Kent County
Health Equity Assessment
2018

COUNTY OF KENT MICHIGAN
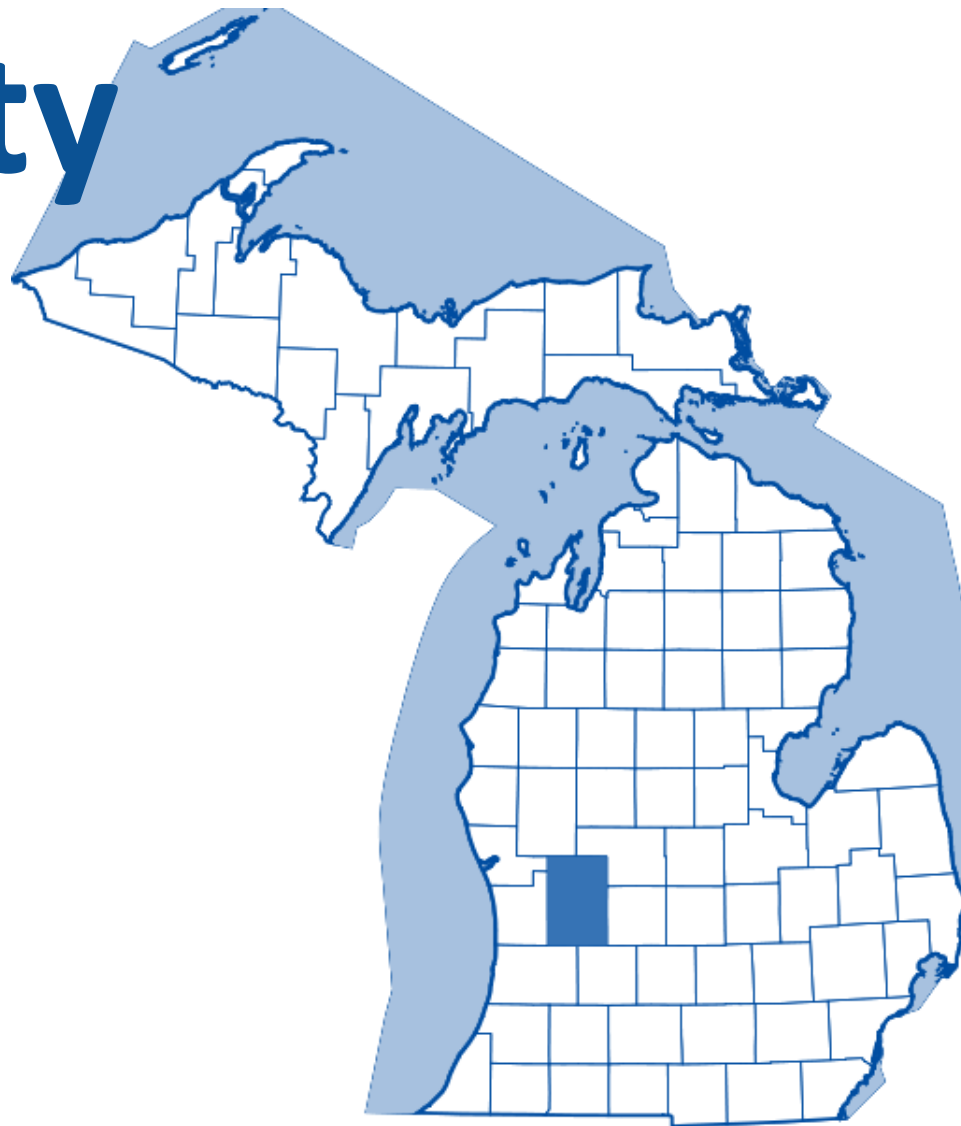
HEALTH
DEPARTMENT
Caring today for a healthy tomorrow

Table of Contents

Introduction
Disparities in Kent County

Relative to the state of Michigan and even the United States, Kent County is home to a considerably healthy population. In fact, the 2018 county health rankings released by the University of Wisconsin and the Robert Wood Johnson Foundation identify Kent County as the 12th healthiest of Michigan's 83 counties in terms of health outcomes. This ranking takes into account general health outcomes such as low birthweight, average number of physically or mentally unhealthy days per month, and premature death. Kent County also ranks well in terms of health factors and was named the 13th healthiest county in Michigan based on health factors such as health behaviors and lifestyle, access to clinical care, and environmental health. Based on county-level data it would seem that Kent County residents are leading healthy lives, yet this fails to capture the many underlying health disparities. In particular, certain racial and ethnic populations in Kent County experience poorer health outcomes and health factors than the general population.

While Kent County is home to a variety of racial and ethnic populations, Black or African American and Hispanic or Latino popoulations account for 20 percent of Kent County's population. Because of this, the Kent County Health Department (KCHD) has focused this Health Equity Assessment on these two populations.

These populations have been linked with health risk factors associated with poorer health outcomes, a trend that is again demonstrated throughout this report. By focusing interventions and programs in neighborhoods with a greater presence of Black or African American and Hispanic or Latino individuals, KCHD and its partners will have a more effective and positive impact in working with communities throughout Kent County to help create an environment and support that's needed to ensure population health.

The goal of this report is to explore health disparities in Kent County and the social determinants of health that contribute to creating them. As defined by the World Health Organization, the social determinants of health are the conditions in which people are born, grow, live, work, and age. A discussion of the health disparities in Kent County, therefore, must look beyond health outcomes and consider economic status, access to resources, lifestyle factors, and neighborhood environment as well. This report will take both health outcomes and health factors into account to present a complete picture of the current health status populations experiencing disparities in Kent County, MI.
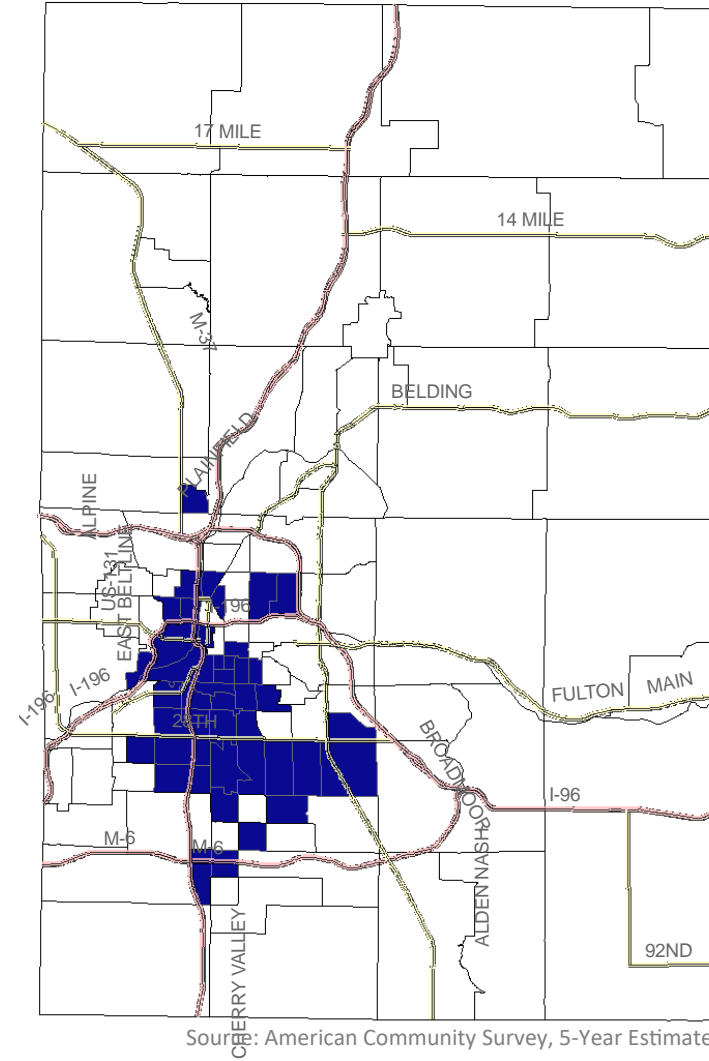
Priority Neighborhoods
Health disparities exist between neighborhoods

An individual's health is closely linked to his or her area of residence. Social determinants of health such as income, education level, stable housing, and access to care often vary from neighborhood to neighborhood. Understanding this, it is important to identify the priority neighborhoods and collaborate with community partners to establish programs, and focus the efforts and services of KCHD to have the greatest impact.

The priority neighborhoods in Kent County are those with the highest proportion (25.0% or more) of the two populations examined in this report: Black or African American and Hispanic or Latino populations. These populations have been shown to experience a disproportionate burden of poor health outcomes in Kent County. As illustrated in Figure 1, these priority areas are primarily located in the city of Grand Rapids, as well as in the nearby cities of Wyoming and Kentwood.

These priority areas have varying distributions of Black or African American and Hispanic or Latino individuals (Figures 2 and 3). Therefore, programs and services that are tailored to specific neighborhoods within these priority areas will be more effective in reaching the intended populations.

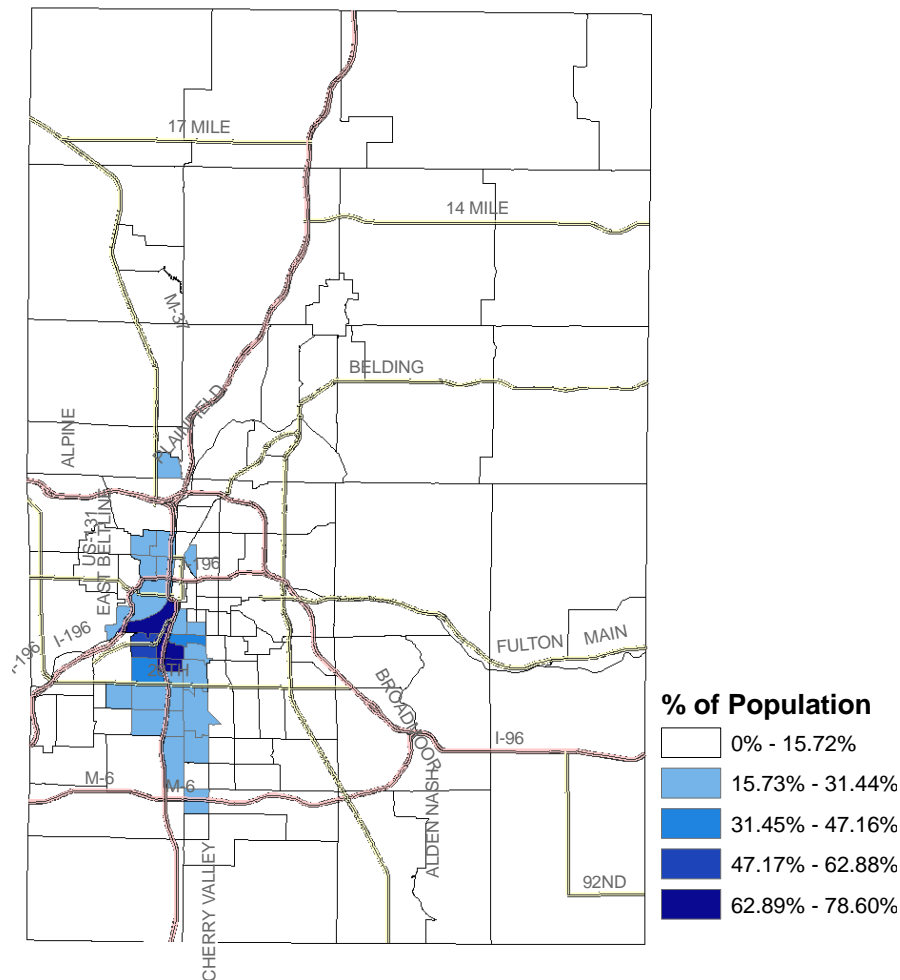**Figure 1.** Priority census tracts in Kent County, MI.

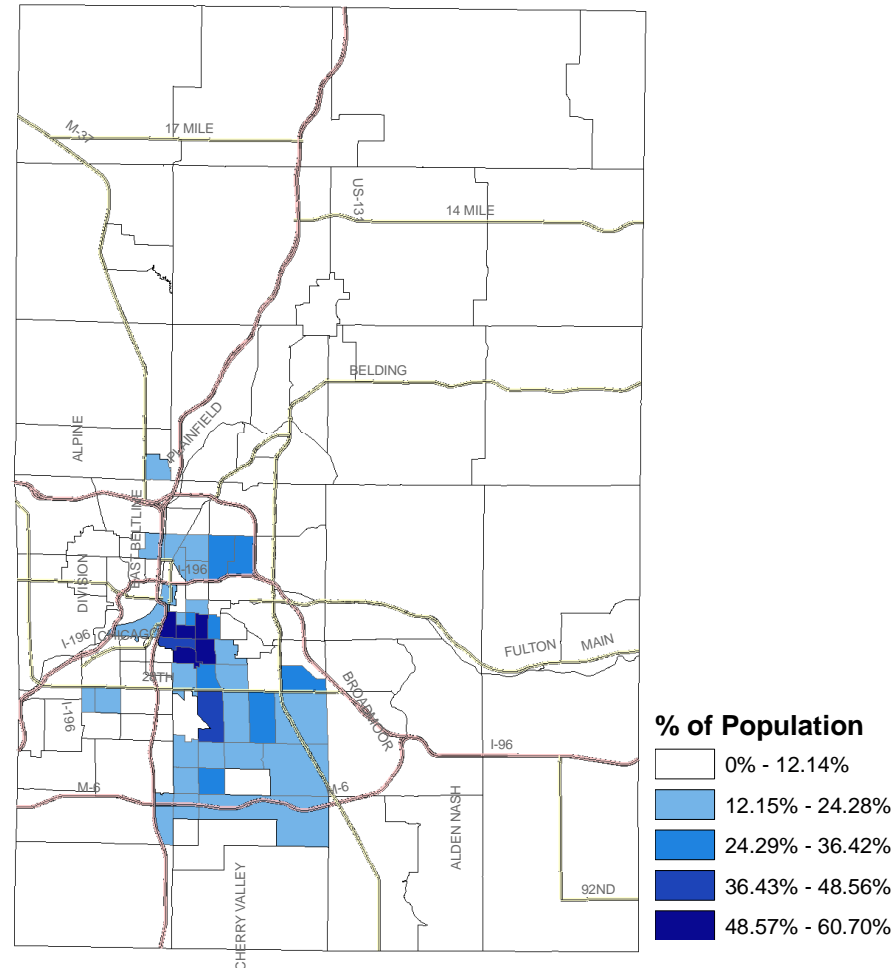Source: American Community Survey, 5-Year Estimates, 2012-2016.

Priority Neighborhoods

Populations are concentrated in different neighborhoods

Figure 2. Hispanic or Latino population by census tract, Kent County, MI, 2012 – 2016.

% of Population
- 0% - 15.72%
- 15.73% - 31.44%
- 31.45% - 47.16%
- 47.17% - 62.88%
- 62.89% - 78.60%

Figure 3. Black or African American population by census tract, Kent County, MI, 2012 – 2016.

