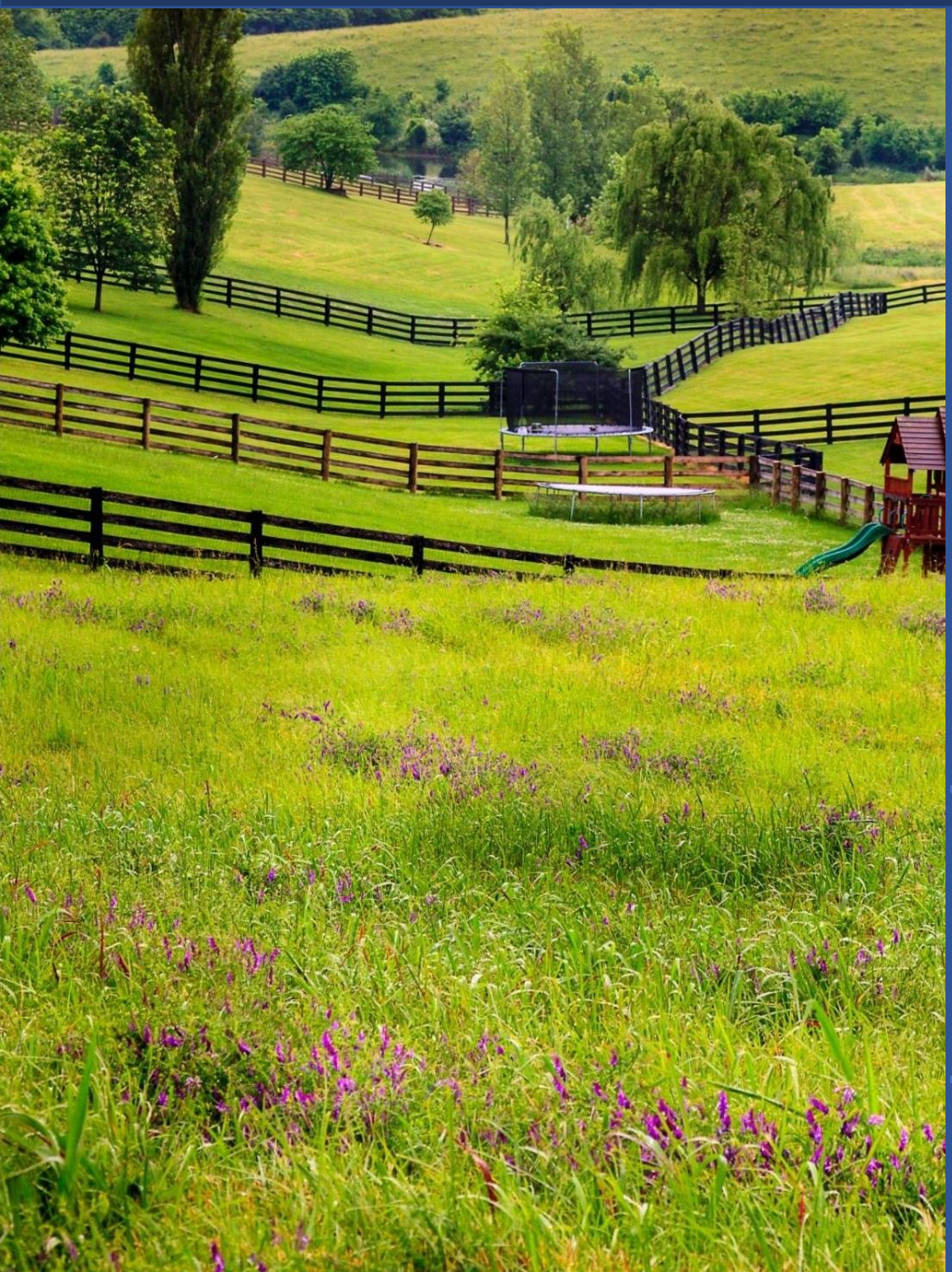
2021

Kentucky Minority Health Status Report



Cabinet for Health and Family Services

Department for Public Health
Health Equity Branch

- in collaboration with -

Office of Data Analytics
Division of Analytics

CABINET FOR HEALTH AND FAMILY SERVICES
Department for Public Health

Andy Beshear
Governor

Eric C. Friedlander
Secretary

275 East Main Street, HS1GWA
Frankfort, KY 40621
502-564-3970
Fax: 502-564-9377
www.chfs.ky.gov

Steven J. Stack, MD
Commissioner

22 September 2022

Secretary Eric Friedlander
Cabinet for Health and Family Services
275 E. Main St. 5W-A
Frankfort, KY 40621

Dear Secretary Friedlander:

Pursuant to KRS 216.2929, enclosed is the Executive Summary of the biennial *2021 Minority Health Status Report.* This report provides an overview of the health status of racial and ethnic minorities in Kentucky.

The Kentucky Department for Public Health's Health Equity Branch (HEB) continues to work toward the elimination of health disparities by understanding the relationship between health and health services, socioeconomic status, the physical environment, discrimination, racism, literacy levels, and legislative policies. These social determinants disproportionately affect minorities when compared to the population at large.

If you have questions about the report, please contact Vivian Lasley-Bibbs (vivian.lasley-bibbs@ky.gov) or Dr. Nicole Weiss (nicole.weiss@ky.gov), Office of Health Equity, Kentucky Department for Public Health.

Sincerely,

Steven Stack, MD, MBA, FACEP
Commissioner, Department for Public Health

Enclosure

“Being oppressed means the absence of choices.”

- **bell hooks**

“We have made some progress. But we have a long way to go.”

- **Arthur Campbell, Jr.**

“And there was this big ole world—just keep going over that mountain—you’ll go over the mountain and say, “Daggone! I came over this mountain and there’s another mountain!” And you go over that one and, oh, man, there’s another mountain, east, west, north, south, a mountain. There’s always something that’s a challenge.”

- **Bill Turner**

“Slavery was a corrupt tree, and bore corrupt fruit… men and women needed to cry out against it.”

- **John Greg Fee**

OUTLINE

EXECUTIVE SUMMARY

Demographics

- 86.7% of Kentucky identified as white.[1] The next largest racial or ethnic group was Black Kentuckians at approximately 8% of the population.
- Most of the Black and Asian populations in Kentucky resided in Jefferson County and Fayette County. The counties with the highest number of Hispanic/Latino persons were Fayette, Boone, Christian, Hardin, Jefferson, Shelby, and Warren.
- Kentucky had a lower average annual household income ($52,295) than the national average in the U.S. ($65,712).

The COVID-19 Pandemic in Kentucky

- 1.22 million Kentuckians have contracted COVID-19 as of February 10, 2022.
- 13,263 Kentuckians have died from COVID-19 as of February 10, 2022.

Social Risk Factors

- Asian Kentuckians had the largest percentage of persons with a bachelor's degree or higher among all racial or ethnic groups. Disparities existed among Black, Hispanic, and American Indian populations.
- Asian Kentuckians and white Kentuckians had lower unemployment rates than other racial/ethnic groups. Black Kentuckians and Hispanic Kentuckians had comparable rates at around 6-7%. The American Indian, Native Hawaiian/Pacific Islander, and two or more race populations all had recorded rates of unemployment above 9%.
- In 2018, the prevalence of adults reporting at least one adverse childhood experience was 62.7%. In 2020, this rate was 65%.
- Black, American Indian / Alaska Native, and Hispanic Kentuckians were more likely to be home renters than homeowners.

Health Risk Factors

- Among adults, Hispanic Kentuckians and Kentuckians who identified as being of a race categorized as "Other" had the highest percentages of uninsured individuals. Among children, children categorized as "American Indian alone" had the highest percentages of uninsured individuals.
- The majority of Kentuckians did not report receiving a flu vaccination.
- American Indian / Alaska Native Kentuckians had the highest percentage of people self-reporting that their mental health was not good for 14 or more days within the past 30 days in 2019. In 2020, the highest percentages were reported among Hispanic Kentuckians. The

[1] Following guidance used by the Associated Press (see https://apnews.com/article/archive-race-and-ethnicity-9105661462), we do not capitalize the word "white" because it is not a cultural identity. In contrast, "Black" is capitalized because it symbolizes the forged cultural identity of the African diaspora who had their national identities forcibly taken from them when brought to America.

lowest percentage of people reporting this metric in both years was among Black Kentuckians.

- According to 2020 data, 45.37% of Black Kentuckians (non-Hispanic) were obese while 24.79% were overweight. These same figures for Hispanic Kentuckians were 47.53% and 36.00%, respectively; for white Kentuckians (non-Hispanic), they were 36.54% and 34.18%, respectively.
- In 2019, 35.1% of adults in Kentucky had any disability (cognitive, mobility, vision, self-care, or independent living disability) compared with 26.7% in United States and its territories.
- The percentage of Black Kentuckians that identified as current smokers was higher than the percentage of white Kentuckians, at 26.9% and 21.3% respectively.

Health Outcomes

- A 2021 report of the rankings for life expectancy placed Kentucky at 48th among the 50 states and the District of Columbia, with an overall life expectancy of 75.3 years. These estimations were calculated from 2018 data.
- According to 2020 data, 26.25% of Hispanic Kentuckians, 15.78% of Black Kentuckians, and 12.95% of white Kentuckians had been told by a doctor that they have diabetes.
- The Kentucky Cancer Registry's data for 2018 indicate that incidence rates for all invasive cancers for white Kentuckians are 489.7 cases per every 100,000 people. The incidence rate for Black Kentuckians is 469 cases per every 100,000 people.
- The majority of crude cases of HIV are primarily diagnosed among white Kentuckians. For chlamydia and gonorrhea, Black individuals are largely bearing the burden of the diagnoses and driving the total rate in Kentucky.
- Completed suicides saw a significant increase among Black Kentuckians in 2020, rising from 0.96 suicides per every 10,000 in 2019 to 1.16 suicides per every 10,000 in 2020. While this did increase within the demographic, it remained lower than the rate of suicides among white Kentuckians in 2020, at 1.81 suicides per every 10,000.

Recommendations for Reducing Health Disparities

- Utilizing equity intervention at the systemic/structural level such as the ones proposed by the Government Alliance on Race and Equity (GARE),[2] the National Standards for Culturally and Linguistically Appropriate Services (CLAS), the National Network to Eliminate Health Disparities (NNED), the People's Institute for Survival and Beyond (PISAB), the Cultural Responsiveness Framework, or other organizational intervention strategies.(maybe – not sure we should supply this to Legislators)
- Elevating *intersectionality* as an opportunity to more effectively understand and address health adversities that are driven by disparities, for example, by age **and** disability rather than age **or** disability.
- Applying public health policy interventions using a *targeted universalism* approach. According to john a. powell at the Othering and Belonging Institute:

[2] Nelson, J., Spokane, L., Ross, L., & Deng, N. (2015). Advancing racial equity and transforming government. *The Government Alliance on Race and Equity*, https://racialequityalliance.org/wp-content/uploads/2015/02/GARE-Resource_Guide.pdf

> *"Targeted universalism means setting universal goals pursued by targeted processes to achieve those goals. Within a targeted universalism framework, universal goals are established for all groups concerned. The strategies developed to achieve those goals are targeted, based upon how different groups are situated within structures, culture, and across geographies to obtain the universal goal. Targeted universalism is goal oriented, and the processes are directed in service of the explicit, universal goal."*[3]

- Making services accessible to people with disabilities, those without consistent transportation, low-income individuals, individuals who work long hours, people whose first language is not English, the elderly, and those worried about perceived discrimination if they were to seek services. Strategies might include:
    - Emphasizing and employing principles of *universal design*, which is the idea that spaces and products should be created so that they are accessible for everyone;
    - Providing transportation vouchers for individuals who lack affordable and reliable transportation;
    - Offering services after work hours on a regular basis;
    - Partnering with community organizations that provide childcare so that caregivers are able to access services;
    - Assessing for language and cultural needs in advance so that those needs can be met;
    - Guaranteeing that interpreter services can be made available; *and*
    - Explicitly displaying anti-discrimination policies and including them in materials that are given to individuals.
- Amplifying narratives and voices of people of color (especially Black and Indigenous people), disabled people, people of marginalized genders and sexualities, rural voices, and those who live in poverty.
    - This includes centering those voices in decision-making processes.
- Engaging in reciprocal community discussions and outreach with a focus on the social determinants of health and their impact on long term health outcomes.
- Elevating the role that systems, structural and institutional barriers, polices, and processes have impacted the health and health outcomes disproportionately impacting rural communities and communities of color.
- Expanding the general public's knowledge of available services, particularly those related to social determinants of health, including enacting policies that focus on affordable housing, clean air and water, quality education, and quality healthcare for all.
- Hiring and promoting individuals with diverse lived experiences.
- Promoting organizational development strategies across the Cabinet for Health and Family Services (CHFS) that integrate a greater focus on eliminating racial disparities.
    - All CHFS agencies should implement organizational change processes that normalize, organize, and operationalize the work of racial equity. Nelson and colleagues[83] provide a framework for government organizations to advance racial equity.
- Funding programs and contracts that are primarily led by and serve BIPOC and rural community members.

