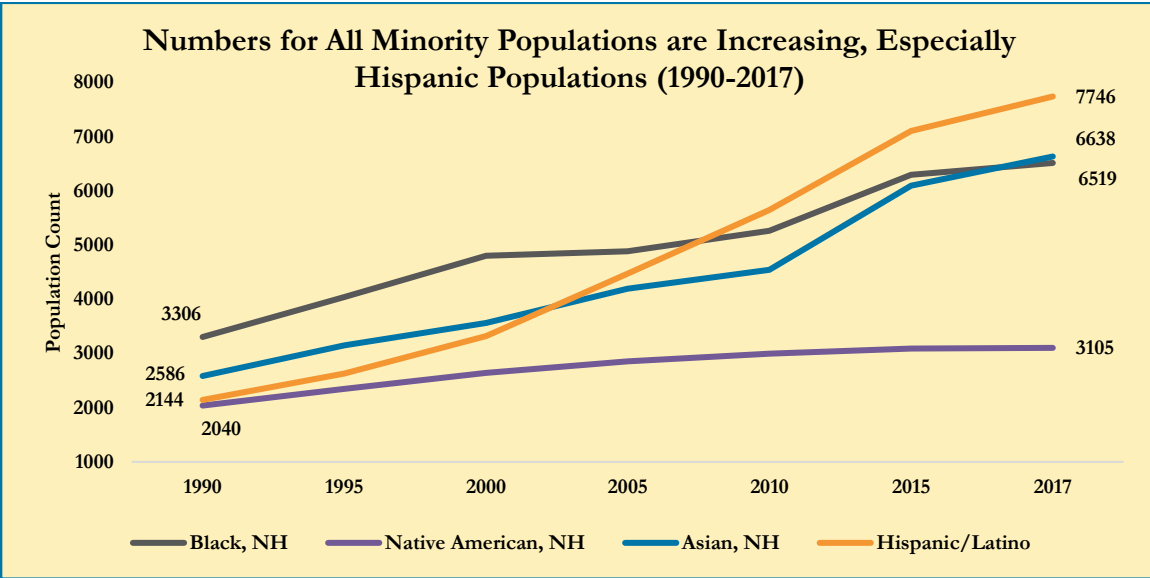


Figure 6  
Data Source: Kansas Information for Communities, KDHE

Overall, Douglas County is a growing community. From 1990 to 2017, the annual average population growth rate for the county is 1.7% annually, with all racial and ethnic population groups growing at positive rate (Figure 7). However, some populations are growing at faster rate than others. The Hispanic population in Douglas County is growing rapidly; Hispanic growth rate is nearly 6 times the growth rate of overall Douglas County (9.7% compared to 1.7%) and seven times that of the white population (9.7% compared to 1.3%). Other population groups are also growing at a high rate, specifically the Asian population, and to a lesser extent, the black, non-Hispanic population. From 1990, the Asian population has grown at a rate of 5.8%



average annual growth (close to five times the growth rate of white population at 1.3%). The African American population is also growing at a higher rate (3.6%) than both the white population and the overall county rate.

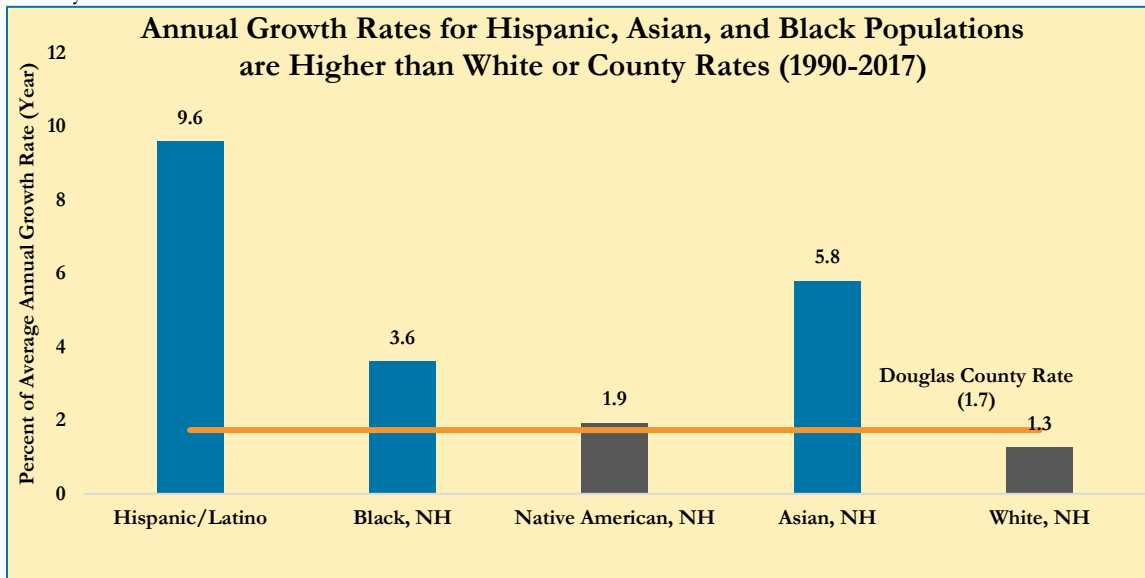


Figure 7  
Data Source: Kansas Information for Communities, KDHE

### A Growing Diverse Population

In Douglas County, the Hispanic/Latino population and those who are two or more races skew younger than other racial or ethnic groups (Figure 8). Those that identify as two or more races have the highest percentage (37.3%) of the population that is younger than 18 years old, followed closely by Hispanic/Latinos (29.6%). The population with the lowest proportion of those under 18 years are Asians (14.8%), followed by whites (17.2%). The proportion of those under 18 years for people who are two or more races is double the proportion of the white population that is under 18 years.

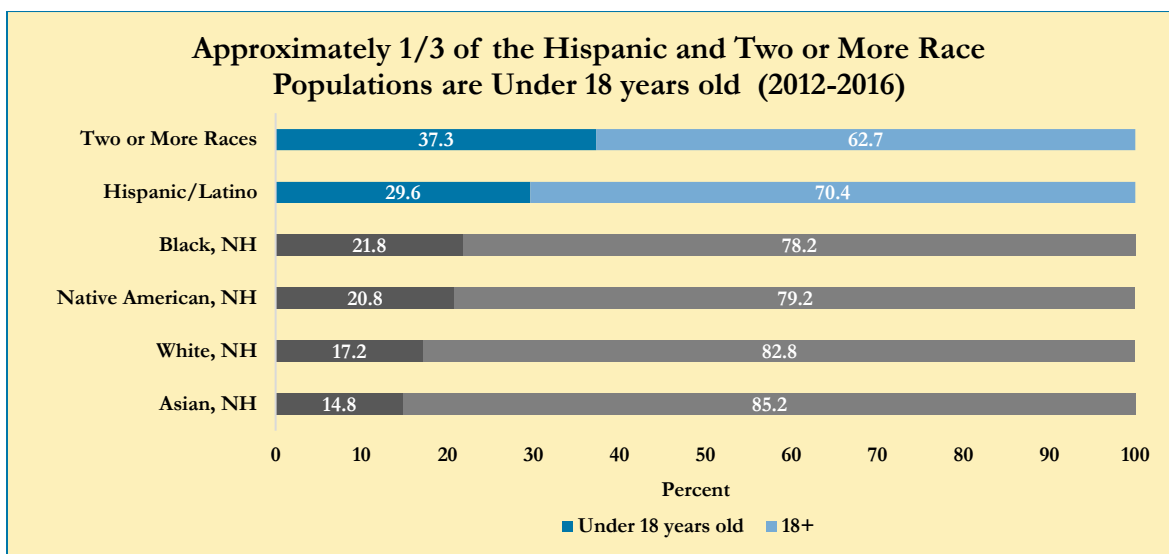
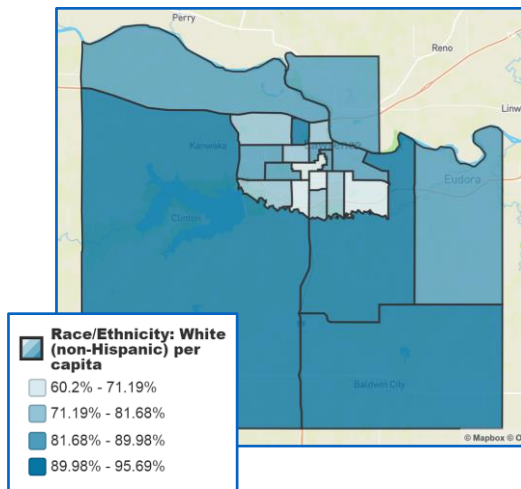


Figure 8  
Data Source U.S. Census Bureau, ACS 2012-2016 (Table DP05)

## Racial and Ethnic Population Breakdown by Place within Douglas County

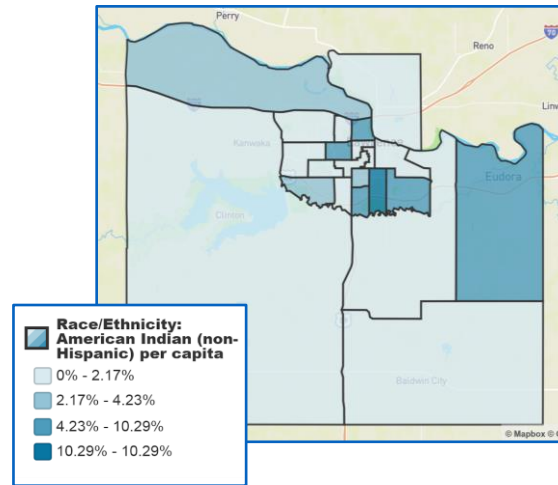
The following maps (Figures 9-13) outline racial and ethnic population percent by census tract for Douglas County. (All maps are built using U.S. Census ACS information from 2012-2016 in mySidewalk.) Douglas County is predominantly white and the numbers of non-white populations are quite small. When examining the maps by percent of population, there are some noteworthy areas of interest. A reminder to the reader that maps should be interpreted with some caution as the minority population numbers in Douglas County are small.

**White Population**



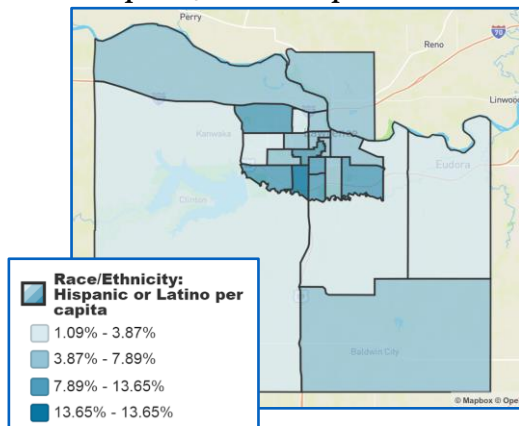
**Figure 9**  
The largest proportion of White populations exist in rural Douglas County.

**Native American Population**

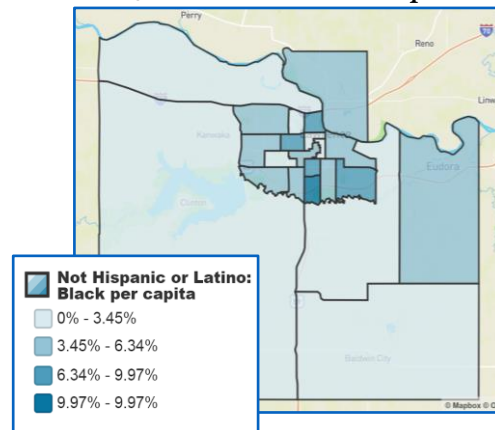


**Figure 10**  
There is a higher proportion of Native American population in the zip code where Haskell Indian Nations University is located and slightly higher proportion in the Eudora area.

**Hispanic/Latino Population**

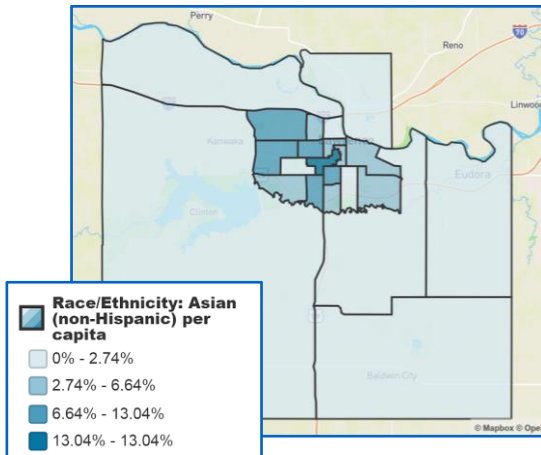


**Black/African American Population**



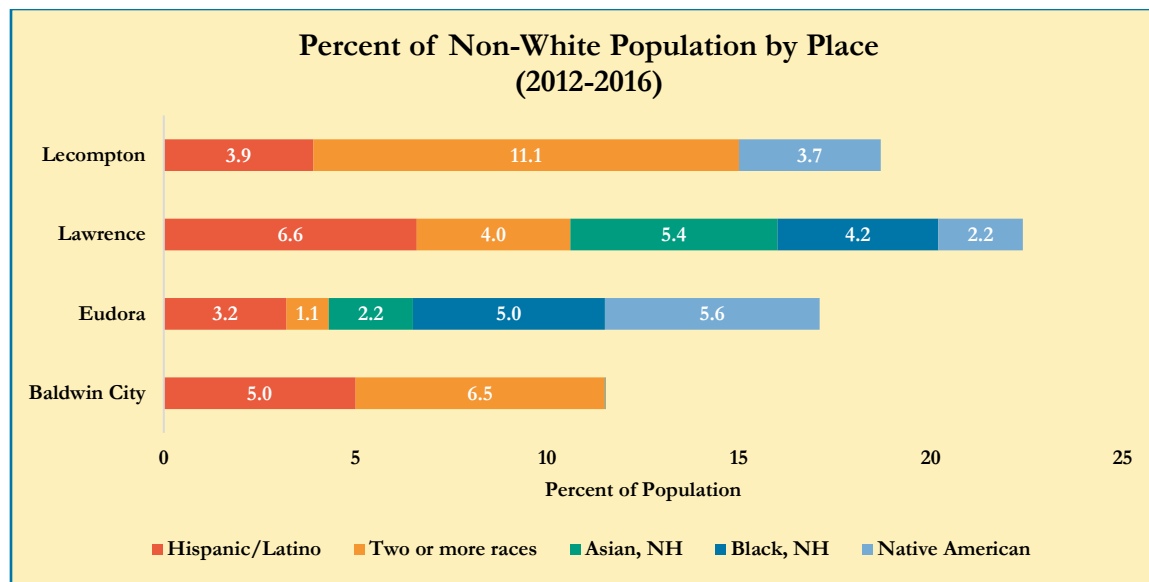
**Figures 11 and 12**  
The largest proportion of Black and Hispanic populations are concentrated around the KU Campus and in Lawrence.

## Asian Population



**Figure 13**  
The highest proportion of Asian population in Douglas County is the census tract where the University of Kansas is located.

