# 2017

# Kentucky Minority Health Status Report



The Cabinet for Health and Family Services presents: The Department for Public Health,
Office of Health Equity 2017 Minority
Health Status Report

# The 2017 Kentucky Minority Health Status Report

DEPARTMENT FOR PUBLIC HEALTH
On behalf of the
CABINET FOR HEALTH AND FAMILY SERVICES

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For more information about the legislation requiring the Minority Health Status Report (KRS 216.2929, Section 4), visit: <a href="http://www.lrc.ky.gov/Statutes/search.aspx">http://www.lrc.ky.gov/Statutes/search.aspx</a>

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# **Message from the Commissioner**

Through the Office of Health Equity (OHE), the Kentucky Department for Public Health (DPH) works to eliminate health disparities and inequities among racial and ethnic minorities, rural, and low-income populations in the state of Kentucky. DPH fosters a model of inclusion through partnerships with local health departments, state agencies and legislators to strengthen efforts to improve the health of the commonwealth. It is through these partnerships that health disparities and inequities among Kentuckians will be reduced and lives will be saved.

The 2017 Kentucky Minority Health Status Report is a biennial report compiled by OHE to monitor trends of health disparities and inequities in Kentucky. The report serves as a tool to educate and raise awareness regarding the health of disparate populations, as well as a resource with potential to influence policy.

Health equity is defined in *Healthy People 2020* (HP2020) as "...the attainment of the highest level of health for all people." Health inequities are often rooted in social injustices, both conscious and unintentional, which render individuals and populations vulnerable to adverse health outcomes. Achieving health equity through the improvement of Kentucky's health outcomes will require addressing the conditions in which Kentuckians live, learn, work, and play through both population-based and targeted methods focused on the areas of greatest need.

Many opportunities exist in Kentucky to promote health equity. Socioeconomic factors, such as extensive poverty and poor educational achievement along with social indicators such as poor access to healthcare and food insecurity, provide opportunities to create a culture of health in all communities across the commonwealth. The Department for Public Health's State Health Improvement Plan (SHIP) integrates a heath equity framework into five focus areas targeted towards improving health outcomes in Kentucky. The department will utilize partnerships to leverage resources to promote initiatives that address the significant health disparities affecting minority and vulnerable populations in the Commonwealth of Kentucky.

Sincerely,

Jeffery D. Howard Jr., MD Acting Commissioner

J. Howard

Department for Public Health

# Table of Contents

Executive Summary	iii
Key Findings from the 2017 Kentucky Minority Health Status Report	iii
Introduction	iv
Historical Context	iv
Full Report	1
Demographics	1
Race and Ethnicity	1
Age by Race and Ethnicity	1
Race by Counties	3
Social Risk Factors	4
Education	4
Income, Poverty, and Unemployment	5
Adverse Childhood Experiences	6
Juvenile Justice	6
Home Ownership	7
Health Insurance Status	8
Health Risk Factors	9
Preventive Health Screenings	9
Mental Health	11
Intellectual and Developmental Disabilities	12
Oral Health	
Overweight and Obesity	
Tobacco Use	14
Smoking During Pregnancy	16
Health Outcomes	17
Life Expectancy	17
Infant Mortality	17
Adult Mortality	18
Cancer	19
Cardiovascular Diseases	20
Asthma	21
Diabetes	21
Teen Pregnancy	22
Sexually Transmitted Infections (STI)	23
HIV	24
Hepatitis C	26
Drug Overdose	26
Health Equity Moving Forward	28

Recommendations	28
Conclusion	29
Strengths and Limitations	29
Appendix	31

# **Executive Summary**

#### **Key Findings from the 2017 Kentucky Minority Health Status Report**

#### **Demographics**

- Racial and ethnic minority groups in Kentucky are younger than their White counterparts.
- Black residents make up more than 15% of the populations of Jefferson, Christian, and Fulton counties.
- Counties with the highest Hispanic populations are Fayette, Bourbon, Christian, Jessamine, Shelby, and Carroll counties.
- Attainment of a Bachelor's degree or higher is highest among Asians, while Blacks and Hispanics have the lowest college graduation rates.
- Asian households in Kentucky have the highest median income at \$61,215, while Blacks have the lowest at \$30,418.
- Hispanics and Blacks have higher unemployment rates when compared to Whites.
- Black and Hispanic residents are more likely to be renters in the state, while their White counterparts are more likely to own a home.

#### Health Risk Factors

- In fiscal year 2015, only 18.5% of Medicaid-enrolled women ages 40-64 received screening mammograms.
- Hispanic women in the state are less likely to receive a Pap test than White women, a downward trend from 2014.
- Hispanics had the lowest colonoscopy screening rate compared to Blacks and Whites between 2014 and 2016.
- Among those in 2016 with 14 or more mentally unhealthy days in the past month, Hispanics had the highest rate at 19.7%, with Blacks having the second highest rate at 16.2%.
- Kentucky has the lowest percentage of persons with intellectual and developmental disabilities (IDD) who exercise regularly at 45%, versus 77% nationally.
- Persons with IDD in Kentucky also have a higher rate of obesity than the national average (42% versus 34%)
- Black Kentuckians visit the dentist or dental clinic consistently less often than their Hispanic and White counterparts.
- Blacks have the highest rate of obesity when compared to Hispanics and Whites.
- White high school adolescents in the state are much more likely to smoke cigarettes than their Black counterparts.

#### Health Outcomes in Kentucky

- Black men have the shortest life expectancy of all groups when stratified by race and gender.
- Black infants continue to be nearly twice as likely to die in the first year of life as White infants
- Blacks have a higher mortality rate for cerebrovascular disease than Whites.
- Blacks have a significantly higher cancer mortality rate than Whites for prostate, breast and colorectal cancer.
- Blacks are more likely to die from asthma than any other racial or ethnic group.
- The age-adjusted mortality rate for diabetes is greater for Blacks than Whites.
- The overall teen pregnancy rate in Kentucky remains above the national average, and Hispanics have the highest rate among racial and ethnic groups in Kentucky.
- Blacks have higher rates of gonorrhea and syphilis when compared to Hispanics and Whites
- Blacks have higher rates of HIV when compared to Hispanics and Whites.
- White residents die of drug overdoses in Kentucky at the highest rate compared to other racial and ethnic groups.

#### Introduction

#### **Historical Context**

The Office of Health Equity (OHE) was established in September of 2008 through funding from the United States Department of Health and Human Services (DHHS), Office of Minority Health. OHE continues to work to address health disparities among racial and ethnic minorities, low-income, and geographically isolated populations in the commonwealth by focusing on the following goals:

- Increasing awareness of the significance and impact of health disparities in Kentucky;
- Educating stakeholders on the actions necessary to improve the health outcomes for racial and ethnic minorities, rural, and low-income populations in Kentucky;
- Improving the health and healthcare outcomes for racial and ethnic minorities, and underserved communities through evidence-based tailored approaches that account for differences in culture and language;
- Improving the coordination and utilization of research and evaluation outcomes to advance health equity for racial and ethnic minorities and underserved communities; and
- Strengthening partnerships by increasing the capacity of leadership in Kentucky to address health disparities at all levels.

DPH strives to understand the relationship between health services, socioeconomic status, environment, literacy levels, legislative policies, and their impact on the health outcomes of Kentuckians. Research describes these root causes as the social determinants of health (SDOH), and demonstrates their association to adverse health outcomes (Figure 1). Achieving health equity will require addressing these SDOH through both population-based and targeted methods focusing on the areas with the greatest need to improve the commonwealth's overall health. By advancing the understanding of the root causes of health disparities, and their role in perpetuating health inequities at the community level, OHE promotes health equity for all marginalized and vulnerable populations.

Figure 1: Social Determinants of Health<sup>1</sup>

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Income Expenses Debt Medical bills Support	Housing Transportation Safety Parks Playgrounds Walkability	Literacy Language Early childhood education Vocational training Higher education	Hunger Access to healthy options	Social integration Support systems Community engagement Discrimination	Health coverage Provider availability Provider linguistic and cultural competency Quality of care

We work to create equity not just related to health and health care, but to educate communities about access to high quality education, safe affordable housing, fair economic development, and other social conditions as components of a heathy and productive community.

Healthy People 2020 provided recommendations for addressing disparities and defined a health disparity as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage." In addition, Healthy People 2020 defines health equity as the "attainment of the highest level of health for all people," and states that to achieve it, "...requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and healthcare disparities."

The 2017 Minority Health Status Report (MHSR) highlights the disparities affecting Kentuckians and provides recommendations for improving health outcomes throughout the state. The MHSR is produced biennially in odd-numbered years in compliance with the KRS 216.2929, Section 4. The report provides the most current data describing disparities that exist in the commonwealth through multiple data sources, including the Behavioral Risk Factor Surveillance System (KyBRFS), the U.S. Census, the American Community Survey (ACS), and other sentinel surveillance systems.

Recognizing that disparities also exist geographically within the state, this report will primarily highlight racial and ethnic disparities. The MHSR is a resource that can be used to engage communities in understanding the social determinants of health and their relationship to health disparities. This document provides data that support the focus areas of DPH's 2017 State Health Improvement Plan (SHIP) and the 2017 State Health Assessment (SHA) goals of advancing the health and wellbeing of the citizens of Kentucky.

As the country moves forward in planning for *Health People 2030*, several foundational principles will be used to guide the nation in eliminating health dispartities. The health and well being of populations amd communities are essential in a fully funtioning and equitabe society. Kentucky will model those guidelines in achieving health and wellbeing in efforts of eliminating health disparities and achieving health equity.

## **Full Report**

## **Demographics**

#### Race and Ethnicity

In 2016, the U.S. Census estimated the population in Kentucky to be 4,436,974 residents. The majority of Kentucky's population is White, but 15% of the population is comprised of minority races and ethnicities.