[3] powell ja, Menendian S, Ake W. (2019).

- Providing training and guidance on applying for contracts and funding opportunities through the state for organizations led by BIPOC, women and other marginalized genders, queer folks, disabled folks, and rural folks.

INTRODUCTION

In September of 2008, the Health Equity Branch (HEB) was established by executive order to address health disparities impacting specific populations across the Commonwealth of Kentucky. In 2010, funding from the United States Department of Health and Human Services' (DHHS) Office of Minority Health awarded state partnership grants to address health inequities and disparities among racial and ethnic minorities, low-income, and geographically isolated populations in the Commonwealth. HEB was awarded one of these grants to continue evaluating and responding to the needs of these populations in the Commonwealth. This endeavor aligns with the Cabinet for Health and Family Services' (CHFS) emphasis on *targeted universalism*, which means that when we focus our efforts on the areas of greatest need, all other areas benefit.

HEB works not only to create equity in health and health care but to empower communities related to the social determinants of health including access to high-quality education, safe and affordable housing, fair economic development, and other social conditions as components of a healthy and productive community. HEB utilizes data to address inequities in communities, and we highlight the value of collaborations and partnerships to address health disparities at all levels. We strive to understand the relationship between socioeconomic status, environment, access to health services, literacy levels, governmental policies, and their impact on the health outcomes of Kentuckians.

Additionally, we continue to recognize the importance of utilizing *intersectionality* as a framework to examine efforts addressing health disparities. Kimberlé Crenshaw describes intersectionality as "a lens, a prism, for seeing the way in which various forms of inequality often operate together and exacerbate each other. We tend to talk about race inequality as separate from inequality based on gender, class, sexuality, disability, or zip code. What's often missing is how some people are subject to all of these, and the experience is not just the sum of its parts."[4] This report illustrates evidence that inequities persist in ways that are stratified by race, sex, age, disability, and other identity categories; and that the combination of these inequities create exceptional hardship and poor health outcomes for some Kentuckians who experience many of them simultaneously.

Health equity exists in an environment where everyone can attain their highest level of health – or "full human potential" – and no Kentucky family is left behind. This is accomplished through equitable opportunities and resources rooted in social determinants of health (SDOH) – the conditions in which people are born, grow, work, live, and age. These conditions are shaped through economic, social, environmental, and governmental policies and systems.

Achieving health equity will require addressing SDOH through population-based interventions and more targeted methods focusing on the areas with the greatest unmet needs. By advancing the understanding of the root causes of health disparities and their role in perpetuating health

[4] Steinmetz K. 2020. She coined the term "intersectionality" over 30 years ago. Here's what it means to her today. TIME. https://time.com/5786710/kimberle-crenshaw-intersectionality/

inequities at the community level, HEB promotes health equity for all marginalized and vulnerable populations.

The 2021 Minority Health Status Report (MHSR) highlights the disparities affecting Kentuckians and provides recommendations for improving health outcomes throughout the state. In particular, we value interventions that take place at the policy level, community level, and across the lifespan. The MHSR is produced biennially in odd-numbered years in compliance with the KRS 216.2929, Section 4.[5] The report provides the most current data describing disparities that exist in the Commonwealth through multiple data sources, including the Behavioral Risk Factor Survey (KyBRFS), the U.S. Census, the American Community Survey (ACS), and other measures of population health.

The MHSR is a resource that can be used to engage communities and start conversations about SDOH and their relationship to health disparities. This document also provides data that support the focus areas of DPH's 2021 State Strategic Plan goals of advancing the health and wellbeing of the citizens of Kentucky.

As the country moves forward in planning for the Centers for Disease Control and Prevention's Healthy People 2030 initiative, several foundational principles will be used to guide the nation in eliminating health disparities. The health and wellbeing of populations and communities are essential in a fully functioning and equitable society. Kentucky will model these guidelines in addition to the values of CHFS: equity, health and wellbeing, structural economic support, resilient individuals and communities, and operational excellence.

In our efforts to address health disparities and avoid perpetuating these inequities, the Commonwealth must come together to address the root causes of health disparities and inequities. Unjust circumstances – whether based on race, gender, income, ethnicity, or other social conditions – need to be eliminated. Everyone deserves the best health possible regardless of zip code.

[5] The 2019 MHSR was not produced due to the COVID-19 pandemic: during the time the 2019 report would have been written, KDPH resources were triaged toward mitigation of the resulting public health emergency.

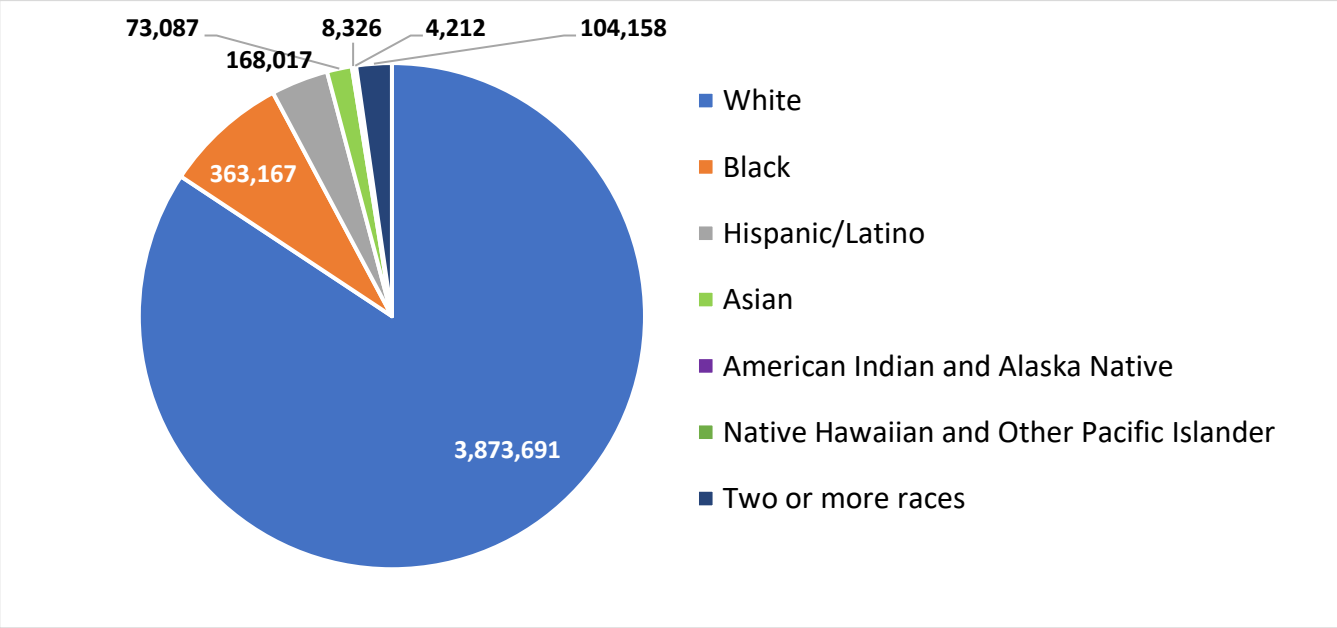
DEMOGRAPHICS

Race and Ethnicity

It is important to acknowledge that real differences in health exist between different racial groups in Kentucky. As such, we provide racial breakdown data to facilitate this understanding.

In 2020, the U.S. Census estimated the population in Kentucky to be 4,505,836 residents, a 3.8% growth in the number of people from the decennial census in 2010. In 2019, there were 10.5 times more white, non-Hispanic persons in Kentucky when compared to all other racial/ethnic groups. Overall, most of Kentucky's population as of 2019 is white (85.97%), and 14.03% of the population comprises racial and ethnic minorities.[6]

Figure 1. Racial and ethnic distribution of the population of Kentucky, 2019.



Note: "Two or More Races" refers to combinations of two or more of the following race categories: "white," "Black or African American," American Indian or Alaska Native," "Asian," Native Hawaiian or Other Pacific Islander," or "Some Other Race"
Sources: U.S. Census Bureau Quick Facts: Kentucky

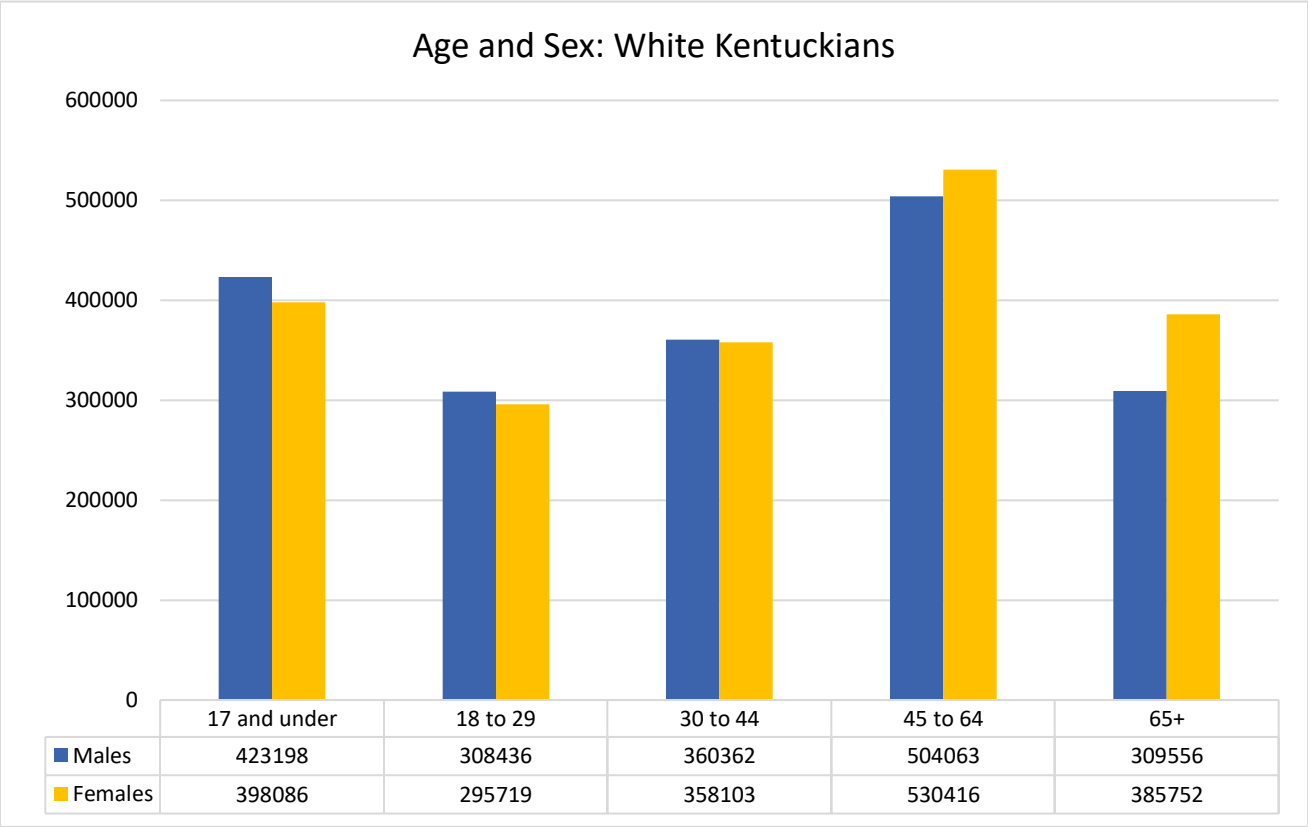
[6] U.S. Census Bureau QuickFacts: Kentucky. Accessed January 28, 2022. https://www.census.gov/quickfacts/KY

Age by Race and Ethnicity

White individuals comprise most of Kentucky's population, with an estimated 3,873,691 people of the state's 4,505,836 residents, or 85.97% of the state, with a median age of 40.7 years. Eight percent of Kentucky's total population identify as Black, or 363,167 people, with a median age of 34.8 years. Hispanics make up 4% of Kentucky's population, an estimated 168,017 people, with a median age of 25.2 years. Among all racial/ethnic groups, there are fewer elderly males than females (see Figures 2-4).[7]

85.97% OF KENTUCKY IDENTIFIES AS WHITE. THE NEXT LARGEST RACIAL OR ETHNIC GROUP IS KENTUCKY ARE BLACK KENTUCKIANS, AT APPROXIMATELY 8% OF THE POPULATION.

Figure 2. Age and sex distribution of white Kentuckians, 2019.