Figure 14 below represents the breakdown of minority populations within each municipality in Douglas County (Baldwin City, Eudora, Lawrence, and Lecompton). Lawrence, the largest city in the county, is also the most diverse. Eudora has a relatively high proportion of Native Americans, while Baldwin City and Lecompton have high proportions of populations comprised of two or more races.



**Figure 14**  
Data Source: U.S. Census Bureau, ACS 2012-2016 (Table DP05)

## Disparities in Social Determinants by Race and Place

### Ability to Speak English

The ability to speak English can affect an individual's health through a variety of pathways. The most direct path is that an individual's capacity to speak or understand English can limit their access to health care services. Non-English speakers receive less preventative health services than English speakers and have less access to care.<sup>17</sup> However, there are many indirect paths by which language proficiency affects health, such as access to health insurance. One study found that Spanish speakers were more likely to experience challenges with their health plans and Spanish speakers over 65 years old were less likely to have private insurance in

addition to Medicare.<sup>18</sup> Additionally, non-English speakers are more likely to have lower paying jobs.<sup>19</sup> To address health equity in Douglas County, we must ensure that the needs of our non-English speakers are met.

Figure 15 represents people whose primary language is not English and, of those individuals, how well they speak in English. In Douglas County, there are about 6,000 residents that speak English “less than well.” This accounts for roughly 5% of the population.

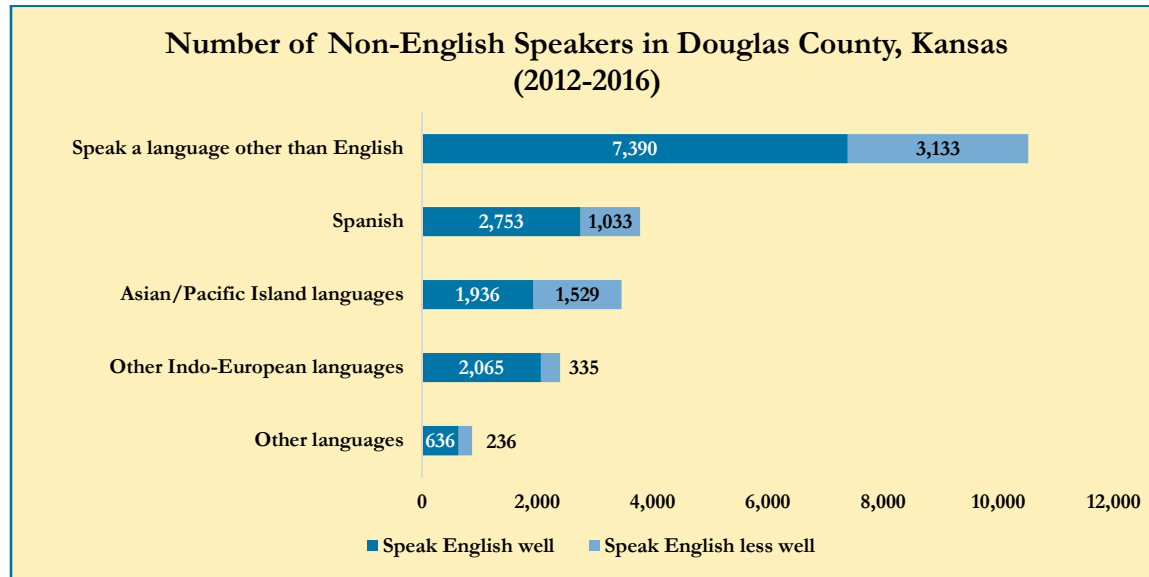


Figure 15  
Data Source: U.S. Census, ACS 2012-2016 (Table S1602)

The following two maps (Figures 16 and 17) show comparisons by census tract of ability to speak English (less than very well compared to very well). (All maps are built using U.S. Census Bureau, ACS information from 2012-2016 in mySidewalk.) As could be expected, the largest area of inability to speak English well is the census tract where the University of Kansas is located. Eudora and southern Lawrence show slightly elevated proportions of low English proficiency. Rural Douglas County, Baldwin City, and west Lawrence show strong English capacity among people whose primary language is not English.

English Proficiency (Less than Very Well)

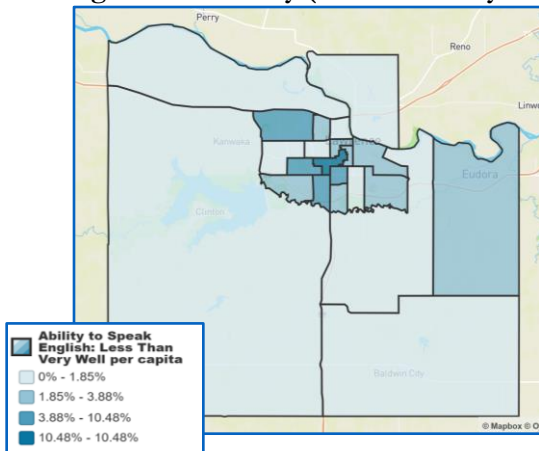


Figure 16: Douglas County English Proficiency-Less than Very Well (mySidewalk)

English Proficiency (Very Well)

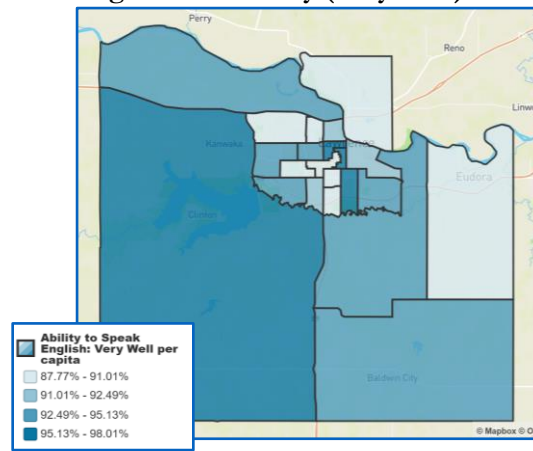


Figure 17: Douglas County English Proficiency- Very Well (mySidewalk)

## Poverty Distribution

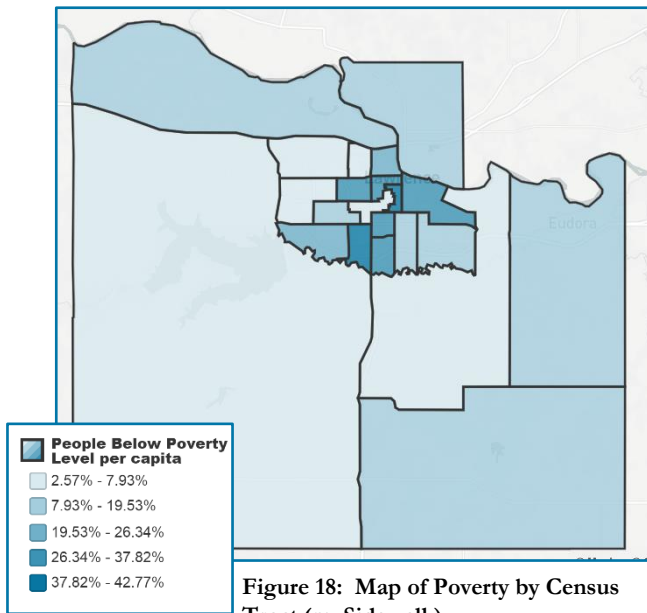


Figure 18: Map of Poverty by Census Tract (mySidewalk)

In Douglas County, about 19.2% of residents live in poverty. This analysis defines residents as living in poverty if their income is less than the minimum amount the Federal government determines is needed to survive based on family size. In 2017, the Federal poverty level for a family of four was \$24,600.<sup>20</sup> In Figure 18, the areas highest in poverty are clustered around the KU campus, where between 26.3% and 42.8% of residents live in poverty. According to the U.S. Census Bureau, on campus students are not included in poverty tracking and therefore do not affect poverty rates.<sup>21</sup> Moreover, as previous maps have demonstrated, these areas also contain the highest concentrations of minority residents. (All maps are built using U.S. Census Bureau ACS information from 2012-2016 in mySidewalk.)

Given that Douglas County is home to three higher education institutions (the University of Kansas, Baker University, and Haskell Indian Nations University), the student population significantly affects two measures essential to analysis of racial disparities and health inequity: poverty and race. College student populations are disproportionately poor because many students report very low incomes that would technically qualify as living in poverty. However, many students utilize other forms of income, such as loans, savings and assistance from family to pay their bills. Additionally, while Douglas County is about 80% white, Baker is only 74% white, KU is about 70% white, and Haskell only enrolls Native Americans. Therefore, the surrounding areas at these universities will house larger minority populations than the rest of Douglas County. As previous maps have shown, the areas in Douglas County that are the poorest, tend to be the most diverse, while also being right next to a university campus, and conceivably, comprised of mostly college students (Figures 7-11 for reference).

Nonetheless, while college students represent a uniquely diverse demographic that may not uniformly experience low income levels in the same way as the general population, they are a part of the community. Consequentially, we must ensure that all residents have equitable access to the health services the county has to offer, regardless of educational, financial, or racial status.

## Racial and Ethnic Disparities for Income

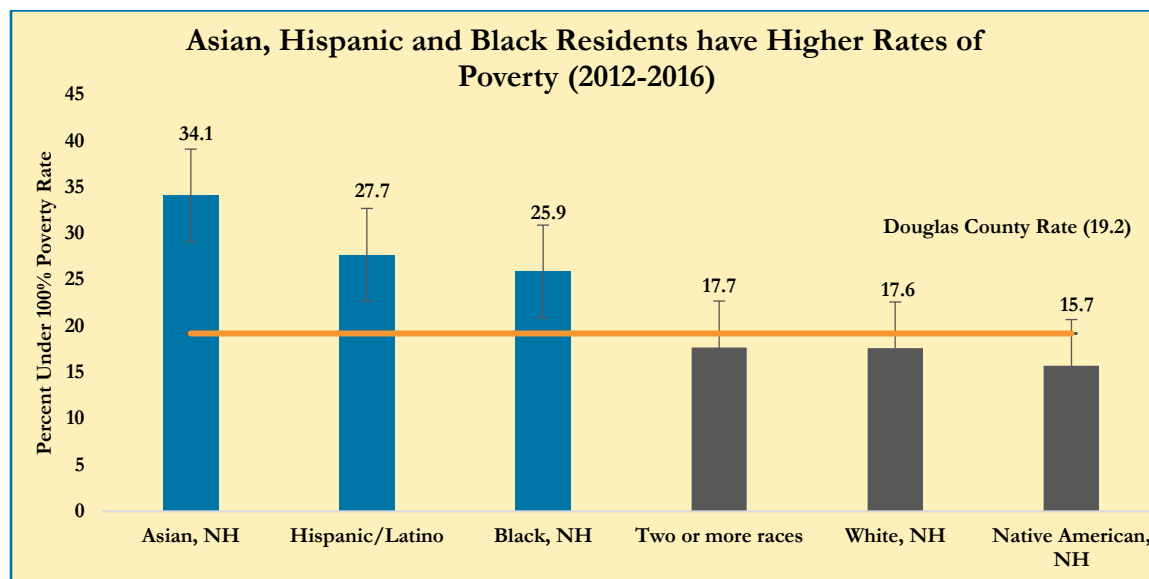
There is a strong linkage between an individual's income and their health. As demonstrated by the Robert Wood Johnson Foundation's report "Wealth Matters for Health Equity," the linkage is a complex problem with no easy solution. Intergenerational wealth can dramatically affect future generations' health and there are significant disparities in wealth by race and ethnicity.<sup>6</sup>

Poverty in Douglas County is a recognized challenge by both the Lawrence-Douglas County Health Department and the residents of Douglas County. Poverty and Jobs has been selected as a priority area of concern for the 2018 Community Health Plan (CHP) through a process that involved residents of the community, organizational partners, and LDCHD staff. As previously mentioned, Douglas County has a higher poverty rate (19.2%), which is affected by the high population of college students. When students are



factored out, the poverty rate is at 11.6%. However, even with students factored out of analysis, poverty rates have been rising in the county.<sup>16</sup>

Douglas County is experiencing serious income and poverty disparities by racial or ethnic group (Figures 19 and 20). The black population has statistically significant higher rates of poverty (25.9%) than both the Douglas County rate (19.2%) and the white poverty rate (17.6%). This mirrors what is happening from a national perspective, as well. In 2017, the national poverty rate for non-Hispanic whites was 8.7%, while the poverty rate for blacks was 21.2%.<sup>22</sup> The primary difference between Douglas County and the United States is among the Asian population. In Douglas County, the Asian population has a lower median income and higher rates of poverty. Compare this to the U.S., in which Asians have a relatively low level of poverty (10%). This could be due to a couple of factors: a higher proportion of Asians who are university students or the variety of ethnicities the term Asian encompasses.



**Figure 19**  
Data Source: U.S. Census Bureau, ACS 2011-2015 (Table S1701)

In terms of income, white, non-Hispanic, Native American, and Hispanic/Latino populations are not significantly different from the Douglas County median income of \$52,698 (Figure 18). However, black and Asian populations differ from both the overall county median income and the white population median income. The median income for black residents is \$31,042, while the median income for Asians is \$28,313. According to the Community Health Assessment completed by LDCHD staff, a Douglas County resident must earn \$16.25/hour (or \$33,800 a year) to afford a two-bedroom apartment in Lawrence. Black and Asian populations will likely struggle with finding quality, affordable, and safe housing for their families, because, on average, they are below this threshold.