Black or African
American
8%

White
Black or African American

White

Black or African American

Hispanic or Latino

Asian

White

Asian

Other

Asian

Other

Asian

Other

Asian

Other

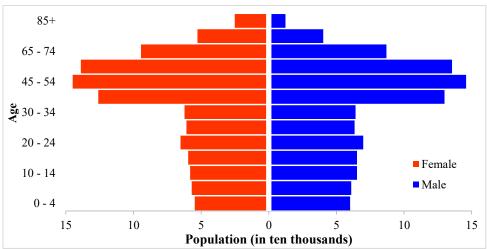
Chart 1: Kentucky Population by Race and Ethnicity, 2016

Source: Kentucky State Data Center, U.S. Census Bureau, Population Estimates, 2016

#### Age by Race and Ethnicity

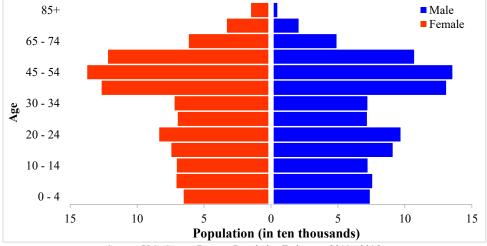
White residents comprise the majority of the population in Kentucky at 3,770,240 people with a median age of 40.1³ years. Eight percent of Kentucky's total population are Black, an estimated 357,930 people, with a median age of 33 years.³ Hispanics comprise 4% of the Kentucky population at an estimated 155,520 people with a median age of 24.5 years.³ Both Blacks and Hispanics have younger median ages and smaller elderly populations compared to the White population. Among all racial and ethnic groups, there are fewer elderly males compared to females. According to the U.S. Census Bureau, the state's population grew 2.2 % between 2010 and 2016.⁴

Chart 2: Kentucky Population by Age and Gender: Whites, 2015



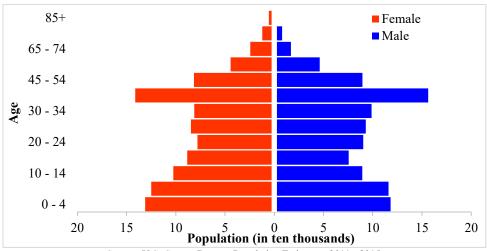
Source: U.S. Census Bureau, Population Estimates, 2011 - 2015.

Chart 3: Kentucky Population by Age and Gender: Blacks, 2015



Source: U.S. Census Bureau, Population Estimates, 2011 - 2015.

Chart 4: Kentucky Population by Age and Gender: Hispanics, 2015



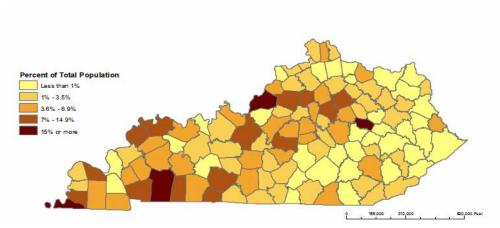
Source: U.S. Census Bureau, Population Estimates, 2011 - 2015.

#### **Race by Counties**

Five-year estimates from the American Community Survey (ACS) indicate the majority of the Black population in Kentucky resides in the Louisville area and the central, western and southwestern regions of the state. Blacks make up more than 15% of the populations of Fulton, Christian, and Jefferson counties.

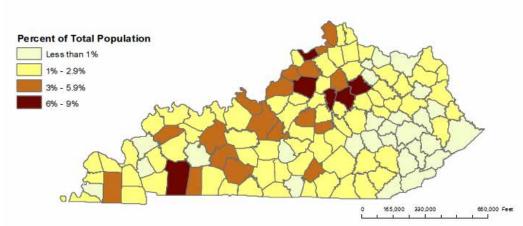
ACS survey data noted that the Hispanic population of Kentucky is concentrated in the central and western regions of the state. Counties with the highest percentage of Hispanics are: Fayette, Bourbon, Christian, Jessamine, Shelby, and Carroll counties. The maps below are a valuable resource in targeting culturally sensitive programs and projects for specific minority populations.

Figure 2: Percentage of non-Hispanic Black Population by County 2011 – 2015, 5-year Estimates



Source: 2011-2015 American Community Survey (U.S. Census Bureau)

Figure 3: Percentage of Hispanic Population by County 2011 – 2015, 5-year Estimates



Source: 2011 – 2015 American Community Survey (U.S. Census Bureau)

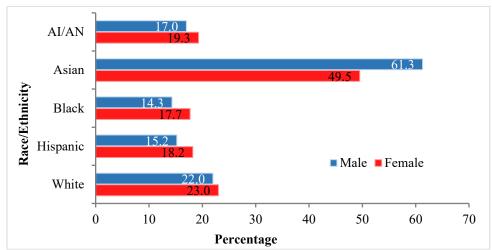
#### **Social Risk Factors**

#### Education

Research has shown that of the socioeconomic status indicators, educational attainment has the strongest influence on health decisions and outcomes.<sup>5</sup> A significant difference is seen among racial/ethnic groups when looking at educational attainment.

In Kentucky, Asians have the highest percentage of those with a bachelor's degree or higher when compared to all other racial/ethnic groups. A less marked difference is seen among Whites, who have the second highest percentage of college graduates among all other racial and ethnic minorities in the state.

Chart 5: Percentage of Kentuckians over 25 Years Old who have a Bachelor's Degree or Higher, by Race, Ethnicity and Gender 2011 - 2015



Source: U.S. Census Bureau, American Community Survey, 2011-2015, 5-year estimates. Notes: AI/AN: American Indian/Alaska Native, Hispanic includes Latino

#### Income, Poverty, and Unemployment

Research has also linked income and other socioeconomic indicators to health outcomes.<sup>5</sup> In Kentucky, Asians have the highest median household income at \$61,215, while Blacks have the lowest at \$30,418.<sup>6</sup>

Poverty affects children at similar rates with the exception of the Asian population, but significant disparities exist among residents 65 and older. Although poverty affects all age groups, children and the elderly are the most vulnerable. Similarly, Hispanics and Blacks have higher unemployment rates when compared to Whites.

60 ■ Hispanic ■Black ■ White AI/AN ■ Asian 50.2 47.1 44.8 50 45.0 Percentage 30 20 34.5 31.8 31.5 29.4 22.7 18.8 15.8 10.6 7.4 10 0 65 + y/o< 5 y/oAll Age

Chart 6: Poverty Rates in Kentucky by Age Group and Race/Ethnicity, 2011-2015

Source: U.S. Census Bureau, American Community Survey, 2011-2015, 5-year estimates. Notes: AI/AN: American Indian/Alaska Native, Hispanic includes Latino

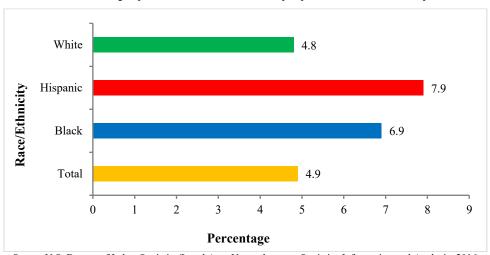


Chart 7: Unemployment Rate in Kentucky by Race and Ethnicity, 2016

 $Source\ U.S.\ Bureau\ of\ Labor\ Statistics/Local\ Area\ Unemployment\ Statistics\ Information\ and\ Analysis,\ 2016$ 

#### **Adverse Childhood Experiences**

Adverse childhood experiences (ACEs) are traumatic childhood experiences of abuse, neglect, and household dysfunction before the age of 18 that can impact one's health and well-being across the lifespan. A growing body of research has identified ACEs as major risk factors for many health conditions, and poor children are more than twice as likely to have three or more ACEs which can negatively impact developmental and health outcomes into adulthood.

Kentucky Behavioral Risk Factor Surveillance System (KyBRFS) data suggest that as the number of ACEs increase, so does the risk for poor physical and mental health outcomes when compared to those with no ACEs. Sustainable improvements in public health require a shift in focus to include the prevention of ACEs, resilience building, and the provision of trauma-informed services. The Sustainable Development Goals developed by the United Nations provide global public health prevention efforts to reduce ACEs and their life-course effect on health. 10

40 37.0 33.1 35 30 24.7 25 Weighted % 18.1 17.6 20 16.8 16.3 14.1 15 10.3 9.9 8.2 10 5 Depression **Current Smoking** Binge Drinking Asthma ■ 0 (No ACE) ■ 1-2 (Low ACE) ■ 3+ (High ACE)

Chart 8: Prevalence of Selected Health Risk Factors among Kentucky Adults aged 18 Years and Older by ACE Score Group, 2015

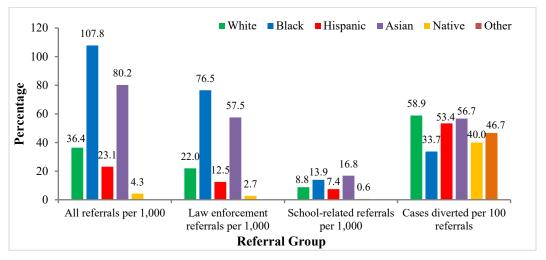
Source: Kentucky Behavioral Risk Factor Surveillance System, 2015

#### **Juvenile Justice**

Studies of incarcerated youth have found ACEs prevalence (the total number of individuals in a population who have a disease or health condition at a specific period in time) more than twice that found in the general population.<sup>11</sup> Juvenile justice involvement is also linked to higher risk for poor social outcomes including unemployment, low educational attainment, and low wages.<sup>12</sup> The disproportionate distribution of these social determinants of health in addition to ACEs make justice-involved youth a disadvantaged population at significantly higher risk for poor health outcomes when compared to youth not involved with the justice system.

Data from the Kentucky Department of Juvenile Justice show that Black youth disproportionately enter the justice system through law enforcement and school referrals, and are less likely to receive case diversion – instances where offenses are eligible for legal processing but are resolved without filing formal charges. Disparities between Black and White individuals have increased since 2014. Further examination revealed economic status, education, location, family structure, and bias among those interacting with youth in the juvenile justice system are risk factors for disproportionate minority contact.<sup>13</sup>

Chart 9: Kentucky Department of Juvenile Justice, Annual Statewide Contact Rates by Race and Ethnicity, 2015

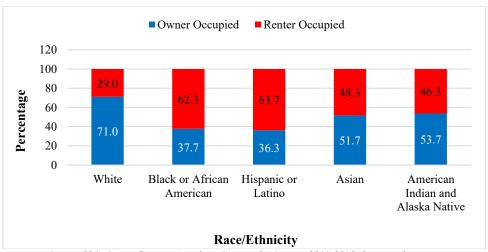


Source: Jenkins, E., Kentucky Department of Juvenile Justice. Kentucky Updated Plan for Compliance with the Disproportionate Minority Contact Core Requirement. Appendix 3. 2017

#### **Home Ownership**

Research has shown that homeownership, when compared to renting, has a positive impact on life satisfaction as well as the cognitive and behavioral outcomes of children. <sup>14,15</sup> In Kentucky, all minority groups are less likely to own homes compared to White residents. For example, over 60% of Black and Hispanic residents in Kentucky rent their homes.

Chart 10: Home Ownership and Renter-Occupied Homes in Kentucky, by Race and Ethnicity, 2011-2015



Source: U.S. Census Bureau, American Community Survey, 2011-2015, 5-year estimates. Notes: AI/AN: American Indian/Alaska Native, Hispanic includes Latino.