% of Population
- 0% - 12.14%
- 12.15% - 24.28%
- 24.29% - 36.42%
- 36.43% - 48.56%
- 48.57% - 60.70%

Source: American Community Survey, 5-Year Estimates, 2012-2016.

Segregation
Racial and ethnic diversity is uneven throughout Kent County

While Kent County is home to a diverse population of many races and ethnicities, a closer look reveals that this diversity is not evenly distributed throughout the county. The index of dissimilarity is a commonly used measure that evaluates the evenness with which two groups are distributed across a geographic area. Ranging from 0 to 100, a higher index of dissimilarity indicates higher levels of segregation between two groups. An analysis of the 2010 U.S. Census revealed that Grand Rapids-Wyoming was the 26th most segregated large metropolitan area in the United States when comparing White and Black or African American populations, with a dissimilarity index of 64.3. When comparing White and Hispanic or Latino populations, Grand Rapids-Wyoming metropolitan area ranked the 23rd most segregated area in the United States, with a dissimilarity index of 50.4. Based on this data, the most racially segregated large metropolitan area in Michigan when comparing White and Black or African American populations was Detroit-Warren-Livonia with a dissimilarity index of 75.3, ranking 4th in the United States overall. When comparing White and Hispanic or Latino populations,Grand Rapids-Wyoming area was the most ethnically segregated metropolitan area in Michigan.

While this analysis only compared large metropolitan ares, based on data from the American Community Survey (2012-2016, 5-year estimates), the dissimilarity index for all of Kent County is 59.7, when comparing White and Black or African American populations, and is 52.5 when comparing White and Hispanic or Latino populations. This means that 59.7% of White individuals in Kent County would have to move census tracts in order to create an even distribution of White and Black or African American residents throughout the county.

Similar trends of residential segregation are still prominent in cities and townships throughout the United States. This residential segregation between non-Hispanic, Whites and other racial or ethnic groups has come to be understood as a key contributor to current health disparities in the nation. Figures 4 and 5 on the following page identify the census tracts within Kent County that are considered racially or ethnically segregated. These census tracts have a higher proportion of Black or African American and Hispanic or Latino individuals than the overall county level. The most recent estimates from the American Community Survey (2012-2016, 5-year Estimates) indicate that 9.6% of the population in Kent County identifies as Black or African American and 10.2% of the population identifies as Hispanic or Latino.

Source: William H. Frey, Brookings Institution and University of Michigan Social Science Data Analysis Network's analysis of 1990, 2000, and 2010 Census Decennial Census tract data.
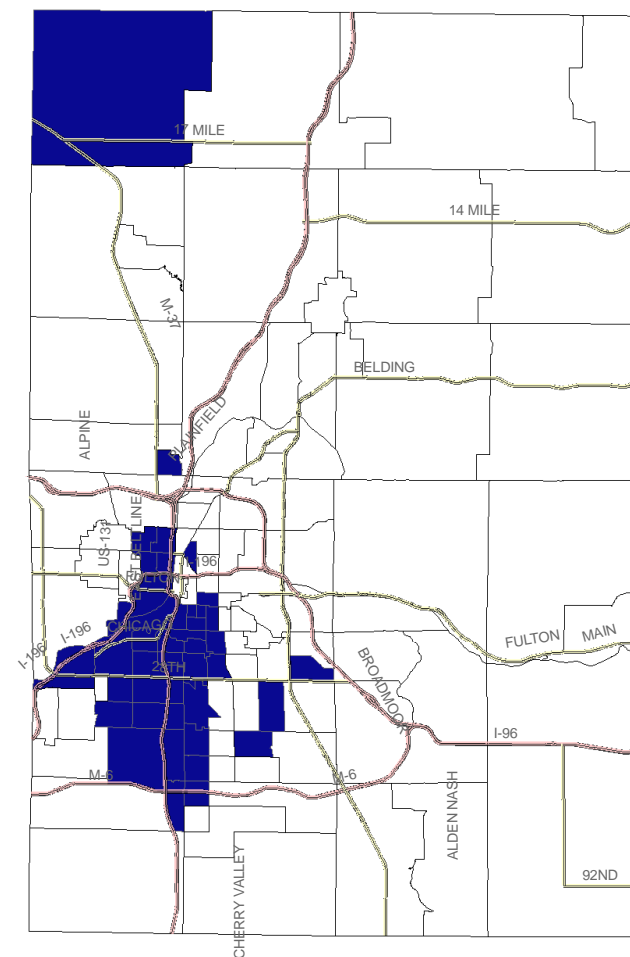
Segregation

Segregated and priority neighborhoods align in Kent County

Figure 4. Racially segregated census tracts in Kent County, MI (for African American populations).
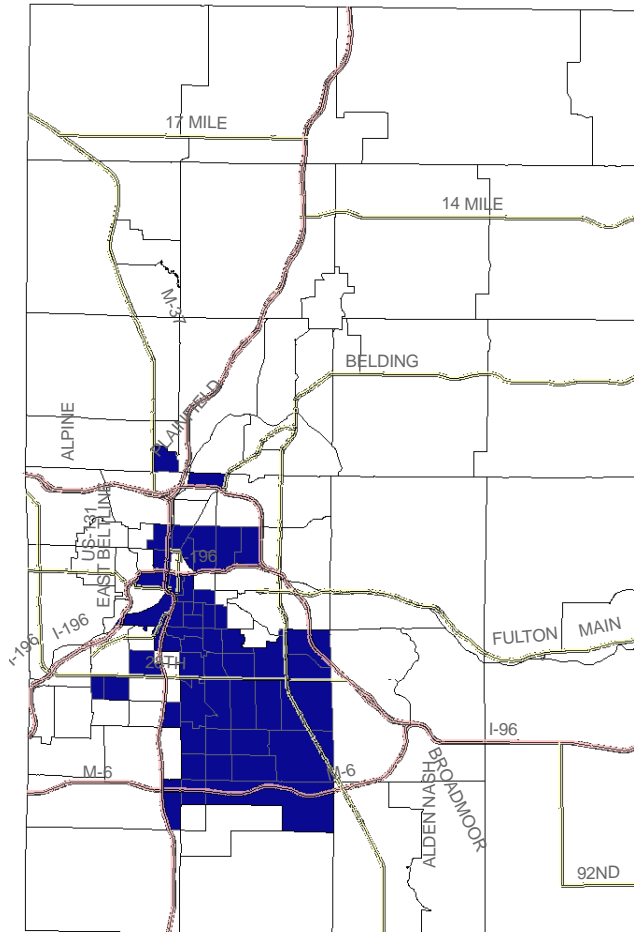
Figure 5. Ethnically segregated census tracts in Kent County, MI (for Hispanic and Latino populations).

Source: American Community Survey, 2012-2016 5-Year Estimates.

Social and Economic Wellbeing
Populations experience disparities in social health factors

Social determinants of health such as poverty, income, housing stability, and education are good predictors of health outcomes in a community. Individuals with lower levels of educational attainment, lower income, or less stable housing often experience greater health risk factors and poorer health outcomes. These individuals are more likely to experience chronic disease and to lack access to the necessary health care.

According to the American Community Survey (2012-2016, 5-Year Estimates), 14.9% of all individuals and 19.9% of all children below the age of 18 in Kent County live below the federal poverty level. However, there are clear disparities between racial and ethnic groups, as presented in Figure 6.

Black or African American individuals are 3.4 times as likely to live below the federal poverty level as non-Hispanic, Whites.

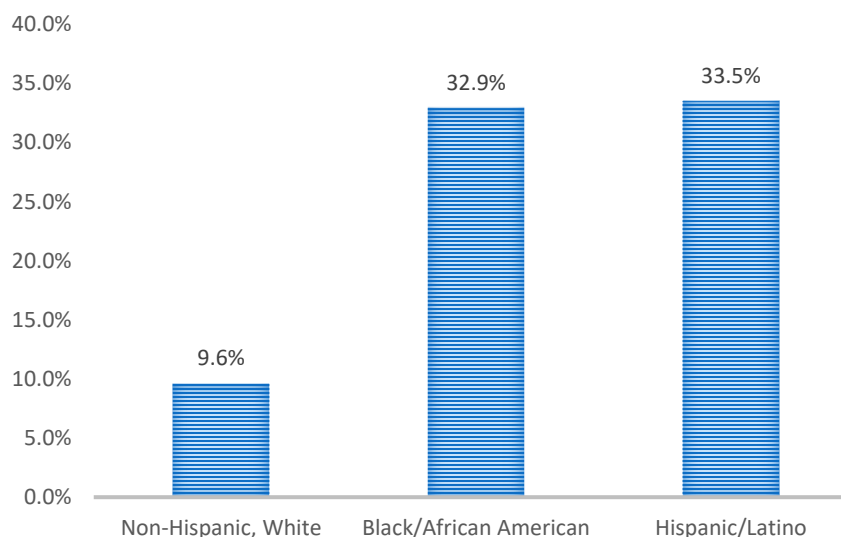**Hispanic or Latino individuals are 3.5 times as likely to live below the federal poverty level as non-Hispanic, Whites.**

Figure 6. Percentage of individuals below the federal poverty level by race and ethnicity, Kent County, MI, 2012 – 2016.

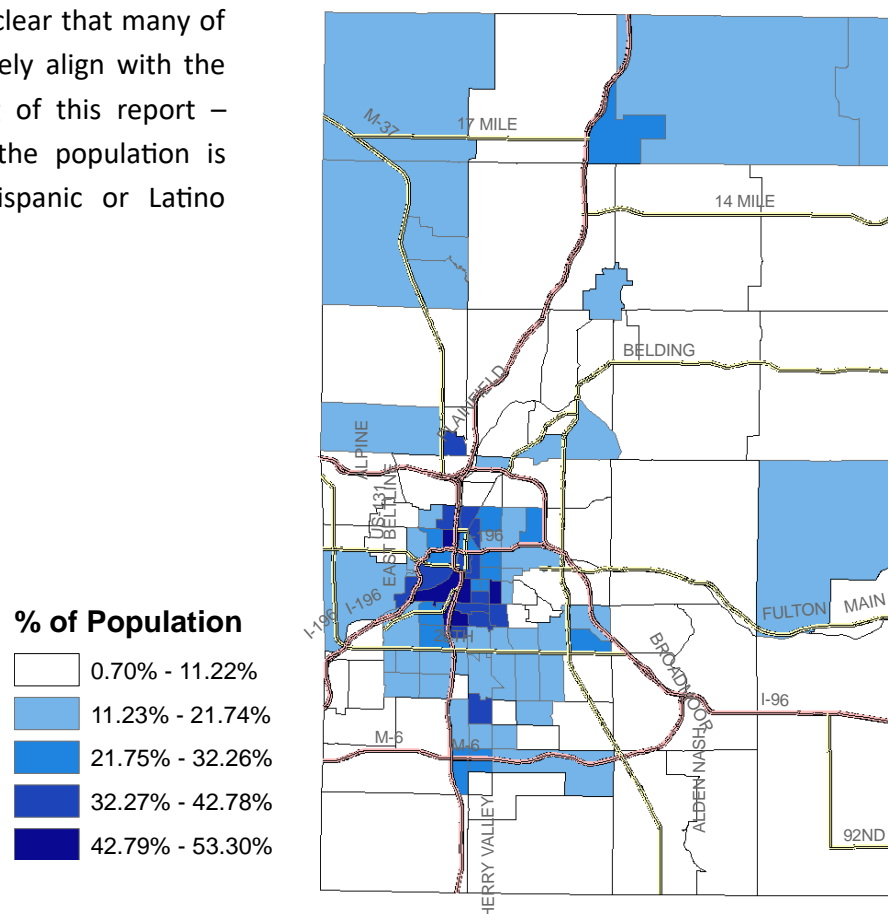Source: American Community Survey, 2012-2016 5-Year Estimates.

Social and Economic Wellbeing

Economic disparities exist between neighborhoods

The greatest levels of poverty exist in census tracts in the City of Grand Rapids and closely surrounding areas, with some census tracts having over 50.0% of the population living in poverty. It is clear that many of the high poverty census tracts in Kent County closely align with the priority neighborhoods identified at the beginning of this report – census tracts in which more than a quarter of the population is comprised of Black or African American and Hispanic or Latino individuals.

Figure 7. Residents living below the federal poverty level by census tract, Kent County, MI, 2012-2016.

% of Population

- 0.70% - 11.22%
- 11.23% - 21.74%
- 21.75% - 32.26%
- 32.27% - 42.78%
- 42.79% - 53.30%

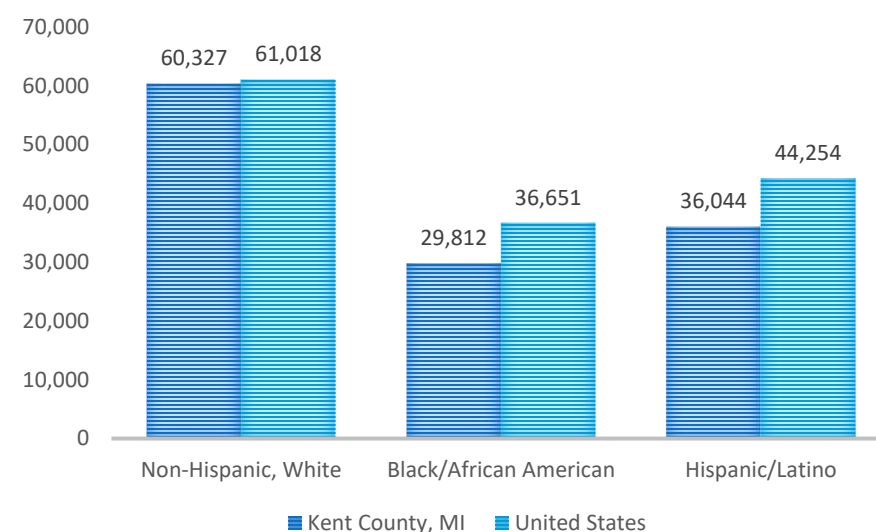Source: American Community Survey, 2012-2016 5-Year Estimates.

Social and Economic Wellbeing
Racial and ethnic groups earn markedly different incomes

Similar disparities are observed for other socioeconomic indicators, as well:

- The median household income for Black or African American households in Kent County is 50.6% lower than that of non-Hispanic, White households.

- The median household income for Hispanic or Latino households is 40.3% lower than that of non-Hispanic, White households.

- The disparity in household income between racial and ethnic groups is greater in Kent County than at the national level.

Figure 8. Median household income (in U.S. Dollars) by race and ethnicity for Kent County, MI and the United States, 2012 – 2016.

34.0% of Blacks or African Americans and 33.0% of Hispanics or Latinos report feeling that they are not able to afford all their basic needs, compared to just 17.4% of Whites.