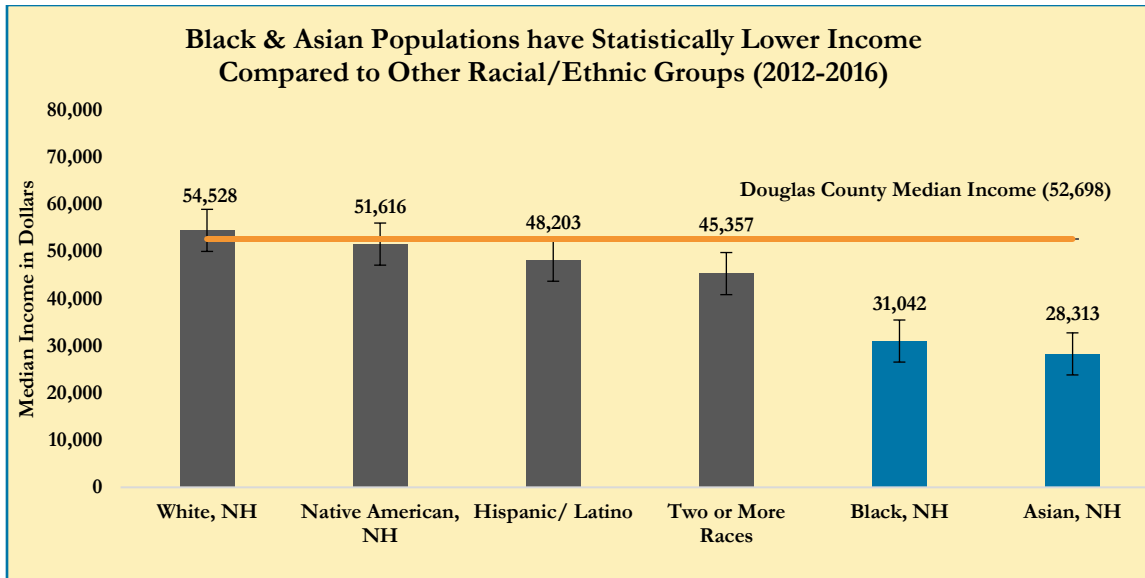
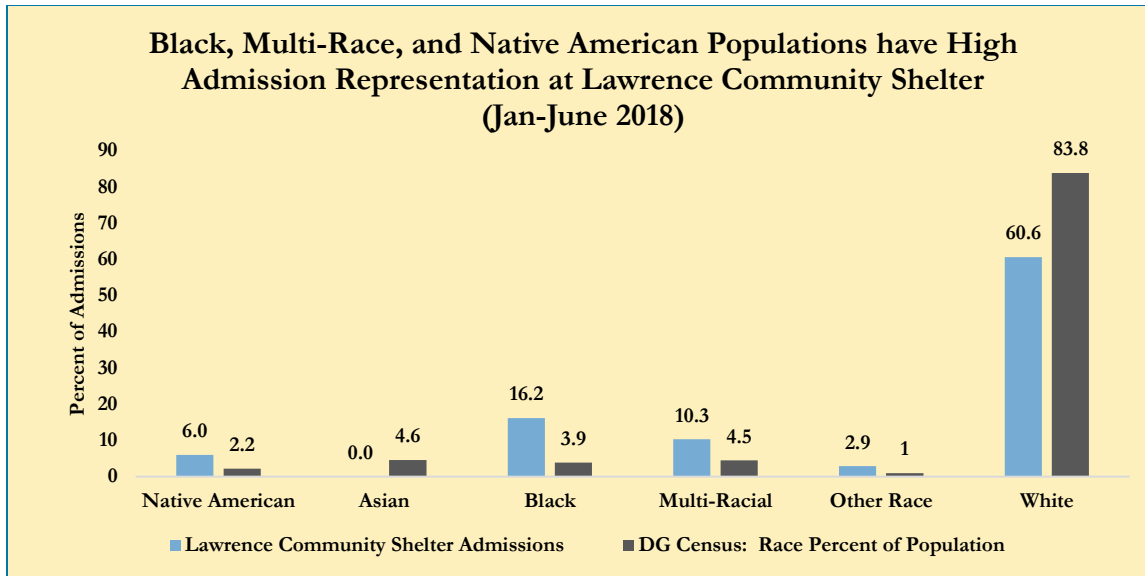


Figure 20  
Data Source: U.S. Census Bureau, ACS 2012-2016 (Table S1903)

### Shelter Admissions by Race

As part of the LMH Health Behavioral Health Semi-Annual Report, the Lawrence Community Shelter (LCS) submits data on their admission rates by race. The most recent iteration of reporting is from January to June 2018. The Lawrence Community Shelter is the only available shelter in Douglas County and one of the few in Northeast Kansas. It has a capacity of 125 beds during the summer and the ability to sleep 140 when the weather is below 40 degrees. There is generally a waitlist for a bed, although this may be temporarily waived for the “cold weather rule” on a night-by-night basis. LCS admission is not a perfect indicator for homelessness in the county. Since there are not many shelters available in the area, there are many guests from surrounding counties. Additionally, due to limited capacity or personal reasons, there are other members of the homeless population who are not seeking shelter at LCS and therefore are not being counted. Despite not being a perfect indicator, it is still useful to examine the racial disparities that exist in admissions.

According to Figure 21, white guests make up the largest percentage of admissions at the Lawrence Community Shelter, although they fall below their overall Douglas County population percentage. Native American, black, multi-race, and other race populations are all above their Douglas County population percentages. Black populations make up a particularly high percentage of admissions (16% compared to roughly 5% of the overall population), as do Native Americans (6% compared to roughly 3% of the population). During this time frame, there were no admissions at LCS who identified as Asian.



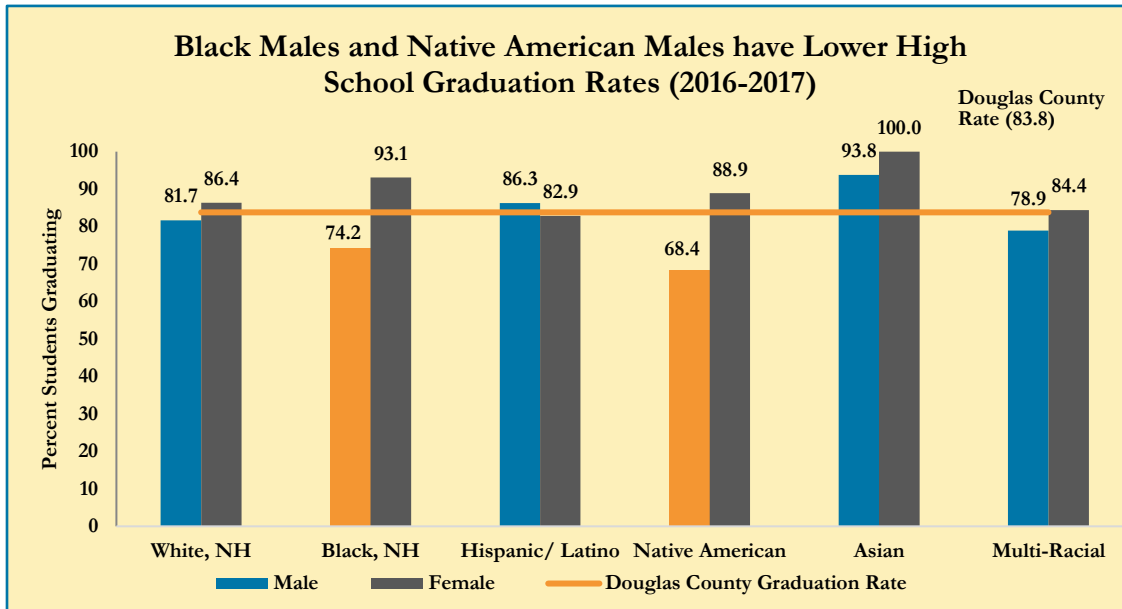
**Figure 21**  
 Data Source: Lawrence Community Shelter; Provided on October 30th, 2018  
 \* Race categorizations provided by LCS

## Racial and Ethnic Disparities in Education

The Center on Society and Health at Virginia Commonwealth University identifies the relationship between health and education as a bidirectional relationship, meaning that education can create opportunities for good health, but poor health can put a person’s educational aspirations at risk. Education has been shown to affect an individual’s health in a variety of ways; people with higher education have longer lives, are more likely to learn healthy behaviors, and have less stress.<sup>23</sup> Overall, Douglas County is a fairly well educated county: approximately 95% of people older than 25 years have a high school degree, while about half have a bachelor’s degree. However, educational disparities by race and ethnicity still exist in Douglas County.

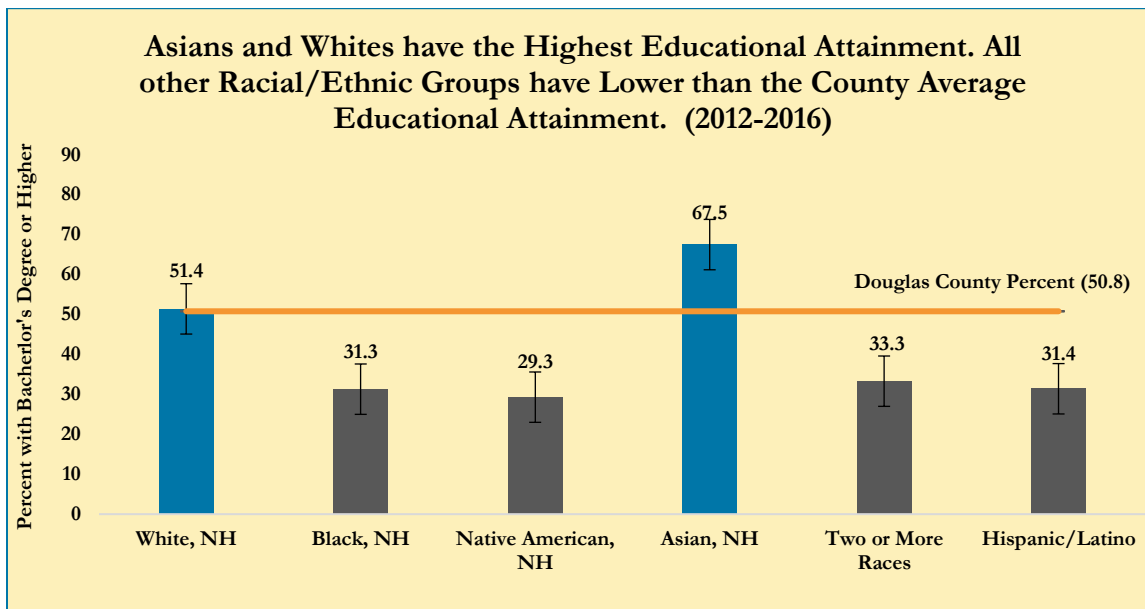
In Douglas County, there are four primary Unified School Districts that cover most of the county: USD 343 (Perry Public Schools), USD 348 (Baldwin City), USD 491 (Eudora), and USD 497 (Lawrence). Due to suppression in small counts of students, it is difficult to determine a precise county breakdown in public school enrollment by race and ethnicity, so readers should use caution when interpreting the following numbers. For the 2016-2017 school year, the largest enrollment numbers were among white students (approximately 73%). Although this is a majority, it is lower than the general Douglas County white population, which is 80.1%, possibly reflecting a growing non-white population. According to the Civil Rights Data Collection, in USD 497 in the 2015-2016 school year, black students were 4.27 times more likely to receive an Out of School Suspension (OSS) than their white counterparts.

Figure 22 on the next page outlines that for the 2016-2017 school year, black males and Native American males had the lowest graduation rates (74.2% and 68.4%, respectively). The highest graduation rates were among Asian females, Asian males, and black females (100%, 93.8%, and 93.1% respectively). It is important to note the nuances in graduation rates as a measure. Students leaving schools without graduating count against graduation rates, but so does transfer to a non-accredited school, transfer to a home school, or earning a GED. Therefore, it is not a perfect indicator of student achievement and the appropriate caution should be used when interpreting the data.



**Figure 22**  
 Data Source: Kansas State Department of Education, KSDE Data Central

Fifty percent of Douglas County residents have a bachelor’s degree or higher, which is higher than the state of Kansas rate at 31.6%. Despite the relatively high educational level, disparities by race and ethnicity persist (Figure 23). Asians have significantly higher proportion of population with a bachelor’s degree or higher (67.5%). The overall county percent with some higher education degree is 50.8%, which is equal to the white population in the county. However, for every other racial and ethnic group in the county, the percentage of population with a bachelor’s degree or higher is significantly lower than both the county and white rates.



**Figure 23**  
 Data Source: U.S. Census Bureau, ACS 2012-2016 (Table S1501)

## Racial and Ethnic Disparities in Employment

Employment is a basic tenet of economic stability, one of the primary social determinants of health. Employment can positively affect many aspects of a person’s life, including accumulation of wealth, access to affordable and safe housing, and coverage through health insurance, to name a few. On the other hand, unemployment is linked to a variety of health challenges. From a physical health perspective, laid off workers are more likely than continuously employed workers to have “fair or poor health.” Within the context of behavioral health, those that are unemployed are more likely to be diagnosed with depression.<sup>24</sup> The following data points describe the employment and unemployment rates in Douglas County. Though they are related, these two metrics capture different nuances of the employment picture of a community, and groups who have low rates of employment may not necessarily have high unemployment rates as a result. According to the U.S. Census Bureau, employment rates account for adults 16 years and older who have a job. It does not include individuals who are active military, work consistently around the house (without pay), or perform unpaid volunteer work. Unemployed people are defined by the U.S. Census Bureau as individuals 16 years and older who do not have a job, have been actively looking for work during the last four weeks, and are available to accept a job. Individuals who are not in the workforce—such as those who are retired, students, or not looking for work—are not considered unemployed.

From 2012-2016 estimates, Douglas County has an employment rate of 65.7%, which is slightly higher than the state rate of 62.5% and the U.S. rate of 58.4% for the same time period. As seen in Figure 24, in Douglas County, all racial and ethnic groups are not significantly different from each other or the county rate, except for the Asian population. With a rate of 51.6%, the Asian population has a statistically significant lower employment rate than all other racial and ethnic groups, with the exception of Native Americans. This could possibly be a reflection of Asian students at the University of Kansas.

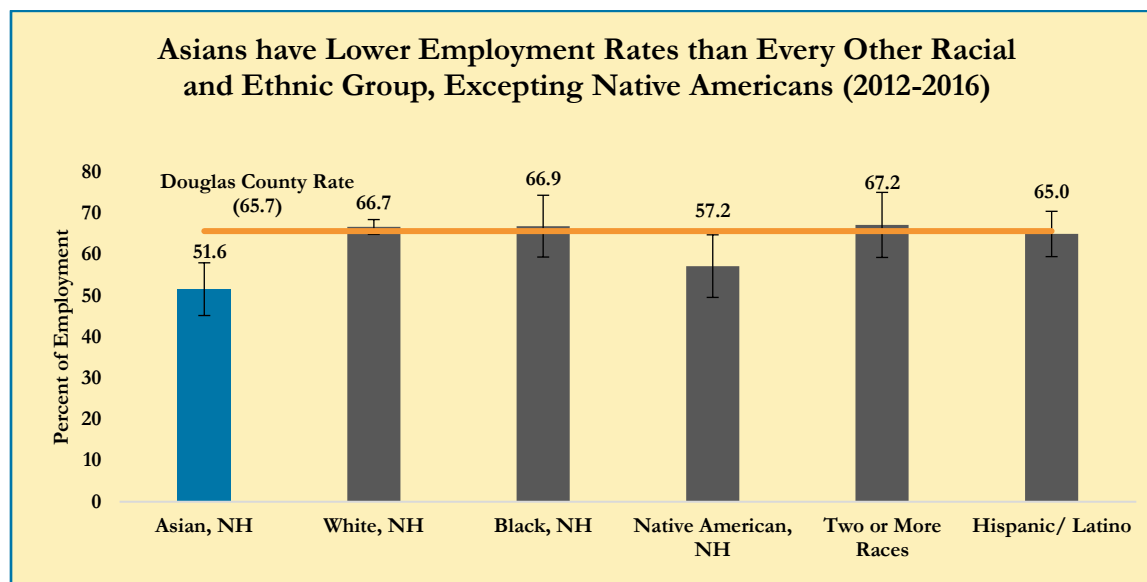


Figure 24

Data Source: U.S. Census Bureau, ACS 2012-2016 (Table S2301)

The unemployment rate in Douglas County from 2012-2016 was 4.9%. This is lower than both the state of Kansas rate (5.3%) and the U.S. rate (7.4%). Due to the small numbers in the analysis, the margin of errors for the different racial and ethnic groups in Douglas County are quite large, so readers should use caution when interpreting Figure 25. Despite the large error bars, the Hispanic/Latino population shows statistically significant higher rates of unemployment (10.7%) compared to both whites (4.6%) and Douglas County (4.9%).