#### **Health Insurance Status**

Improving equity begins with improving access to health care services. This is impacted by insurance status and cost. Research has shown that minorities and those with low socioeconomic status are often uninsured more often than their counterparts. Uninsured rates in the U.S. have decreased from 13.3% in 2013 to 8.8% in 2016 – an overall reduction of 4.6%. The U.S. Census Bureau's 2016 Health Insurance Coverage report stated that Kentucky was among the top states in the nation for reductions in the uninsured rate, with a decrease from 14.3% in 2013 to 5.1% in 2016. Although we have made progress in ensuring coverage for all Kentuckians, 30.6% of Hispanics are still without coverage.

Benefind, Kentucky's online service for programs such as Medicaid, the Kentucky Children's Health Insurance Program (KCHIP), the Supplemental Nutrition Assistance Program (SNAP), food benefits, the Kentucky Transitional Assistance Program (KTAP), or cash assistance continues to work to ensure continued coverage for all persons of the commonwealth.

35 30 25 25 20 20

Chart 11: Kentucky Residents with No Health Insurance Coverage by Age, Race, and Ethnicity, 2016

Percentage 15 10.4 9.0 8.3 7.8 7.0 10 6.2 3.2 2.4 0.9 <18 yrs <18 yrs 18 - 64 yrs <18 yrs 65+ yrs 65+ yrs 65+ yrs 18 - 64 yrs 18 - 64 yrs 18 - 64 yrs - 64 yrs  $\infty$ Black White Asian Hispanic Multi-race Race/Ethnicity

Source: U.S. Census Bureau, 2016 American Community Survey 1-Year Estimates. All racial categories are non-Hispanic. The Hispanic or Latino category includes residents of any race.

#### **Health Risk Factors**

#### **Preventive Health Screenings**

Preventive health services lower costs and improve health outcomes.<sup>17</sup> According to the Centers for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS), as of 2015 the age-adjusted rate of women 40 and over who had a mammogram in the previous two years was 64%.<sup>18</sup> Over the past several years the KyBRFS data, a self-report telephone surveillance system designed to collect data on individual risk behaviors and preventive health practices, has been used to describe Kentucky women's mammography screening practices.

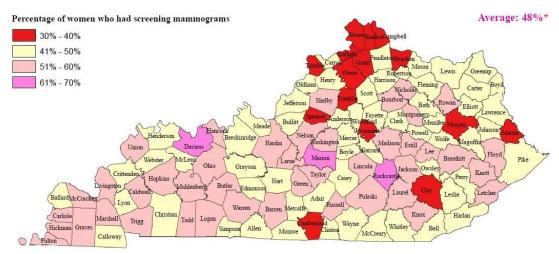
KyBRFS data indicated that Kentucky women, especially women of color, were receiving mammograms at a higher rate than the national average. However, upon careful review of local health department data reported to the CDC, DPH's Women's Cancer Screening Program (KWCSP) determined that Medicaid claims data gave a more accurate and reliable screening rate for Medicaid eligible women of screening age. In fiscal year 2015, 208,634 women ages 40-64 years were enrolled in the Medicaid program. Among these enrolled women, only 38,458 (18.5%) women had screening mammograms. This Medicaid population presents an opportunity for focused social and cultural messaging and outreach to navigate women who have not had a mammogram in the recommended timeframe to screening services.

According to KyBRFS data, the rate of cervical cancer screening Pap tests for adult women has increased among all minority groups with the exception of Hispanics, who showed a decline from 67.0% in 2014 to 58.1% in 2016. CDC data indicate that nationally in 2015, the age-adjusted rate of women 18 and over who had a Pap test within the past 3 years was 70.2%. <sup>18</sup>

New guidelines from the United States Preventive Services Taskforce now recommend that routine screenings begin at a later age (21 years of age), and provide an option for less frequent screenings in combination with other testing. <sup>19</sup> The decrease in the percentage of women receiving Pap tests within the last three years may be a reflection of the institution of new standards of care in medical practices throughout the state. It is possible that the impact of these revised Pap test screening and follow up guidelines has resulted in an overall decline or decrease in the number of Pap tests performed in Kentucky.

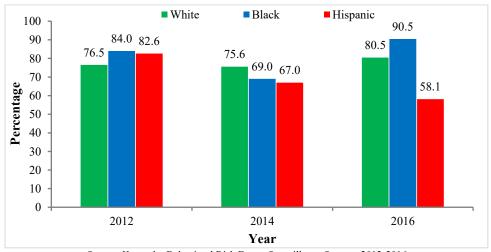
KyBRFS data indicate that in 2012, 67% of age appropriate Kentucky adults had a sigmoidoscopy or colonoscopy. This percentage increased to 71% in 2014, and has remained unchanged at 71.7% in 2016. This is due to several factors including Medicare coverage of screening colonoscopies for beneficiaries at increased risk of colon cancer, mini-grants provided to communities to increase screening, and legislation creating the Kentucky Colon Cancer Screening Program among other events and initiatives. Although the rates of colon cancer screening by sigmoidoscopy or colonoscopy increased for both White and Black residents from 2012, to 2016, the screening rate among the Hispanic population decreased between 2014 and 2016. Blacks have the highest screening rate among racial and ethnic groups, yet higher rates of colon cancer incidence and mortality compared to White residents. Efforts to increase colorectal cancer screening rates for earlier detection should include tailored approaches that address cultural, institutional, and access barriers across geography, race/ethnicity, and gender.

Figure 4: Screening Mammograms among Kentucky Medicaid Enrollee Women 40-64 years of age, FY 2015 and 2016



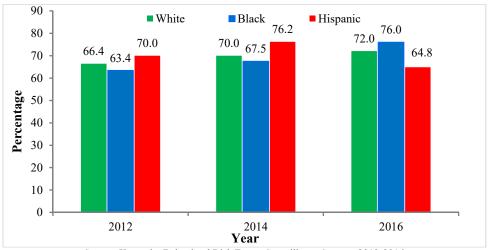
Source: Maratha, Sivaram "Ram". Kentucky Women's Cancer Screening Program. July 1, 2017. Includes women enrolled in Kentucky Medicaid between July 1, 2014 and June 30, 2016. Excludes dual eligibles, Medicaid waiver recipients, and those who had less than 90 days of Medicaid coverage. Data are preliminary and subject to change.

Chart 13: Percentage of Kentucky Women over 18 Years Old, Who Have Had a Pap Test in the Past Three Years, by Race and Ethnicity, 2012 – 2016



Source: Kentucky Behavioral Risk Factor Surveillance System, 2012-2016

Chart 14: Percentage of Kentuckians over 50 Years Old, Who Have Ever Had a Sigmoidoscopy or Colonoscopy, by Race and Ethnicity, 2012 - 2016



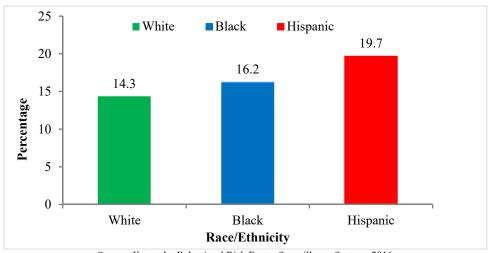
Source: Kentucky Behavioral Risk Factor Surveillance System, 2012-2016

#### **Mental Health**

In 2015, 17.9% of the adult population in the United States had a mental illness (a mental, behavioral, or emotional disorder excluding developmental and substance use disorders) according to the National Institutes of Health.<sup>20</sup> Research has shown that mental health conditions exacerbate the ability to cope with chronic illnesses, which make both the illness and the mental health condition worse.<sup>21</sup>

In 2016, Kentuckians were asked to self-report the number of days in the past month their mental health was not good, including days effected by stress, depression or problems with emotions. Among those reporting 14 or more mentally unhealthy days in the past month, Hispanics had the highest rate at 19.7% with Blacks having the second highest at 16.2%.

Chart 15: Percentage of Adults Mentally Unhealthy for 14 Days or More in Past Month by Race and Ethnicity, 2016



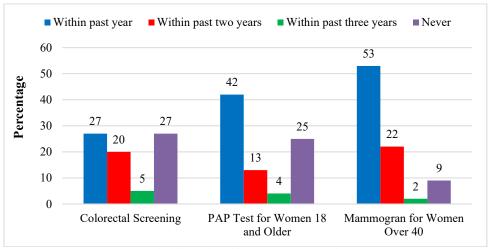
Source: Kentucky Behavioral Risk Factor Surveillance System, 2016

#### **Intellectual and Developmental Disabilities**

Poor health outcomes in Kentucky are accentuated even more for individuals with intellectual and developmental disabilities (IDD). Individuals with IDD are at an extreme disadvantage related to health and wellness outcomes.

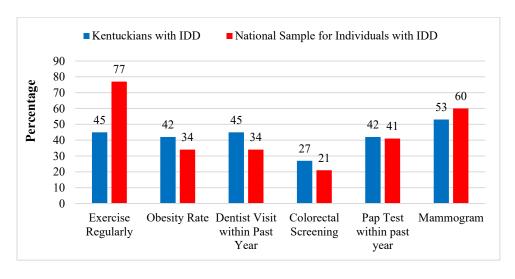
According to the National Core Indicators (NCI) Adult Consumer Survey (HSRI and NASDDS, 2017), Kentucky has the smallest percentage of individuals with IDD who exercise regularly of *any* participating state (only 45% of Kentuckians with IDD compared to 77% in the national sample for individuals with IDD). Persons with IDD also have a higher rate of obesity than the national average (42% for Kentuckians with IDD compared to 34% nationally). The data below demonstrate the need for inclusion in preventive screenings efforts for Kentuckians with IDD.

Chart 16: Preventive Screening Rates for Kentuckians with Intellectual and Developmental Disabilities, 2015



Source: CDC Disability and Health Data System: Kentucky Data (2015)

Chart 17: National Core Indicator Data for Kentuckians with Intellectual and Developmental Disabilities, 2016

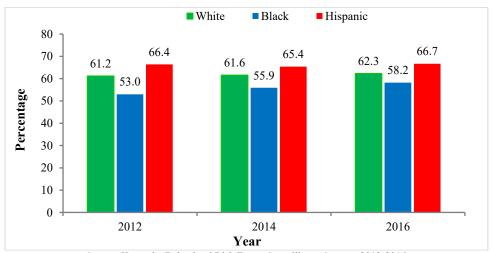


Source: Disability impacts ALL of US. Atlanta, GA: Author Human Services Research Institute and National Association of State Directors of Developmental Disabilities Services (2017). *Adult consumer survey 2015-2016: Final report*. Cambridge MA: Human Services Research Institute.