Sources: American Community Survey, 2012-2016 5-Year Estimates, Voice Kent Survey, 2017.
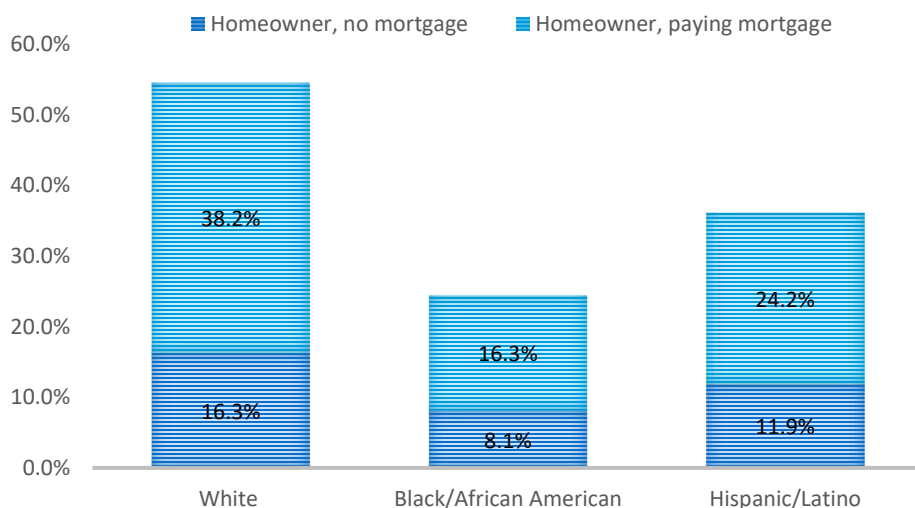
Social and Economic Wellbeing

Economic disparities extend beyond income level

This economic disparity between racial and ethnic groups in Kent County extends far beyond household income and basic needs – it takes shape as disparities in homeownership, access to care, and even educational attainment.

According to the 2017 Voice Kent survey, only 24.4% of Black or African American individuals and 36.1% of Hispanic or Latino individuals are currently homeowners, compared to 54.5% of Whites (Figure 9).

Hispanics or Latinos are

4.3 times

as likely as Whites to not have had health insurance in the past year.

Figure 9. Homeownership and mortgage payment status by race and ethnicity, Kent County, MI, 2017.

Legend: ■ Homeowner, no mortgage ■ Homeowner, paying mortgage

White: 38.2% (paying mortgage), 16.3% (no mortgage)
Black/African American: 16.3% (paying mortgage), 8.1% (no mortgage)
Hispanic/Latino: 24.2% (paying mortgage), 11.9% (no mortgage)

Figure 10. Percentage of individuals without any health insurance in the past year by race and ethnicity, Kent County, MI, 2017.

White: 4.9%
Black/African American: 8.4%
Hispanic/Latino: 21.2%
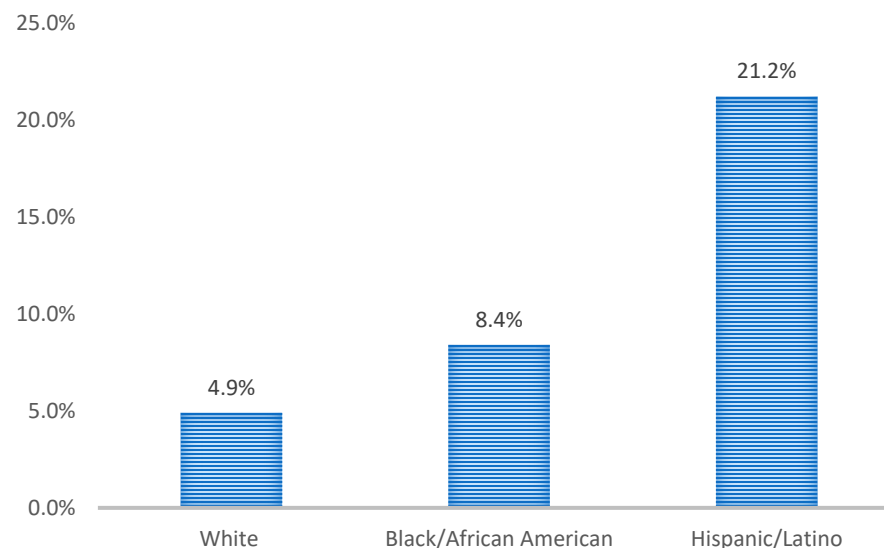
Source: Voice Kent Survey, 2017.

Social and Economic Wellbeing

Disparities in economic status and education are cyclical

The 2017 Voice Kent Survey also demonstrated that racial and ethnic populations in Kent County are experiencing lower levels of educational attainment compared to Whites, a disparity that will continue to sustain existing economic gaps between these populations.

Whites in Kent County are 2 to 3 times more likely to have completed a bachelor's degree or higher than Blacks or African Americans and Hispanics or Latinos.
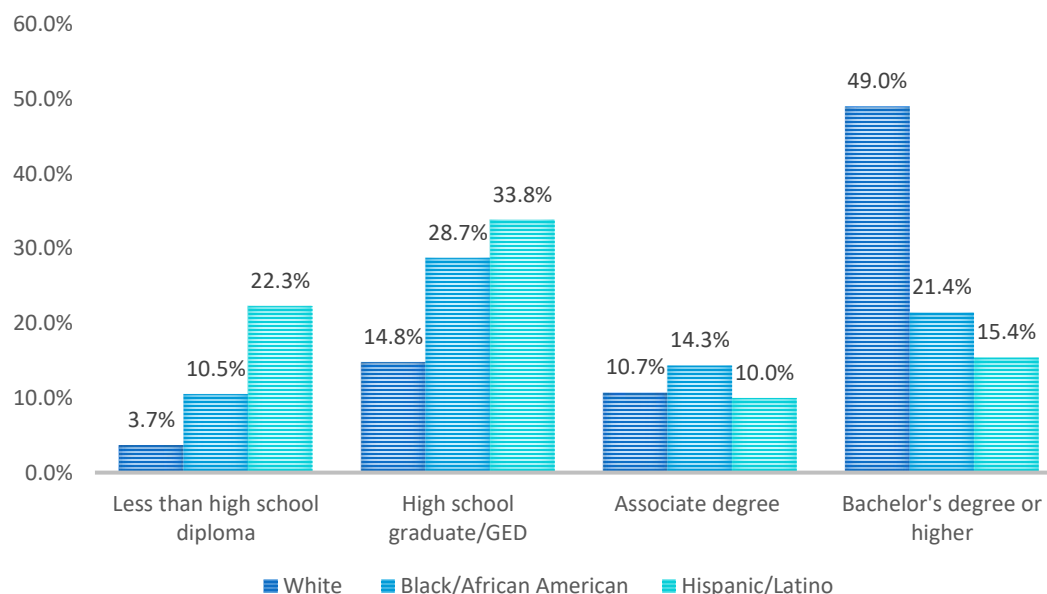
Blacks or African Americans are

2.8 times

as likely as Whites to have less than a high school diploma, while Hispanics or Latinos are

6.0 times

as likely as Whites to not have completed this level of education.

Figure 11. Educational attainment by race and ethnicity, Kent County, MI, 2017.

Data from chart:

|	Less than high school diploma	High school graduate/GED	Associate degree	Bachelor's degree or higher
White	3.7%	14.8%	10.7%	49.0%
Black/African American	10.5%	28.7%	14.3%	21.4%
Hispanic/Latino	22.3%	33.8%	10.0%	15.4%

Source: Voice Kent Survey, 2017.

Lifestyle Health Factors

Unhealthy weight is persistent across all demographic groups

Nutrition, physical activity, and tobacco and alcohol use are all important indicators of an individual's overall health status; thus, disparities in health behaviors such as fruit and vegetable consumption, exercise, or cigarette smoking can be predictive of similar gaps in health outcomes like cardiovascular disease and asthma. It is important to understand these differences in lifestyle health factors between populations in order to know how to best promote and implement preventative measures in the community.

Based on self-reported heights and weights from the 2017 Voice Kent Survey, unhealthy weights are persistent across all demographic groups. Black or African American adults experience the highest proportion of unhealthy weight, with 58.0% of individuals being overweight or obese (Figure 12).

Figure 12. Overweight and obesity status (BMI and diagnosis) by race and ethnicity, Kent County, MI, 2017.

Legend: ■ % Overweight or obese (BMI) ■ % Diagnosed as overweight or obese
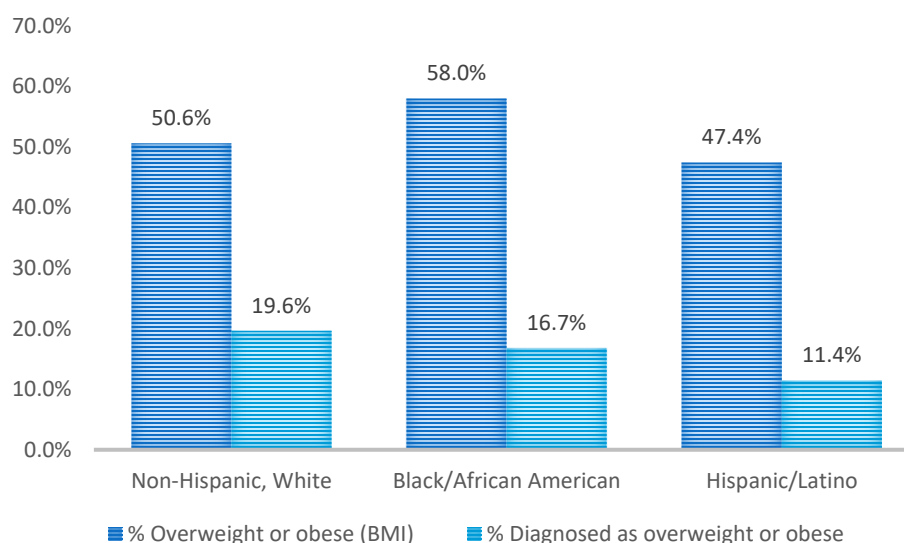
Over 70%
of overweight and obese Black or African American and Hispanic or Latino individuals have never been told by a doctor that they are overweight or obese.

Source: Voice Kent Survey, 2017.

Lifestyle Health Factors
Nutrition and regular physical activity are lacking in adults

Eating a balanced diet is an important part of leading a mentally and physically healthy life, and has been shown to be protective against chronic disease. The 2017 Behavioral Risk Factor Survey found that 39.3% of Kent County residents consume fruits less than once a day and 26.5% consume vegetables less than once a day, a frequency far below the USDA's current recommendations. However, this survey found evident differences in fruit and vegetable consumption between racial and ethnic groups in Kent County (Figure 13).

Regular physical activity is another important protective factor against chronic diseases such as diabetes, hypertension, and cardiovascular disease, but sedentary lifestyles are on the rise in Kent County and across the United States. While physical inactivity was widespread, the 2017 Voice Kent survey identified clear disparities in activity levels between racial and ethnic groups.

Figure 13. Fruit and vegetable consumption by race and ethnicity, Kent County, MI, 2017.

■ % Eating vegetables less than once per day　■ % Eating fruits less than once per day

Only 36.8% of Blacks or African Americans and 29.8% of Hispanics or Latinos report being physically active (for at least 30 minutes) on five days in the past week.
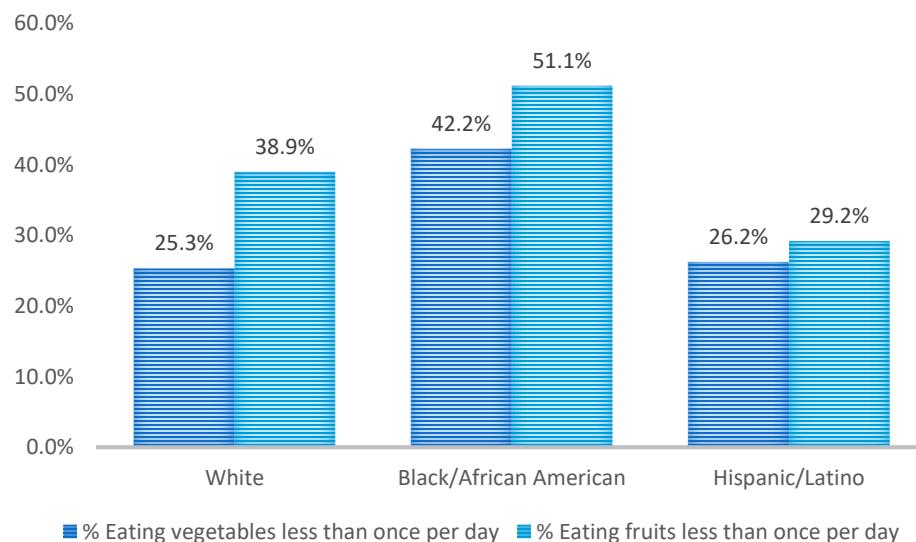
Hispanic or Latino adults are
1.7 times
as likely as Whites to have had no physical activity at all in the past week, while Blacks or African Americans are 1.4 times as likely.

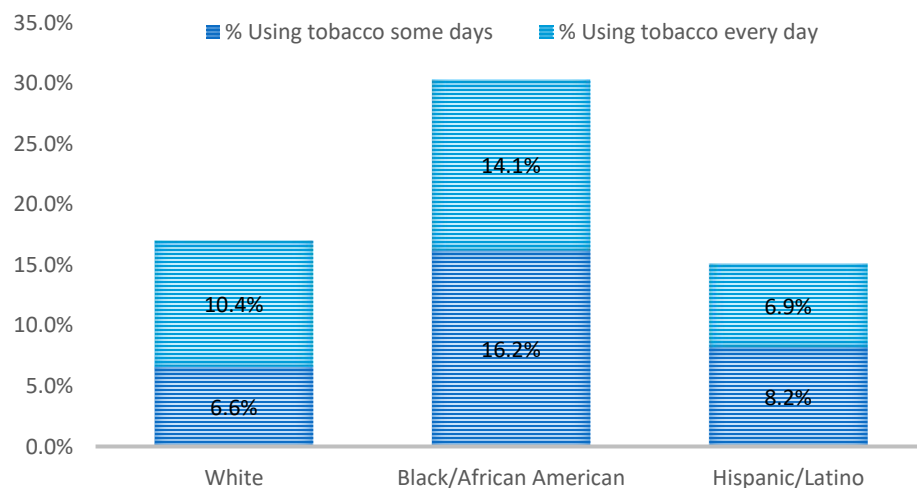Sources: Kent County Behavioral Risk Factor Survey, 2017, Voice Kent Survey, 2017.

Lifestyle Health Factors
## Disparities in tobacco use differ between youth and adults

Tobacco has long been understood to be a serious risk factor for many diseases (including cancer, cardiovascular disease, and lung diseases). In the 2017 Voice Kent survey, 19.3% of Kent County adults reported current tobacco use of any kind (including cigarettes, snuff, chewing tobacco, hookah, etc.), but this proportion changes substantially for individual demographic groups (Figure 14).