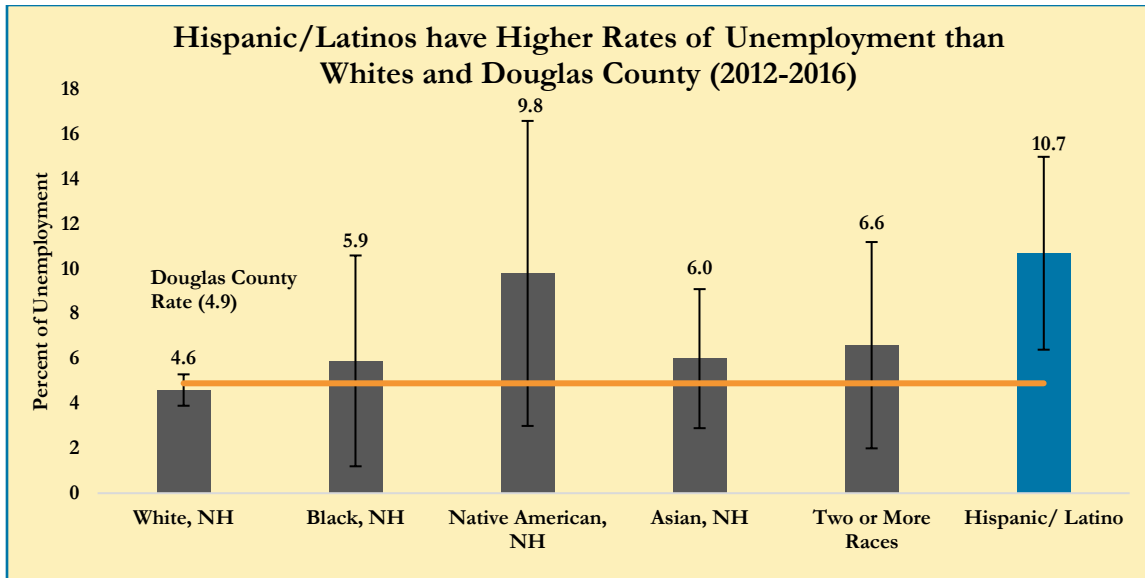


Figure 25  
 Data Source: U.S. Census Bureau, ACS 2012-2016 (Table S2301)

### Racial and Ethnic Disparities for Health Insurance

While we believe that an individual’s health is strongly linked to the policy, system, and environmental factors that shape their lives from birth, an individual’s access to health care is no doubt an important aspect of maintaining health throughout the life cycle. This means that health care is available, affordable, and accessible to all individuals. During the 2012 LDCHD Community Health Assessment process, Douglas County residents identified lack of health insurance availability as an area of concern.<sup>16</sup> All Douglas County residents should be able to afford to see a doctor, even if our aim is to make it less likely that they need to.

While Douglas County has a lower uninsured rate than the state (9.8% compared to 10.5%), the uninsured population is disproportionately comprised of minority residents. White residents have a higher percentage of insured people over every other racial or ethnic group in Douglas County (Figure 26). Every non-white group with the exception of Asians and African Americans have statistically significant higher rates of uninsured populations over both the overall Douglas County rate and the white uninsured rate. Hispanics and Native Americans have the highest rates of uninsured populations in Douglas County. It is important to note that the dataset used for this analysis considers coverage by the Indian Health Services, so this is not a contributing factor for the high uninsured rates. Additionally, uninsured residents are also more likely to be low income (less than \$35,000 per year) than high income (more than \$35,000 per year) (see Figure 2 for reference). This aligns with income and poverty disparities that exist for race and ethnicity within the county as well (see Figures 19 and 20 for reference).

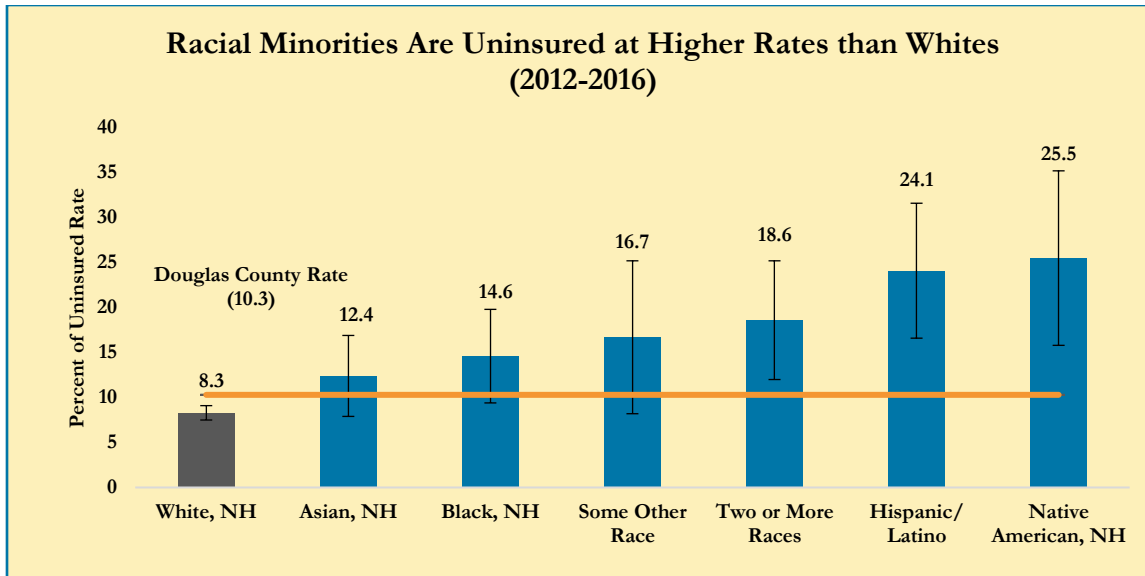


Figure 26  
Data Source: U.S. Census Bureau, ACS 2012-2016 (Table S2701)

## Disparities at Birth

### General Fertility

Births, deaths and migration are the three factors that determine the population in any area. The balance between these factors determine whether a population increases, decreases or remains stationary. The General Fertility Rate is a way to look at the number of births per 1,000 women of childbearing age. Nationally, the General Fertility Rate in 2016 was 62 births per 1,000 women 15-44 years old, which is a decrease from the 2015 rate of 62.5 births. In Douglas County, the General Fertility Rate decreased in all race and Hispanic origin groups between 2015 and 2016 from 43.1 to 37.9 (Figure 27). Although the Hispanic/Latino General Fertility Rate appears to be higher than other groups in the graph below, the rates are not statistically significantly different.

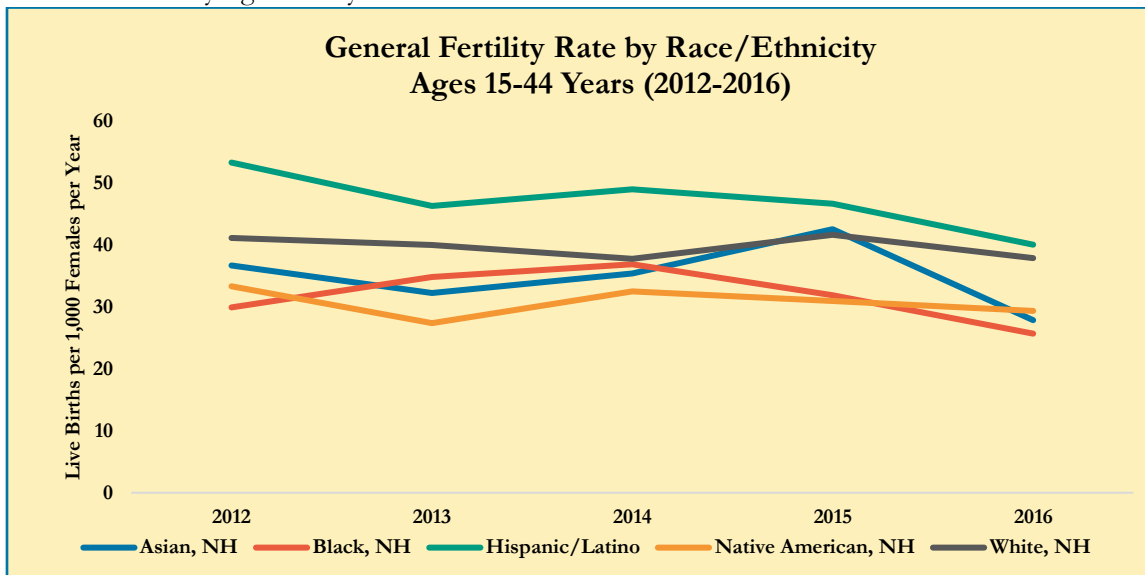


Figure 27  
Data Source: Bureau of Epidemiology and Public Health Informatics, KDHE

Not surprisingly, Douglas County fertility rates are higher in the 25-34 year old age groups for all racial and ethnic groups as seen in Figure 28. Compared to white, non-Hispanic teens 15 to 19 years old, black non-Hispanic and Hispanic teens have statistically higher fertility rates. Asian women tend to have children at a slightly older age compared to other groups (rate of 71.8 in women ages 35-39 years old).

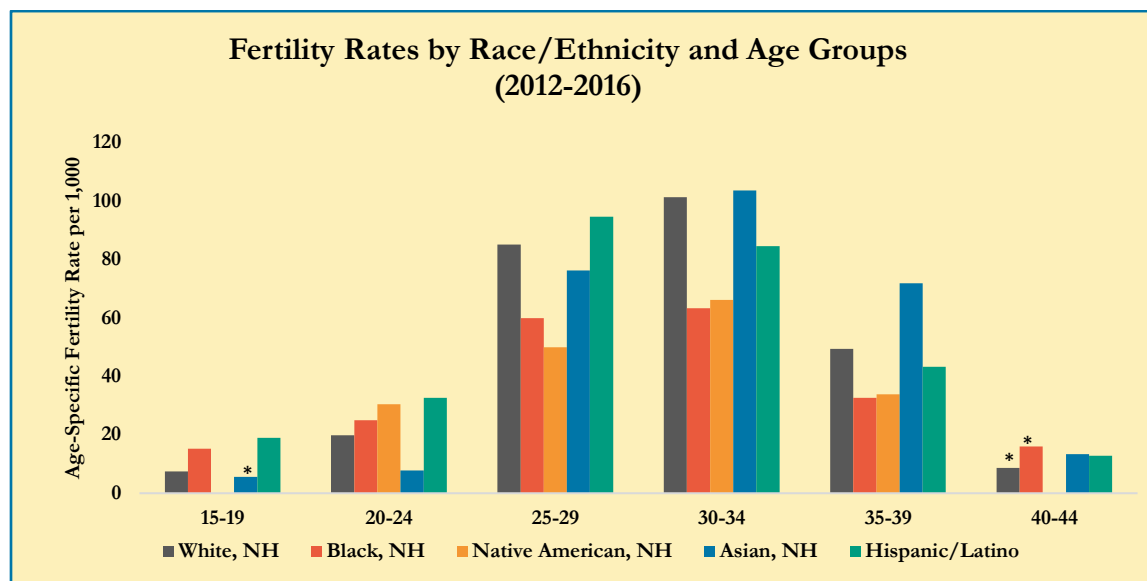


Figure 28  
 Data Source: Bureau of Epidemiology and Public Health Informatics, KDHE  
 Data are suppressed when births are less than 6. \* Interpret with caution.

## Births to Teenagers

Pregnancy and motherhood can bring a significant social and economic burden to teenagers. Teen pregnancy contributes to high school dropout rates among females and children of teen moms are more likely to have health problems, unemployment issues, and lower school achievement.<sup>25</sup> Compared to the U.S. and Kansas, Douglas County has a lower percentage of births occurring to teens 15-19 years old (7.0%, 6.3%, 3.5% respectively).<sup>18</sup> The percentage of all births occurring to teens in Douglas County has also decreased over time from 7.0% in 2000-2002 to 3.5% in 2014-2016 (Figure 29).

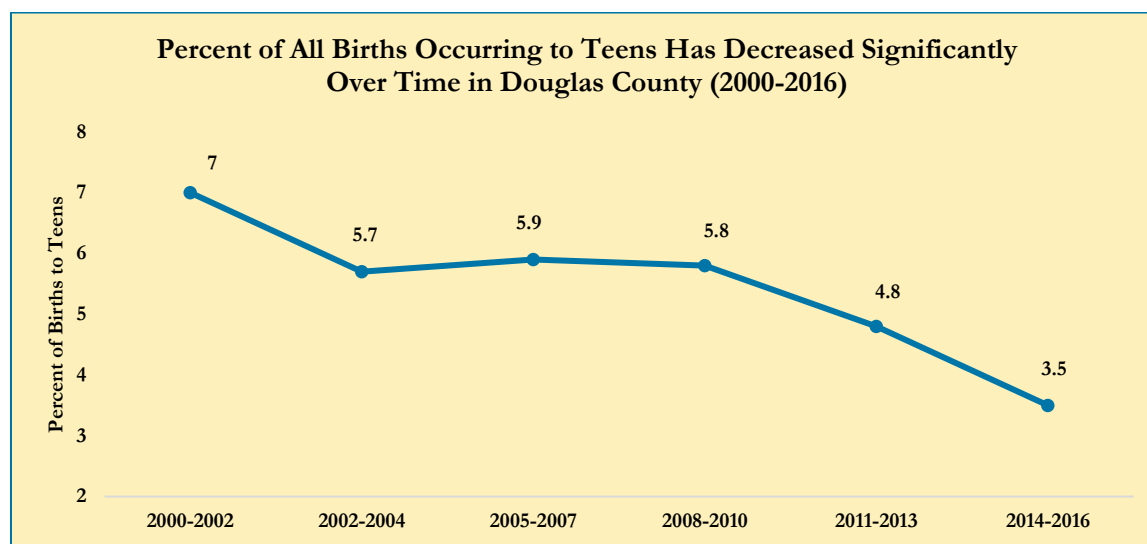


Figure 29  
 Data Source: Kansas Health Matters

Data from 2012-2016 suggests that compared to white and Asian births in Douglas County, a statistically higher percentage of teen births are occurring in the black, multi-racial and Hispanic populations (Figure 30).