#### **Oral Health**

Poor oral health can be a major risk factor for cardiovascular disease and stroke.<sup>22</sup> In 2014 and 2016, more than 30% of Kentucky adults did not see a dentist during the past year. This finding is comparable to national data, which show that 64% of Americans between 18 and 64 and 62.7% of Americans 65 and older saw a dentist in the past year.<sup>18</sup> The KyBRFS data indicate that Blacks visit the dentist or dental clinic at consistently lower rates than their Hispanic and White counterparts.

Chart 18: Percentage of Adult Kentuckians Who Visited the Dentist or Dental Clinic within the Past Year for Any Reason, by Race and Ethnicity, 2012 - 2016



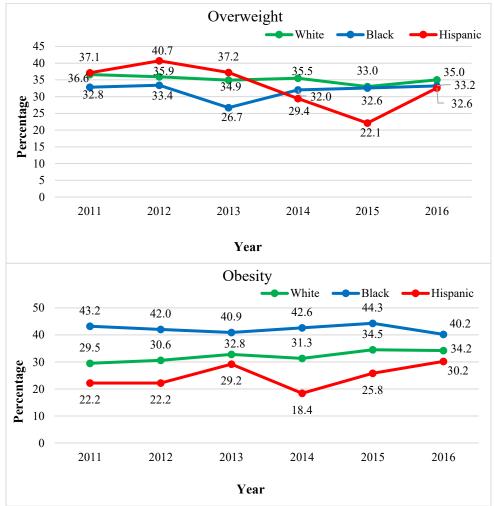
Source: Kentucky Behavioral Risk Factor Surveillance System, 2012-2016

#### **Overweight and Obesity**

Overweight and obesity are not just risk factors, but are classified as chronic diseases as well.<sup>23</sup> Middle-aged adults and minorities are at highest risk. Overweight and obesity are defined by a person's body mass index (BMI); a BMI of 25.0 – 25.9 is considered overweight and a BMI greater than 30 is considered obese.

According to the CDC, over one-third of U.S. adults are obese, which increases the risk of heart disease, stroke, Type II Diabetes and cancer.<sup>24</sup> The annual cost of obesity is estimated to be between \$147 and \$210 billion.<sup>25</sup> About a third of adult Kentuckians are considered overweight and another third are obese, percentages which did not change much from 2011 to 2016. Hispanics are less likely to be obese whereas Blacks have the highest rates of combined overweight and obesity.

Chart 19: Overweight and Obesity Prevalence among Adults in Kentucky, by Race and Ethnicity, 2011-2016



Source: Kentucky Behavioral Risk Factor Surveillance System, 2011-2016

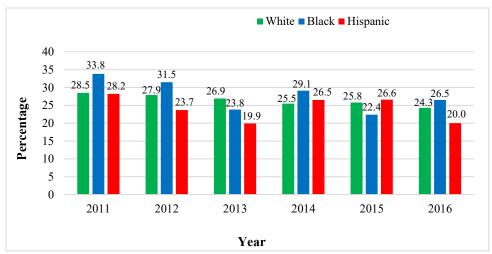
#### **Tobacco Use**

Smoking is the leading cause of preventable deaths in the United States, leading to lung cancer and other cancers, heart disease, stroke and respiratory diseases. <sup>26</sup> In 2015, Kentucky had the highest rates of tobacco use at 26% while the U.S. average was 15.1%. <sup>27</sup>Smoking rates in high school adolescents have shown a downward trend from 26% in 2007 to 14.3% in 2017. <sup>28</sup> The same is true for cigarette use among middle school students and the use of electronic vapor products among both middle and high school students. White high school adolescents are much more likely to smoke cigarettes than their Black counterparts, but this trend does not continue into adulthood. Though Blacks initiate smoking at a later age than Whites, adult smoking rates are similar to or higher than that of White Kentuckians.

The significant increase in smoking rates between adolescence and adulthood has been linked to aggressive marketing and the absence of protective factors such as parental opposition and sports participation present during adolescence.<sup>29</sup> Hispanic high school students have seen a significant reduction in smoking rates from 32.1% in 2007, to a prevalence of 25.6% in 2015, and a dramatic decrease to 12.4% in 2017.<sup>30</sup> However, the Youth Behavioral Risk Factor Survey (YRBS) data for Hispanics was not available for 2009 – 2013. Tobacco use among disadvantaged populations is influenced by multiple factors such as such as socioeconomic status, mental and behavioral health issues, toxic stress, predatory marketing, and the capacity of communities to mount effective tobacco control initiatives.<sup>31</sup> Tobacco efforts must address these factors in culturally appropriate

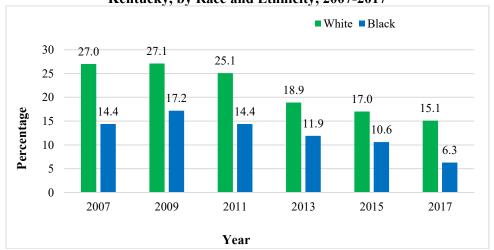
ways in order to maintain progress among all racial and ethnic groups and reduce disparities.

Chart 22: Percentage of Adult Current Smokers in Kentucky, by Race and Ethnicity, 2011-2016



Source: Kentucky Behavioral Risk Factor Surveillance System, 2011-2016

Chart 20: Prevalence of Current Cigarette Use among High School Adolescents in Kentucky, by Race and Ethnicity, 2007-2017

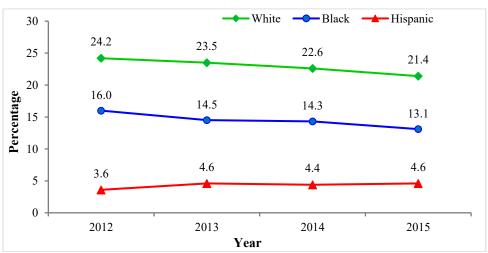


Source: Youth Risk Behavioral Surveillance System, 2007-2017 Note: Data for the Hispanic population is not available for all years.

### **Smoking During Pregnancy**

According to birth certificate data, 8.4%<sup>32</sup> of women in the United States smoked during pregnancy in 2014, down from 12.3% in 2010.<sup>33</sup> The self-reported prevalence of smoking during pregnancy is lower among minorities in Kentucky than for White Kentuckians. Smoking during pregnancy can result in tissue damage in unborn babies, low birth weight, miscarriage, and stillbirth. Smoking can also cause difficulty in becoming pregnant.<sup>34</sup> Kentucky was recently awarded funding by the CDC to participate in the national Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is a population-based survey designed to examine maternal behaviors and experiences before, during and after a woman's pregnancy, and during the early infancy of her child. PRAMS supplements data collected from birth certificates for planning and assessing perinatal health programs on a state level. These findings can be used to develop and assess public health programs and policies to improve maternal and infant health. Data collection began in 2017 and will be available in 2018.

Chart 23: Percentage of Resident Live Births to Mothers Smoking During Pregnancy, by Race and Ethnicity in Kentucky 2012-2015\*



Source: Kentucky Vital Statistics, Kentucky Live Birth Certificate Files 2012-2015

<sup>\*</sup>Birth data from 2012-2015 are preliminary. The percentage was calculated based on live births to mothers smoking during any trimester of pregnancy. Hispanic origin and race not mutually exclusive. People of Hispanic origin may fall into any of the race categories. Resident data includes events which occurred to the residents of the specified geographic area, regardless of place of occurrence.

#### **Health Outcomes**

#### Life Expectancy

While White females in Kentucky have historically had the highest life expectancy, in 2013 Black women also reached a life expectancy of 78 years. Black men have consistently had the lowest life expectancy of all groups when stratified by race and gender. With the exception of White males, life expectancy has decreased for all groups since 2015. The health disparities that exist among minority groups correlate with life expectancy. Social indicators such as housing, education, income, discrimination, racism, and stress, all contribute to premature death.<sup>35</sup>

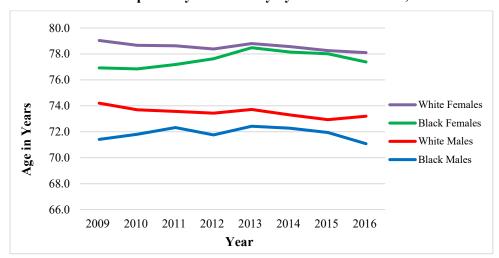


Chart 24: Life Expectancy in Kentucky by Race and Gender, 2009-2016

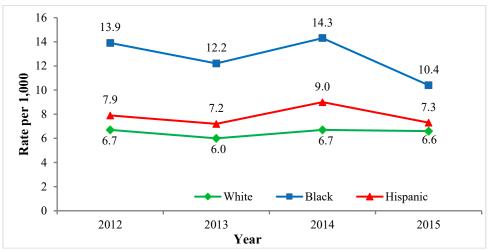
Source: Kentucky Vital Statistics, Death Certificate Files 2009-2016. Analysis by the Kentucky State Data Center, 2017

#### **Infant Mortality**

Throughout the world, infant mortality is a primary benchmark used to measure a population's social, economic, and health-related wellbeing. According to the National Center for Health Statistics (NCHS), the rate of infant mortality in the United States decreased 29% from 2005 to 2014.<sup>36</sup> However, Kentucky's infant mortality rate for both White and Black populations continue to be above the national rate of 5.9 per 1,000 live births.<sup>37</sup>

Furthermore, Black infants continue to be nearly twice as likely to die as White infants. The primary component of racial disparities in Kentucky childhood deaths is infant mortality. <sup>38</sup> This disproportionate burden reveals the need for prevention efforts targeted towards mothers before, during, and after pregnancy to reduce deaths among Kentucky's Black infant population.

Chart 25: Infant Mortality Rates per 1,000 Live Births by Year, and by Race and Ethnicity in Kentucky, 2012-2015\*



Source: Kentucky Vital Statistics, Death Certificate and Birth Certificate Files 2012-2015 Note: \*2013-2015 data are preliminary and may change.

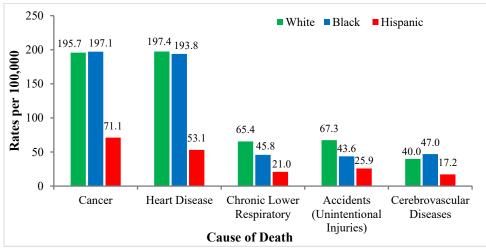
#### **Adult Mortality**

From 1999-2015, the national age-adjusted mortality rate for both White and Black populations declined significantly. During the same period, Blacks experienced a sharper decrease reducing the Black-White disparity mortality rates from 33% to 16%. However, Blacks under sixty-five had higher levels of risk behaviors, chronic conditions, and mortality for conditions most common in those sixty-five and older.<sup>39</sup> In Kentucky, the leading causes of death are cancer, heart disease, chronic respiratory diseases, injuries, and strokes.