E-cigarette and vaporizer use is fairly consistent across Kent County adults, ranging from 4.6% in Whites to 5.8% in Blacks or African Americans. Among Kent County youth, however, differences between racial and ethnic groups begin to emerge, as seen in Figure 15.

Figure 14. Tobacco use by race and ethnicity, Kent County, MI, 2017.

% Using tobacco some days   **% Using tobacco every day**

	White	Black/African American	Hispanic/Latino
% Using tobacco some days	10.4%	14.1%	6.9%
% Using tobacco every day	6.6%	16.2%	8.2%

Figure 15. E-cigarette and vaporizer use among Kent County youth by race and ethnicity, 2017-2018.

	Middle School	High School
White	5.0%	23.5%
Black/African American	5.8%	14.7%
Hispanic/Latino	8.4%	22.5%
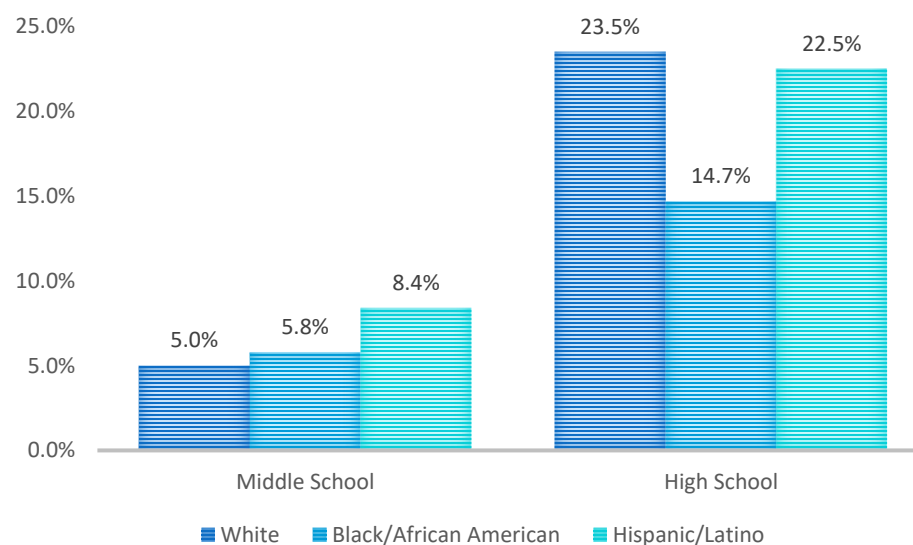
Black or African American adults are nearly twice as likely to use tobacco as their White and Hispanic/Latino counterparts.
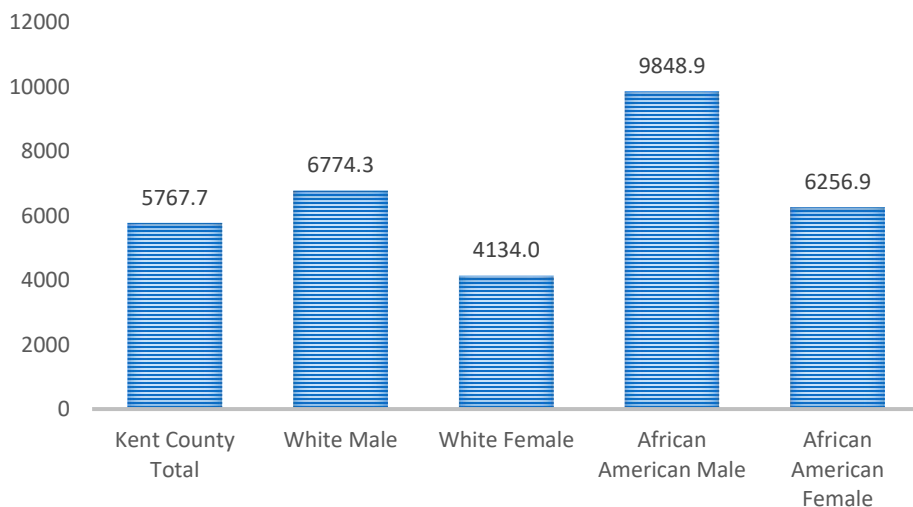
Sources: Voice Kent Survey, 2017, Michigan Profile for Healthy Youth, 2017-2018.

Health Outcomes
## Racial and ethnic populations lose the most years of life

All of these socioeconomic and lifestyle factors contribute to the health outcomes experienced by Kent County residents – disparities in these health factors are predictive of similar disparities in overall health. A common measure of a population's overall health is years of potential life lost (YPLL), which measures the premature mortality occurring in a community. In Kent County, from 2012 to 2016, residents lost an average of 34,314 years of potential life each year from any cause – a rate of 5,767.7 YPLL per 100,000 people under the age of 75. However, as seen in Figures 16 and 17, the rate of YPLL is much higher among the African American population and in high poverty census tracts.

From 2012 to 2016, Black or African American residents in Kent County lost years of potential life at a rate 1.5 times that of White residents, losing an average total of 5,685 years of potential life each year.

Figure 16. Average rate of years of potential life lost per 100,000 people (under age 75) by race and sex, Kent County, MI, 2012 – 2016.

Figure 17. Years of potential life lost per 100,000 people (under age 75) by census tract poverty level and sex, Kent County, MI 2012-2016.
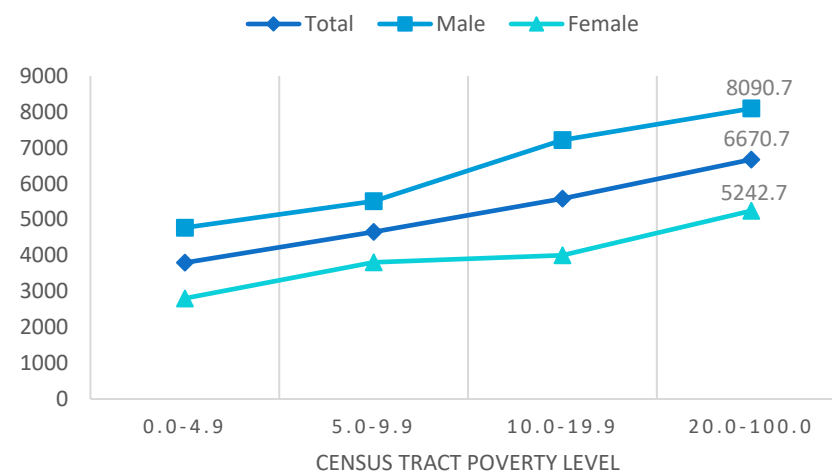
Source: Geocoded Michigan Death Certificate Registry, 2012 – 2016.

Health Outcomes: *Maternal and Infant Health*
## Health disparities begin at birth

Health disparities in Kent County begin when a child is born – infants in racial and ethnic populations are more likely to experience poor birth outcomes such as low birthweight or prematurity. Babies who are born prematurely (prior to 37 weeks gestation) or with low birthweight (< 2500 g) have increased risk of lifelong, chronic health conditions. Based on data from the Michigan Birth Certificate Registry (2015-2017), these serious birth outcomes are markedly higher for Black or African American infants, compared to other demographic groups (Figure 18).

These disparities are also seen in infant mortality rates, a commonly used measure of overall community health. According to the Michigan Birth and Death Certificate Registries, from 2014 to 2016:

Blacks or African American infants are
2.5 times
more likely than White infants to die before the age of one, while Hispanic or Latino infants are 1.5 times more likely than White infants to die before the age of one.

Figure 18. Percentage of births with poor birth outcomes by race and ethnicity, Kent County, MI, 2015 – 2017.
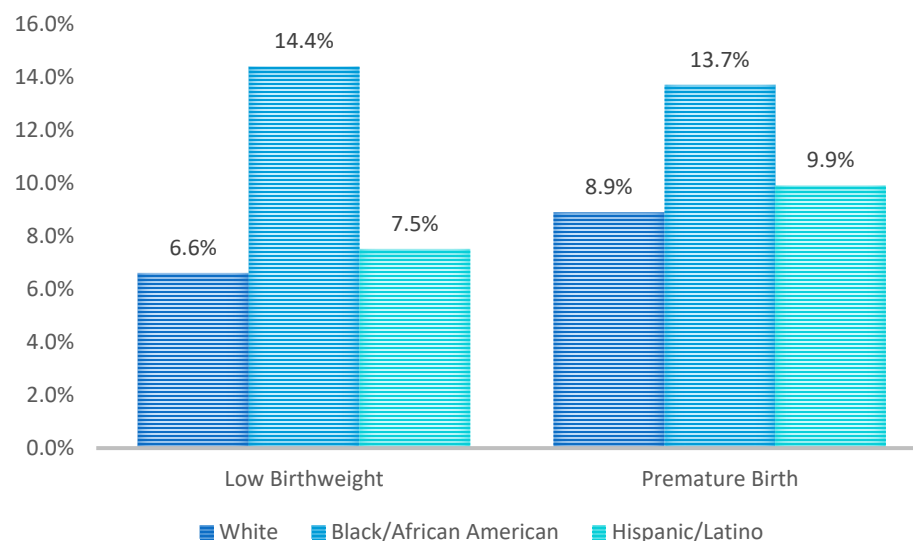
Black or African American infants are 2.2 times as likely as White infants to be born with low birthweight and 1.5 times as likely to be born prematurely.

Source: Michigan Birth Certificate Registry, 2015 – 2017.
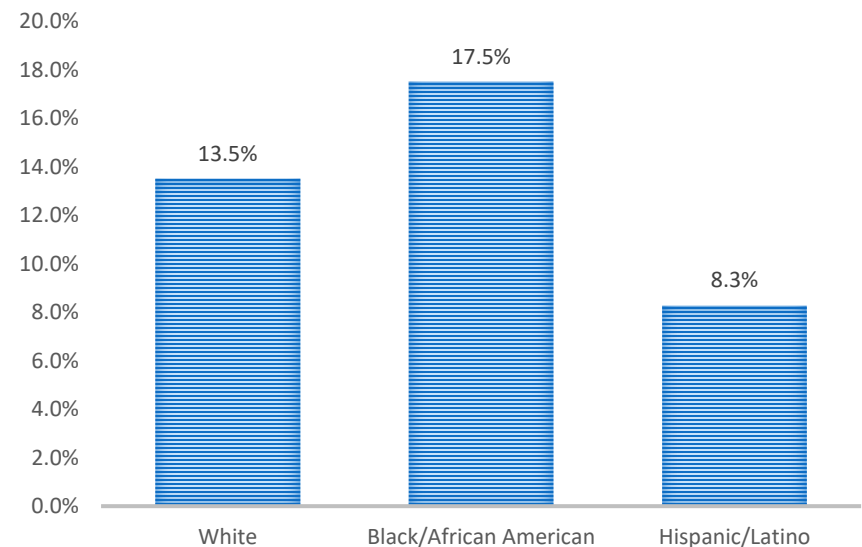
Health Outcomes: *Maternal and Infant Health*
Disparities in prenatal care create differences in health at birth

Appropriate prenatal care is vital for preventing potential health problems for both mother and child throughout a pregnancy. Late prenatal care is when a mother does not begin her care until the third trimester (28 weeks) or later or does not receive prenatal care at all during her pregnancy and can be a serious risk factor for poor birth outcomes. The Michigan Birth Certificate Registry (2015 – 2017) tracks mothers' prenatal care history and demonstrates clear disparities among racial and ethnic populations in Kent County:

Black or African American mothers are

2.1 times

more likely than White mothers to have late or no prenatal care, while Hispanic or Latino mothers are

1.8 times

more likely than White mothers to have late or no prenatal care.

Another factor that can greatly impact the health of a pregnancy is smoking tobacco. It is well known that smoking during pregnancy can result in serious health outcomes such as miscarriages, birth defects, and sudden infant death syndrome. The disparities that exist between racial and ethnic groups in regular tobacco use continue to exist during pregnancies (Figure 19).

Figure 19. Percentage of mothers who reported smoking during pregnancy by race and ethnicity, Kent County, MI, 2015 – 2017.
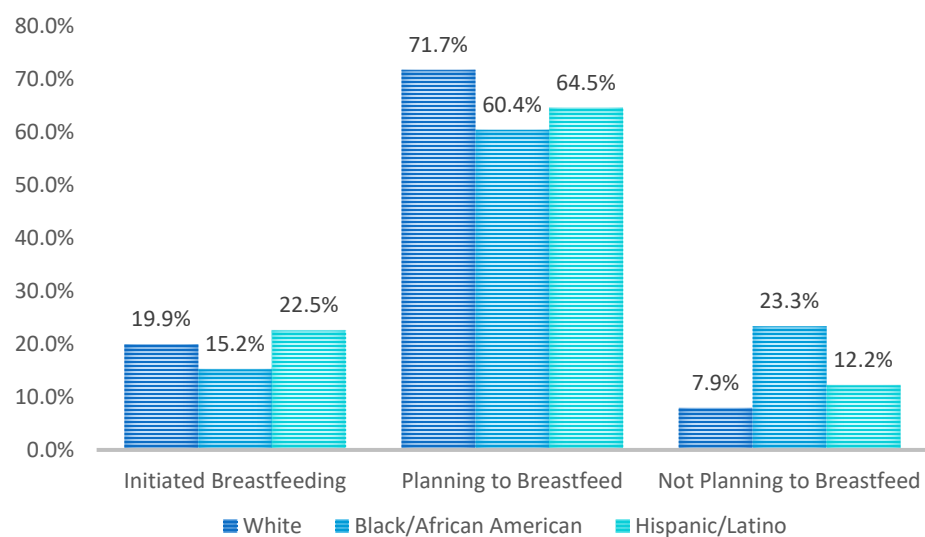

Source: Michigan Birth Certificate Registry, 2015 – 2017.
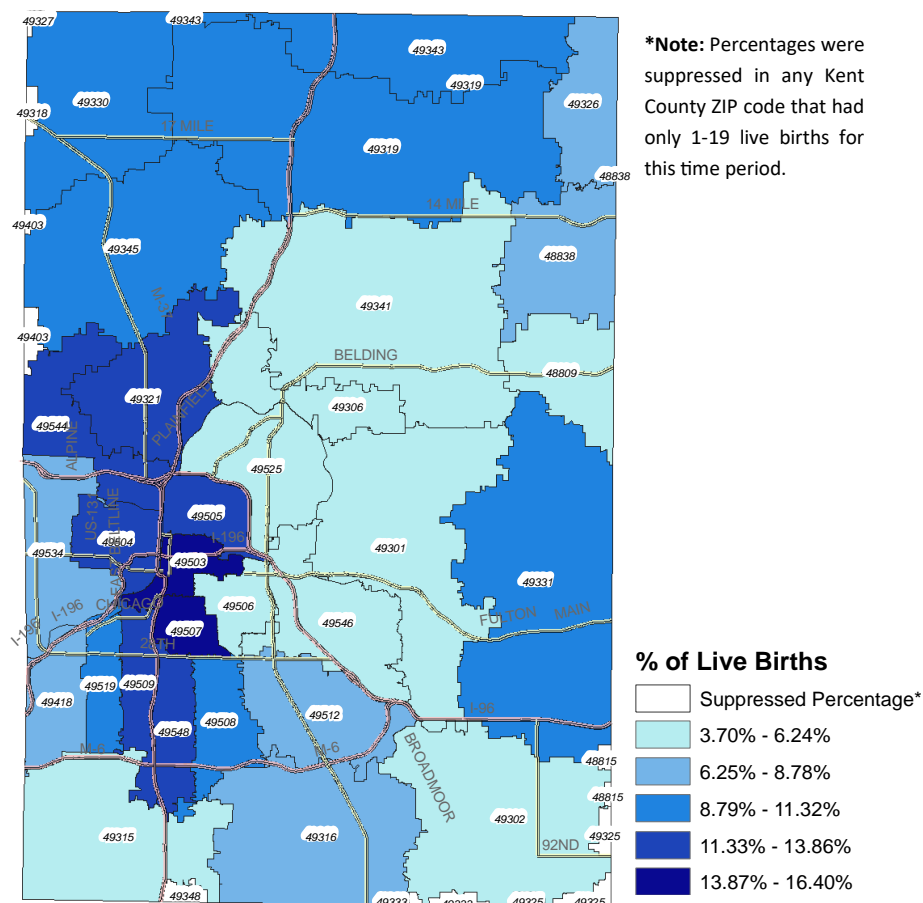
Health Outcomes: *Maternal and Infant Health*

Breastfeeding rates are lower among racial and ethnic populations

Breastfeeding is essential for healthy development in infants – it provides them with nutrients and antibodies from the mother and promotes sensory and cognitive development. The World Health Organization recommends that new mothers initiate breastfeeding within one hour of birth; however, in Kent County, only 20.6% of new mothers initiate breastfeeding by the time the birth certificate is processed. Further, Black or African American mothers are nearly 3 times more likely than White mothers to not plan on breastfeeding. (Figure 20).