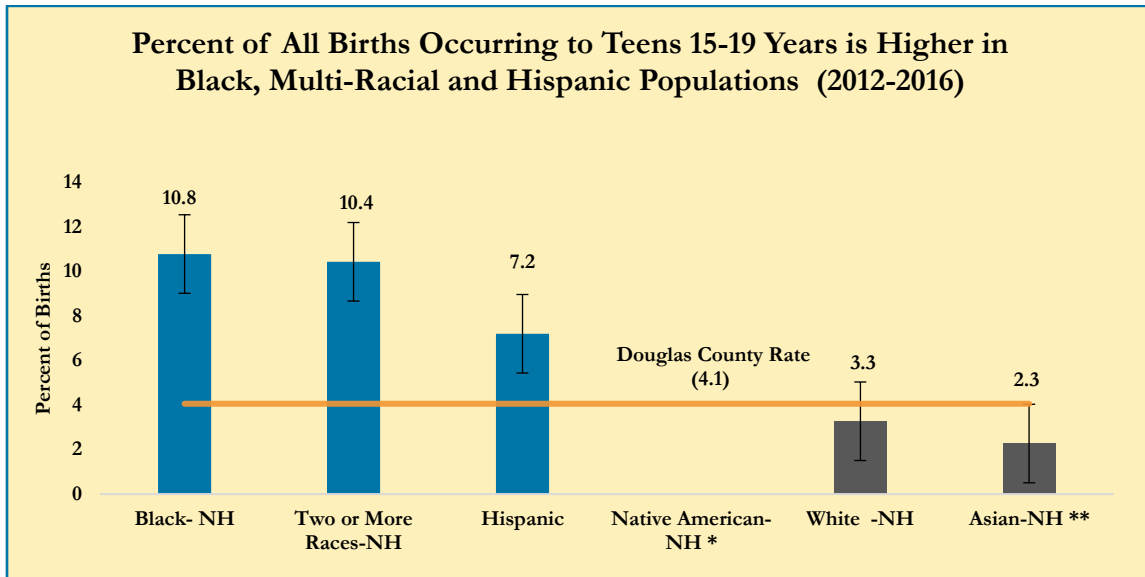


Figure 30

Data Source: Bureau of Epidemiology and Public Health Informatics, KDHE

\* Native American Population Suppressed. \*\* Interpret with caution.

## Prenatal Care in First Trimester

Receiving prenatal care in the first trimester allows women and their health care professionals to identify health issues or behaviors that may have a negative impact on the fetus and/or mother. As such, delay in prenatal care has been associated with negative outcomes such as low birth weight and infant death. Compared to the U.S. and Kansas, Douglas County has a higher percentage of pregnant women who receive prenatal care in the first trimester (75.1%, 80.4%, 83.0% respectively).<sup>26</sup> The rate of women receiving prenatal care in the first trimester in Douglas County has grown from 79.7% in 2007-2009 to 83.0% in 2014-2016 (Figure 31).

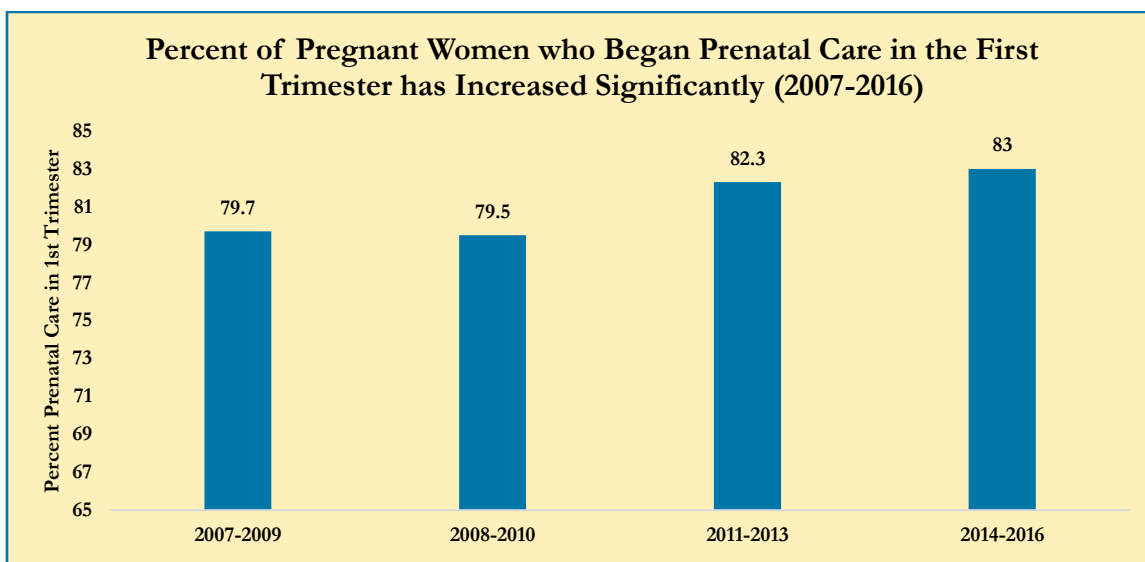
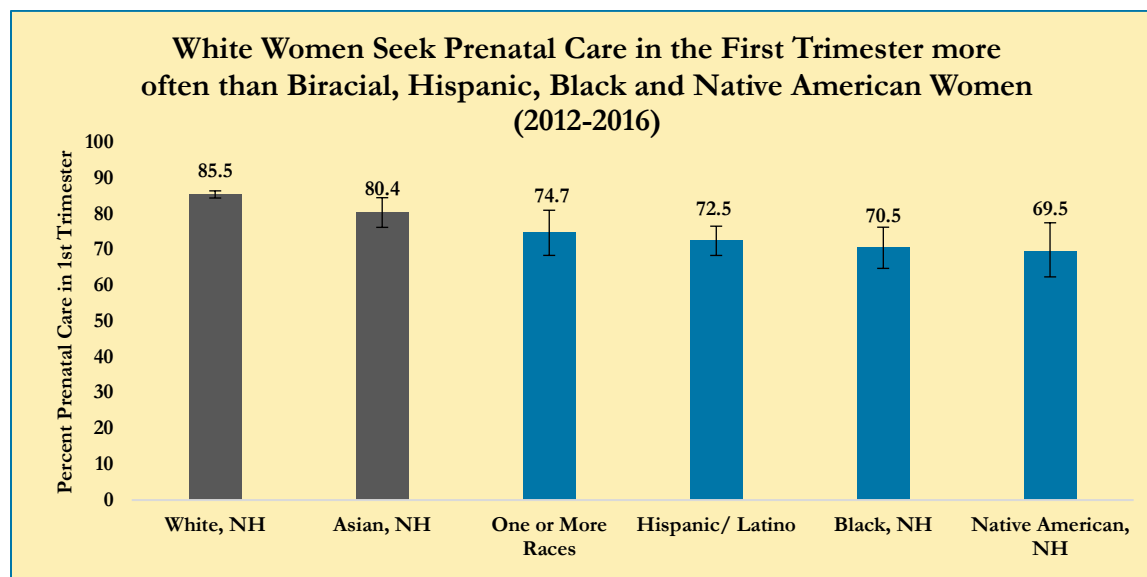


Figure 31

Data Source: Kansas Health Matters

Regarding disparities in Douglas County, a higher proportion of white, non-Hispanic women receive care in the first trimester compared to biracial, Hispanic, black, and Native American women (Figure 32).



**Figure 32**  
Data Source: Bureau of Epidemiology and Public Health Informatics, KDHE

### Infant Mortality and Low Birth Weight

Infant mortality is a key part of a community’s health as it is often an indicator of the political, social, and environmental effects on a mother’s and child’s life. Fortunately, Douglas County has a fairly low rate of 5.2 deaths per 1,000 births, which is lower than the Kansas rate (5.9 per 1,000 births) and the Healthy People 2020 target of 6.0 per 1,000. However, it is important to note that our rate is not the lowest in the state. Neighboring counties of Johnson and Leavenworth have lower rates at 4.3 and 4.7, respectively. Likely due to small counts, disparities by race and ethnicity were not found in the Douglas County infant mortality rate. However, the overall rate of the county has increased from 4.5 in 2007-2010 to 5.2 in 2012-2016 warranting further examination.<sup>27</sup>

For Douglas County, low birth weight may be a better indicator of any disparities that exist in the community’s infant health than infant mortality. Low birth weight is often associated with premature birth and while many low birth weight babies have normal health outcomes, low birth weight is a risk factor for infant death and long-term disability. As seen in Figure 33, the percent of all births with low birth weight is lower in Douglas County than Kansas and the U.S. (6.8% compared to 7.0% and 8.0% respectively) but has increased over time in Douglas County though not significantly.<sup>28</sup>

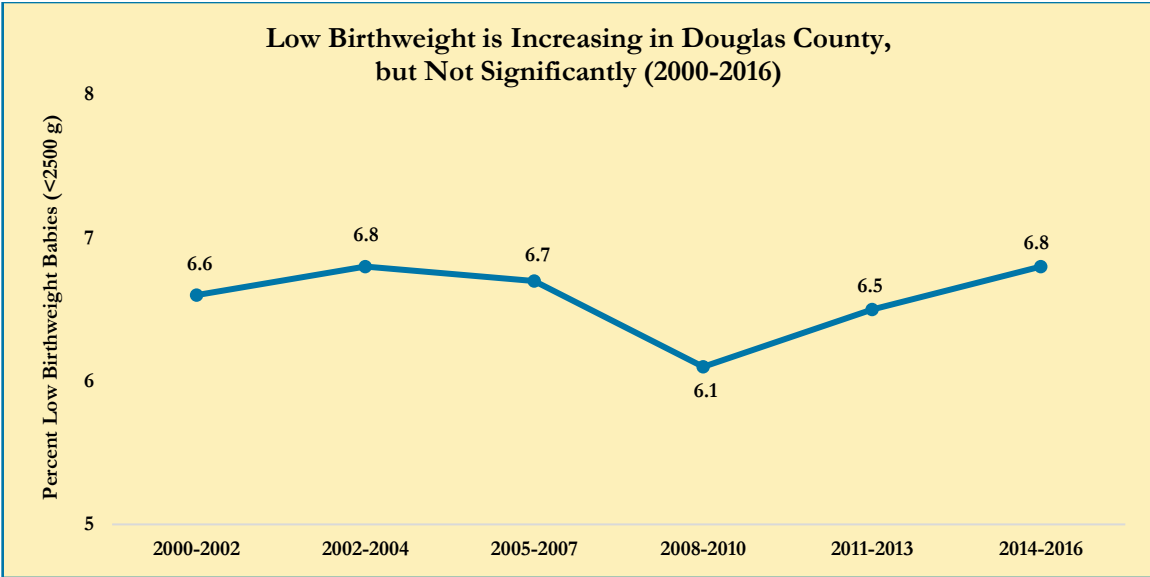


Figure 33  
Data Source: Kansas Health Matters

More concerning, data from 2012-2016 suggests that a statistically higher percent of black, non-Hispanic babies are born with low birth weight (Figure 34). There is a more than two-fold difference in the percent of black low-weight infants over every other race and ethnicity. All other racial and ethnic groups are either at or below the overall Douglas County percent. This is a staggering disparity that is cause for concern.

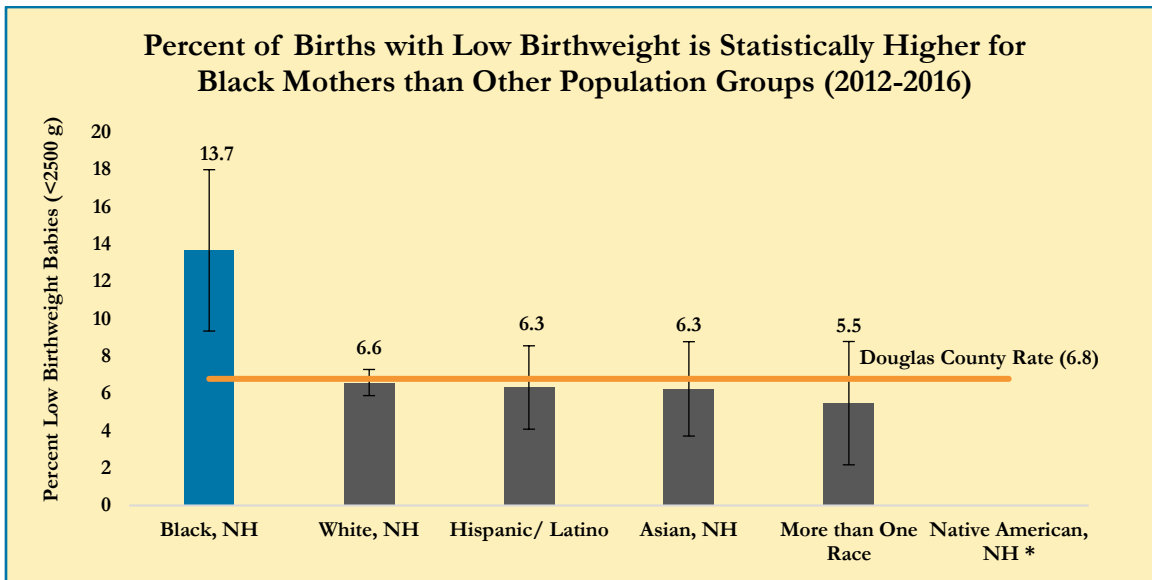


Figure 34  
Data Source: Bureau of Epidemiology and Public Health Informatics, KDHE  
\* Native American Population Suppressed.

### Smoking during Pregnancy

Smoking during pregnancy is a risk factor for miscarriage, premature delivery and sudden infant death syndrome (SIDS). Women who smoke during pregnancy have double the risk of having a low birth weight baby and have an increased risk of preterm delivery which can cause childhood disabilities such as cerebral palsy, mental retardation and learning problems.<sup>29</sup> Fortunately, as seen in Figure 35 below, the percent of



mothers who smoke during pregnancy has been decreasing significantly and the 2014-2016 Douglas County rate of smoking during pregnancy is lower than the Kansas rate of 11.1% for the same time period. However, the Douglas County rate is higher than the U.S. rate of smoking during pregnancy (8.5%) and much higher than the Healthy People 2020 target of 1.4%.

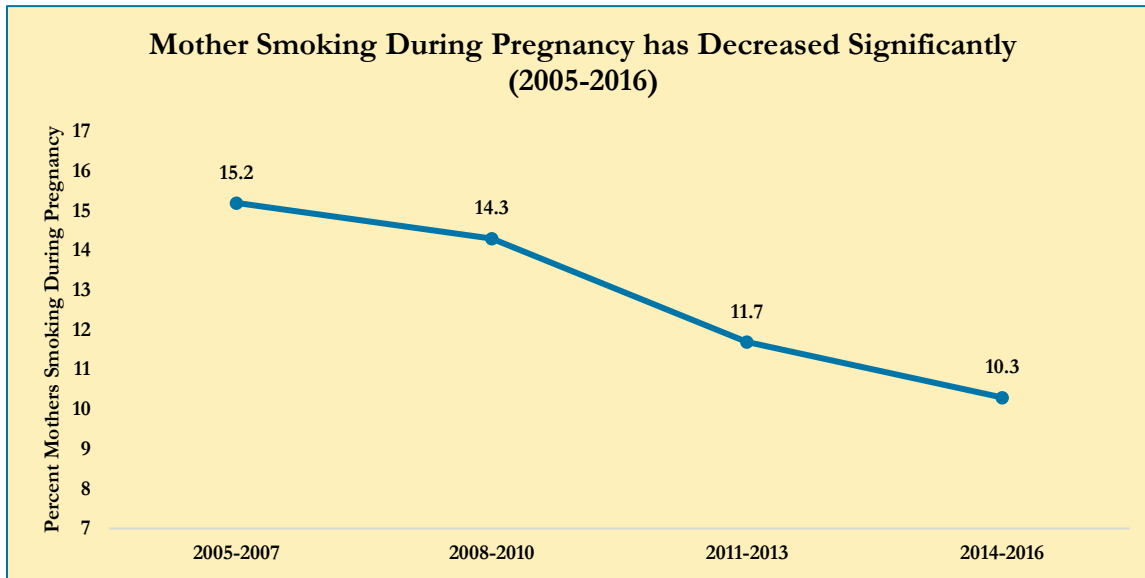


Figure 35  
Data Source: Kansas Health Matters

In Douglas County, compared to the county average and to white, non-Hispanic pregnant women, Hispanic pregnant women have a statistically lower proportion of smokers. The proportion of white pregnant smokers is also statistically lower than the proportion of multi-racial pregnant smokers (Figure 36).