The demographic data highlighted earlier in the report noted the Hispanic population in Kentucky as significantly younger than the White population. Since the overall leading causes of death for the commonwealth primarily reflect diseases more commonly found in older individuals, rates among the Hispanic population are significantly lower than that of the Black and White populations. When stratified by race and ethnicity the mortality rates among Kentucky's Black population are consistent with or lower than the rates among White residents, with the exception of mortality rates for cerebrovascular disease, which are higher among Blacks.

As the proportion of the Black population 65 and older increases and parallels the White population, the prevalence of causes of death associated with older age among this population will increase. Since mortality rates for many chronic illnesses increase with age, factors such as late stage diagnoses, obesity, and hypertension combined with SDOH risk factors such as low income, low educational attainment, poor quality housing, and poor transportation access could result in the development of further disparities between Black and White Kentuckians as the Black population ages. It is critical that Kentucky make a concerted effort to address not only behavioral risk factors among these populations such as obesity and tobacco use, but also the root causes of poor health outcomes: the built environment, healthcare access, unemployment, education, poverty, and access to healthy, affordable foods.<sup>39</sup>

Chart 26: Leading Causes of Death in Kentucky, Age-Adjusted Rates per 100,000 by Race and Ethnicity, 2015\*



\*Mortality data from 2015 are preliminary AAR: Age-adjusted rates are per 100,000 U.S. standard 2000 population. Resident data include events which occurred to the residents of the specified geographic area, regardless of place of occurrence. Hispanic Origin and Race are not mutually exclusive. People of Hispanic Origin may fall into any of the race categories.

#### Cancer

Although cancer incidence and mortality rates are trending downward in the commonwealth, Kentucky still leads the nation in both categories. 40,41 The incidence rate among Black Kentuckians in all cancer sites is lower than rates among the Kentucky and White populations, however Black residents have a significantly higher cancer mortality rate than both Whites and Kentuckians overall in prostate, breast and colorectal cancer. This may be due to lower diagnostic screening rates, later diagnosis and disparities in cancer treatment.

Research has also shown that historical and contemporary social inequities at multiple levels across the lifespan influence exposure to cancer risk factors, and that relationships with systems are critical to ensuring positive cancer outcomes. Identified barriers such as fears related to the cost of cancer screening, diagnostic exams, and treatment, even among the insured, may prevent individuals from receiving life-saving diagnostics and treatment. Identifying the disease at a later stage, time to treatment and/or refusal of treatment all impact prognoses. Additionally, differences in mortality rates have been linked to provider bias and social determinants of health such as access to healthcare, poverty, income, and education.

Table 1: Invasive Cancer Incidence and Mortality Rates in Kentucky, by Race, 2011-2015

	Incidence Rates			Mortality Rates		
Cancer Sites	KY	Black	White	KY	Black	White
All sites	521.1	512.2	520.6	200.3	214.0	199.8
Prostate	113.0	165.2	105.6	19.7	36.7	18.9
Breast	66.2	70.0	66.1	12.2	16.2	11.8
Lung & Bronchus	95.3	84.5	96.0	69.3	67.8	69.7
Colorectal	50.0	55.2	49.7	17.1	20.2	16.9

Source: KY Cancer Registry http://cancer-rates.info/ky/index.php. Note: All rates are per 100,000. Rates are age-adjusted to the 2000 U.S. Standard Million Population

#### Cardiovascular Diseases

Cardiovascular disease death rates in Kentucky have consistently declined over the last twenty years. In addition, the disparity gap between Kentucky Black and White residents has become almost non-existent. The Kentucky age-adjusted death rate for Blacks mirror the national rate, while the age-adjusted death rate for White Kentuckians is higher than the rate for Whites nationally.

While the same declining trend for cerebrovascular disease can be seen nationally for Blacks and Whites, the age-adjusted death rate for Blacks in Kentucky is higher than that of White Kentuckians. Though cardiovascular disease death rates continue to decline, this trend may not remain stable over time especially for certain demographics. Factors such as continued tobacco use, hypertension, diabetes, and obesity increase the risk of cardiovascular disease. Stroke risk factors are similar to those of cardiovascular disease, however sickle cell disease increases the risk of ischemic stroke.

Chart 27: Age-Adjusted Death Rates for Major Cardiovascular Diseases by Race for KY and U.S., 1999 – 2015 with 95% Confidence Intervals

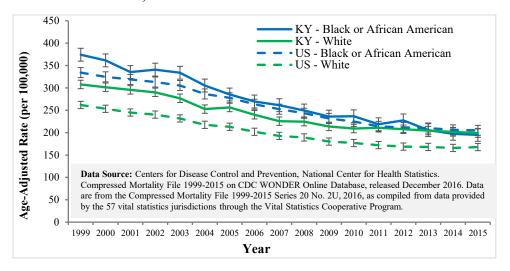
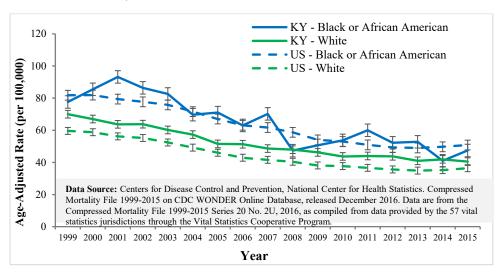


Chart 28: Age Adjusted Death Rates for Cerebrovascular Diseases by Race for KY and U.S., 1999 – 2015 with 95% Confidence Intervals



#### **Asthma**

While women die from asthma at a higher rate than men, Blacks are more likely to die from asthma than any other racial or ethnic group. 44 Kentucky's adult asthma prevalence rate was 11.7% in 2016, higher than the national rate of 7.6%. 45 Asthma prevalence among the Black population in Kentucky is comparable to or slightly higher than that of the White population.

According to data mapped by *EnviroHealthLink*, Kentucky's Environmental Public Health Tracking Network, the highest rates of asthma emergency department visits from 2012-2016 were found in the Kentucky River, Cumberland Valley, Western, and Central parts of the state, as well as in Boyd, Jefferson, Monroe, and Fulton counties.

Though the cause of asthma is not fully understood, common triggers are tobacco smoke (including secondhand smoke), mold, outdoor air pollution, and insect droppings.<sup>46</sup> These triggers are more common in low-income neighborhoods and households, and low-income communities with low rates of home ownership often face more barriers to reducing asthma triggers than those who own their own homes. Home visiting programs that focus on reducing triggers in the home have been shown to be an effective and feasible asthma management strategy.<sup>47</sup>

16 ■ White ■ Black 14.3 13.0 14 12.9 12.8 11.9 11.8 11.3 11.4 12 10.6 9.4 9.1 10 Percentage 8 6 4 2 0 2011 2012 2013 2014 2015 2016 Year Source: Kentucky Behavioral Risk Factor Surveillance System, 2011-2016

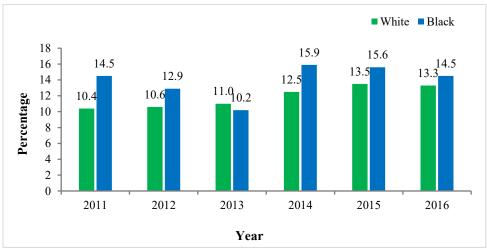
Chart 29: Adult Asthma Prevalence in Kentucky, by Race and Ethnicity, 2011-2016

#### **Diabetes**

In Kentucky, the prevalence of adult diabetes increased from 10.4% in 2011 to 13.1% in 2016. According to the KyBRFS, Blacks have slightly higher rates when compared to Whites for the years surveyed. Though there is not a significant disparity in the prevalence of Type II Diabetes, there are significant disparities in mortality rates.

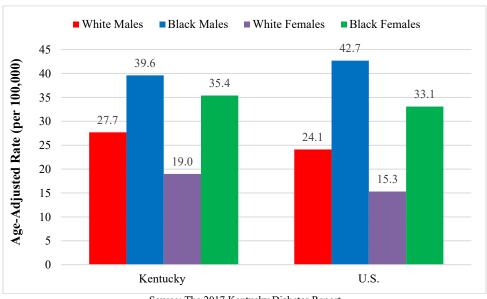
According to the 2017 Kentucky Diabetes Report, the age-adjusted mortality rate for Black men in Kentucky is 1.4 times greater than for White men in Kentucky (39.6 per 100,000 versus 27.7 per 100,000), and the mortality rate for Black women in Kentucky is 35.4 per 100,000 compared to 19.0 per 100,000 for White women.<sup>48</sup> These disparities suggest differences in access to prevention services and treatment, and educational resources needed to successfully manage this chronic condition. Individuals with Type II Diabetes are more likely to also suffer from oral health diseases, stroke, hypertension, chronic kidney disease, and cancer.<sup>49,50</sup>

Chart 30: Adult Diabetes Prevalence in Kentucky, by Race and Ethnicity, 2011-2016



Source: Kentucky Behavioral Risk Factor Surveillance System, 2011-2016

Chart 31: Age-Adjusted Death Rates for Diabetes (All Ages) By Race and Gender for KY and U.S., 2014



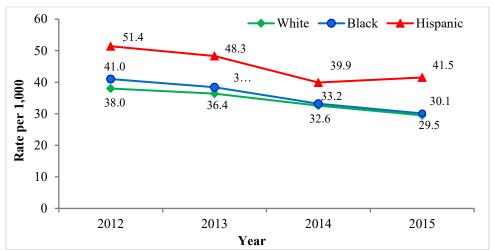
Source: The 2017 Kentucky Diabetes Report

### **Teen Pregnancy**

The national teen birth rate hit a record low in 2015, at 22.3 births for every 1,000 women ages 15-19.<sup>38</sup> The same trend is reflected in Kentucky data. The teen pregnancy rate is the lowest ever recorded for Kentucky declining 44% from 2008 to 2015. However, the rate in the commonwealth remains well above the national average at 31.4 per 1,000 in 2015, causing Kentucky to have the 6<sup>th</sup> highest teen birth rate in the country.<sup>51</sup>

Substantial disparities persist in teen birth rates and teen pregnancy in the commonwealth. The highest rate of teen pregnancy among racial and ethnic groups is in the Hispanic population. Similar rates are seen in Appalachian counties of the state where the 2015 teen birth rate was 42.8 per 1,000 births. Childbearing continues to carry significant social and economic costs. Efforts to build upon successes and reduce disparities should focus on community assets, enhancing the resilience of teen parents, and improving the integration of the SDOH for distressed communities.