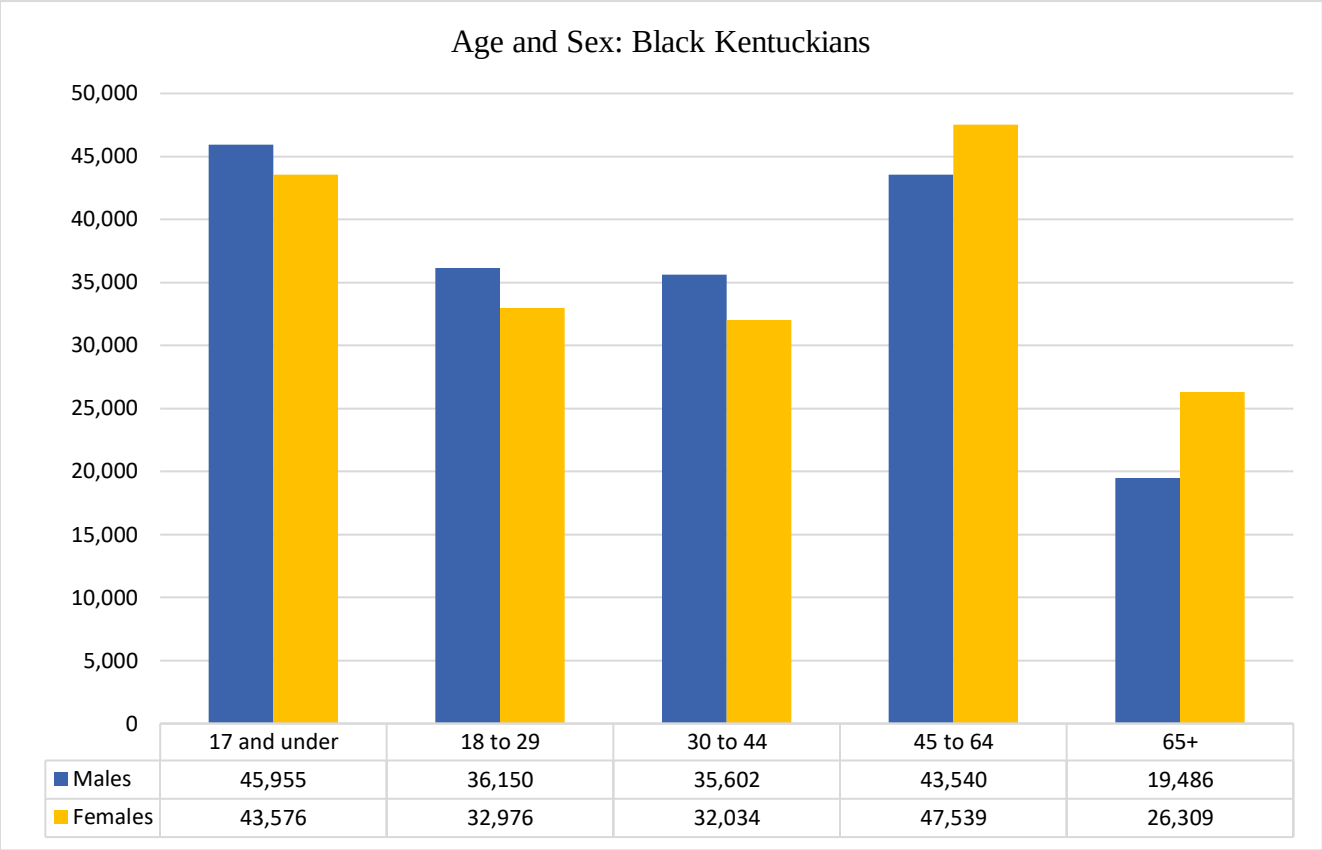


	17 and under	18 to 29	30 to 44	45 to 64	65+
Males	423198	308436	360362	504063	309556
Females	398086	295719	358103	530416	385752

Note: Age groups are collapsed.
Source: 2019: ACS 1-Year Estimates

[7] Bureau UC. 2019 American Community Survey Single-Year Estimates. Census.gov. Accessed January 28, 2022. https://www.census.gov/newsroom/press-kits/2020/acs-1year.html

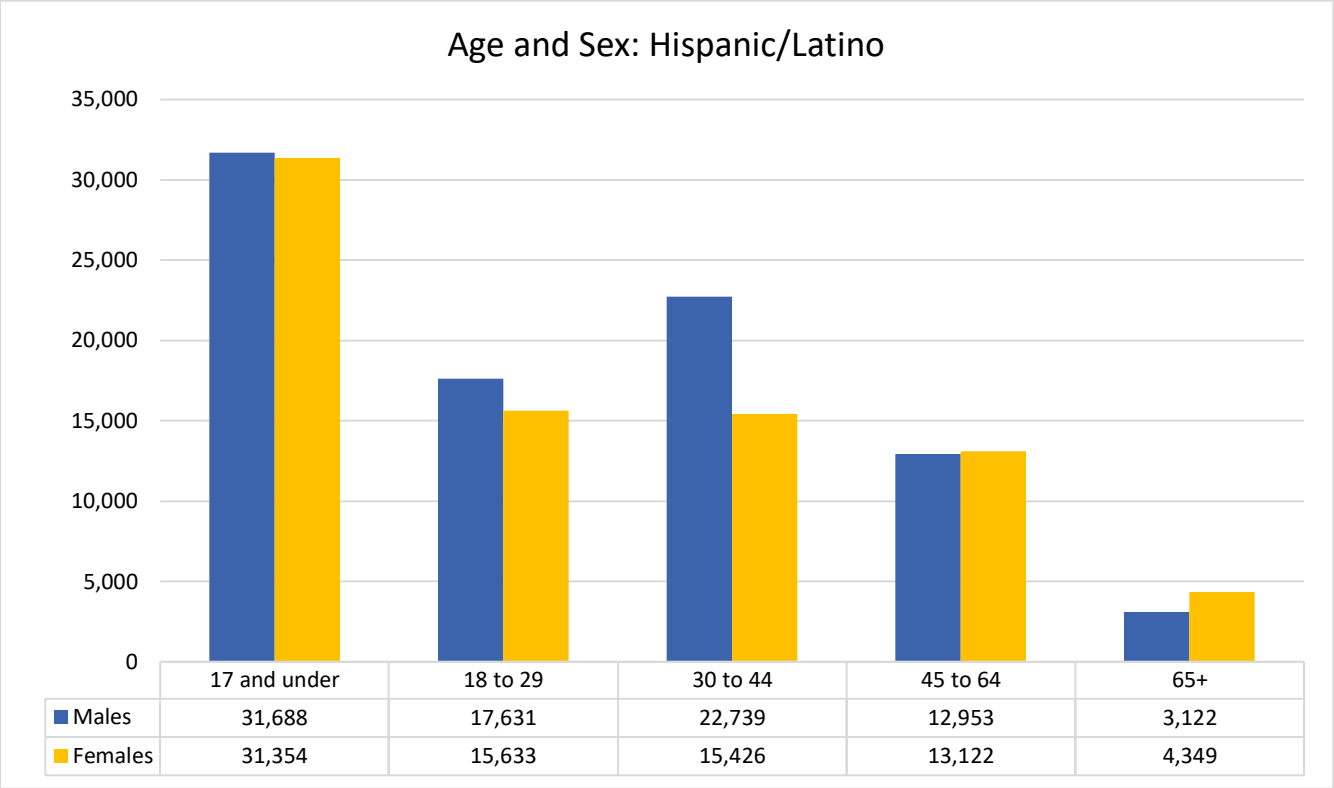
Figure 3. Age and sex distribution of Black Kentuckians, 2019.



	17 and under	18 to 29	30 to 44	45 to 64	65+
Males	45,955	36,150	35,602	43,540	19,486
Females	43,576	32,976	32,034	47,539	26,309

Note: Age groups are collapsed.
Source: 2019: ACS 1-Year Estimates

Figure 4. Age and sex distribution of Hispanic/Latino Kentuckians, 2019.



	17 and under	18 to 29	30 to 44	45 to 64	65+
Males	31,688	17,631	22,739	12,953	3,122
Females	31,354	15,633	15,426	13,122	4,349

Source: 2019: ACS 1-Year Estimates

Race and Ethnicity by County

According to the American Community Survey (ACS) 1-Year estimates, as of 2019, most of Kentucky's Black and Asian population resides in Jefferson and Fayette counties. The counties with the highest number of Hispanic/Latino persons are Boone, Christian, Fayette, Hardin, Jefferson, Shelby, and Warren.

THE MAJORITY OF BLACK AND ASIAN KENTUCKIANS ARE LOCATED IN JEFFERSON AND FAYETTE COUNTIES IN KENTUCKY. HISPANIC/LATINO KENTUCKIANS ARE LOCATED IN FAYETTE, BOONE, CHRISTIAN, HARDIN, JEFFERSON, SHELBY, AND WARREN COUNTIES.

Income by County and Race and Ethnicity

Overall, Kentucky has a lower average annual household income ($52,295) than the national average ($65,712).

Data from the 5-year ACS (2015-2019) noted that Oldham County had the highest median income across all Kentucky counties at $97,968. This was followed by Boone County and Kenton County, at $76,443 and $68,849 respectively. Among Black/African American and white Kentuckians, the highest median household incomes were found in Oldham County, at $96,565 and $98,254 respectively.[8]

The county with the highest median household incomes for Hispanic, non-white, Kentuckians was Boone County, at $106,526.

Among Asian Kentuckians, the county with the highest median household income in Kentucky was Christian County, at $250,001.

Data from the 1-year ACS revealed the county with the highest median household incomes for Native American Kentuckians was Madison County, with a median of $15,895.

KyBRFS Demographics

Throughout this report, statistics from the Kentucky Behavioral Risk Factor Survey (KyBRFS)[9] are utilized to present the status of certain health characteristics in Kentucky. The KyBRFS is an annual health-related telephone survey that originated with the Centers for Disease Control and Prevention (CDC) in 1984. The survey is conducted in all 50 states, as well as Washington, D.C., American Samoa, Federated States of Micronesia, Guam, Palau, Puerto Rico, and the U.S. Virgin Islands. The survey contains national modules asked to all survey respondents, as well as state-specific modules.

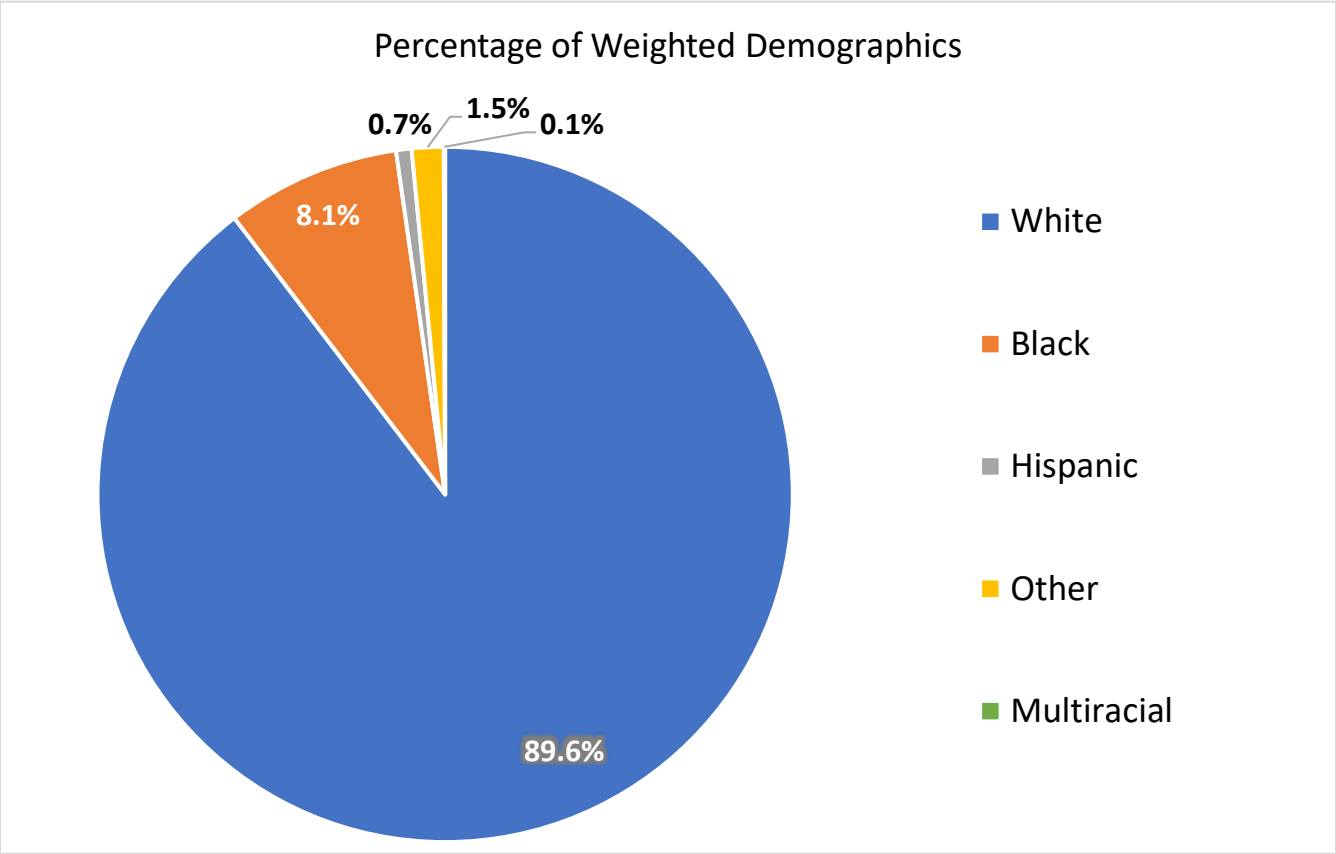
In Kentucky, Dr. Sarojini Kanotra is the project director and lead epidemiologist of the survey, which is housed and administered within the Kentucky Department for Public Health.