Figure 20. Breastfeeding status by race and ethnicity, Kent County, MI, 2015 – 2017.

Figure 21. Percentage of live births by ZIP code whose mothers do not plan to breastfeed, Kent County, MI, 2015-2017.

*Note: Percentages were suppressed in any Kent County ZIP code that had only 1-19 live births for this time period.

Source: Michigan Birth Certificate Registry, 2015 – 2017.
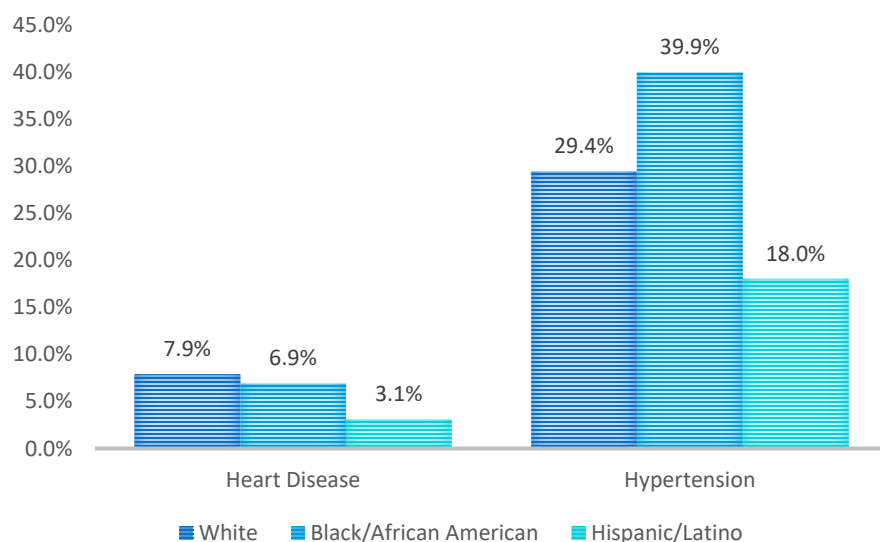
Health Outcomes: *Chronic Disease*
Cardiovascular health varies between racial and ethnic groups

Cardiovascular disease is the leading cause of death in Kent County, causing an average of 1,137 deaths per year from 2012 to 2016 – nearly a quarter of all deaths that occurred throughout the county. Hypertension is one of many key risk factors for developing chronic cardiovascular disease; therefore, examining disparities in hypertension can give a good picture of potential disparities in heart disease later in

life. While the 2017 Voice Kent Survey did not identify major disparities in heart disease between racial and ethnic groups (Figure 22), other surveys in the county report different findings.* Further, there are noticeable disparities between these groups when looking beyond the current prevalence of heart disease to the associated age-adjusted mortality rates that these demographic groups are experiencing.

Figure 22. Self-reported prevalence of heart disease and hypertension in adults ages 35 and over by race and ethnicity, Kent County, MI, 2017.

*Note: The Kent County BRFS 2017 reported different prevalences of heart disease: 6.5% in Whites, 9.2% in Blacks or African Americans, and 2.5% in Hispanics or Latinos.

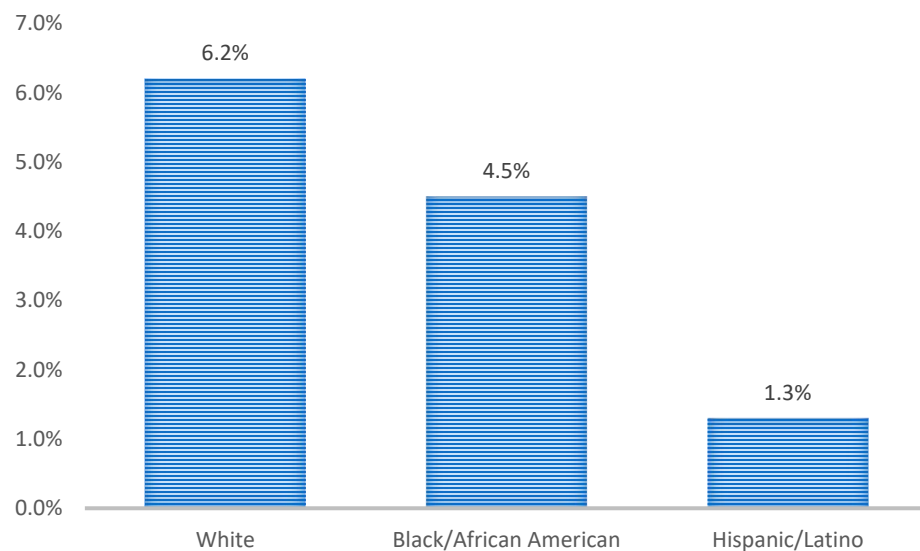**From 2012 to 2016, Blacks or African Americans were**

1.5 times

more likely than Whites to die from cardiovascular disase, with a rate of

255.6 deaths

per 100,000 people.

Sources: Voice Kent Survey, 2017, Michigan Death Certificate Registry, 2012 – 2016.

Health Outcomes: *Chronic Disease*

Cancer prevalence and mortality vary between races and ethnicities

The second leading cause of death in Kent County is cancer, which caused an average of 1,004 deaths per year from 2012 – 2016 and accounts for over one fifth of the deaths that occur annually in Kent County. While the 2017 Voice Kent Survey reported a higher prevalence of cancer among Whites than among racial and ethnic populations (Figure 23), the same trend is seen as with heart disease: age-adjusted mortality rates are higher among Blacks or African Americans than Whites, despite a lower self-reported prevalence (Figure 24).
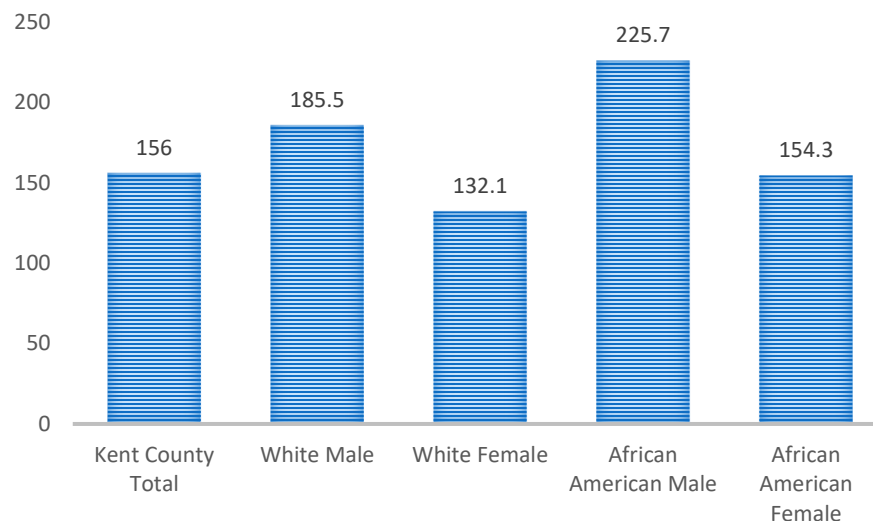
From 2012 to 2016 in Kent County, Black or African American residents were 1.2 times more likely than White residents to die from some type of cancer.

Figure 23. Self-reported prevalence of cancer in Kent County adults by race and ethnicity, 2017.

Figure 24. Age-adjusted cancer mortality rate per 100,000 people by race and sex, Kent County, MI, 2012 - 2016.
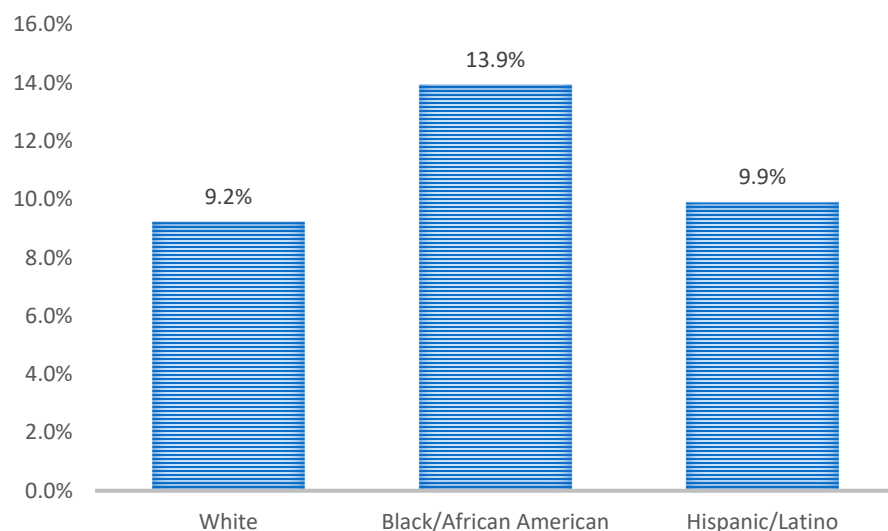

Sources: Voice Kent Survey, 2017, Michigan Death Certificate Registry, 2012 – 2016.

Health Outcomes: *Chronic Disease*
## Prevalence of common chronic diseases varies between races

In addition to cancer and heart disease, there are many other chronic diseases that are widely experienced by Kent County residents. The 2017 Voice Kent Survey collected information on residents' chronic medical conditions and found that both diabetes and asthma prevalence are highest among Black or African American individuals in Kent County (Figures 25 and 26). Both of these chronic diseases require ongoing treatment and management to control symptoms and can become very serious conditions when not managed properly. In fact, diabetes mellitus is one of the top ten causes of death in Kent County, claiming an average of 73 lives annualy from 2012 – 2016. Similar to many other chronic diseases, Black or African American individuals experience the highest age-adjusted diabetes mortality rate at 24.8 per 100,000 people, compared to 10.3 per 100,000 people in Whites.

Figure 25. Self-reported prevalence of diabetes mellitus or pre-diabetes in Kent County adults by race and ethnicity, 2017.

Figure 26. Self-reported prevalence of asthma in Kent County adults by race and ethnicity, 2017.
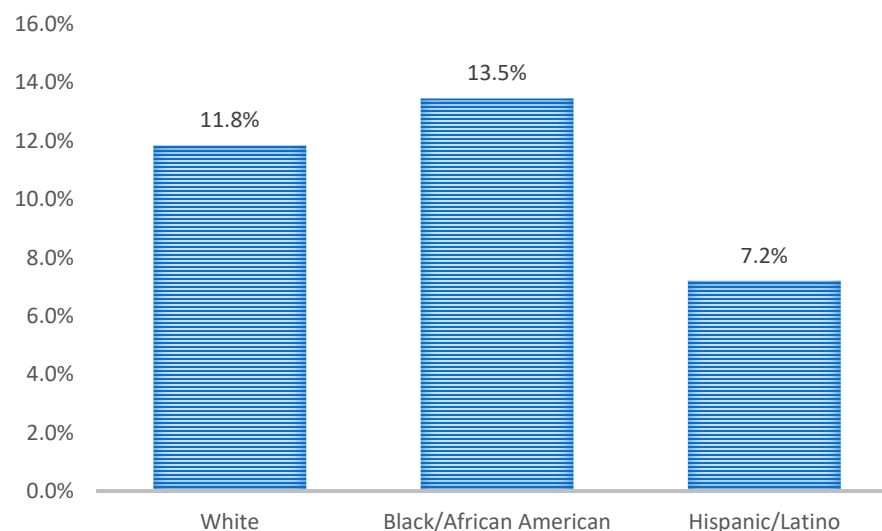
Sources: Voice Kent Survey, 2017, Michigan Death Certificate Registry, 2012 – 2016.
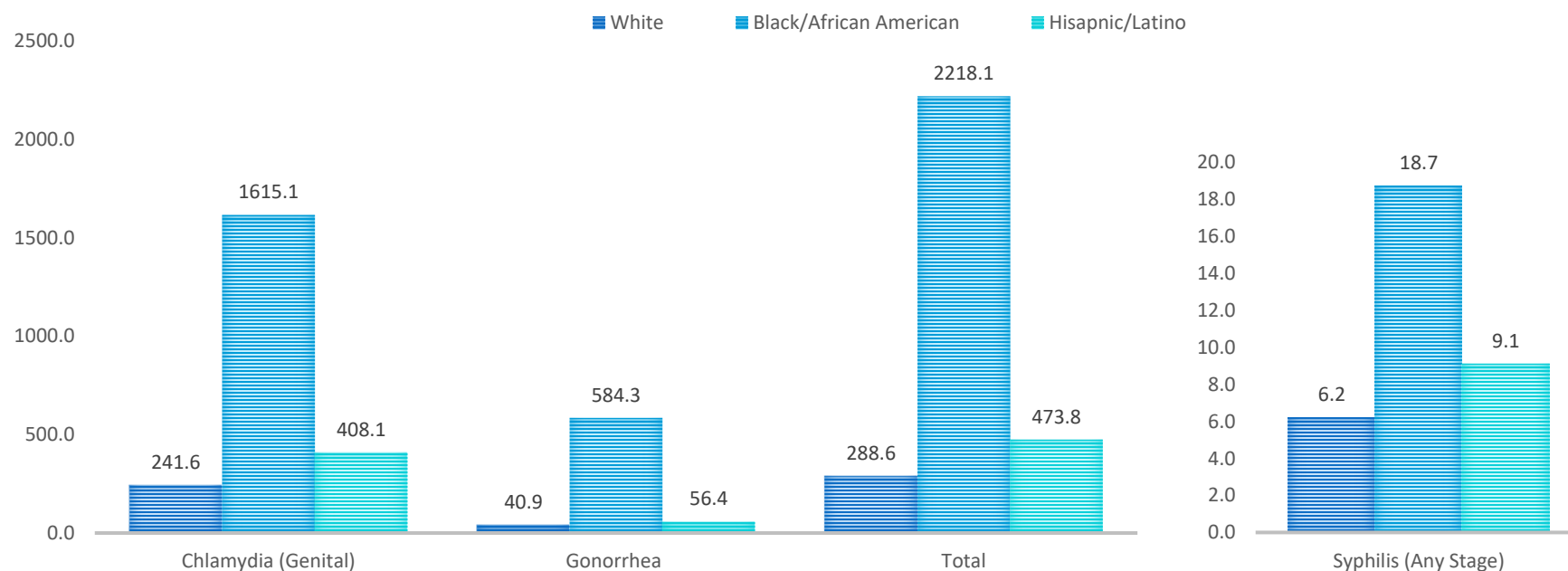
Health Outcomes: *STIs and HIV*

Racial and ethinic populations experience higher incidence of STIs

Sexually transmitted infection (STI) incidence is an important indicator of sexual health and wellness in the community. In Kent County, chlamydia and gonorrhea are the most commonly transmitted reportable STIs in all demographic groups – but there are obvious disparities in STI incidence between these groups (Figure 27). Further, as seen in Figures 28 and 29 on the following page, the highest STI rates are concentrated in the priority neighborhoods identified in this report.