Chart 31: Resident Teen Pregnancy Rates (15-19 Years) in Kentucky by Race and Ethnicity, 2011-2015\*



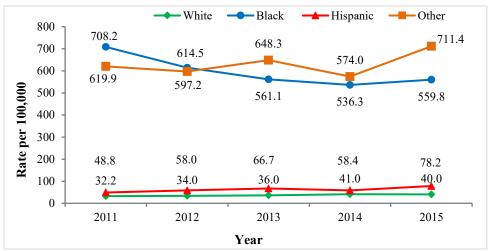
\*Birth data from 2011-2015. Rates are per 1,000 population. Hispanic Origin and Race are not mutually exclusive. People of Hispanic Origin may fall into any of the race categories. Resident data include events which occurred to the residents of the specified geographic area, regardless of place of occurrence.

#### **Sexually Transmitted Infections (STI)**

In Kentucky, Blacks have higher rates of primary and secondary syphilis and gonorrhea than Hispanics and Whites. The disparities in both syphilis and gonorrhea are alarming. The highest rate is seen in those who did not self-identify a race or ethnicity and are grouped as "Other" per reporting guidelines. Gonorrhea is especially common among individuals ages 15-24, and facilitates the transmission of HIV.<sup>52</sup> Primary and secondary syphilis, the most common stages of the infection, have reached national rates not seen in twenty years. Syphilis, when transmitted from mother to child, causes complications and if left untreated can lead to chronic disabilities.<sup>53</sup>

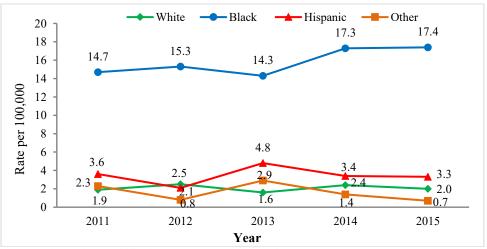
Research has shown that racial disparities in STI rates are not due to race or ethnicity, but rather social conditions that are more likely to affect minorities.<sup>54</sup> STI rates can be higher in communities where factors such as poverty, low access to and utilization of high quality healthcare services, low educational attainment, and feelings of hopelessness are prevalent due to historical and contemporary injustices. When persons with limited social networks reside in communities with high STI rates, there is a greater likelihood that the overall prevalence will remain high and disparities will persist.<sup>55</sup> It is important to develop and support community resilience initiatives as well as culturally tailored interventions that address the unique differences in social networks between racial and ethnic groups to narrow the vast disparities in STI rates.

Chart 32: Gonorrhea Rates per 100,000 in Kentucky, by Race and Ethnicity, 2011 - 2015



Source: STD MIS was used to retrieve morbidity for years 2011 - 2015. Kentucky State Data Center, U.S. Census 2010 was used to retrieve population to determine rates

Chart 33: Primary and Secondary Syphilis Rates per 100,000 in Kentucky, by Race and Ethnicity, 2011 - 2015



Source: STDMIS was used to retrieve morbidity for years 2011 - 2015. Kentucky State Data Center, U.S. Census 2010 was used to retrieve population to determine rates. Note: Rates for Hispanic minority were calculated from counts less than 20, therefore may not be reliably used to determine trends.

#### HIV

The overall rate of new Human Immunodeficiency Virus (HIV) infections in Kentucky has remained relatively stable over the last decade at approximately eight cases per 100,000. The disparity trend seen among populations is also consistent with those seen in STIs. Of note are the wide disparities between the Black and White populations. Data show that between 2011 and 2015, the HIV diagnosis rates for Blacks fluctuated between 5.3 to 7 times higher than Whites. The diagnosis rates for Hispanics were between 1.6 to 3.9 times higher than Whites over the same five-year period. The overall trends for Blacks and Hispanics show slight variations, while the trends among Whites have remained steady.

The HIV diagnosis rates from 2011 through 2015 for Blacks and Whites by sex indicate that Black males and Black females had consistently higher rates of new diagnoses in comparison to their White counterparts. The HIV diagnosis rates among Black males fluctuated between 4.4 to 6.1 times higher than that of White males. The rates among Black females were 9.5 to 12.2 times higher than those for White females over the five-year period.

The DPH HIV/AIDS Prevention Program and the HIV/AIDS Care Services Program continue to address HIV prevention and transmission. Linkage navigators at local health departments have also been instituted to help re-engage clients back into care. DPH is working in minority communities ensuring those at greatest risk for HIV infection know their sero-status and have access to the most effective treatments, coordinated health care, transportation, social services, and evidence-based programming regarding risky behaviors. Community engagement and HIV/AIDS champions are important partners in reducing the transmission of HIV/AIDS and reducing the stigma associated with the disease.

White, Not Hispanic Black, Not Hispanic Hispanic 40 35 36.4 30 33.2 31.9 Rate per 100,000 29.2 25 28.0 20 20.8 15 17.5 14.1 10 13.1 7.9 5 5.2 5.5 5.3

Chart 34: HIV Disease Diagnosis Rates in Kentucky by Race/Ethnicity and Year of Diagnosis, 2011-2015\*

Source: Kentucky Department for Public Health, HIV/AIDS Branch. \*Note: Data for 2014 and 2015 are considered provisional due to reporting delays.

Year

2013

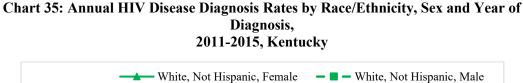
2014

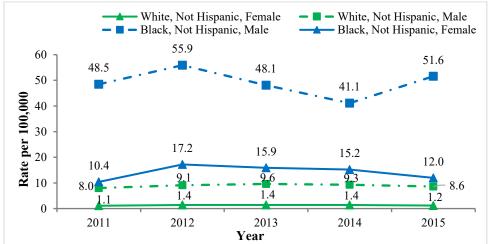
2015

2012

0

2011





Source: Kentucky Department for Public Health, HIV/AIDS Branch Note: Data for 2015 are considered provisional due to reporting delays. Rates for Hispanic cases by sex are not presented due to the small number of cases reported.

#### **Hepatitis C**

Acute hepatitis C is a liver infection caused by the blood-borne pathogen the hepatitis C Virus (HCV). Most acute infections lead to chronic infections which can eventually cause liver damage, including cirrhosis and liver cancer. The primary risk factor for acute Hepatitis C is sharing needles or other equipment used to inject drugs.<sup>56</sup>

According to an analysis conducted by the CDC in 2016, among the 220 twenty counties nationwide identified to be at highest risk of an HIV outbreak, 54 are located in Kentucky, primarily in the Appalachian region. <sup>57</sup> Similar to HIV, HCV can be contracted by sharing needles contaminated with the virus. Although most new cases of hepatitis C infection are among Whites, the race or ethnicity of many cases is unknown.

In 2015, the Kentucky General Assembly passed legislation allowing local communities to establish Harm Reduction Syringe Exchange Programs (HRSEPs). HRSEPs are designed to prevent the spread of viruses such as hepatitis C and HIV that are often transmitted through the shared use of needles or other equipment used to inject drugs. These programs also reduce the public's risk of exposure to these diseases through discarded needles found in public spaces.<sup>57</sup>

Black Unknown White 160 140 125 121 120 Number of cases 100 80 73 60 40 43 20 0 2009 2010 2011 2012 2013 2014 2015 Year

Chart 36: Number of Adult Acute Hepatitis C Cases in Kentucky by Race, 2009-2015

Source: Reported cases of acute hepatitis C, nationally and by state — United States, 2009-2015 http://www.cdc.gov/hepatitis/statistics/2013surveillance/

#### **Drug Overdose**

Since 2000, Kentucky's drug overdose rate has shown an upward trend. More Whites die of drug overdose in Kentucky each year compared with deaths among Blacks. Nationally, racial and ethnic minorities are far less likely to be prescribed opioids, resulting in dramatically lower rates of overdoses and overdose deaths when compared to the White population.

In November of 2016, in response to the abrupt increase in overdose deaths in Kentucky, DPH mobilized the Mobile Harm Reduction Program. Through a partnership with the Kentucky Pharmacists Association, public health officials and volunteer pharmacists trained in naloxone education and dispensing came together to address this epidemic. Utilizing the mobile licensed pharmacy and by invitation of local health departments, as of December 2017 DPH has deployed the program to 30 sites, trained 1,576 persons, and dispensed 1,515 naloxone kits, the prescription medication to reverse an overdose caused by an opioid drug use. In addition, 82 persons received free HIV testing and 64 persons received free testing for hepatitis C.

In Kentucky, long-term geographically concentrated poverty, and the associated toxic stress has created vulnerability resulting in the Appalachian region of the state being disproportionately

impacted by the opioid epidemic. DPH is committed to combatting the statewide opioid epidemic through partnerships, continued allocation of available resources, and community-based responses.

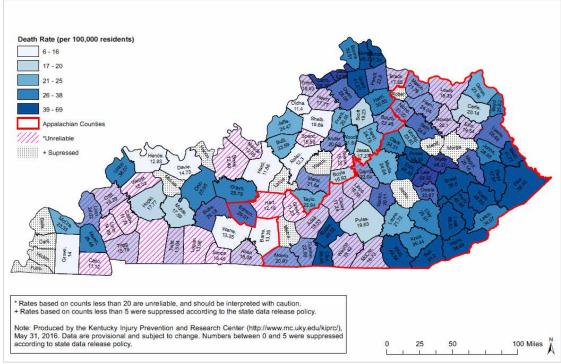
35 US KY 29.9 30 Mortality Rate (deaths per 27 01 104,000 52 08 25.0 25.0 24.7 23.6 23.7 16.3 14.7 13.8 13.2 13.1 12.3 0 2010 2011 2013 2014 2015 2012 Year

Chart 37: Age-Adjusted Drug Overdose Mortality Rate in Kentucky, 2010-2015

Produced by the Kentucky Injury Prevention and Research Center, February 2015. Data source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015 on CDC WONDER Online Database released

Chart 38: Average Annual Drug Overdose Death Rate Based on Decedent's County of





Source: Kentucky Injury Prevention Research Center, 2016

# **Health Equity Moving Forward**

The 2017 Kentucky Minority Health Status Report highlights the need of continued work to close the gaps in health outcomes between racial and ethnic minorities and Whites, as well as disparities based on geography and physical or intellectual disability in order to improve the health of all Kentuckians.

Even though challenges such as funding, staffing, standard methodology for data collection and large geographic regions of need exist, the Kentucky Department for Public Health through the Office of Health Equity will continue to address population health needs in order to advance the wellbeing of Kentucky citizens. The department will utilize a framework of health equity to serve as a guide in identifying and recommending policies, strategies, and actions to eliminate disparities in health and healthcare outcomes in five focus areas of the State Health Improvement Plan; Obesity, Integration to Healthcare Services, Tobacco, Adverse Childhood Experiences and Substance Use Disorder. This action requires collaborative effort among both public and private organizations partnerships focused on system changes designed to achieve health equity for all Kentuckians.