The weighted demographics from the 2020 KyBRFS are shown in the figure below. These demographics have been weighted to approximate the actual make-up of Kentucky. These weighted demographics are largely reflective of the demographics presented earlier.

[8] Bureau UC. 2019 American Community Survey 5-Year Data (2009-2019) Accessed January 28, 2022. https://www.census.gov/data/developers/data-sets/acs-5year.html

[9] CDC - 2020 BRFSS Survey Data and Documentation. Published August 27, 2021. Accessed January 28, 2022. https://www.cdc.gov/brfss/annual_data/annual_2020.html; BRFSS Prevalence & Trends Data: Explore by Location | DPH | CDC. Accessed July 14, 2021. https://nccd.cdc.gov/BRFSSPrevalence/rdPage.aspx?rdReport=DPH_BRFSS.ExploreByLocation&rdProcessAction=&SaveFileGenerated=1&irbLocationType=States&islLocation=21&islState=&islCounty=&islClass=CLASS03&islTopic=TOPIC18&islYear=2019&hidLocationType=States&hidLocation=21&hidClass=CLASS03&hidTopic=TOPIC18&hidTopicName=Diabetes&hidYear=2019&irbShowFootnotes=Show&rdICL-iclIndicators=DIABETE4&iclIndicators_rdExpandedCollapsedHistory=&iclIndicators=DIABETE4&hidPreviouslySelectedIndicators=&DashboardColumnCount=2&rdShowElementHistory=divClassUpdating%3dHide%2cislClass%3dShow%2cdivTopicUpdating%3dHide%2cislTopic%3dShow%2cdivYearUpdating%3dHide%2cislYear%3dShow%2c&rdScrollX=0&rdScrollY=219.3333282470703&rdRnd=94094

Figure 5. Weighted demographics of the 2020 Behavioral Risk Factor Survey.



Source: 2020: KyBRFS

THE COVID-19 PANDEMIC IN KENTUCKY

On March 6, 2020, a state of emergency was declared in Kentucky when the first case of a novel coronavirus, SARS-CoV-2, was identified in the Commonwealth, exacerbating existing racial disparities and inequities. The pandemic was not the only force that shaped the health of Kentucky's minority population during this report's study period, but it constituted a lens through which much of the rest of this report should be interpreted.

While life was disrupted for all Kentuckians – and while whatever happens to one of us impacts **all** of us – some bore the brunt more forcefully. At the time this report went to press, the COVID-19 pandemic has not ended. The distribution of vaccines, aided in large part by groups such as the Kentucky National Guard, has been an appreciated resource and tremendous help for the abatement of the spread of the virus, but it has not stopped spreading through the Commonwealth. This impact on minority populations is yet to be completely understood.

Figure 6. COVID-19 2020 Timeline.

2020 Timeline of Healthcare-Related Government Actions in the COVID-19 Pandemic	
March 6, 2020	First diagnosed case of COVID in Kentucky
March 15, 2020	Medicaid Presumptive eligibility requirements relax, telehealth restrictions relax
March 16, 2020	Closure of non-emergent care to the highest extent possible
March 17, 2020	Order allowing pharmacists to fill prescriptions for 30 days beyond the refill count
March 25, 2020	Medicaid relaxes prior authorization requirements
April 11, 2020	Governor Beshear notes the disproportionate impact of the pandemic on Black Kentuckians
May 6, 2020	Phase 2 Healthcare Reopening begins
May 13, 2020	Phase 3 Healthcare Reopening begins
May 27,2020	Phase 4 Healthcare Reopening Begins
June 8, 2020	Governor Beshear promised to pursue increased healthcare coverage for all Black Kentuckians
July 10, 2020	Face covering mandate takes effect in Kentucky
August 11, 2020	Kentucky launches '1-2-3 No Cost to Me' Campaign
October 16, 2020	Kentucky COVID vaccination plan released
December 13, 2020	First COVID vaccine arrives in Kentucky

COVID-19 Confirmed Cases and Deaths

There are two types of COVID-19 tests. The first is the diagnostic test, which detects current infection, and the second is the antibody test, which detects a previous infection.[10]

As of February 23, 2022, there have been 1,270,258 confirmed COVID-19 cases in Kentucky and 13,689 deaths from COVID-19 in Kentucky.

COVID-19 Vaccinations

In 2021, COVID-19 vaccinations were administered under the Emergency Use Authorization (EUA) from the Food and Drug Administration (FDA) following a 6-month trial period. Three different vaccines received EAU approval, including Pfizer, Moderna, and Janssen (by Johnson and Johnson). Both Pfizer and Moderna are administered in two-dose series, and Janssen is administered in one dose.

Vaccination among Social Demographic Groups

Economic Burden Before and During COVID-19

Unemployment Rates

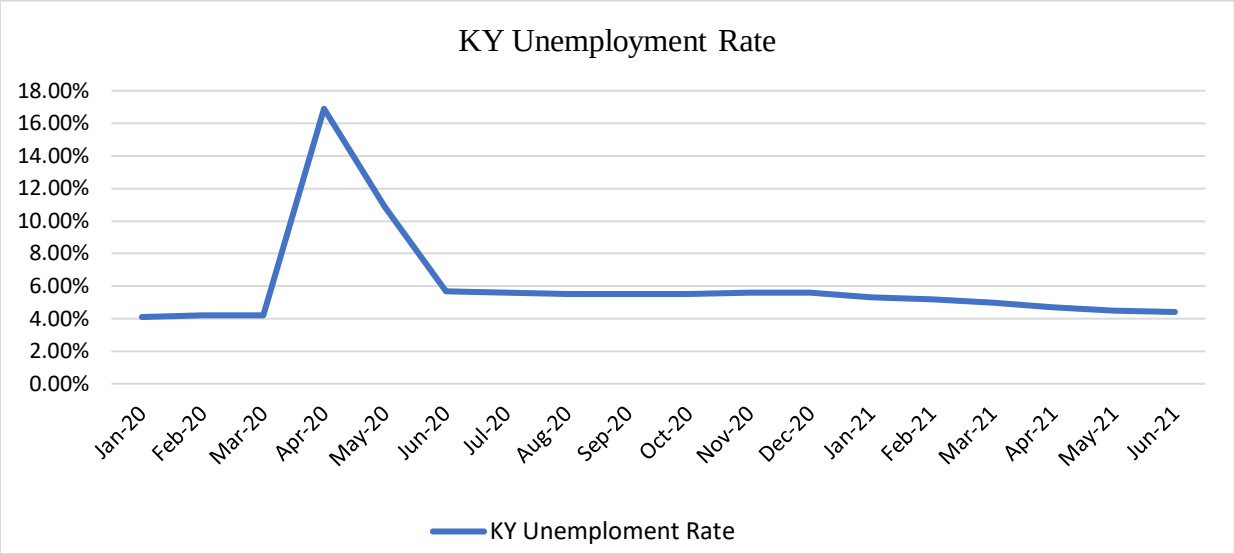
Our struggles are intersectional, meaning that many factors interact to produce adverse health outcomes. For example, poverty and race can intersect and impact one's health in a way that is greater than the sum of the effects of the individual components. For this reason, we now turn our attention to unemployment.

Kentucky's unemployment rate increased by 2.5%, from 4.1% in 2019 to 6.6% in the year 2020. For the year 2020, Kentucky's unemployment rate was higher than 20 states, with an average rate of 8.1%. From January 2020 to June 2021, the highest unemployment rates occurred between April and May of 2020. The figure below outlines Kentucky's monthly unemployment rate for the years 2020 and 2021.[11]

[10] United States Food and Drug Administration. Coronavirus Disease 2019 Testing Basics. Accessed February 25, 2022. https://www.fda.gov/consumers/consumer-updates/coronavirus-disease-2019-testing-basics#:~:text=There%20are%20two%20different%20types,tests%20and%20antibody%20tests.

[11] Labor Market Information Report Library - KYSTATS. Accessed January 28, 2022. https://kystats.ky.gov/KYLMI

Figure 8. The unemployment rate in Kentucky throughout 2020 - June 2021. Overall Population**.**

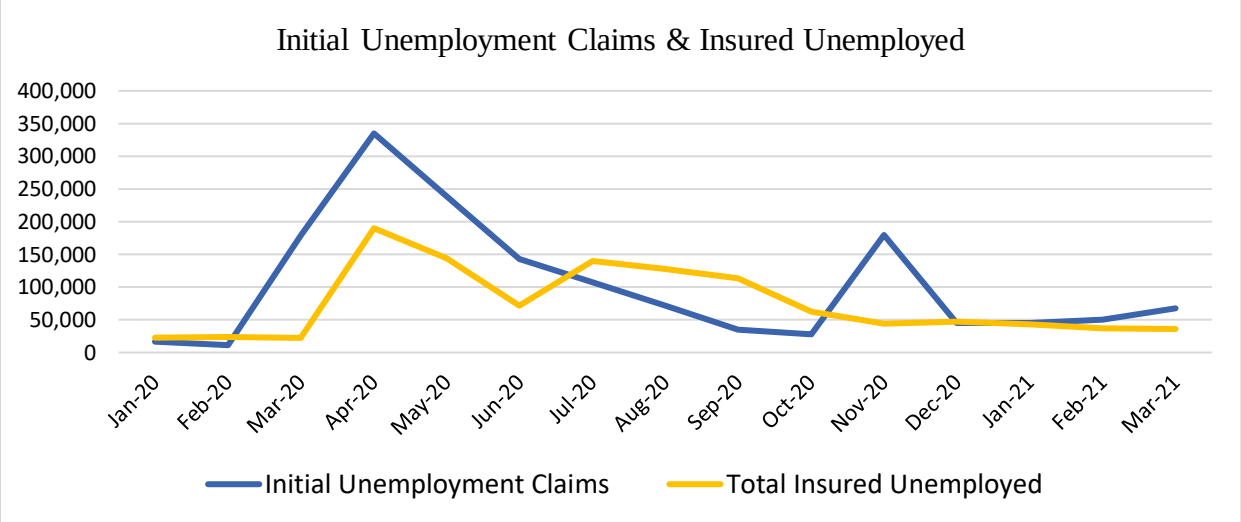


Sources: Kentucky Center for Statistics, Kentucky Education & Workforce Development Cabinet. Bureau of Labor Statistics, U.S. Department of Labor

Initial Unemployment Claims & Insured Unemployed

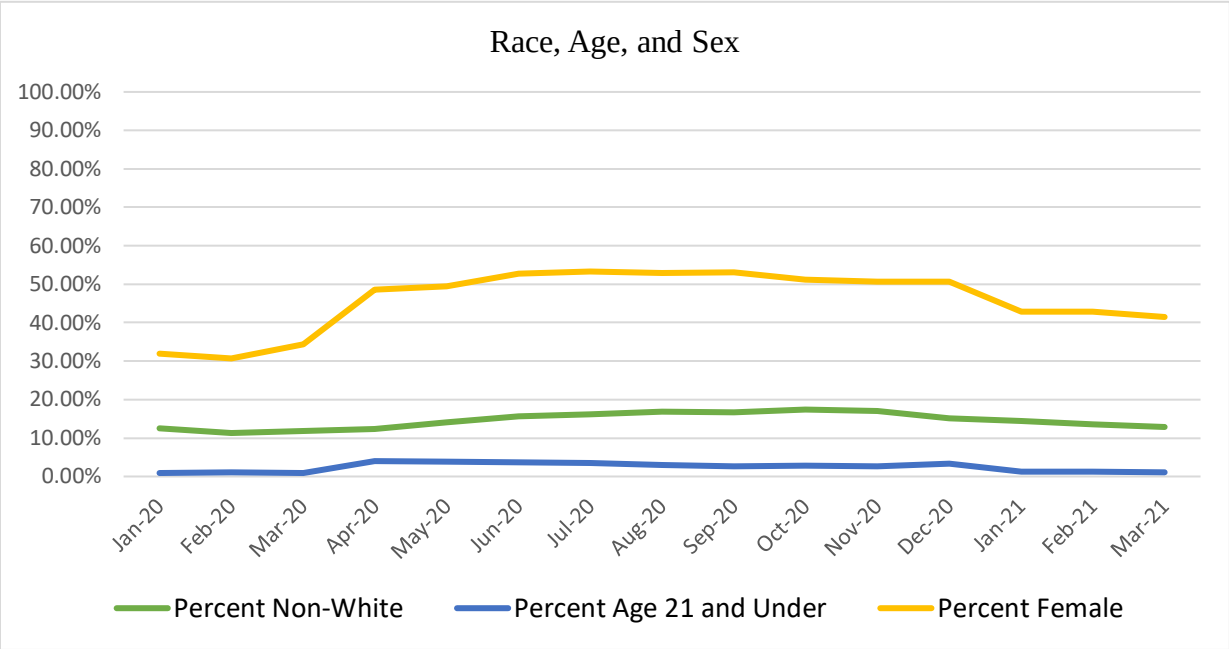
Initial unemployment claims skyrocketed between March and April 2020 and significantly declined beginning May 2020. The "total insured employed" follows a similar trend to initial unemployment claims between January and May 2020. However, "total insured employed" trends remained largely elevated over initial unemployment claims from July to October 2020, before decreasing and remaining stable from October 2020 and onward.