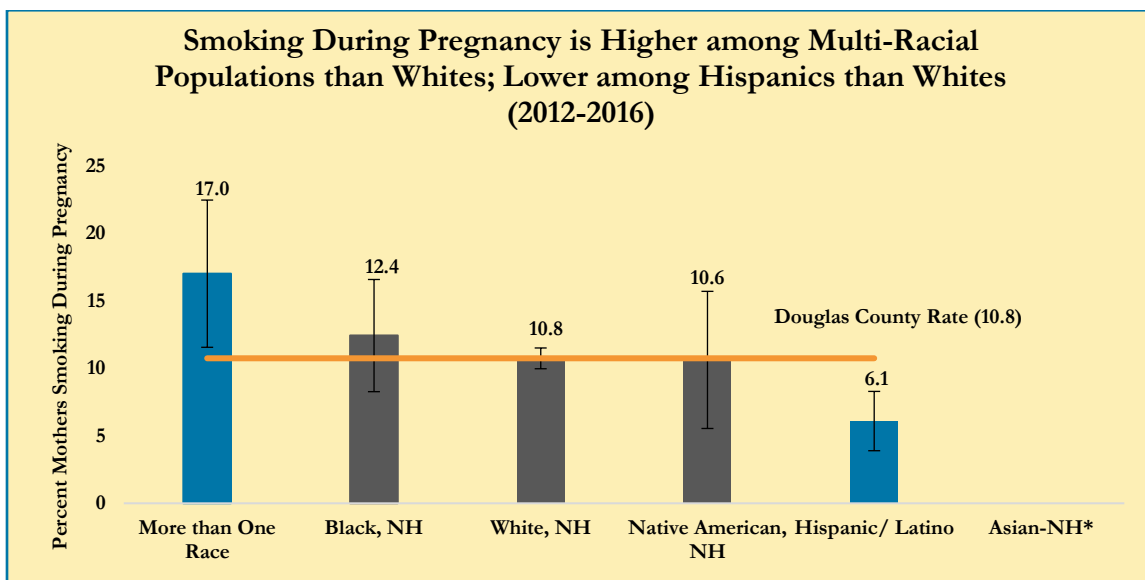


Figure 36  
Data Source: Bureau of Epidemiology and Public Health Informatics, KDHE  
\* Asian Population Suppressed.

## Births Occurring to Married Women

As previously mentioned in prior sections of the report, income and wealth are linked to an individual's health. The protective factor of wealth can also extend to individual's children. A family's income can impact a child's social, economic, and educational opportunities, which in turn can affect their health.<sup>6</sup> Even when both parents are not working, growing up in a two-parent household may mean that one parent is involved in caring for children so that the family does not have to pay steep childcare costs. A woman's marital status could serve as an indicator of a child growing up in a two-parent household, which could positively impact the aforementioned opportunities. However, readers should use caution when drawing conclusions from the below information. Births to married women is not a perfect indicator of the benefits of a two-parent household. The primary reason is that a mother's marital status is not always an accurate measure of a two-income household. It is possible to have two non-married individuals actively raising children in the same or separate house(s).

A statistically higher percent of married Asian and white women gave birth in Douglas County in 2012-2016 than women of every other racial and ethnic group (Figure 37). Less than half of black, Native American, and biracial women are married at the time they gave birth. Approximately half of Hispanic women are married at the time they gave birth. Unmarried women include those living with and without a partner at the time of the birth and does not imply lack of a long-term relationship. In Douglas County, only about 10% of unmarried women giving birth are teens 15-19 years old.

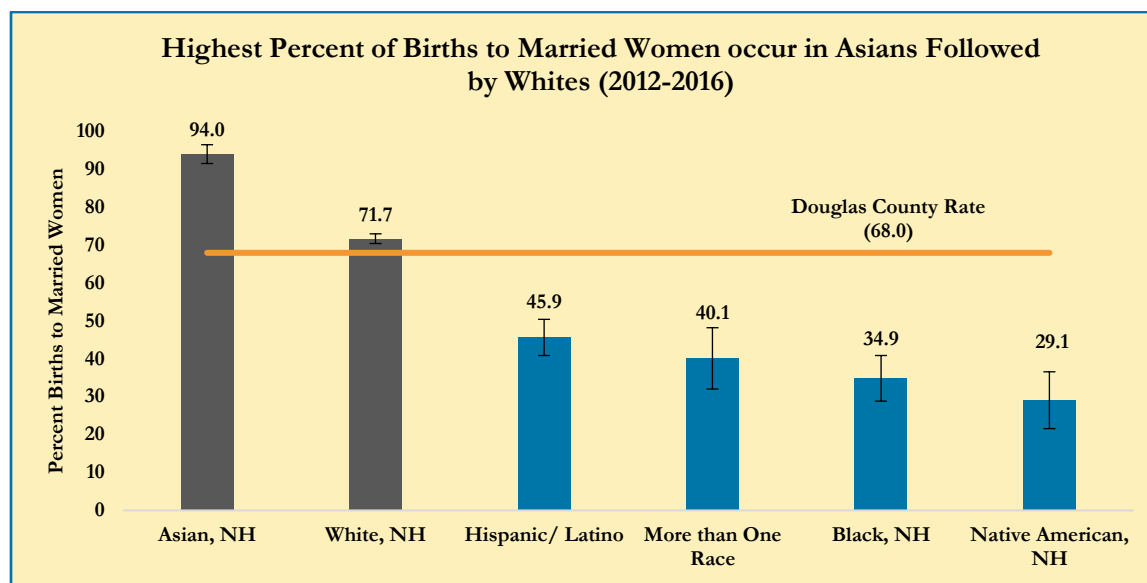


Figure 37

Data Source: Bureau of Epidemiology and Public Health Informatics, KDHE

## Disparities in Behavioral Health

### Emergency Department Visits

As part of their Semi-Annual Behavioral Health Report, LMH Health, the county's only hospital, analyzes emergency department data by race for the following categories of visits: mental health, substance use disorder (SUD), and patients who have both mental health and substance use disorder needs during their visit. The most recent analysis was completed for visits from January to June 2018. Douglas County is currently in the planning phase for expanding, building, and extending the prevention and response care system for behavioral health needs within the county. This is an ongoing effort that is at its beginning stages,

so for now emergency department visits is a good indicator for tracking mental health and substance use disorder needs within the county.

There are many interesting findings in Figure 38 that point to the need for more understanding. White patients make up the largest overall percentages of emergency department visits for all three categories (mental health, substance use disorder, and both mental health and SUD). This is likely due to whites comprising a majority of the population in Douglas County and it is worth noting that their proportion of visits matches closely to their proportion of the census. However, Native American patients are visiting the LMH Health emergency department at a percentage higher than their census representation for all three categories, but especially for SUD. Similarly, the percent of black patients at the ED is higher than their census proportion, especially for mental health and both mental health and SUD. This could indicate that black and Native American populations are more vulnerable regarding mental health and substance abuse needs.

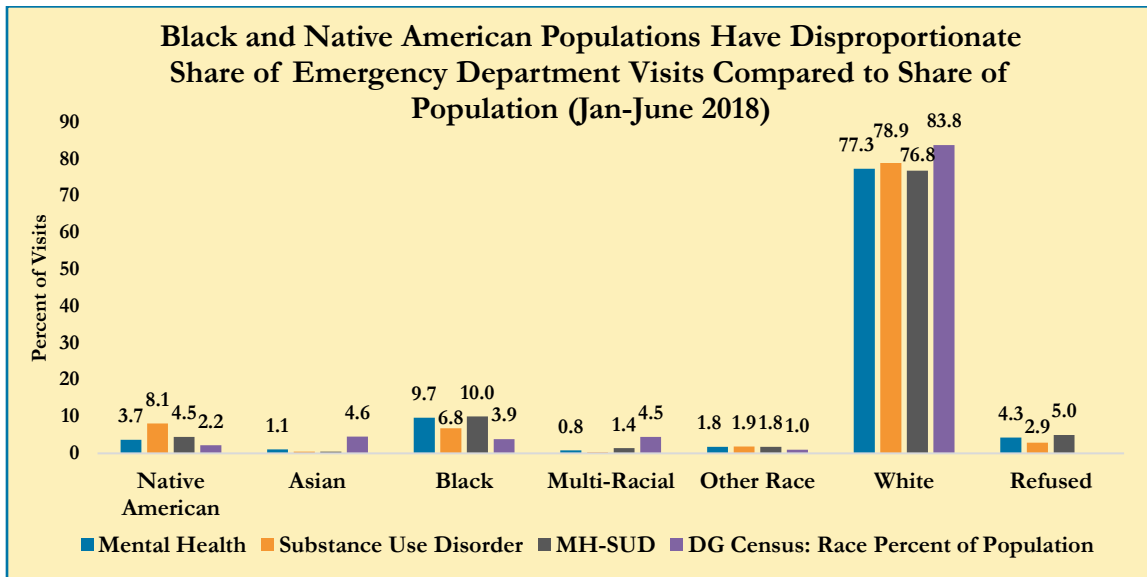


Figure 38  
 Data Source: LMH Health; Provided on October 30, 2018  
 \*Race categorizations provided by LMH Health

## Suicide

Since 1999, the suicide rate in Kansas has risen 45%, according to the CDC, making it one of our leading causes of death.<sup>30</sup> Between 2011 and 2016, the majority of suicide victims in Douglas County were between the ages of 25 and 64. Additionally, as seen in Figure 39, white residents lose the most years of potential life compared to other racial and ethnic groups.

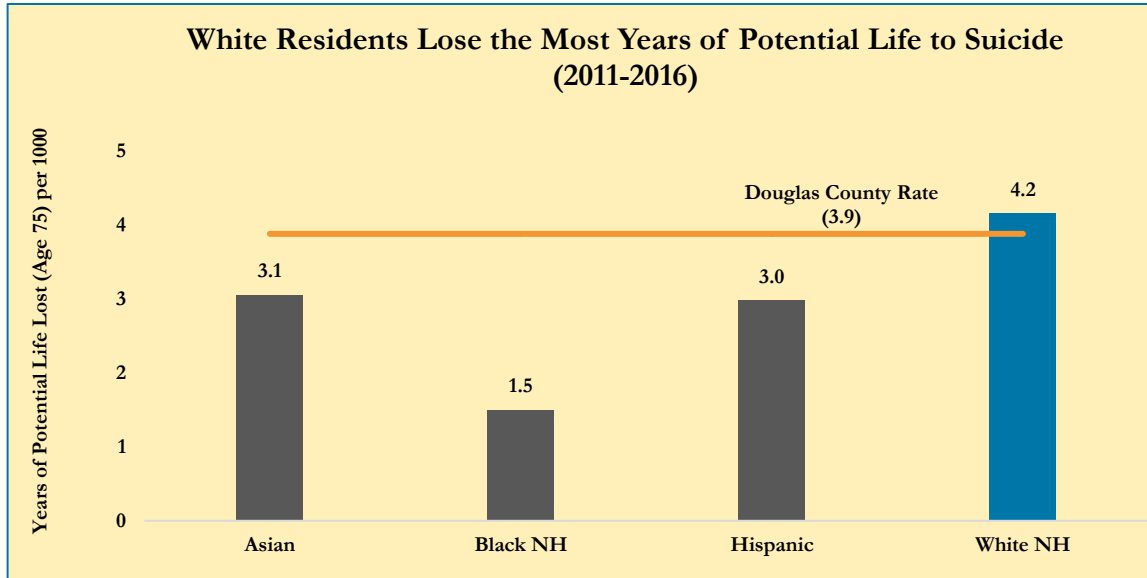
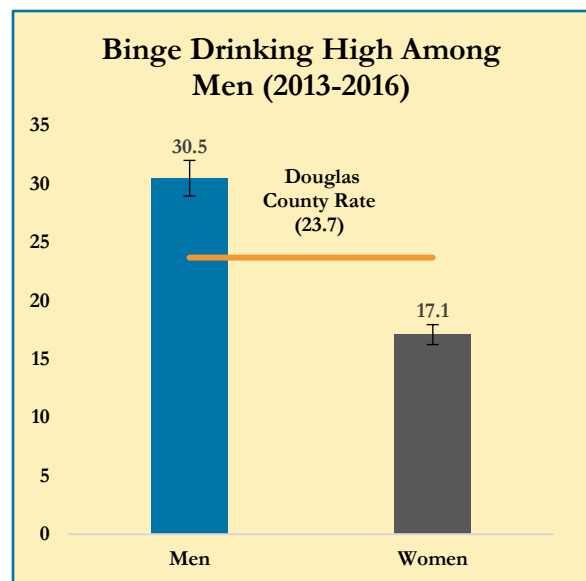
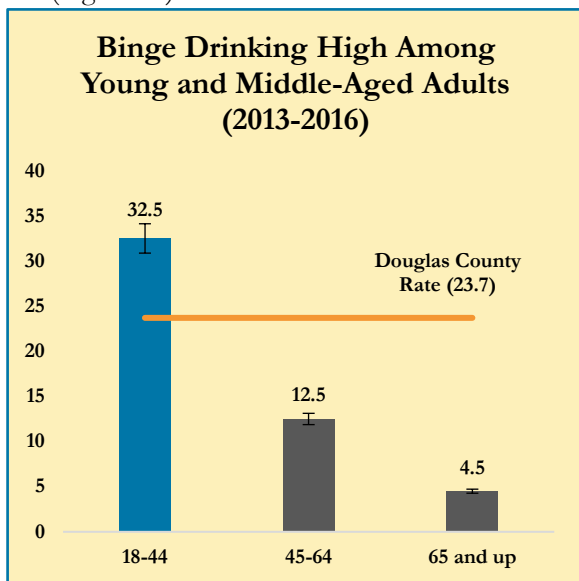