Building on the successes amassed since the inception of OHE, the office will continue to work on a mobilized statewide, comprehensive, community driven and sustained approach to combatting health disparities and health inequities. OHE will take a collaborative approach to improving the health of all people by incorporating Health in All Policies (HiAP) into decision-making across sectors of state government. The goal of this approach is to ensure a mobilized statewide, comprehensive, community-driven, and sustained approach to combatting health disparities that will move Kentucky toward achieving health equity.

#### Recommendations

Based on the findings outlined in the 2017 Minority Health Status Report, the Department for Public Health Office of Healthy Equity recommends expanding efforts to address the social determinants of health. OHE will adopt the federal Office of Minority Health's strategies for the elimination of racial and ethnic disparities to eliminate health disparities and inequities among racial/ethnic groups in Kentucky by:

- Reinforcing the commitment to eliminating health inequities through continued dialogue between legislators, cabinets, and public health officials allowing for allocation of resources, staff, and funds to continue state, regional and national programming;
- Complementing demographic and statistical data analysis with research targeting the cultural, sociological, and generational implications of health disparities;
- Collecting data on the health of each racial and ethnic group in Kentucky, allowing for a more comprehensive picture of the health issues affecting all Kentuckians;
- Improving the collection methods used on all population health surveys and surveillance systems by incorporating a consistent set of data standards for race, ethnicity, sex, primary language, and disability status;
- Establishing a multidisciplinary task force of policymakers, researchers, executive leadership, healthcare workers, and community leaders that will work together to address the link between the social determinants of health and health outcomes;
- Developing initiatives that increase social capital and resource availability within communities, and reduce physical and social barriers to healthy lifestyles; e.g., increase pedestrian friendly design of neighborhoods, increased access to healthy food options, etc.

#### **Conclusion**

The data presented in this report indicate health disparities among racial and ethnic populations in the Commonwealth of Kentucky. Demographic differences exist between race groups in the state. Minorities are generally younger in age and more likely to live in poverty, and these factors influence health.

For some health risk factors and health outcomes, racial and ethnic minorities have seen reductions in disparities, or fare better than the White population. The Black population reports receiving Pap test and colorectal cancer screenings at higher rates than their White and Hispanic counterparts. Blacks have also experienced a decrease in rates of cigarette use among high school students, and a significant narrowing of the disparity in cardiovascular disease deaths between White and Black Kentuckians. The infant mortality rate decreased for both the Hispanic and Black populations. Hispanics have the highest percentage of dental visits in the past year and the lowest rate of obesity. The Hispanic population experienced the largest reduction in cigarette use among high school students in the past ten years, and consistently has the lowest rate of smoking during pregnancy among all racial and ethnic groups.

However, significant disparities still persist among disadvantaged racial and ethnic groups. Hispanic Kentuckians have both the highest uninsured and unemployment rates of all racial and ethnic groups. Hispanics also report the lowest Pap test and colorectal cancer screening rates, and have consistently had the highest teen pregnancy rate. Black Kentuckians continue to have the highest prevalence of obesity and infant mortality, and Black males have the shortest life expectancy compared to White residents, when stratified by gender.

Cancer is a leading cause of death for all Kentuckians. But when compared to Whites, Blacks have higher morbidity and mortality rates for most cancers. Blacks are also more likely to have a higher prevalence of asthma, diabetes, sexually transmitted infections, and HIV than their White counterparts. The data illustrate the need for comprehensive approaches to health disparities that include addressing the social determinants of health through a health equity lens. Data shows that continued partnerships with other systems and agencies are needed to address social inequities that impact health outcomes across the lifespan.

These findings are not unique to Kentucky, but follow national trends recognized by the Centers of Disease Control (CDC) and the Department of Health and Human Services (HHS). Kentucky continues to take significant steps towards addressing healthcare access, the social determinants of health through economic development, education initiatives, and the built and physical environment across the state.

# **Strengths and Limitations**

The strengths and limitations of the 2017 Minority Health Status Report (MHSR) are inherent in its data sources. This report used data from the U.S. Census, American Community Survey, Kentucky State Data Center, Kentucky Behavioral Risk Factor Surveillance System (KyBRFS), Youth Risk Behavioral Surveillance System, Kentucky Vital Statistics, and Kentucky Cancer Registry.

The strengths of this report include sound data from recognized sources. The surveillance data are population based; the information is collected on an ongoing basis and is maintained and comparable by year reported. The self-reported data from KyBRFS provide an insight into the behaviors and answers provided by Kentuckians, and collected yearly in all 50 states using a standard methodology, making Kentucky data comparable to the nation.

Use of data collected as a part of surveillance has both under-reporting and misclassification bias. Surveillance data are collected by county of residence, not county of exposure, which may or may not give

an accurate picture of the disease or outcome. Therefore, a marked change in reported cases may not indicate a true change in disease incidence and should not be construed as such without knowledge of the historical surveillance practices.

Self-reported data from the KyBRFS have unique limitations in that it captures information via phone of the population at one point in time. A telephone survey is limited by identifying only those adults who live in a household with a telephone. People without telephones or those living in a group setting, such as the military, prison inmates or nursing home residents would not be included in the sample. Despite these restrictions, KyBRFS is the leading data source regarding health behaviors in Kentucky and is the premier health survey in the United States. KyBRFS began in 1984 collecting data on health behaviors, mental health, chronic health conditions, and the use of preventive services. In 2011, KyBRFS adjusted sampling methodology to include persons with cell phones in addition to landlines. This improvement to the survey methods limits comparisons of current data to data before 2011.

Reporting race and ethnicity data has limitations due to a lack of data collected and/or an inconsistency in collection. Self-reported data is limited because race/ethnicity is subjective, and Kentucky currently does not have a standardized methodology for collecting data on race. As a result, some data are available for all races and other data are not. Additionally, small sample sizes, undercounting, and undocumented residents in some minority populations can make the data unreliable. When the sample sizes are small, these numbers are suppressed and not presented in the final analysis. In the U.S. Census, data on race and ethnicity is self-identified. This report does not take into account those who identify as more than race or ethnicity, due to small numbers.

Not all of the 2016 population estimate data available from the U.S. Census Bureau American Community Survey for racial and ethnic groups in Kentucky were available at the time of publication. Additional 1-year and 5-year population estimate data can be accessed online at https://factfinder.census.gov

Despite these limitations, the MHSR provides the most current data on the health of Kentucky minorities.

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# **Appendix**

#### **Additional Explanation of Data**

# Chart 9: Kentucky Department of Juvenile Justice, Annual Statewide Contact Rates by Race and Ethnicity, 2015

The population are youth ages 0-17 within the following racial and ethnic categories: White only, Black or African American only, Hispanic or Latino, Native American Only, and Other or unknown race. Population estimates are based on 2015 Census data. Referrals are all offense complaints filed against youth by law enforcement, citizens, family members or school personnel, which are accepted and processed. Law enforcement referrals are the exercise of lawful custody in which youth may be under the supervision of law enforcement either secure or non-secure. The youth is then referred to the Court Designated Worker Records System (CDW) by the law enforcement agency. School-related referrals are the result of any offense occurring on school grounds; before, during, after school hours, at school related events, and on the school bus separated by complainant (law enforcement, school staff, parent of other student, other). Cases diverted are instances where offenses are eligible for legal processing but are resolved without filing formal charges.

#### Chart 7: Unemployment Rate in Kentucky by Race and Ethnicity, 2016

Data for demographic groups are not shown when the labor force base does not meet the BLS publication standard of reliability for the area in question, as determined by the sample size. Items may not sum to totals because of rounding. Estimates for the race groups shown in the table do not sum to totals because data are not presented for all races. In addition, people whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Data incorporate updated 2010 census-based population controls

#### References

<sup>1</sup> Heiman, Harry J., and Samantha Artiga. "Beyond health care: the role of social determinants in promoting health and health equity." *Health* 20, no. 10 (2015): 1-10. https://www.kff.org/disparities-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/

- <sup>3</sup> U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates. Median Age by Sex: Kentucky.
- <sup>4</sup> U.S. Census Bureau. Quick Facts: Kentucky. https://www.census.gov/quickfacts/KY Accessed September 6, 2017.
- <sup>5</sup> Pampel, FC, Krueger, PM, Denney, JT. Socioeconomic disparities in health behaviors. Annual Review of Sociology. 2014; 36: 349-370.
- <sup>6</sup> U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates. Median Income in the Past 12 Months (In 2016 Inflation-Adjusted Dollars): Kentucky
- <sup>7</sup> Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M., Edwards, V., & Koss, M. P. (1998) Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. American journal of Preventive Medicine 14(4), 245-258A
- 8 Child Trends. (2013). Adverse experiences. Available at: https://www.childtrends.org/?indicators=adverse-experiences
- <sup>9</sup> Department for Public Health, Division of Maternal and Child Health. Data Brief: Adverse Childhood Experiences (ACEs). December 2016. http://chfs.ky.gov/NR/rdonlyres/C243F124-2C06-49E3-B253-5BA750E20AA1/0/ACEs\_in\_Kentucky\_Factsheet.pdf
- <sup>10</sup> Hughes, Karen, Mark A. Bellis, Katherine A. Hardcastle, Dinesh Sethi, Alexander Butchart, Christopher Mikton, Lisa Jones, and Michael P. Dunne. "The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis." *The Lancet Public Health* 2, no. 8 (2017): e356-e366.
- <sup>11</sup> Baglivio, Michael T., Nathan Epps, Kimberly Swartz, Mona Sayedul Huq, Amy Sheer, and Nancy S. Hardt. "The prevalence of adverse childhood experiences (ACE) in the lives of juvenile offenders." *Journal of Juvenile Justice* 3, no. 2 (2014): 1.
- <sup>12</sup> Chung, He Len, Michelle Little, and Laurence Steinberg. "The transition to adulthood for adolescents in the juvenile justice system: A developmental perspective." *On your own without a net: The transition to adulthood for vulnerable populations*(2005): 68-91.
- <sup>13</sup> Jenkins, E., Kentucky Department of Juvenile Justice. Kentucky Updated Plan for Compliance with the Disproportionate Minority Contact Core Requirement. Appendix 3. 2017
- <sup>14</sup> Rohe, William M., and Michael A. Stegman. "The effects of homeownership: On the self-esteem, perceived control and life satisfaction of low-income people." *Journal of the American Planning Association* 60.2 (1994): 173-184.
- <sup>15</sup> Haurin, Donald R., Toby L. Parcel, and Ruth J. Haurin. "The impact of home ownership on child outcomes." *Available at SSRN 218969* (2000).
- <sup>16</sup> Barnett, Jessica C. and Edward R. Berchick, Current Population Reports, P60-260, Health Insurance Coverage in the United States: 2016, U.S. Government Printing Office, Washington, DC, 2017.