Blacks or African Americans are 7.7 times more likely than Whites to have any STI, while Hispanics or Latinos are 1.6 times more likely than Whites to have any STI.
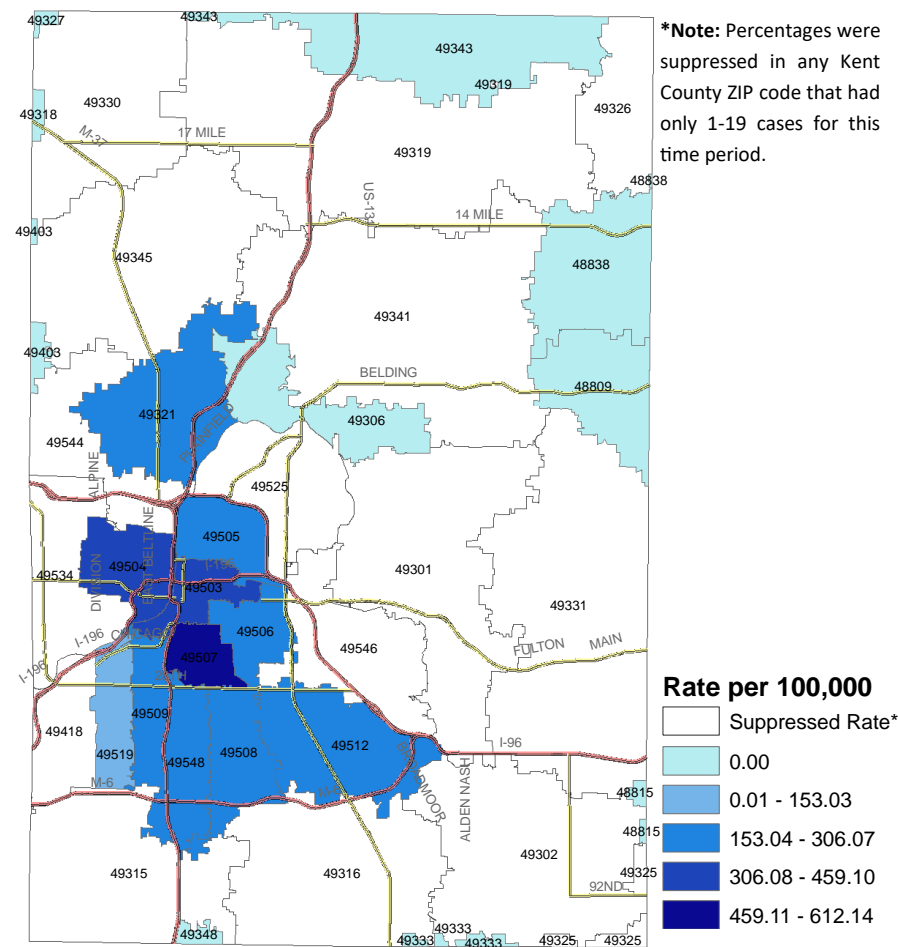
Figure 27. Age-adjusted chlamydia, gonorrhea, syphilis, and total STI rate per 100,000 people by race and ethnicity, Kent County, MI, 2013 – 2017.

Source: Michigan Disease Surveillance System, 2013 – 2017.

Health Outcomes: *STIs and HIV*

STI incidence is higher in priority neighborhoods

Figure 28. Chlamydia cases per 100,000 people by ZIP code, Kent County, MI, 2017.

*Note: Percentages were suppressed in any Kent County ZIP code that had only 1-19 cases for this time period.

Rate per 100,000

☐	Suppressed Rate*
☐	0.00
☐	0.01 - 425.89
☐	425.90 - 851.78
☐	851.79 - 1277.68
☐	1277.69 - 1703.57

Figure 29. Gonorrhea cases per 100,000 people by ZIP code, Kent County, MI, 2017.

*Note: Percentages were suppressed in any Kent County ZIP code that had only 1-19 cases for this time period.

Rate per 100,000

☐	Suppressed Rate*
☐	0.00
☐	0.01 - 153.03
☐	153.04 - 306.07
☐	306.08 - 459.10
☐	459.11 - 612.14

Source: Michigan Disease Surveillance System, 2017.

Health Outcomes: *STIs and HIV*

Racial and ethnic populations experience a higher rate of HIV

Incidence of HIV infection is another important indicator of sexual health in a community. As of January 1, 2017, the Michigan Department of Health and Human Services estimated that 1,130 residents in Kent County were living with HIV. Yet, HIV cases are not proportionately distributed between demographic groups and some groups are more at risk for HIV. From 2012 – 2016 in Kent County, 230 new cases of HIV were diagnosed – a rate of 7.3 cases per 100,000 people, but this rate of HIV incidence is much higher among racial and ethnic populations:

In 2016, 10-24% of all persons living with HIV in Kent County, MI, were not receiving any HIV care.

From 2012 to 2016, Black or African American residents were

11.5 times

more likely than Whites to receive a new HIV diagnosis, while Hispanic or Latino residents were
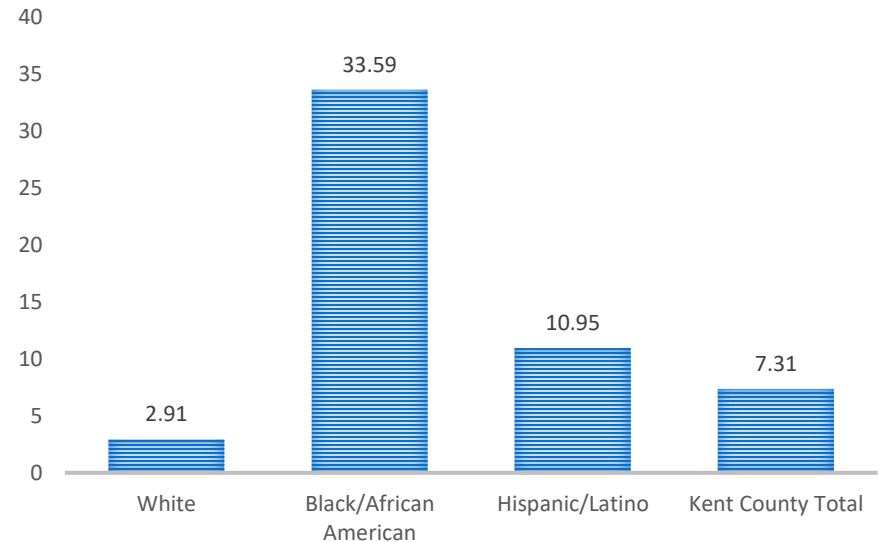
3.8 times

more likely than Whites to receive a new HIV diagnosis.

Figure 30. Newly diagnosed HIV cases per 100,000 people by race and ethnicity, Kent County, MI, 2012 – 2016.
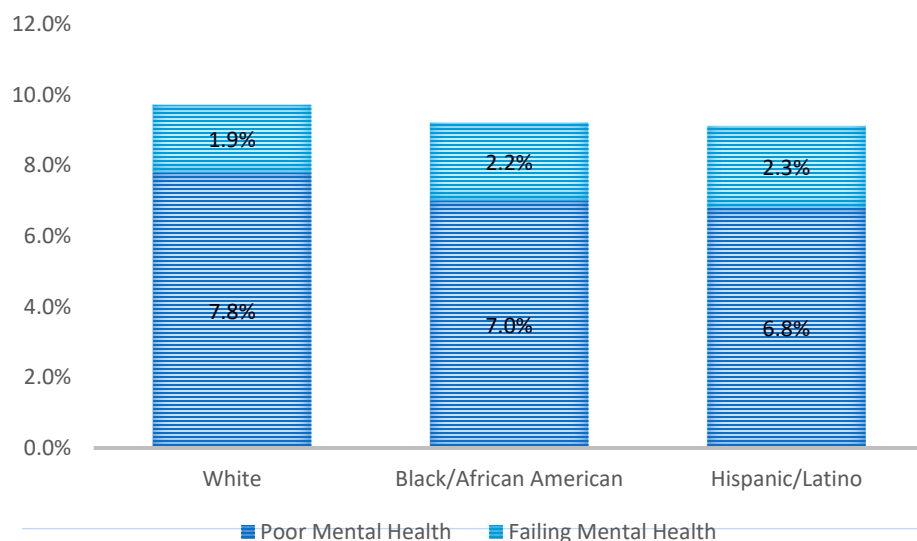

Source: MDHHS HIV Case Reporting and Data Team, Records from 2012 - 2017

Health Outcomes: *Mental Health and Substance Use Disorder*
Poor mental health is consistent across racial and ethnic groups

Mental health plays an extremely vital role in a community's overall wellbeing and maintaining positive mental health is key to achieving a physically healthy life. Yet, mental health conditions are widespread in the United States, with nearly one-fifth of adults living with one. In Kent County, community respondents to the 2017 Voice Kent Survey identified mental health as one of their top three areas of concern for the community. As seen in Figure 31 below, poor mental health is equally prevalent among different racial and ethnic groups in Kent County.

White adults in Kent County were the most likely to have been diagnosed with a mental health condition, with nearly one-fourth reporting this.

Figure 32. Self-reported prevalence of any mental health condition in Kent County adults by race and ethnicity, 2017.

Note: Mental health conditions include ADD/ADHD, anxiety, bipolar disorder, depression, etc.

Figure 31. Percentage of adults reporting poor or failing mental and emotional health by race and ethnicity, Kent County, MI, 2017.
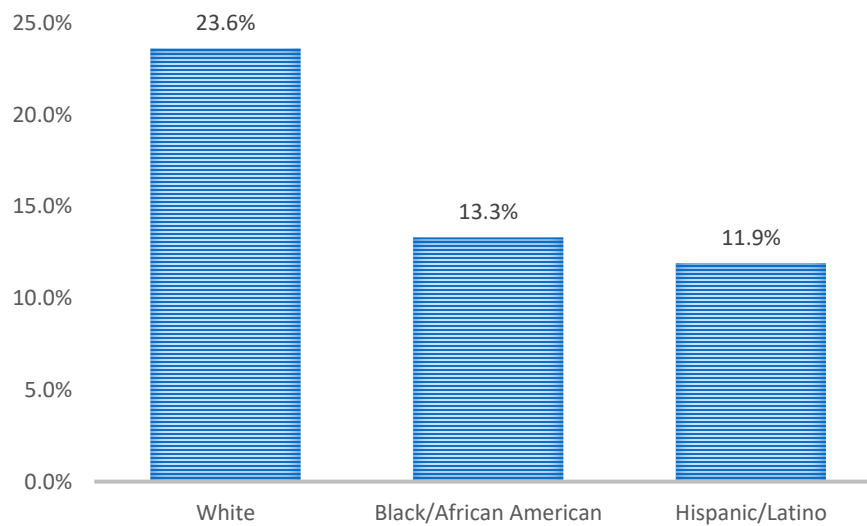
Sources: National Institute of Mental Health, Voice Kent Survey, 2025.

# Health Outcomes: *Mental Health and Substance Use Disorder*
Suicide mortality rate is lower in racial and ethnic populations

Suicide is the 9th leading cause of death in Kent County, accounting for an average of 69 deaths each year from 2012 – 2016. The majority of these suicides occur among White individuals, who have a higher age-adjusted suicide mortality rate compared to other populations (Figure 33). As seen in the map of Figure 34, the majority of suicides since 2001 have not occurred in the priority neighborhoods identified in this report.