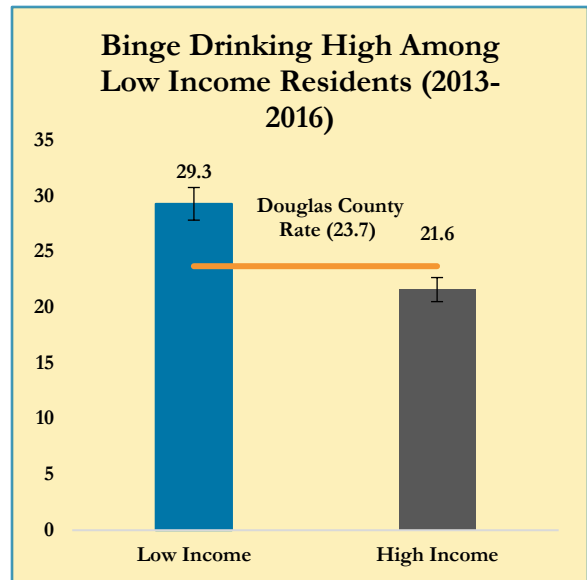
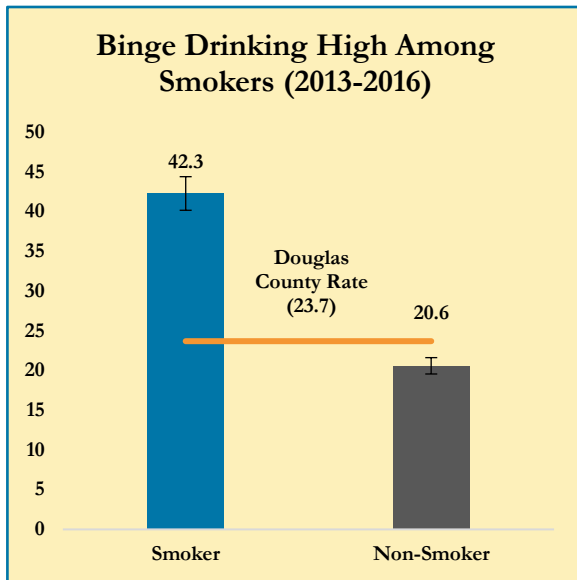
Figure 39  
Data Source: Department of Epidemiology and Public Health Informatics, KDHE

## Binge Drinking

Binge drinking involves consuming more than five drinks on one occasion for males and four drinks on one occasion for females. Between 2013 and 2016, 23.7% of Douglas County adults aged 18 years and older reported binge drinking in the previous month. There were not statistically significant differences between racial and ethnic groups for binge drinking in Douglas County. However, there were significantly higher rates among adults aged 18 years and older for the following categorizations:

- Younger adults compared to older adults (Figure 40);
- Males compared to females (Figure 41);
- Smokers compared to non-smokers (Figure 42);
- Households making less than \$35,000 annually compared to households making \$35,000 or more (Figure 43).





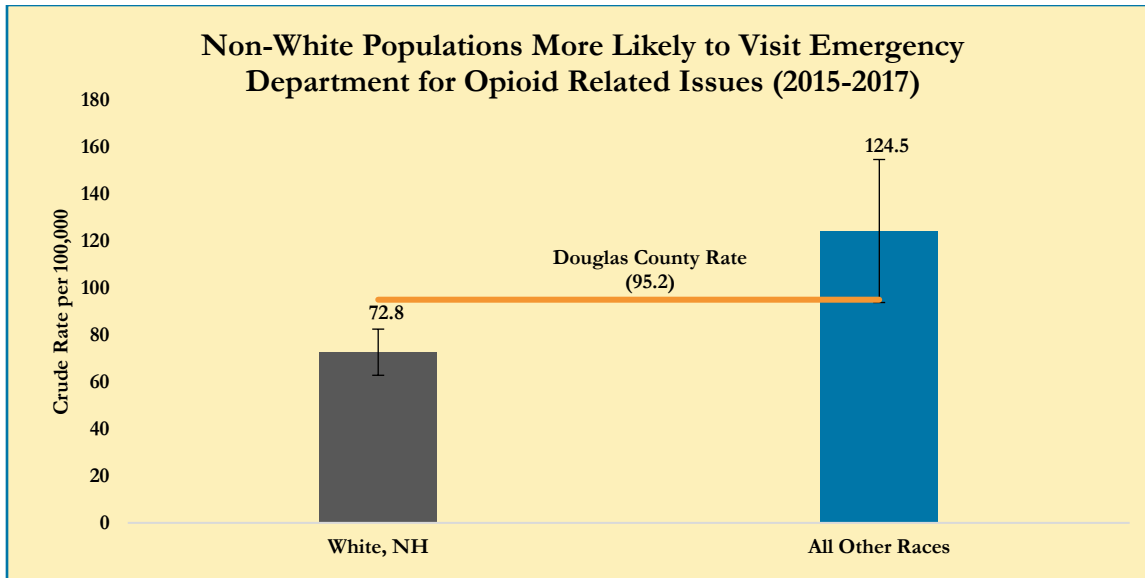
Figures 40-43  
Data Source: Behavioral Risk Factor Surveillance System, KDHE

## Opioid Use Disorder

The opioid crisis has captured the attention of public health officials, health care workers, local law enforcement, and many others due to the breadth and severity of the problem. In 2017, Health and Human Services declared the opioid epidemic a public health emergency. Nationally, 91 people die every day from an opioid overdose.<sup>31</sup> In Kansas, deaths due to drug poisoning are increasing. The total number of drug poisoning deaths increased by 16% between 2005-2009 and 2012-2016. Heroin-related deaths increased by 329% during the same time frame.<sup>32</sup>

Douglas County does not yet have as severe of a problem as other counties in Kansas or the country; nevertheless, opioid use disorder is present here. From 2012 to 2016, Douglas County experienced a rate of 10.2 drug poisoning deaths per 100,000 and 69.5% of them were caused by an opioid.<sup>32</sup> This is less than other larger counties, such as Johnson, Sedgwick, and Shawnee counties, but regardless Douglas County has the fourth largest counts in the state.

Douglas County residents have a rate of 95.2 persons per 100,000 visiting an emergency department in the state due to an opioid-related issue (Figure 44). The rate for white, non-Hispanics is significantly lower than the both the county rate and the rate for all other races. The categorization of “All Other Races” has a high rate of 124.5. Unfortunately, due to hospital coding and small counts, analysis was not able to be separated by different races or ethnicities. This leaves a question of why non-whites are using or are prescribed at higher rates than the white population.



**Figure 44**  
 Data Source: Kansas Syndromic Surveillance Program, KDHE  
 Race categories combined due to small counts.

## Disparities in Communicable Diseases

### Hepatitis C Virus Infection

Infection with chronic Hepatitis C (HCV) can be an important indicator of health disparity as transmission is often preventable and exposure is linked to high risk behaviors. The most common exposure for HCV in the United States is current or previous intravenous drug use. Hepatitis C can also be transmitted through unregulated tattoos/piercings, receipt of blood in a medical setting (especially prior to 1992), and birth to an HCV-positive mother.<sup>33</sup> Due to the high risk of exposure through intravenous drug use, Hepatitis C is often a stigmatized disease. Although the current recommendation is to treat everyone regardless of current drug use, this a recent change to previous recommendations that anyone still using illicit drugs should not receive treatment.<sup>34-35</sup> This is important, because HCV is the number one cause of liver transplants and liver cancer in the United States.<sup>36</sup>

In Douglas County, the total incidence rate of chronic Hepatitis C infection is 59.8 per 100,000 (Figure 45). The infection rate among the white, non-Hispanic population (42.6) falls below the overall Douglas County rate by a significant amount. The black, non-Hispanic rate of infection (79.6) and the Native American rate of infection (125.0) both are significantly higher than the white rate. The Native American rate in particular is almost three times higher than the white infection rate (although the counts for Native Americans are small, so the confidence interval is quite large). The Hispanic population infection rate (70.2) is above the white rate, but not at a significant level.



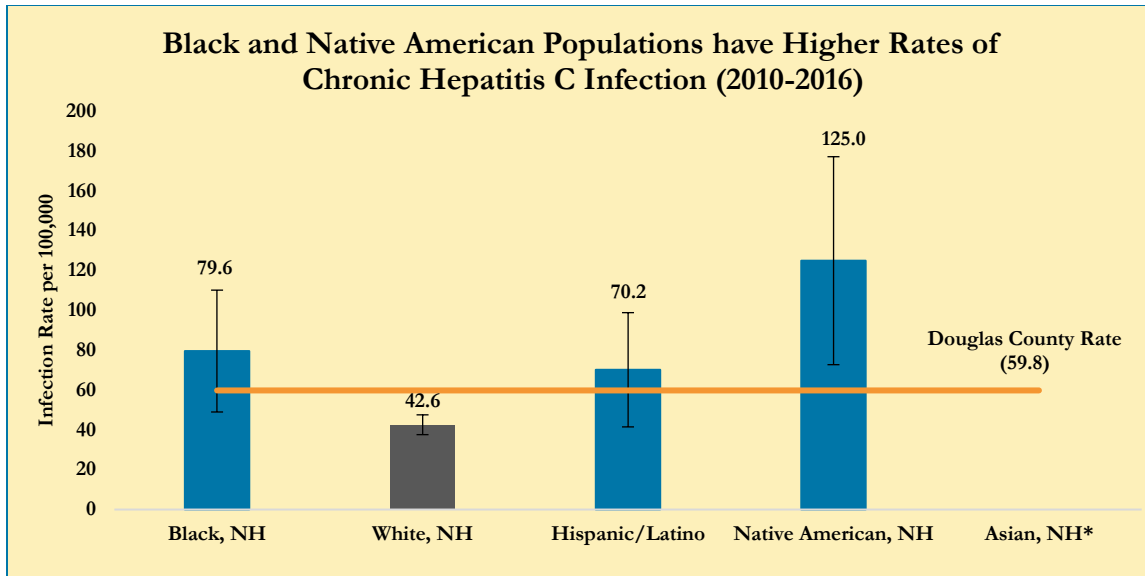


Figure 45

Data Source: EpiTrax, Bureau of Epidemiology and Public Health Informatics, KDHE

\*Asian Population Suppressed.

## Sexually Transmitted Infections

Across Douglas County, the state of Kansas, and the United States, there has been a large increase in the incidence of sexually transmitted infections (STIs).<sup>37</sup> This is concerning for public health officials for a variety of reasons, including the rise of antibiotic resistance to treat gonorrhea and the high-cost of STIs to the health care system.<sup>38-39</sup> STIs can often present without symptoms, leading many infections to go untreated.<sup>40</sup> When left untreated, some STIs can cause more serious complications for the patient. HPV can cause cervical, penile, and anal cancers.<sup>41</sup> Chlamydia and gonorrhea can lead to infertility.<sup>42</sup> Syphilis can be passed to a fetus in utero causing congenital syphilis. Congenital syphilis rates across the country hit an all-time high in 2017.<sup>43</sup>

Nationwide, rates of chlamydia and gonorrhea are highest among the black population, while they are lowest among Asians.<sup>44</sup> As seen in Figure 46, this is a trend somewhat reflected in Douglas County. Both the black, non-Hispanic incidence rate (844.4) and the Native American incidence rate (902.1) have significantly higher rates than the Douglas County rate and other racial and ethnic groups within the county. The rate of STI infection among blacks and Native Americans are around seven times higher than the Asian population and are over double the general Douglas County rate.

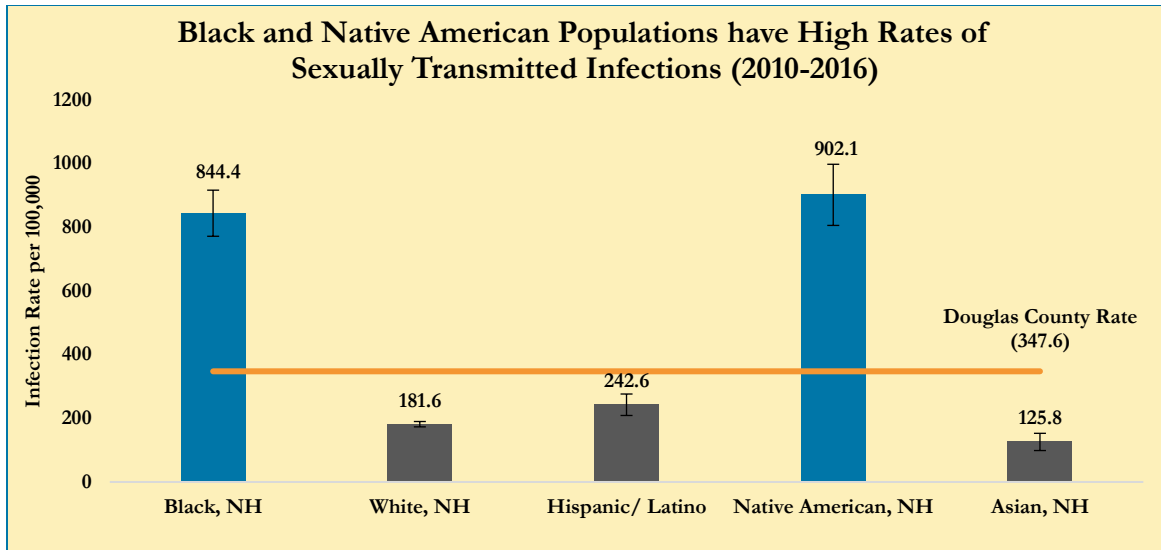
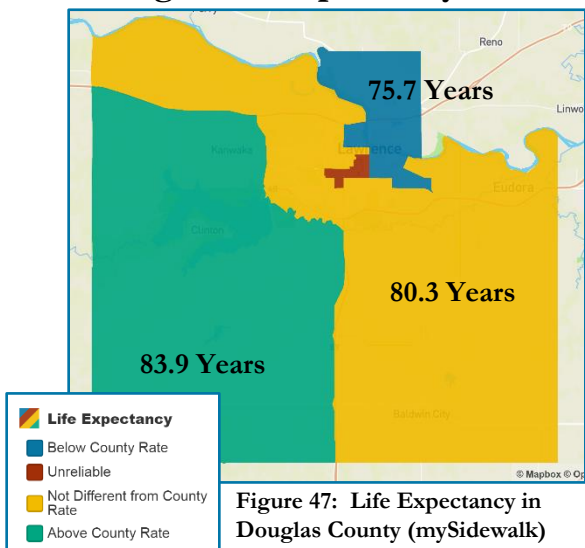


Figure 46  
 Data Source: EpiTrax, Bureau of Epidemiology and Public Health Informatics, KDHE  
 \* Includes chlamydia, gonorrhea, and syphilis.

## Life Cycle

### Average Life Expectancy



Life expectancy is the average number of years a person is expected to live beginning at birth. For Douglas County in general, that number is 79.8 years. However, within Douglas County there is variation by both place of residency and by race.

Within in Douglas County, your life expectancy will differ by your residency. (For this analysis, census tracts were grouped in order for counts to show statistical significance.) When examining Figure 47, the area of the county represented in yellow has essentially the same life expectancy as the average county rate (80.3 years compared to the county rate of 79.8 years). This encompasses Lecompton, West Lawrence, large portions of East and South Lawrence, Eudora, and Baldwin City. However, in rural Western Douglas County (displayed in green), the average life expectancy is 83.9 years, which is

above the county average. In contrast, North Lawrence and areas of East Lawrence have an average lower life expectancy (75.7 years), which is represented in blue.