<sup>&</sup>lt;sup>2</sup> U.S. Department of Health and Human Services. "The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020. Phase I report: Recommendations for the framework and format of Healthy People 2020. Section IV. Advisory Committee findings and recommendations." (2008). https://www.healthypeople.gov/sites/default/files/PhaseI 0.pdf Accessed August 17, 2017.

- <sup>20</sup> National Institute of Mental Health. Any Mental Illness (AMI) Among Adults. http://www.nimh.nih.gov/health/statistics/prevalence/any-mental-illness-ami-among-adults.shtml Accessed September 15, 2017.
- <sup>21</sup> World Federation for Mental Health. Mental Health and Chronic Physical Illnesses: The Need for Continued and Integrated Care. http://wfmh.com/wp-content/uploads/2014/02/WMHDAY2010.pdf Accessed August 9, 2017.
- <sup>22</sup> Meurman, Jukka H., Mariano Sanz, and Sok-Ja Janket. "Oral health, atherosclerosis, and cardiovascular disease." *Critical Reviews in Oral Biology & Medicine* 15.6 (2004): 403-413.
- <sup>23</sup> American Medical Association. *AMA Adopts New Policies on Second Day of Voting at Annual Meeting*. 18 Jun. 2013. *AMA News Room*. Web. 11 Sep. 2015. http://www.ama-assn.org/ama/pub/news/news/2013/2013-06-18-new-ama-policies-annual-meeting.page
- <sup>24</sup> CDC. Division of Nutrition, Physical Activity and Obesity, National Center for Chronic Disease Prevention and Health Promotion. Adult Obesity Facts. https://www.cdc.gov/obesity/data/adult.html Accessed September 15, 2017.
   <sup>25</sup> Cawley J and Meyerhoefer C. The Medical Care Costs of Obesity: An Instrumental Variables Approach. *Journal of Health Economics*, 31(1): 219-230, 2012; And Finkelstein, Trogdon, Cohen, et al. Annual Medical Spending Attributable to Obesity. Health Affairs, 2009.
- <sup>26</sup> CDC Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion. Smoking and Tobacco Use. Data and Statistics. Fact Sheets. Current Cigarette Smoking Among Adults in the United States. http://www.cdc.gov/tobacco Accessed July 24, 2017.
- <sup>27</sup> CDC National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Current Cigarette Smoking Among Adults in the United States <a href="https://www.cdc.gov/tobacco/data\_statistics/fact\_sheets/adult\_data/cig\_smoking/index.htm">https://www.cdc.gov/tobacco/data\_statistics/fact\_sheets/adult\_data/cig\_smoking/index.htm</a> Accessed September 24, 2017.
- <sup>28</sup> Centers for Disease Control and Prevention (CDC). 1991-2015 High School Youth Risk Behavior Survey Data. Available at http://nccd.cdc.gov/youthonline/. Accessed on September 25, 2017.
- <sup>29</sup> Garrett, Bridgette E., Phillip S. Gardiner, La Tanisha C. Wright, and Terry F. Pechacek. "The African American youth smoking experience: an overview." *Nicotine & Tobacco Research* 18, no. suppl\_1 (2016): S11-S15.
- <sup>30</sup> Kentucky Department of Education (2017). Kentucky Students are Participating in Fewer Risky Health Behaviors. [online] Available at: https://education.ky.gov/comm/news/Documents/R17-160%20Youth%20Risk%20Behavior%20Survey.pdf.
- <sup>31</sup> U.S. Department of Health and Human Services. Tobacco Use Among U.S. Racial/Ethnic Minority Groups—African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics: A Report of the Surgeon General. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1998.
- <sup>32</sup> Curtin SC, Mathews TJ. Smoking prevalence and cessation before and during pregnancy: Data from the birth certificate, 2014. National vital statistics reports; vol 65 no 1. Hyattsville, MD: National Center for Health Statistics. 2016.
- <sup>33</sup> Tong VT, Dietz PM, Morrow B et al. Trends in Smoking before, during and after Pregnancy-Pregnancy Risk Assessment Monitoring System, United States, 40 Sites, 2000-2010. *MMWR*. November 8, 2013;62(SS06);1-19.

<sup>&</sup>lt;sup>17</sup> Woolf, Steven H., Husten, Corinne G., et. al. The Economic Argument for Disease Prevention: Distinguishing Between Value and Savings. Partnership for Prevention 2009. http://www.worldcat.org/oclc/317219922

<sup>&</sup>lt;sup>18</sup> National Center for Health Statistics. Health, United States, 2016: With Chartbook on Long-Term Trends in Health. Tables 70, 71, 78. Hyattsville, MD. 2017. https://www.cdc.gov/nchs/data/hus/hus16.pdf#070

<sup>&</sup>lt;sup>19</sup> Final Update Summary: Cervical Cancer: Screening. U.S. Preventive Services Task Force. September 2016. https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/cervical-cancer-screening?ds=1&s=PAP

- <sup>37</sup> Murphy, Sherry L., Jiaquan Xu, Kenneth D. Kochanek, Sally C. Curtin, and Elizabeth. "Deaths: final data for 2015." (2017).
- <sup>38</sup> Public Health Child Fatality Review Program 2016 Annual Report. Child Fatality Review and Injury Prevention Program, Division of Maternal and Child Health, KY Department for Public Health. http://chfs.ky.gov/dph/mch/cfhi/childfatality.htm
- <sup>39</sup> Cunningham TJ, Croft JB, Liu Y, Lu H, Eke PI, Giles WH. Vital Signs: Racial Disparities in Age-Specific Mortality Among Blacks or African Americans United States, 1999–2015. MMWR Morb Mortal Wkly Rep 2017;66:444–456. DOI: http://dx.doi.org/10.15585/mmwr.mm6617e1
- <sup>40</sup> Incidence Rate Report by State, All Cancer Sites, 2010-2014, All Races (includes Hispanic), Both Sexes, All Ages. https://statecancerprofiles.cancer.gov/incidencerates
- <sup>41</sup> Death Rate Report by State, All Cancer Sites, 2010-2014, All Races (includes Hispanic), Both Sexes, All Ages. https://statecancerprofiles.cancer.gov/deathrates
- <sup>42</sup> Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division for Heart Disease and Stroke Prevention. Heart Disease Risk Factors. August 2015. https://www.cdc.gov/heartdisease/risk\_factors.htm
- <sup>43</sup> Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division for Heart Disease and Stroke Prevention. Stroke Risk. January 2017. https://www.cdc.gov/stroke/risk\_factors.htm
- <sup>44</sup> Kochanek KD, Murphy SL, Xu JQ, Tejada-Vera B. Deaths: Final data for 2014. National vital statistics reports; vol 65 no 4. Table 14. Hyattsville, MD: National Center for Health Statistics. 2016.
   https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65 04.pdf
- <sup>45</sup> CDC, National Center for Environmental Health. Asthma. http://www.cdc.gov/asthma/most\_recent\_data.htm Accessed July 28, 2017.
- <sup>46</sup> CDC, National Center for Environmental Health. Asthma. https://www.cdc.gov/asthma/triggers.html Accessed August 18, 2017
- <sup>47</sup> Reddy, Amanda L., Marta Gomez, and Sherry L. Dixon. "An Evaluation of a State-Funded Healthy Homes Intervention on Asthma Outcomes in Adults and Children." *Journal of Public Health Management and Practice* 23, no. 2 (2017): 219-228. 10.1097/PHH.000000000000530
- <sup>48</sup> Kentucky Cabinet for Health and Family Services and Kentucky Personnel Cabinet. *The 2017 Diabetes Report*. Frankfort, KY: KY Cabinet for Health and Family Services, Department for Medicaid Services, Department for Public Health, Office of Health Policy, and KY Personnel Cabinet, Department of Employee Insurance, 2017.
- <sup>49</sup> CDC. Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion. About Teen Pregnancy. http://www.cdc.gov/teenpregnancy/about/index.htm Accessed July 12 2017.
- <sup>50</sup> World Health Organization. Sexually transmitted infections. http://www.who.int/mediacentre/factsheets/fs110/en/Accessed July 24, 2017.
- <sup>51</sup> Kentucky Department for Public Health. *Teen Pregnancy Prevention in Kentucky*. Frankfort, KY: Kentucky Department for Public Health, Division of Women's Health, Teen Pregnancy and Adolescent Health, 2017.

<sup>&</sup>lt;sup>34</sup> CDC. Smoking and Tobacco Use. Fast Facts. http://www.cdc.gov/tobacco/data\_statistics/fact\_sheets/fast\_facts/ Accessed July 24, 2017.

<sup>&</sup>lt;sup>35</sup> Braveman, Paula, and Laura Gottlieb. "The social determinants of health: it's time to consider the causes of the causes." *Public Health Reports* 129, no. 1 suppl2 (2014): 19-31.

<sup>&</sup>lt;sup>36</sup> Mathews, T. J., and Anne K. Driscoll. "Trends in infant mortality in the United States, 2005-2014." (2016): 1.

<sup>&</sup>lt;sup>52</sup> CDC. Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention. Gonorrhea. Accessed July 19 2017. https://www.cdc.gov/std/gonorrhea

<sup>&</sup>lt;sup>53</sup> CDC. Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention. Sexually Transmitted Infections: Syphilis. Accessed July 19, 2017. https://www.cdc.gov/std/syphilis/

<sup>&</sup>lt;sup>54</sup> Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention. STD Health Equity. Accessed July 21, 2017. https://www.cdc.gov/std/health-disparities/default.htm

<sup>&</sup>lt;sup>55</sup> Hamilton, Deven T., and Martina Morris. "The racial disparities in STI in the US: Concurrency, STI prevalence, and heterogeneity in partner selection." *Epidemics* 11 (2015): 56-61. https://doi.org/10.1016/j.epidem.2015.02.003

<sup>&</sup>lt;sup>56</sup> CDC. Division of Viral Hepatitis and National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Viral Hepatitis. Accessed June 28, 2017. https://www.cdc.gov/hepatitis/hcv/index.htm

<sup>&</sup>lt;sup>57</sup> Kentucky Department for Public Health, Division of Epidemiology and Health Planning, HIV Prevention Program. http://chfs.ky.gov/dph/epi/HIVAIDS/prevention.htm