Figure 9. Type of unemployment in Kentucky during 2020, overall population.



Sources: Kentucky Center for Statistics, Kentucky Education & Workforce Development Cabinet. Bureau of Labor Statistics, U.S. Department of Labor

Figure 10. Sociodemographic characteristics of the insured unemployed.



Note: Regular state UI weeks claimed during the week, including 19th. Percentages are taken from a 20% sample during the survey week.
Sources: Kentucky Center for Statistics, Kentucky Education & Workforce Development Cabinet. Bureau of Labor Statistics, U.S. Department of Labor

In August 2021, a publication by Figueroa et al. in the Journal of the American Medical Association used a random-digit dialing phone survey to investigate insurance status and its association with Medicaid expansion in Arkansas, Kentucky, Louisiana, and Texas.[12] The authors found that between 2019 and 2020, the uninsured rate in Kentucky was stable at around 9%, while it rose in Texas and Arkansas (29% to 35% and 14% to 16%, respectively), but fell in Louisiana (12% to 9%). It is important to note that this number of uninsured in Kentucky is higher than what is reported by the federal census bureau. Different sampling and methodologies were used between the two sources. The rates of uninsurance among Black and Latino individuals were moderated within the three states that had expanded Medicaid (Arkansas, Kentucky, and Louisiana) compared to the non-expansion state (Texas). This finding suggests that state infrastructure decisions made prior to the pandemic helped lessen the impact of the public health emergency by providing a means of acquiring additional support for these disproportionately impacted groups. In sum, it is clear that policy interventions are one of many ways to mitigate the effects of poverty on health.

[12] JAMA Health Forum – Health Policy, Health Care Reform, Health Affairs | JAMA Health Forum | JAMA Network. Accessed February 14, 2022. https://jamanetwork.com/journals/jama-health-forum/fullarticle/2783128

SOCIAL RISK FACTORS

Social risk factors that impact health are defined as "specific adverse social conditions that are associated with poor health, like social isolation or housing instability."[13] According to some researchers, these factors are definitionally distinct from social determinants of health, such as income, which can have positive or negative impacts on health. For the purposes of this report, both components of social risk factors as well as social determinants were examined in Kentucky.

It should be noted that improvements in individual circumstances are generally associated with better health outcomes. Still, the mechanisms in which these benefits take place are complex, especially in the context of racial and ethnic minorities. For example, research suggests that despite the value of greater educational attainment in general, racial and ethnic minorities may experience diminished returns due to social barriers in translating formal education to socioeconomic well-being.[14] Specifically, Assari wrote that:

U.S. society is built and functions around certain strong and hard-to-change social structures such as segregation, which place NHBs [non-Hispanic Blacks] in a relative and systemic disadvantage. NHBs face major difficulties in navigating a social system that is friendly and trained for NHWs [non-Hispanic whites]. As a result, highly educated NHBs need to put extra effort, fight an uphill battle, and compete with NHWs to actualize their potentials and secure outcomes.[15]

Acknowledging this is critical to addressing disparities in health. In other words, addressing just one of many possible risk factors may not be enough to mitigate observed disparities. Therefore, we value interventions that take place at the policy level, community level, and across the lifespan.

Education

Among the components of social risk factors, educational attainment is particularly influential to health, as lower educational attainment has been associated with a higher prevalence of health risk factors and outcomes such as smoking, depression, and heart disease.[16]

Disparities among racial and ethnic groups in terms of educational attainment are well-documented in the United States. Data from the 2019 ACS 1-Year Estimates was used to demonstrate the variance in bachelor's degree attainment among Kentuckians by their race and gender.

---

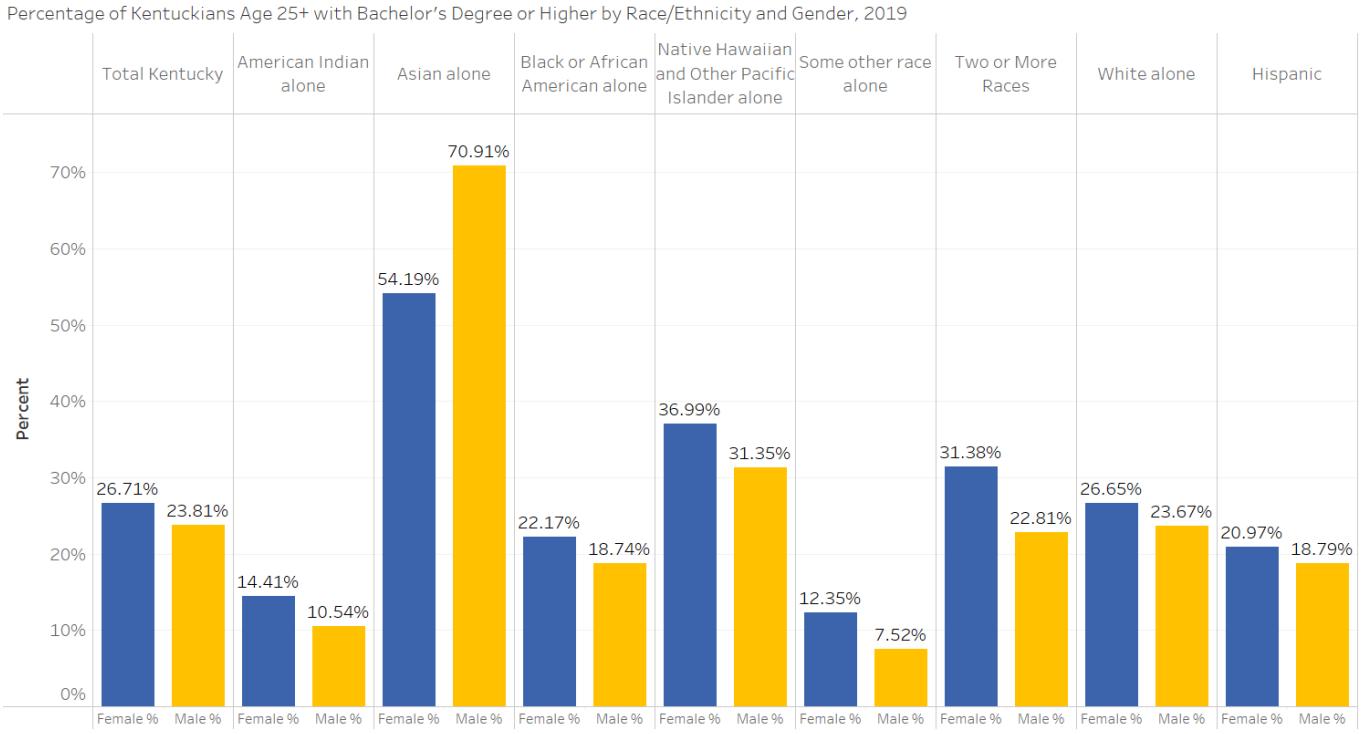
[13] Alderwick, H., & Gottlieb, L.M. (2019). Meanings and misunderstandings: a social determinants of health lexicon for health care systems. Milbank Quarterly, 97.

[14] Assari S. Understanding America: Unequal Economic Returns of Years of Schooling in Whites and Blacks. World J Educ Res. 2020;7(2):78-92. doi:10.22158/wjer.v7n2p78

[15] Assari S. Understanding America: Unequal Economic Returns of Years of Schooling in Whites and Blacks. World J Educ Res. 2020;7(2):78-92. doi:10.22158/wjer.v7n2p78

[16] Hamad R, Nguyen TT, Bhattacharya J, Glymour MM, Rehkopf DH. Educational attainment and cardiovascular disease in the United States: A quasi-experimental instrumental variables analysis. Rahimi K, ed. PLoS Med. 2019;16(6):e1002834. doi:10.1371/journal.pmed.1002834

Figure 11. Percentage of Kentuckians with a bachelor's degree or higher by race and ethnicity and gender, 2019.



Source: 2019 ACS 1-Year Estimates

In Kentucky, the Asian population has the highest percentage of those with a bachelor's degree or higher when compared to all other racial/ethnic groups. It is also the only race to have a greater proportion of males possessing a bachelor's than females. Furthermore, Kentuckians that identify as a race not categorized by Census data have the lowest estimated proportion of individuals with a bachelor's degree.

Because whites are the most populous race within the state, the bachelor's attainment rate within this population aligns closely with that of Kentucky's total population, and in this case, falls within one percentage point of the state's total estimate. However, in comparison, disparities exist among the Black, Hispanic, and American Indian Kentuckians, with bachelor's attainment rates lower than that of whites and the state.

ASIAN KENTUCKIANS HAVE A LARGER PERCENTAGE OF PERSONS WITH A BACHELOR'S DEGREE OR HIGHER AMONG ALL RACIAL OR ETHNIC GROUPS IN KENTUCKY. DISPARITIES EXIST AMONG BLACK, HISPANIC, AND AMERICAN INDIAN POPULATIONS.

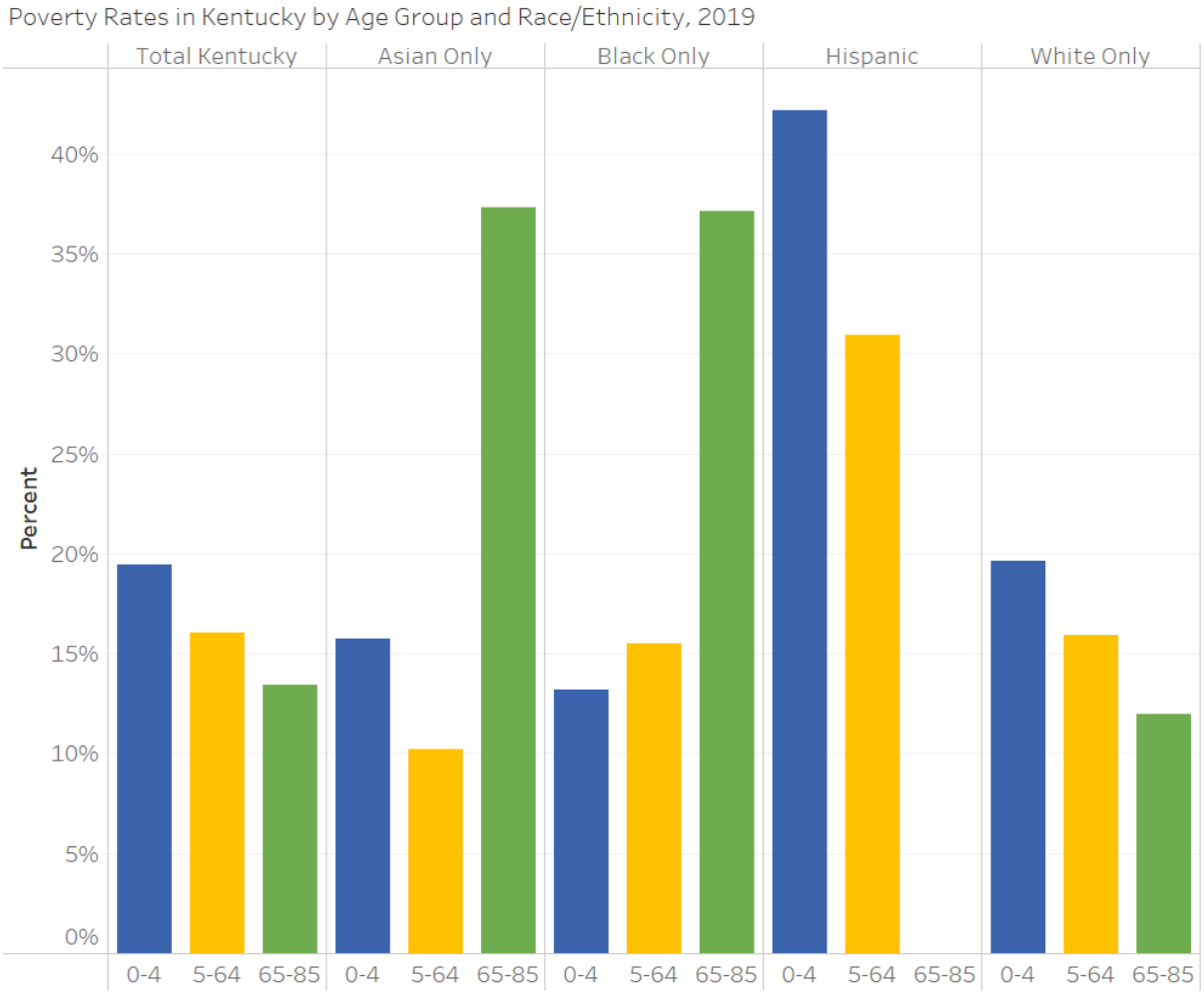
Income, Poverty, and Unemployment

Like education, research has also linked income and employment status to health outcomes. Lower levels of income have been associated with worsened

health status, health behavior, health care use, and health screening outcomes – these are also factors that are further influenced by racial and ethnic disparities.[17]

According to data from the 2019 Current Population Survey (CPS) Annual Social and Economic (March) Supplement, in Kentucky, Asian Kentuckians have the highest average household income at $140,852 while the American Indian and Alaskan Native Kentuckians had the lowest average at $19,214. In Kentucky, the likelihood of living below the poverty level generally seems to decrease with age, but there is significant variation between races and ethnicities. For example, both among Asian and Black populations, the highest poverty rates are seen among individuals aged 65-85. Also, Hispanic children (ages 0-5) are much more likely than their non-Hispanic counterparts to live below the state poverty level, with the highest poverty rate of any other recorded demographic (in this dataset) at 42%.[18]

Figure 12. Poverty rates in Kentucky by age and race and ethnicity, 2019.