Figure 33. Age-adjusted suicide mortality rate per 100,000 people by race and ethnicity, Kent County, MI, 2013 – 2017.
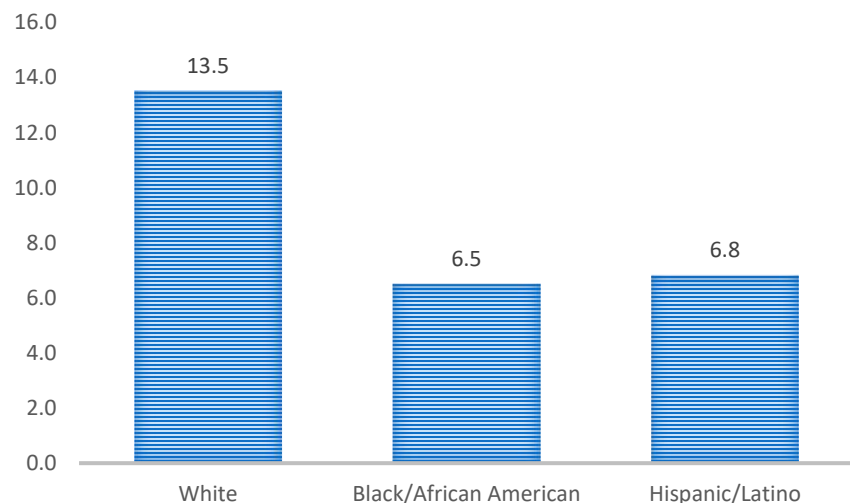
Figure 34. Suicides by census tract of residence, Kent County, MI, 2001 – 2017.
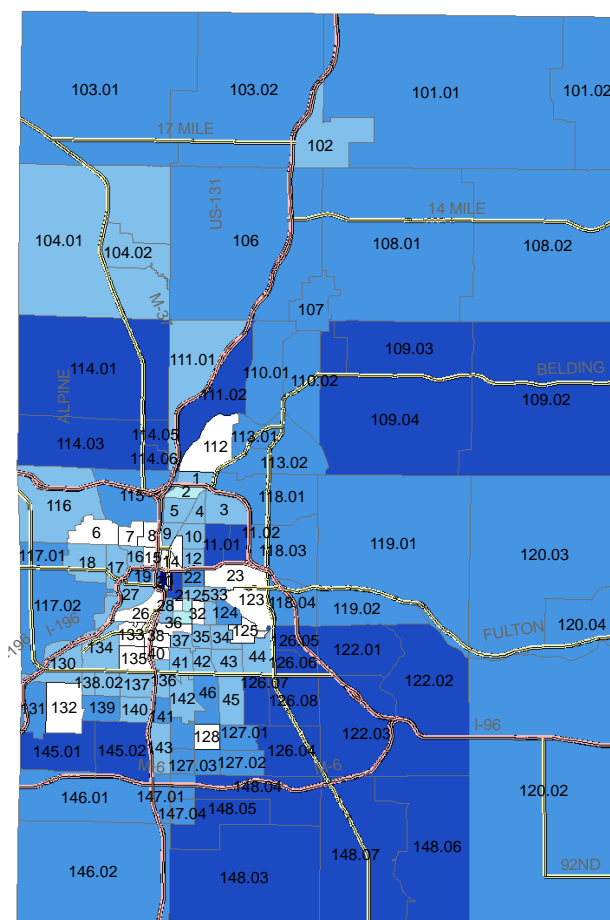
Note: For census tracts that are split into sub-regions, the total number of deaths is spread over the entire census tract grouping

*Values were suppressed in census tracts with only 1-5 suicides.

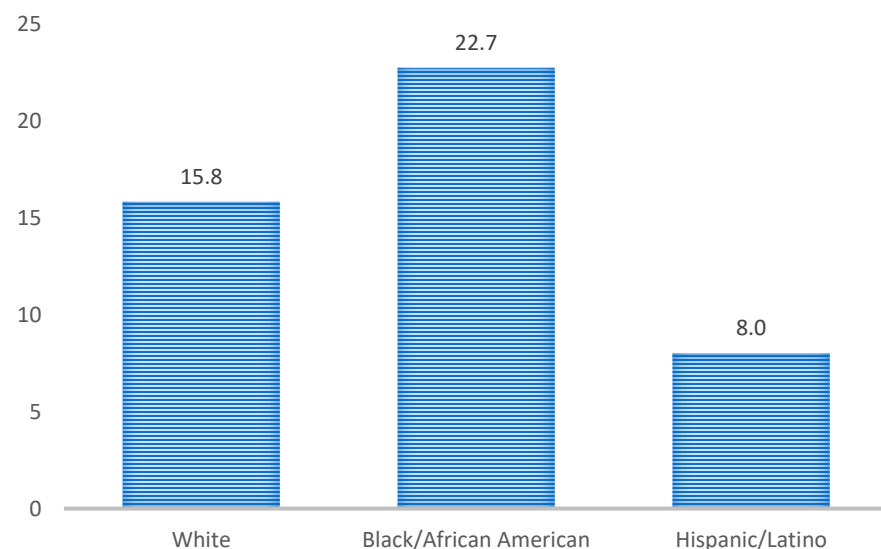Darker blue colors indicate census tracts with a greater number of suicides.

Sources: Kent County Medical Examiner Records, 2001 – 2017, Michigan Death Certificate Registry, 2012 – 2016.

Health Outcomes: *Mental Health and Substance Use Disorder*
## Drug overdose mortality rates are higher in some racial groups

Substance use disorders are another topic that community respondents to the 2017 Voice Kent Survey identified as a key area of concern for Kent County. The impact of substance use disorder on a community can be measured by looking at the mortality rate associated with drug overdoses. While the majority of drug overdoses in recent years have occurred among White residents, it can be seen in Figures 35 and 36 that the age-adjusted overdose mortality rate is actually highest among Black or African American residents.

Black or African American individuals are

1.4 times

more likely than Whites to die from a drug overdose of any kind, including opioid related overdoses.

Figure 35. Age-adjusted drug overdose mortality rate per 100,000 people by race and ethnicity, Kent County, MI, 2013 – 2017.

Figure 36. Age-adjusted opioid related overdose mortality rate per 100,000 people by race and ethnicity, Kent County, MI, 2017.
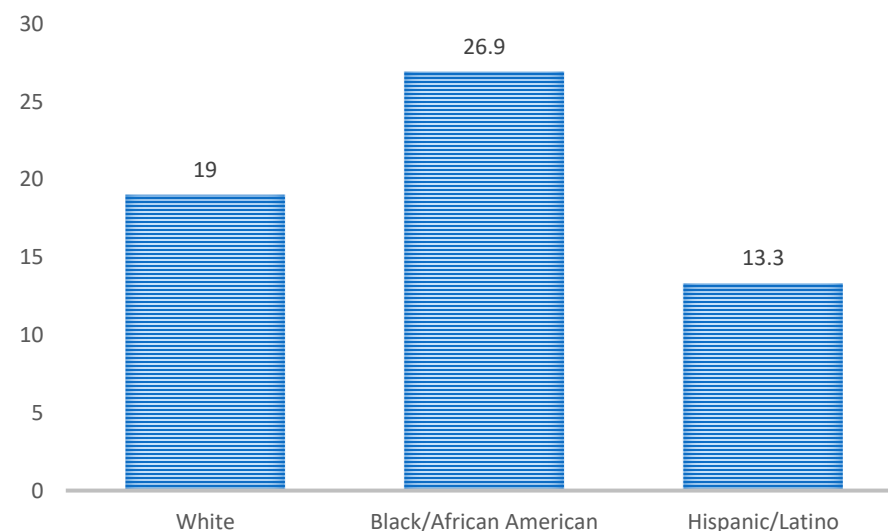
Source: Kent County Medical Examiner Records, 2013 – 2017.

Safe Environments

Some populations report feeling less safe in their neighborhoods

Feeling safe where you live can have a strong influence on your mental health and wellbeing. Yet, according to the 2017 Voice Kent Survey, over one-fifth of Black or African American and Hispanic or Latino individuals in Kent County report feeling somewhat or very unsafe in their neighborhoods and communities. This lack of safety can be an added stressor for these indiviudals and can become an obstacle for access to important needs like physical activity and healthy foods.

Hispanic or Latino adults are 2.4 times more likely than Whites to feel unsafe in their neighborhoods, while Black or African American adults are 2.3 times as likely as Whites to feel this way.

**Figure 37.** Perception of neighborhood safety by neighborhood residents, Kent County, MI, 2016.
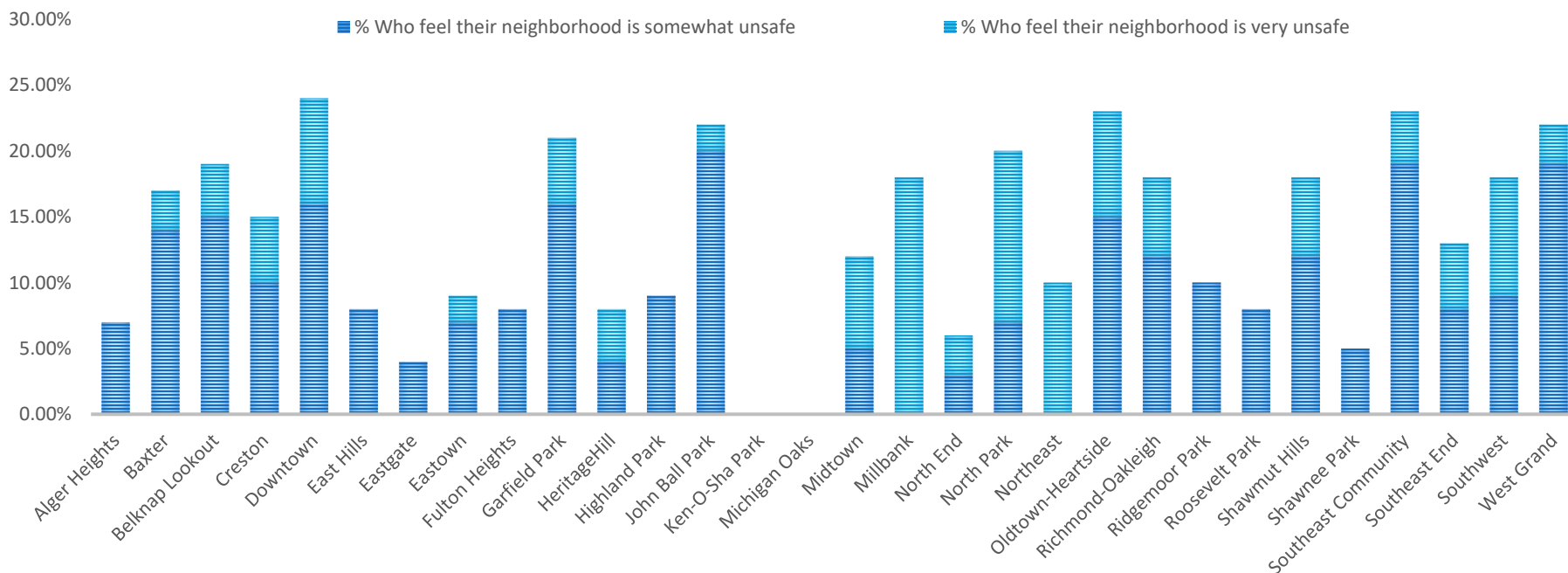
Source: Voice Kent Survey, 2016 and 2017.
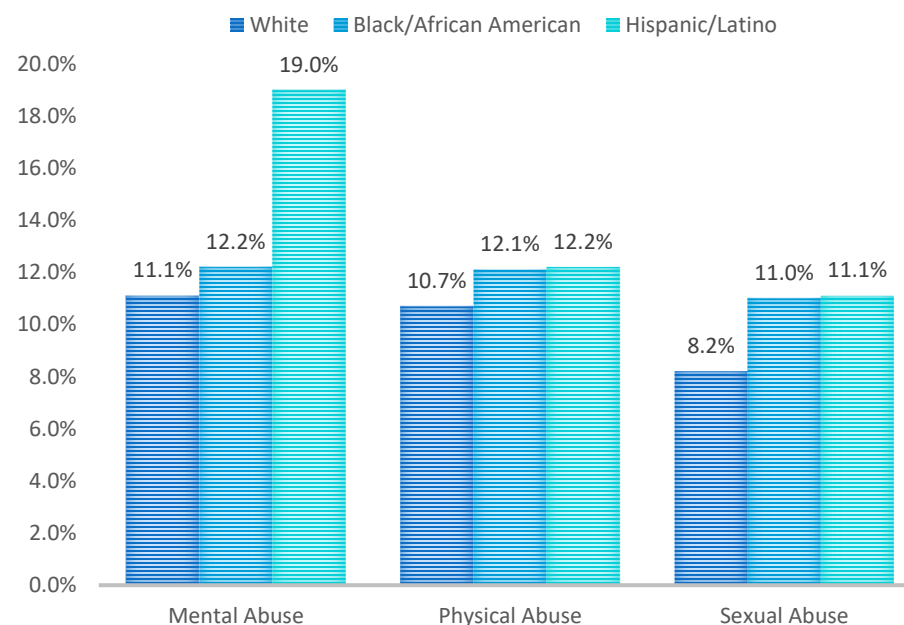
Safe Environments
Some populations are more likely to experience trauma as minors

Experiencing traumatic events during one's childhood can have long-term, negative impacts on physical and mental health. According to the 2017 Voice Kent Survey, 66.8% of adults in Kent County experienced some form of trauma during their childhood. This was even higher among racial and ethnic populations, with **75.5% of Black or African American adults reporting a trauma during their childhood and 68.8% of Hispanic or Latino adults reporting this,** which illustrates the importance of creating safer environments for children in these populations.

Figure 38. Percentage of adults who saw violence in their home as a minor by race and ethnicity, Kent County, MI, 2017.
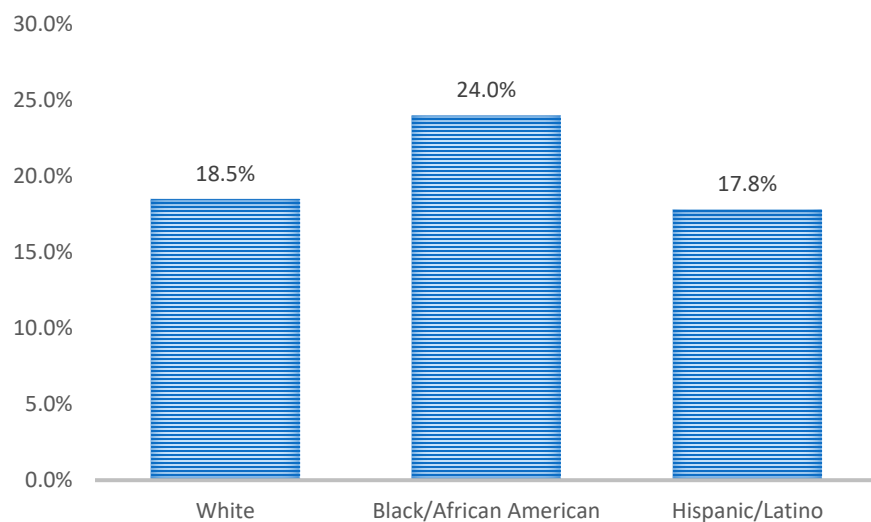
Figure 39. Percentage of adults who experienced abuse as a minor by race and ethnicity, Kent County, MI, 2017.

Hispanic or Latino adults are 1.6 times more likely than the other demographic groups to have experienced mental abuse as a minor.

Safe Environments
## Unsafe environments can lead to health risks for some populations

Safe homes and communities are not just a matter of reducing harm and violence – but also incorporate aspects such as environmental exposures and unintentional harms. One of the most common, harmful environmental exposures for individuals is secondhand smoke, and based on data from the 2017 Voice Kent Survey, 13.0% of Kent County residents report smoking inside their home. However, Blacks or African Americans are the most likely to smoke inside their homes and are 2.3 times as likely as Whites to do so (Figure 40).

Unintentional injuries are not only a threat to physical health, but can be a source of stress and lost income for an individual or family. Currently, unintentional injury is the 3rd leading cause of death in Kent County, with an average of 44.0 deaths per 100,000 people annually from 2012 – 2016. This mortality rate is even higher among African Americans (Figure 41), indicating that unsafe environments are contributing to unintentional injuries for these individuals.