Life expectancy also differs significantly by race (Figure 48). White residents can expect to live the average number of years for a Douglas County resident while Asians and Hispanics can expect to live considerably longer (83.8 and 84.7 years, respectively). Contrarily, black and Native American residents in Douglas County die about three and four years earlier, on average, than the average resident, respectively.

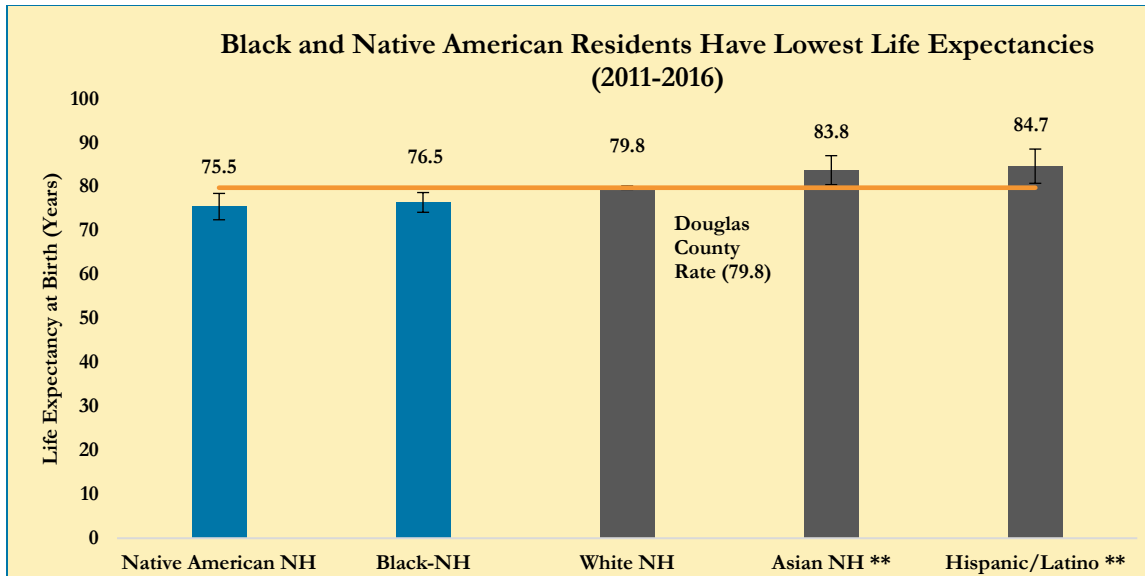


Figure 48  
 Data Source: Department of Epidemiology and Public Health Informatics, KDHE  
 \*\*Interpret with caution.

### Years of Potential Life Lost

The following sections highlight causes of death that affect Douglas County residents differently along racial and ethnic lines. Years of Potential Life Lost (YPLL) will be the main measure used to illustrate these effects. YPLL is the average number of years lost in a specific population due to death before the age of 75. Due to the small population of Douglas County, YPLL is represented as a rate where it represents the number of years lost on average per 1,000 people in a specific population. Traditional calculations of YPLL are done at a rate of 100,000 people in a population.

### Cancer

Cancer is *the* leading cause of death among Douglas County residents, taking the lives of 861 residents between 2011 and 2016. Cancer affects Douglas County’s Asian and Hispanic populations less than other racial or ethnic groups, likely because those populations are younger and cancer tends to afflict older populations. Additionally, Native Americans and African-Americans in Douglas County lose more potential years of life to cancer than any other racial or ethnic groups (Figure 49).

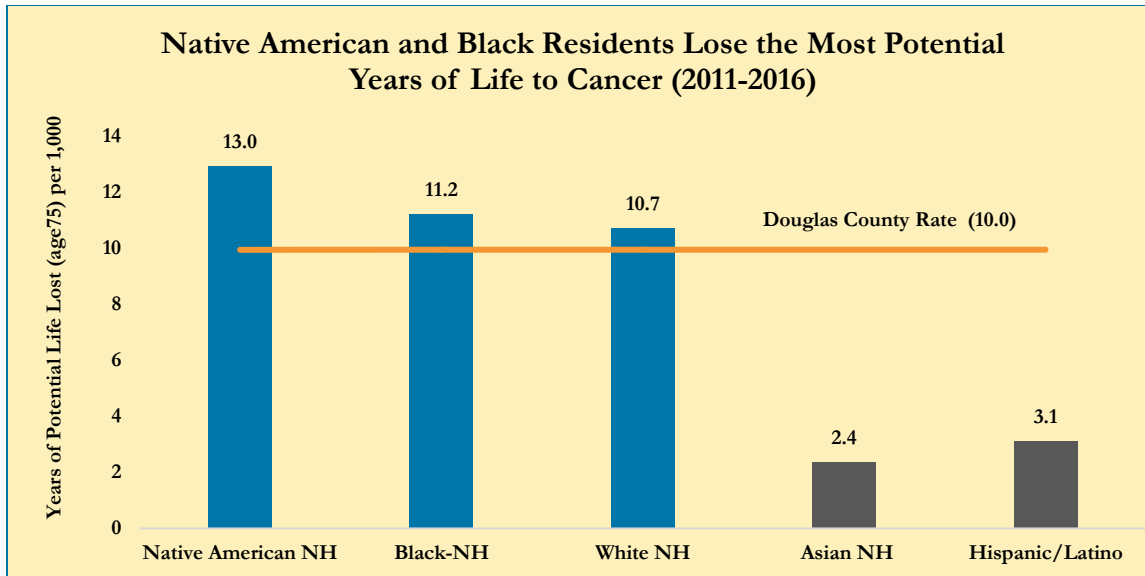


Figure 49  
Data Source: Department of Epidemiology and Public Health Informatics, KDHE

### Cardiovascular Disease

Although cancer is the leading cause of death in Douglas County, cardiovascular disease, including heart disease and stroke combined, have killed more residents (almost 1,000 between 2011 and 2016). Black residents lose more potential years of life on average to cardiovascular disease than white residents (Figure 50).

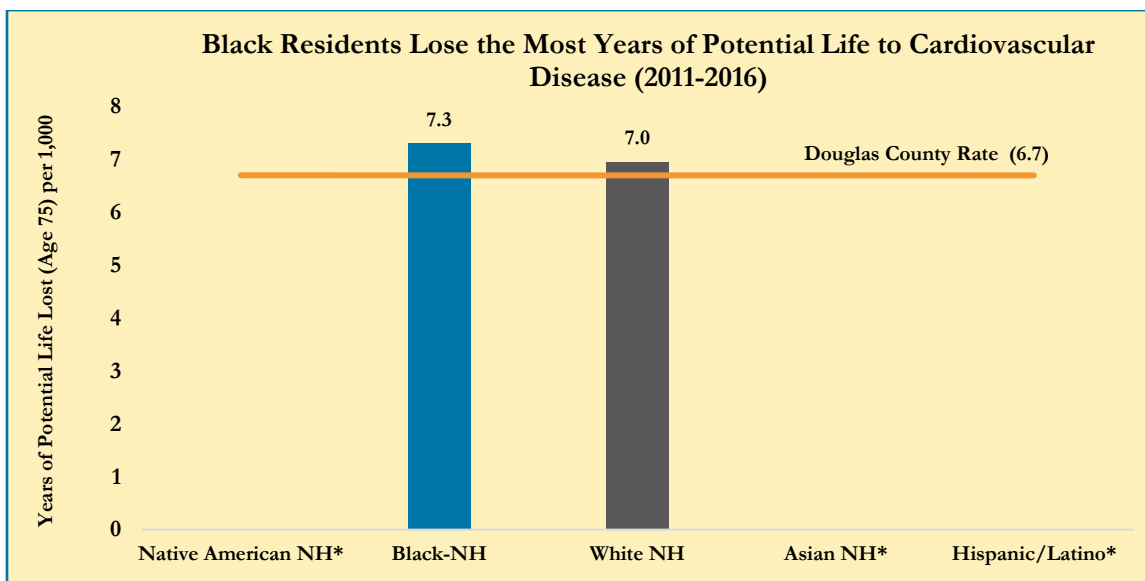


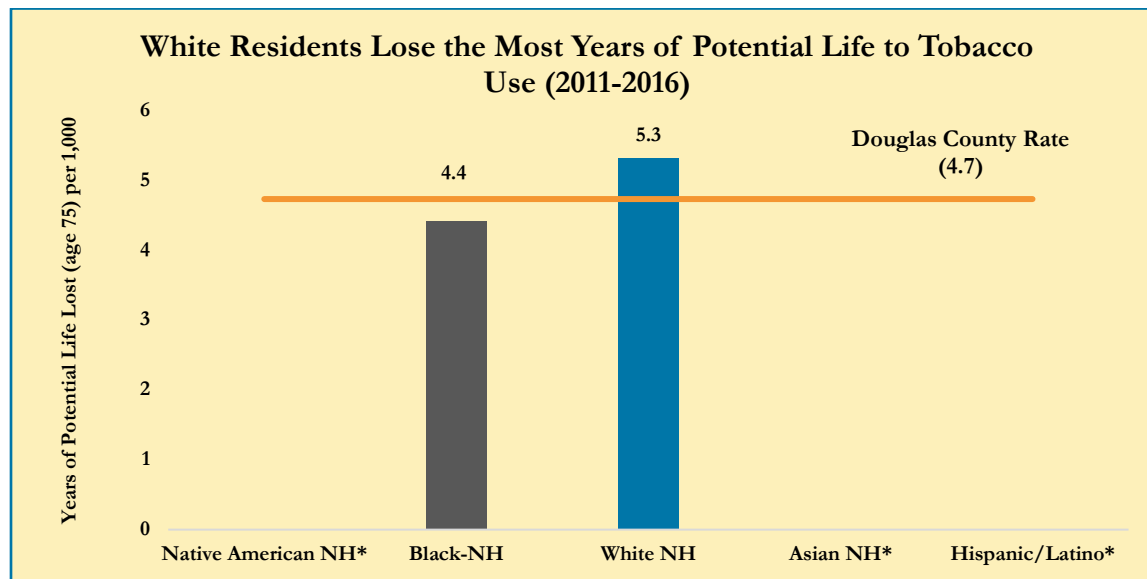
Figure 50  
Data Source: Department of Epidemiology and Public Health Informatics, KDHE  
\*Native American, Asian, and Hispanic/Latino Populations Suppressed.

### Tobacco Use

Tobacco use and secondhand smoke exposure is the leading cause of preventable death in the U.S. causing 1 in 5 deaths.<sup>45</sup> Cigarette smoking and tobacco use are major risk factors for most of the leading causes of deaths; i.e., cancer, heart disease, stroke, chronic lower respiratory disease, diabetes, pneumonia. Although the Kansas statewide smoking rate has declined among the general population since 1990 (30% to 17%), the

current Kansas rate is well above the Healthy People 2020 goal of 12%. The latest local Behavioral Risk Factors Surveillance System (BRFSS) findings from 2015 estimate that 14.6% of Douglas County adults currently smoke cigarettes. BRFSS data for the state consistently show higher rates of smoking for non-white populations, which is not surprising given that tobacco companies often target minority and low-income communities.<sup>46-47</sup>

In Douglas County, white residents lose more potential years of life to tobacco than do black residents (Figure 51). According to KDHE BRFSS data, smokers in Douglas County are more likely to be low income (earning less than 35,000 dollars annually) and possess a high school diploma or less (Figure 1 and 2 for reference).



**Figure 51**  
 Data Source: Department of Epidemiology and Public Health Informatics, KDHE  
 \*Asian, Native American, Hispanic/Latino Populations Suppressed.

## Conclusion

Using the social determinants of health as a guide, this report details how health outcomes among vulnerable populations relate to non-clinical factors. Residents earning less than \$35,000 are more likely to struggle with access to care and report poor well-being status. A non-white resident (particularly a black or Native American resident) is more likely to earn a lower annual salary and/or live in poverty than a white resident. Black and Native American residents are also less likely to obtain a bachelor’s or high school degree than white residents. Residents of color are also more likely to be uninsured, thus paying more of their own money for the same health care services that a white resident may have covered through insurance. Collectively, these social and economic factors coincide with poorer health outcomes in measures such as life expectancy and years of potential life lost due to certain diseases. To positively impact the inequities and disparities that exist in Douglas County will require a deep understanding of the long-standing gaps that exist. It will require that individual organizations, including the Lawrence-Douglas County Health Department, use resources differently than in the past and look for unique solutions in new places with those most affected. LDCHD is committed to this journey because it is required for our community to be *Healthier Together*.

## **Epilogue: A Call to Action for Douglas County**

The purpose of this report is a thorough examination of the health disparities and inequities that exist in Douglas County. The analysis is primarily done from a perspective of the inequities that disproportionately affect various racial and ethnic groups. The report purposefully does not make recommendations or identify next steps. This is not the work of the report; rather we believe it is the work of our community.

All Douglas County residents should have the equal opportunity to make choices that lead to good health. We can work together to address the social, economic, and environmental conditions that have created the health inequities and disparities detailed in this report. We can reduce exposures and vulnerabilities and enhance opportunities and capabilities.

Health does not begin the moment we step into a doctor's office to receive care. Health begins in our community; it begins where we live, learn, work, and play every day. It begins in schools and workplaces, in playgrounds and parks, in homes and families, and in the air we breathe, the water we drink and the food we eat. And so, the opportunity for health equity begins with us: in our families, our neighborhoods, our schools, and our jobs. No one person, agency, organization, or institution alone can make our community healthier, but together we can foster health to ensure that every Douglas County resident has an equal opportunity to be as healthy as possible.



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## **Comments and Questions?**

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An electronic copy of this report can be found on the Lawrence-Douglas County Health Department website ([www.ldchealth.org](http://www.ldchealth.org)) or obtained by emailing the above address.

## Appendix 1: Data Sources

A variety of datasets were used to create this report.

- Death certificate and birth certificate data provided by the Kansas Department of Health and Environment (KDHE).
- Publicly available data from the American Community Survey administered by the U.S. Census Bureau.
- Population estimates by race and ethnicity for rate calculations provided by the Bureau of Epidemiology and Public Health Informatics at KDHE and the Kansas Information for Communities system hosted by KDHE.
- Emergency Department data provided through the Kansas Syndromic Surveillance Program. *(Data collection was supported by the Grant or Cooperative Agreement Number 1 U50 OE000069-01, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.)*
- Infectious disease data from the KDHE disease investigation tracking system EpiTrax.
- Publicly available health data from Kansas Health Matters ([www.kansashealthmatters.org](http://www.kansashealthmatters.org)), created by Kansas Partnerships for Improving Community Health.
- Publicly available education data from the Kansas State Department of Education (KSDE) data platform Data Central ([www.datacentral.ksde.org](http://www.datacentral.ksde.org)).
- Publicly available school discipline data from the Civil Rights Data Collection data platform (<https://ocrdata.ed.gov/Home>).
- Emergency department data and shelter admission data from the LMH Health Behavioral Health Semi-Annual Report. January-June 2018. Provided by Ava Trahan.

Maps were created using the data visualization platform, mySidewalk, which the Lawrence-Douglas County Health Department will be using to display the Community Health Plan metrics.

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