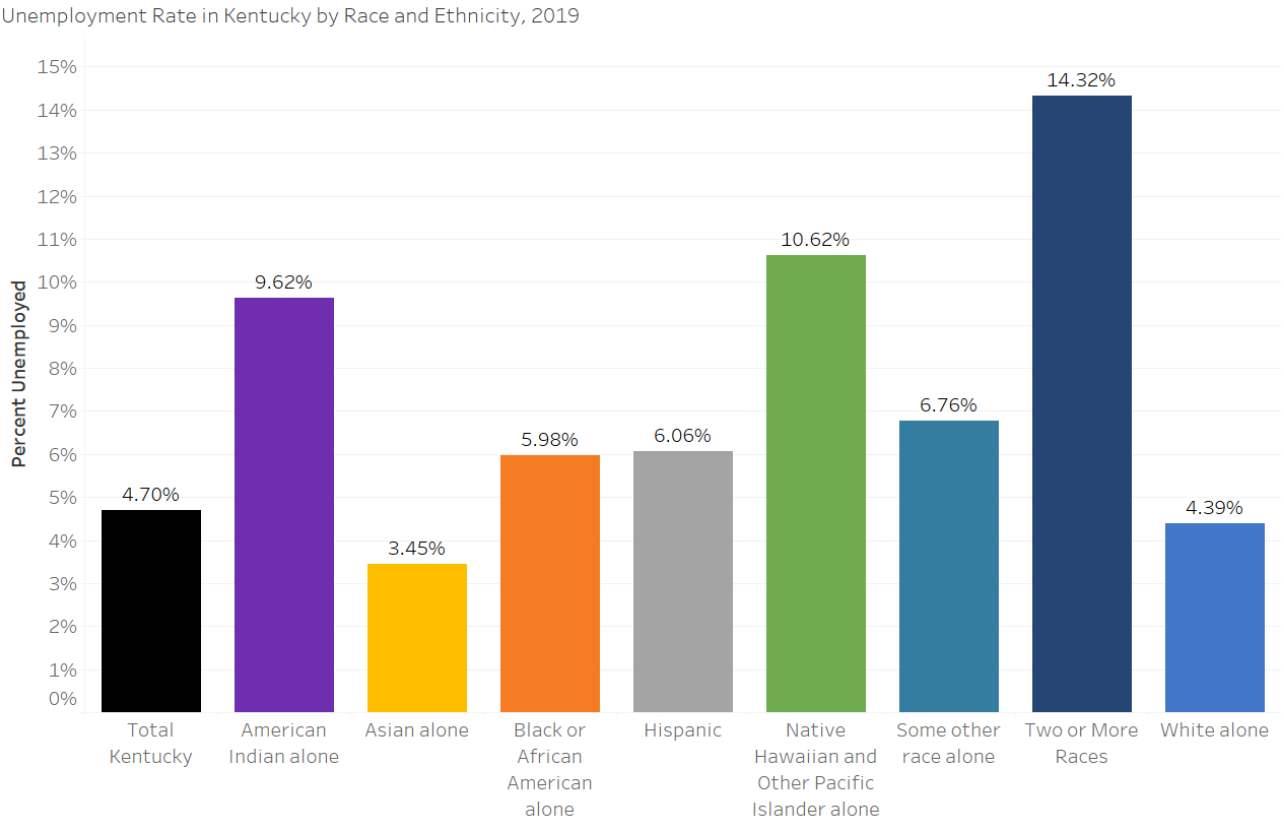


Note: Results for Hispanic population between 65-85 is suppressed due to small counts.
Source: 2019 CPS Annual Social and Economic (March) Supplement

[17] Dubay LC, Lebrun LA. Health, Behavior, and Health Care Disparities: Disentangling the Effects of Income and Race in the United States. Int J Health Serv. 2012;42(4):607-625. doi:10.2190/HS.42.4.c
[18] Bureau UC. 2019 Annual Social and Economic Supplements. Census.gov. Accessed January 28, 2022. https://www.census.gov/data/datasets/2019/demo/cps/cps-asec-2019.html

Concerning employment status, in 2019, Asian Kentuckians and whites have a markedly lower unemployment rate than other racial/ethnic groups at 3.45% and 4.39%, respectively. The Black, Hispanic, and non-categorized populations had comparable rates to each other at around 6-7%. Among the American Indian, Native Hawaiian/Other Pacific Islander, and two or more race populations, significant disparities existed, as these groups all had recorded rates of unemployment above 9%.

Figure 13. Unemployment rates in Kentucky by race and ethnicity, 2019.



Source: 2019 CPS Annual Social and Economic (March) Supplement

Adverse Childhood Experiences

Adverse childhood experiences (ACEs) are traumatic events that occur during growth and development that can affect health well into adulthood. Commonly recognized ACEs include having an incarcerated or mentally ill household member; having a household member with a drug or drinking problem; having divorced parents; witnessing domestic violence; and experiencing physical, sexual, and/or verbal abuse. We study ACEs so that we may build a Commonwealth in which no one, regardless of race or other characteristics, experiences traumatic events as a child – or throughout their lifetime.

According to KyBRFS data, in 2018 the prevalence of adults reporting at least one ACE was 62.7% and in 2020 this rate went slightly higher to 65%.[19]

Table 5. Percentage of adults with 1 ACE, 2 ACEs, 3 ACEs, 4 ACEs, 5+ ACEs among adults residing in Kentucky.

	2018 (%)	**2020** (%)
0 ACEs	40.0	37.9
1 ACE	21.3	22.3
2 ACEs	12.2	12.9
3 ACEs	8.3	8.1
4 ACEs	6.8	6.5
5+ ACEs	11.4	12.4

Data Source = 2018 & 2020 KyBRFS
(%) Weighted prevalence

Table 6. Prevalence of individual ACEs among adults residing in Kentucky.

	2018 (%)	**2020** (%)
Incarcerated HH member	10.2	13.1
Drug Problem in HH	13.8	14.7
Drinking Problem in HH	26.4	25.3
Physical Abuse	15.8	17.5
Sexual Abuse	13.4	14.7
Verbal Abuse	25.9	28.1
Witness Domestic Violence	18.7	21.8
Mentally Ill HH member	20.0	22.4
Divorced Parents	33.0	32.8

Data Source = 2018 & 2020 KyBRFS
(%) Weighted prevalence

[19] Kentucky Department for Public Health (KDPH) and the Centers for Disease Control and Prevention (CDC). Kentucky Behavioral Risk Factor Survey Data - Adverse Childhood Experiences 2018 &2020. Frankfort, Kentucky: Cabinet for Health and Family Services, Kentucky Department for Public Health, [2018 & 2020]

Home Ownership

Research has shown that homeownership, when compared to renting, has a positive impact on life satisfaction and that improved housing conditions increased self-esteem.[20] Likewise, it has been found that homeownership has the potential to be protective against both disability and all-cause mortality, though this benefit can vary in impact by race.[21]

BLACK, NATIVE AMERICAN/ALASKA NATIVE, AND HISPANIC KENTUCKIANS ARE MORE LIKELY TO BE HOME RENTERS THAN HOMEOWNERS. ALL OTHER RACIAL AND ETHNIC GROUPS WERE MAJORITY HOMEOWNERS COMPARED TO HOME RENTERS.

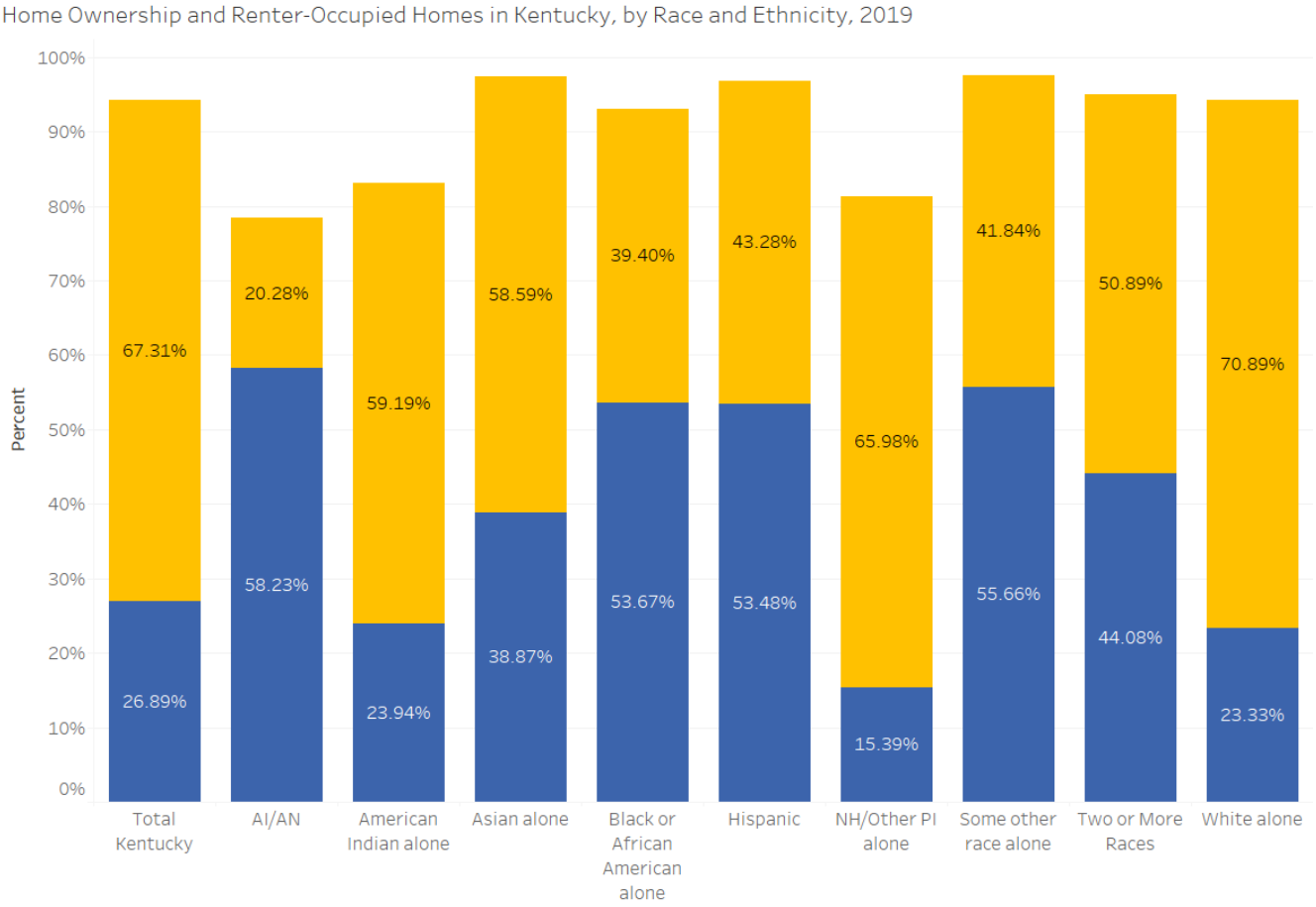
In Kentucky, there is a significant variation of home-ownership rates among racial and ethnic groups. As of 2019, about two-thirds owned their homes among all Kentuckians - the only race to exceed this proportion were white Kentuckians, among which about 71% were homeowners. Out of all recorded races, the Native American/Alaska Native population had the lowest percentage of homeownership at ~20% (with a ~58% renting rate). Other population groups that are comprised of majority renters are Blacks and Hispanics, both at about 53%.[22]

[20] Rohe WM, Stegman MA. The Effects of Homeownership: on the Self-Esteem, Perceived Control and Life Satisfaction of Low-Income People. Journal of the American Planning Association. 1994;60(2):173-184. doi:10.1080/01944369408975571

[21] Mehdipanah R, Schulz AJ, Israel BA, et al. Neighborhood Context, Homeownership and Home Value: An Ecological Analysis of Implications for Health. Int J Environ Res Public Health. 2017;14(10):1098. doi:10.3390/ijerph14101098; Haurin DR, Parcel TL, Haurin RJ. Does Homeownership Affect Child Outcomes? Real Estate Economics. 2002;30(4):635-666. doi:10.1111/1540-6229.t01-2-00053

[22] Explore Homeownership in Kentucky | 2021 Annual Report. America's Health Rankings. Accessed January 28, 2022. https://www.americashealthrankings.org/explore/annual/measure/homeownership/state/KY

Figure 15. Home ownership and renter-occupied homes by race and ethnicity in Kentucky, 2019.