Figure 40. Smoking status in the household by race and ethnicity, Kent County, MI, 2017.
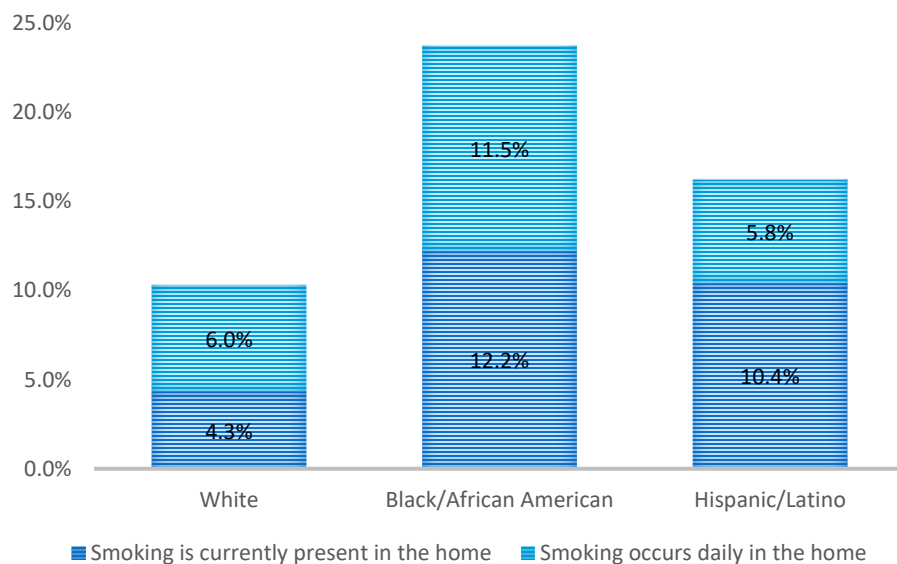
Figure 41. Age-adjusted unintentional injury mortality rate per 100,000 people by race and sex, Kent County, MI, 2012 – 2016 .
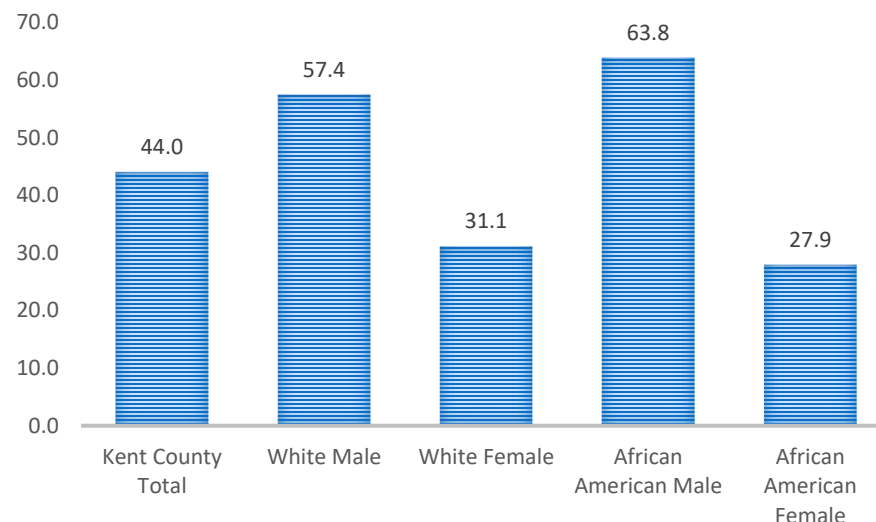
Sources: Voice Kent Survey, 2017, Michigan Death Certificate Registry, 2012 – 2016.

Methods

Analysis for this report was conducted using two software programs. Data from the Kent County Behavioral Risk Factor Survey, 2017 was analyzed using SPSS. All other datasets were analyzed in Microsoft Excel 2016. All maps presented in this report were created using ArcMap 10.5.1.

Identifying priority neighborhoods

Data from the American Community Survey (5-year estimates, 2012-2016) was utilized to calculate the proportion of each census tract population that was composed of Black or African American and Hispanic or Latino individuals, combined. To identify the priority census tracts in Kent County, a cut-off value of 25.0% was chosen (i.e. at least 25.0% of the population in a priority census tract is composed of Black or African American and Hispanic or Latino individuals, combined).

Calculating population by census tract

Data from the American Community Survey (5-year estimates,

2012-2016) was utilized to calculate the proportion of each census tract population that was composed of Black or African American and Hispanic or Latino individuals, separately. These proportions were mapped by Kent County census tract in five consecutive categories (Hispanic/Latino: 0-15.72%, 15.73-31.44%, 31.45-47.16%, 47.17-62.88%, and 62.89-78.60%; Black/African American: 0-12.14%, 12.15-24.28%, 24.29-36.42%, 36.43-48.56%, and 48.57-60.70%). Each census tract was illustrated on the county map in a color corresponding to its assigned category.

Segregation measures

The Index of Dissimilarity for Kent County was calculated using the formula $\frac{1}{2}\sum_{i=1}^{N}\left|\frac{a_i}{A}-\frac{b_i}{B}\right|$. Population totals for each demographic group in each Kent County census tract were taken from the American Community Survey (5-year estimates, 2012-2016) and were used to calculate this statistic across all 128 census tracts in the county.

These same population totals (ACS, 5-year estimates, 2012-2016) were used to calculate the proportion of each census tract that was Black or African American and Hispanic or Latino, separately. Census tracts were considered racially segregated (between Black or African American and White populations) if they had a higher proportion of Black or African American individuals than the overall county level of 9.6%. Similarly, census tracts were considered ethnically segregated (between Hispanic or Latino and White populations) if they had a higher proportion of Hispanic or Latino individuals than the overall county level of 10.2%.

Measures of social and economic wellbeing

For poverty level (living below 100% of the federal poverty level) and median household income, data for each demographic group was taken directly from the American Community Survey (5-year estimates, 2012- 2016). Comparisons between demographic groups were made by calculating simple ratios between each measure. To demonstrate the geographic distribution of poverty, data from the American Community Survey (5-year estimates, 2012 – 2016) was also used to calculate the proportion of the population in each census tract living below 100% of

the federal poverty level. Proportions were mapped by Kent County census tract in five consecutive categories (0.70-11.22%, 11.23-21.74%, 21.75-32.26%, 32.27-42.78%, and 42.79-53.30%). Each census tract was illustrated on the county map in a color corresponding to its assigned category.

For measures of homeownership, health insurance, and educational attainment, data was taken directly from the Voice Kent Survey, 2017. All of these measures were calculated as raw percentages of survey respondents' answers, as the Voice Kent Survey utilized a convenience sampling method and did not require the application of advanced survey data analysis methods. Comparisons between demographic groups were made by calculating simple ratios between each measure.

Measures of lifestyle health factors

For measures of weight, physical activity, tobacco and e-cigarette use, data was taken directly from the Voice Kent Survey, 2017. BMI was calculated from respondents' self-reported height and weight using the standard formula: $\left(\frac{weight\ (lb)}{(height\ (in))^2}\right) * 703$. These measures were calculated as raw percentages of survey respondents' answers, as the Voice Kent Survey utilized a convenience sampling method and did not require the application of advanced survey data analysis methods.

The 2017 Voice Kent Survey only included Kent County adults; therefore, data on youth e-cigarette use was collected from the Michigan Profile for Healthy Youth, 2017-2018, to account for the changing trends in use of tobacco and nicotine products in younger age groups.

Data on fruit and vegetable consumption was taken from the Kent County Behavioral Risk Factor Survey, 2017, as this survey utilized a

more thorough and reliable method to calculate each respondents' consumption patterns than the 2017 Voice Kent Survey. Pre-determined survey weights were applied to the data for this calculation based on the randomized sampling method used to conduct this survey.

For all measures of lifestyle health factors, comparisons between demographic groups were made by calculating simple ratios between each measure.

Measures of health outcomes

Years of Potential Life Lost Analysis

Data on the Years of Potential Life Lost (YPLL) were taken directly from the Michigan Department of Health and Human Services (MDHHS), Division for Vital Records and Health Statistics (Michigan Death Certificate Registry, 2012 – 2016). The age limit for premature death used in their calculations was 75. Thus, the difference between an individual's age at death and 75 would be the total YPLL for that individual. All YPLL rates used in this report are YPLL per 100,000 persons under the age of 75. To make comparisons in YPLL across demographic groups, simple ratios between the rate of YPLL were calculated. Data on YPLL for Hispanic or Latino populations were not publicly available from MDHHS, and thus were not included in this report.

Infant Health Measures

For the infant health measures of low birthweight (< 2500g), premature birth (prior to 37 weeks gestation), late prenatal care (not started until 28 weeks gestation or later or never started), smoking during pregnancy, and breastfeeding, data was taken directly from the

Michigan Birth Certificate Registry, 2015 – 2017. These measures were calculated for each demographic group as raw percentages of the data recorded on all Kent County birth certificates. Breastfeeding data was further analyzed by mapping the proportion of mothers in each census tract who were not planning to breastfeed. To do so, census tracts were sorted into five consecutive categories based on this proportion(3.70 – 6.24%, 6.25 – 8.78%, 8.79 – 11.32%, 11.33 – 13.86%, and 13.87 – 16.40%); each census tract was illustrated on the county map in a color corresponding to its assigned interval. To maintain confidentiality, proportions were not displayed for any census tract that had less than 20 births from 2015 to 2017.

Infant mortality rate (IMR) data was taken directly from the MDHHS, Division for Vital Records and Health Statistics (Michigan Birth and Death Certificate Registries, 2014 – 2016). IMRs were calculated as deaths under one year of age per 1000 live births in the corresponding demographic group. All infant mortality rates used in this report were three-year average rates (2014-2016). Comparisons between demographic groups were made by calculating simple ratios between IMRs. Data on IMRs for Hispanic or Latino populations were not publicly available from MDHHS, and thus were not included in this report.

Chronic Disease Measures

Measures of the prevalence of chronic disease (heart disease, hypertension, cancer, diabetes/pre-diabetes, and asthma) were calculated for each demographic group using data from the Voice Kent Survey, 2017. These measures were calculated as raw percentages of the survey respondents' answers, as the Voice Kent Survey utilizes convenience sampling methods. In the case of hypertension and heart disease, prevalence was calculated in adults above the age of 35 due to

the well known link between age and the development of these diseases. Comparative data for the prevalence of heart disease in each demographic group was also taken from the Kent County Behavioral Risk Factor Survey, 2017. Pre-determined survey weights were applied to these comparative data based on the randomized sampling method used to conduct this survey.

Data on chronic disease mortality was taken directly from the MDHHS, Division for Vital Records and Health Statistics (Michigan Death Certificate Registry, 2012 – 2016). All chronic disease mortality rates used in this report are five-year average (2012-2016) age-adjusted mortality rates per 100,000 persons. Age-adjustments were applied using the standard 2000 U.S. population. Data on chronic disease mortality rates for Hispanic or Latino populations were not publicly available from MDHHS, and thus were not included in this report.

Measures of STI and HIV Incidence

The age-adjusted rate of STI incidence (chlamydia, gonorrhea, and syphilis) for individual demographic groups was calculated using data from the Michigan Disease Surveillance System, 2013 – 2017. The five-year average crude mortality rate for each demographic group was calculated using the five-year average of STI cases and the most recent corresponding population data from the American Community Survey (5-year estimates, 2012-2016). All rates were calculated per 100,000 persons. Age-adjustments were applied to these rates using standard millions from the 2000 U.S. population.

The average crude rates of chlamydia and gonorrhea incidence were also calculated for all Kent County ZIP codes for 2017. All ZIP codes were then sorted into five consecutive categories based on these crude rates (chlamydia: 0.00, 0.01–461.10, 461.11–922.19, 922.20–1383.29,

and1383.30–1844.38; gonorrhea: 0.00, 0.01–165.69, 165.70–331.37, 331.38–497.06, and 497.07–662.74). Each ZIP code was illustrated on the county map in a color corresponding to its assigned category. To maintain confidentiality, rates were not displayed for any ZIP code with only 1-19 chlamydia or gonorrhea cases in 2017. The necessary level of data to apply age-adjustments to the STI rate in each ZIP code was not available for this report.

Data on newly diagnosed HIV cases was provided by the MDHHS HIV Case Reporting and Data Team. Newly diagnosed cases of HIV were averaged across a five-year period (2012-2016) for each demographic group. The five-year average crude mortality rate was then calculated using this five-year average of HIV cases and corresponding population data from the American Community Survey (5-year estimates, 2012-2016). All rates were calculated per 100,000 persons. The necessary data to apply age-adjustments for rates wasn't available for this report.

Measures of Mental Health and Substance Use Disorder

For measures of self-reported mental health (poor/failing mental health, diagnosis of mental health condition), data was taken directly from the Voice Kent Survey, 2017. These measures were calculated as raw percentages of the survey respondents' answers, as the Voice Kent Survey utilizes convenience sampling methods.

Data from the Kent County Medical Examiner Records, 2013-2017, was used to calculate age-adjusted mortality rates for suicide, drug overdose, and opioid related drug overdose for each demographic group. The five-year average crude mortality rate for each demographic group was calculated using the five-year average of deaths and the most recent corresponding population data from the American Community Survey (2012 – 2016). All rates were calculated per 100,000

persons. Age-adjustments were applied to these rates using standard millions from the 2000 U.S. population. Suicide data was further analyzed by mapping suicide cases by Kent County census tract. To do so, census tracts were sorted into five consecutive categories based on number of suicides (0, 5-10, 11-19, 20-39, and 40-104); each census tract was illustrated on the county map in a color corresponding to its assigned category. To maintain confidentiality, suicide cases were aggregated over a 16-year period (2001-2017) and totals were not displayed for census tracts with < 5 cases of suicide in this time period.

Note: For all measures of health outcomes, comparisons were made between demographic groups by calculating simple ratios between each measure.

Measures of safe environments

For the measures of safe homes and neighborhoods (neighborhood safety, trauma and abuse during childhood, violence in the home, and smoking status in the home), data was taken directly from the Voice Kent Survey, 2017. These measures were calculated as raw percentages of survey respondents' answers for each demographic group or self-reported neighborhood, as the Voice Kent Survey utilized a convenience sampling method and did not require the application of survey weights.

Data on unintentional injury mortality was taken directly from the MDHHS, Division for Vital Records and Health Statistics (Michigan Death Certificate Registry, 2012-2016). All unintentional injury mortality rates used in this report are five-year average (2012-2016) age-adjusted mortality rates per 100,000 persons. Age-adjustments were applied using the standard 2000 U.S. population. Data on unintentional injury mortality rates for Hispanic or Latino population were not publicly available from MDHHS, and thus were not included in this report.