Note: Percentages in blue bars indicate renters, and percentages in yellow bars indicate homeowners.
Source: America's Health Ranking

HEALTH RISK FACTORS

The National Institutes of Health (NIH) has defined a risk factor as "Something that increases the chance of developing a disease."[23] Risk factors are important indicators of potential for problems later in a person's life. Many risk factors are actionable or preventable; by mitigating or decreasing the risk factor, the chances of an adverse outcome are lessened.

Race and/or minority status has previously been associated with several adverse health conditions.[24] This is due to a vast array of reasons and issues including policy outcomes such as redlining that continue to impact many of the economic indicators described prior. Other issues include the many social and environmental factors that affect a person's ability to access and use quality healthcare systems that do not perpetuate disparities further. Studies have extensively examined the contributing factors to these patterns and conditions for persons of minority health status.[25]

This section discusses the status of certain select health risk factors affecting our minority populations of Kentucky. The section-does not intend to provide an all-encompassing list of all risk factors for Kentuckians but rather to draw attention to some key public health issues. This section-is not intended to blame a population for certain lifestyle and health choices. The reality is that a dearth of equitable health options remains for Kentuckians and limits the ability of all citizens of the commonwealth to thrive. Rather, this report seeks to provide evidence of a continued need for additional resources to certain areas to minimize the burden of disease on our population.

Preventative Health Screenings

In 2018, Kentucky was right at the national average for the percentage of adults aged 50-75 that self-reported receiving a recommended colorectal screening, at 69.6% (nationally, the percentage was 69.7%).[26] A racial breakdown of these figures are shown in the bar chart below. A huge success in Kentucky is the percentage of the population of people categorized as American Indian or Alaska Native receiving their recommended screening, far exceeding the national percentage (87.1% in Kentucky compared to 61.2% nationally). Nationally, this is the lowest percentage; in Kentucky, this is the highest.

For all other race categories, Kentucky is slightly below the national percentages, with all the other race categories having a gap between the percentage in Kentucky and the national percentage ranging between 2.4 and 2.9 percentage points. Percentagewise, Black Kentuckians and persons categorized as multiracial have lower percentages receiving screenings than white Kentuckians, at 61.7% and 67.1% respectively compared to 69.6%.

---

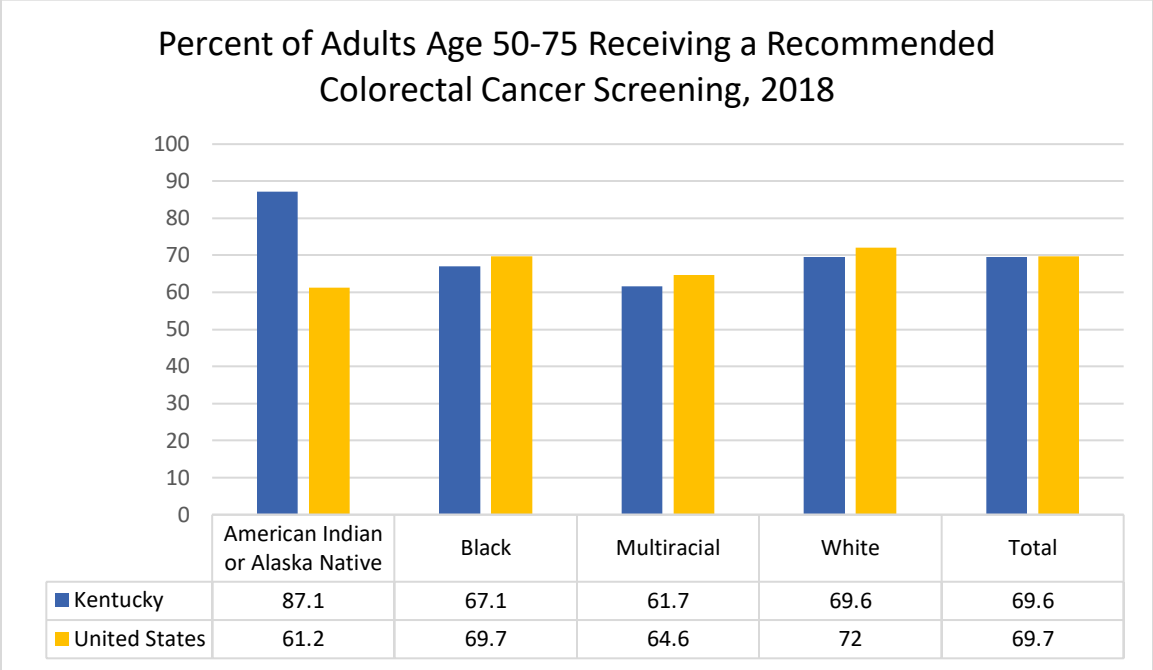
[23] Definition of risk factor - NCI Dictionary of Cancer Terms - National Cancer Institute. Published February 2, 2011. Accessed July 19, 2021. https://www.cancer.gov/publications/dictionaries/cancer-terms/def/risk-factor

[24] Artiga S, Orgera K. Key Facts on Health and Health Care by Race and Ethnicity. KFF. Published November 12, 2019. Accessed July 19, 2021. https://www.kff.org/report-section/key-facts-on-health-and-health-care-by-race-and-ethnicity-health-status/

[25] Ng JH, Ward LM, Shea M, Hart L, Guerino P, Scholle SH. Explaining the Relationship Between Minority Group Status and Health Disparities: A Review of Selected Concepts. Health Equity. 2019;3(1):47-60. doi:10.1089/heq.2018.0035

[26] Explore Colorectal Cancer Screening in Kentucky | 2020 Annual Report. America's Health Rankings. Accessed July 21, 2021. https://www.americashealthrankings.org/explore/annual/measure/colorectal_cancer_screening/state/K

Figure 19. Self-reported percentage of adults aged 50-75 receiving the recommended colorectal cancer screenings, Kentucky and national averages, by race and ethnicity, 2018.



	American Indian or Alaska Native	Black	Multiracial	White	Total
Kentucky	87.1	67.1	61.7	69.6	69.6
United States	61.2	69.7	64.6	72	69.7

Source: America's Health Rankings

Influenza Vaccination

Prior to COVID-19 and the subsequent campaigns to increase the rate of flu vaccinations in the United States,[27] 42.1% of adult Kentuckians reported receiving their annual flu vaccine.[28] Nationally, the percentage was just slightly higher, at 43.1%. The figure below contains more information on the racial and ethnic distribution of these percentages in Kentucky and nationally. Of note, no racial or ethnic category displayed below exceeded the 50% threshold, meaning that most of the Kentuckians represented here were not vaccinated against influenza in 2019.

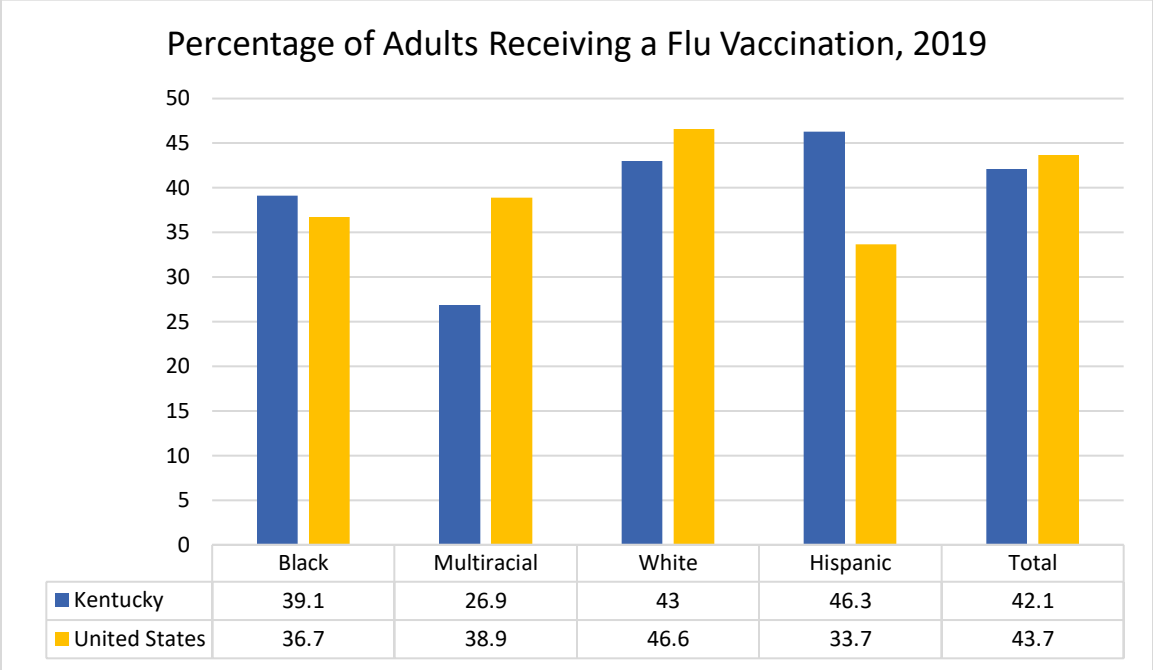
A success in Kentucky is the percentage of Hispanic adults in Kentucky that received a flu vaccine in 2019; this number exceeds any other racial or ethnic category presented below, with a 3.3 percentage point increase over the percentage of white Kentuckians receiving a flu vaccine (the next highest percentage in Kentucky, at 43%) and 12.6 percentage points higher than the national percentage in this same category (national percentage of 33.7%).

The percentage of Black Kentuckians and multiracial Kentuckians were below the percentage of white Kentuckians receiving a flu vaccination. For Black Kentuckians, the figure exceeded the national percentage, but sat at 3.9 percentage points below the percent of white Kentuckians. The largest downward gap represented in the figure was for multiracial Kentuckians, at 12 percentage points below the national percentage for this category and 16.1 percentage points below white Kentuckians.

[27] AMA, CDC, Ad Council urge flu vaccination amid COVID-19 pandemic | American Medical Association. AMA. Published October 6, 2020. Accessed July 21, 2021. https://www.ama-assn.org/press-center/press-releases/ama-cdc-ad-council-urge-flu-vaccination-amid-covid-19-pandemic

[28] Explore Flu Vaccination in Kentucky | 2020 Annual Report. America's Health Rankings. Accessed July 21, 2021. https://www.americashealthrankings.org/explore/annual/measure/flu_vaccine/state/KY

Figure 20. Percentage of adults receiving a flu vaccination, Kentucky and national averages, by race and ethnicity, 2019.



	Black	Multiracial	White	Hispanic	Total
Kentucky	39.1	26.9	43	46.3	42.1
United States	36.7	38.9	46.6	33.7	43.7

Source: America's Health Rankings

Pap Tests

Data from the 2020 KyBRFS also suggests that most Kentuckians are receiving recommended Pap tests, with 80.46% of respondents endorsing a question asking women over age 18 whether they had had a Pap test within the past three years. Among the racial strata, 86.61% of Black Kentucky women responded that they had received such a test. This is compared to 80.59% of white Kentucky women.

Mental Health

Following the pandemic, mental health and psychiatric issues have seen a rise in focus from experts in the area.[29] The Urban Institute, in a 2019 report, noted that American racial and ethnic minorities are less likely to utilize mental health services than white Americans,[30] likely due in part to barriers they face when attempting to access these services, including services and service providers that are in and of themselves oppressive. This suggests an underutilization of services by minority populations for psychiatric conditions.

---

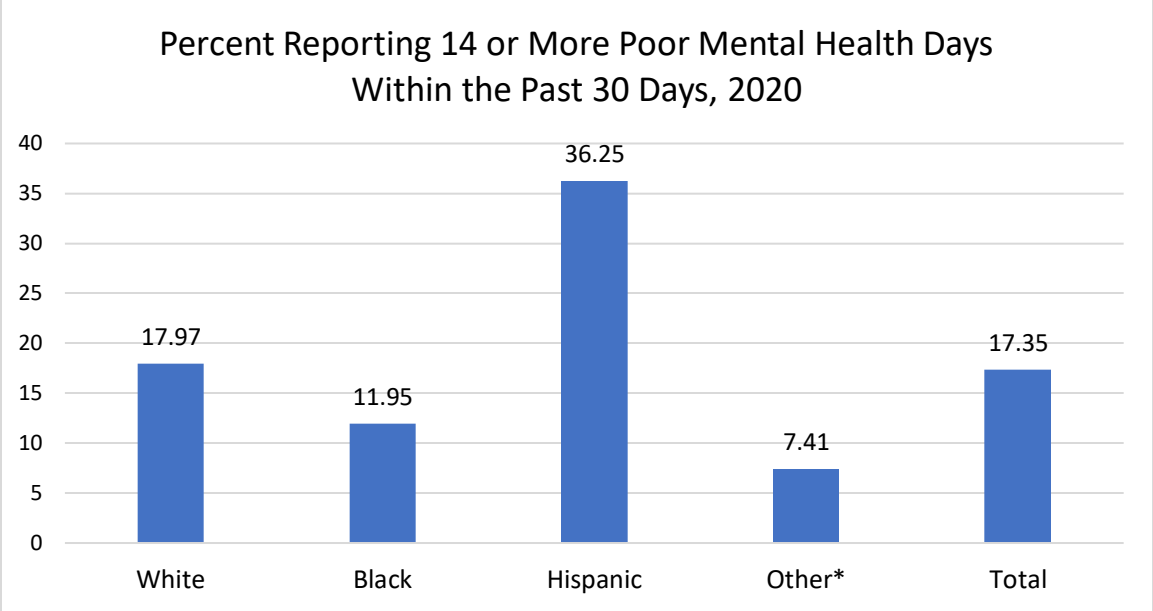
[29] Joseph A. Experts brace for a long-term impact on mental health after the pandemic. STAT. Published May 7, 2021. Accessed July 15, 2021. https://www.statnews.com/2021/05/07/as-the-covid-19-crisis-ebbs-in-the-u-s-experts-brace-for-a-long-term-impact-on-mental-health/

[30] Choi SW, Ramos C, Kim K, Azim SF. The Association of Racial and Ethnic Social Networks with Mental Health Service Utilization Across Minority Groups in the USA. Urban Institute. Published August 2, 2019. Accessed July 15, 2021. https://www.urban.org/research/publication/association-racial-and-ethnic-social-networks-mental-health-service-utilization-across-minority-groups-usa.

In 2019, 17.2% of Kentuckians reported that their mental health was not good for 14 or more days within the past 30 days; the national average for this same figure was 13.8%.[31] These rates were highest among American Indian or Alaska Native Kentuckians at 34.6%, and lowest among Black Kentuckians at 13.5%. This same indication came in at 17.1% among white Kentuckians, 26.8% among multiracial Kentuckians, and 16.6% among Hispanic Kentuckians. The national equivalents for these figures were 20.2%, 14.3%, 13.8%, 20.8%, and 12.5% respectively, making Kentucky higher than the national rate in every racial category except among Black Kentuckians.

The figure below shows this metric for the state from the KyBRFS data collected in 2020. A much larger percentage of Hispanic Kentuckians reported this metric (14 or more poor mental health days within the past 30 days) in 2020, with 36.25% of the population reporting. The lowest percentages were again among Black Kentuckians, with 11.95% of the population reporting this metric.

Figure 21. Percentage of persons reporting 14 or more days with poor mental health within the past 30 days by race and ethnicity, Kentucky, 2020.



Note: The figure for the "Other" category was calculated with low cell counts and should be interpreted with caution.
Source: 2020 Behavioral Risk Factor Survey

Overall, 25.7% of Kentuckians reported being told by a licensed clinician that they have any type of depression; the national average is 19.9%. Among Black Kentuckians, rates were nearly equal with the national rate, at 15.2% and 15.3% respectively. Rates were higher for white Kentuckians (26.7% vs. 21.5%), multiracial Kentuckians (33.3% vs. 26.9%), and Hispanic Kentuckians (23.3% vs. 14.4%). Note that these rates do not control for bias in diagnostics (e.g. diagnosing a white person

[31] Explore Depression in Kentucky | 2020 Annual Report. America's Health Rankings. Accessed July 15, 2021. https://www.americashealthrankings.org/explore/annual/measure/Depression_a/state/KY

with depression while similar symptoms in a Black person may be diagnosed as an antisocial or disorder associated with violence).[32]

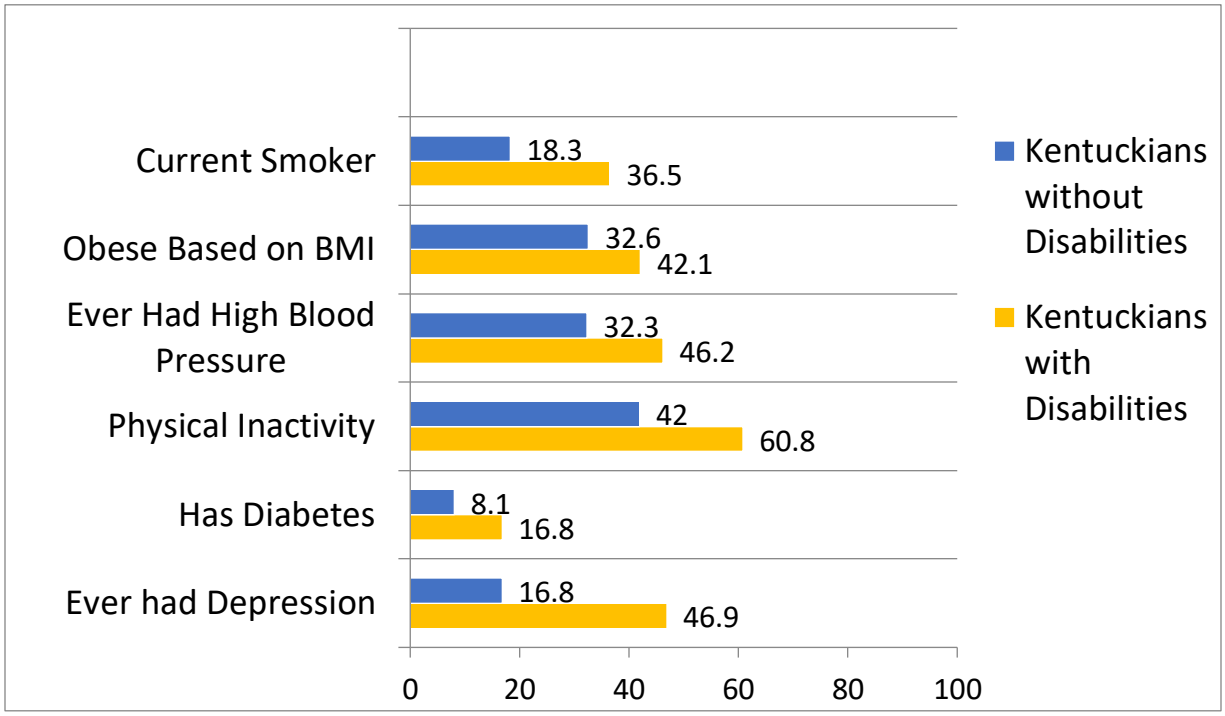
Problematic Substance Use

National rates for excessive drinking (defined as a self-report of binge drinking) were 18.6% in 2019; in Kentucky, these rates were lower than the national average at 16.8%.[33] Interestingly, Black Kentuckians were higher than the national average (16.6% vs. 15.4%), while white Kentuckians were lower than the national average (16.7% vs. 19.2%).

In 2019, 14.8% of Kentuckians self-reported using non-medical prescription or illicit drugs within the last year; this declined in 2020 to 13.4%.[34] The opposite trend is seen nationally; in 2019, 11.3% reported non-medical drug use, which rose to 11.9% in 2020. These rates exceed the national averages among Black Kentuckians (11.7% vs. 8.5%) and Hispanic Kentuckians (36.1% vs. 10.1%); for white Kentuckians, the rates are functionally equivalent (12.1% vs. 12.4%).

Intellectual and Developmental Disabilities

Figure 22. Health disparities for adults with and without disabilities in Kentucky (2019).



[32] Liang, J., Matheson, B. E., & Douglas, J. M. (2016). Mental Health Diagnostic Considerations in Racial/Ethnic Minority Youth. Journal of Child and Family Studies, 25(6), 1926. https://doi.org/10.1007/S10826-015-0351-

[33] Explore Excessive Drinking in Kentucky | 2020 Annual Report. America's Health Rankings. Accessed July 15, 2021. https://www.americashealthrankings.org/explore/annual/measure/ExcessDrink/state/K

[34] Explore Non-medical Drug Use in Kentucky | 2020 Annual Report. America's Health Rankings. Accessed July 15, 2021. https://www.americashealthrankings.org/explore/annual/measure/drug_use/state/KY

This profile provides 2019 data on disability status (any disability versus no disability), among adults in different age, sex, race/ethnicity, and veteran status groups in Kentucky and United States & Territories. In 2019, 35.1% of adults in Kentucky had any disability (cognitive, mobility, vision, self-care, or independent living disability) compared with 26.7% in United States and its territories. This means one in three adults in Kentucky have a disability, which is one of the highest in the nation. In turn, this suggests that addressing ableism in Kentucky is one major way to mitigate oppression in the Commonwealth.

The health disparities experienced by this vulnerable population are staggering. Hypertension prevalence estimates from KyBRFS suggest that the age-adjusted prevalence of hypertension among adults with disabilities is significantly higher than that among adults without disabilities and that this condition is even more pronounced for adults with disabilities in KY.[35] For example, 46.2% of Kentuckians with disabilities have ever had high blood pressure, compared to just 25.9% of the overall US population and 40.5% of the US population with disabilities.

Moreover, 42.1% of Kentuckians with disabilities are obese, compared to just 27.9% of the overall US population and 39.4% of the US population with disabilities.[36] Finally, 60.8% of Kentuckians with disabilities are physically inactive, compared to just 33.4% of the overall US population and 46.8% of the US population who have disabilities.[37] Some of the most staggering disparities experienced by Kentuckians with disabilities include a diabetes rate double that of adults without disabilities, with 8.1% of Kentuckians experiencing diabetes compared to 16.8% of adults in Kentucky with disabilities.

The most startling disparity is the finding that 46.9% of Kentuckians with disabilities have ever had depression compared to only 16.8% of Kentuckians without disabilities. Disability healthcare costs in Kentucky average about $14 billion per year. This represents roughly 41% of the state's healthcare spending. Research supports the benefits experienced by individuals with disabilities when included in health programming and these data demonstrate the need for programs that provide accessibility and inclusion to promote health equity for people with disabilities. Additionally, capacity building needs of healthcare providers to better understand the disability demographic in service care provision has been heightened during the COVID-19 pandemic.

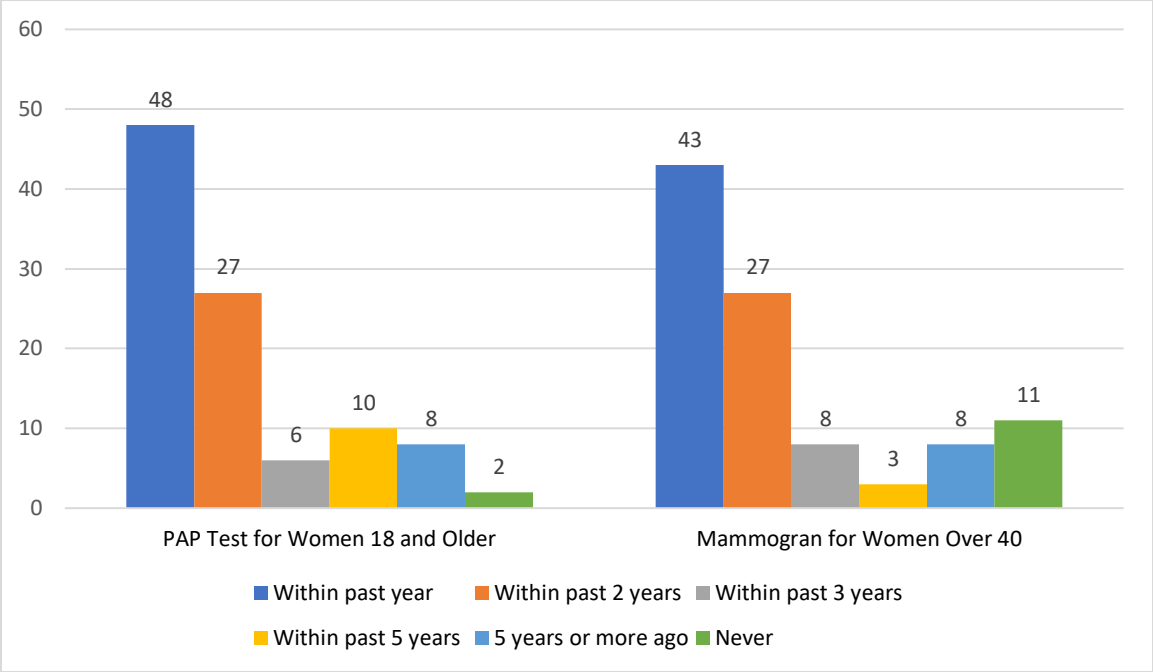
This dismal pattern of poor health outcomes in Kentucky is further accentuated for individuals with intellectual and developmental disabilities (IDD). Individuals with IDD are at an extreme disadvantage related to health and wellness outcomes. According to the National Core Indicators (NCI) Adult Consumer Survey,[38] KY has by far the smallest percentage of individuals with IDD who exercise regularly of any participating state (only 45% of Kentuckians with IDD compared to 72% in the national sample for individuals with IDD), as well as a higher rate of obesity than the national average for individuals with IDD (44% for Kentuckians with IDD compared to 35% nationally). When it comes to the use of nicotine or tobacco products in the 2018-2019 report, 15%

[35] CDC Disability and Health Data System: Kentucky Data (2019)
[36] CDC Disability and Health Data System: Kentucky Data (2019)
[37] CDC Disability and Health Data System: Kentucky Data (2019)
[38] Human Services Research Institute and National Association of State Directors of Developmental Disabilities Services (2018). Adult consumer survey 2017-2018: Final report. Cambridge MA: Human Services Research Institute.

of Kentuckians with IDD more than doubled the national average of 7%. Current 2019-2022 data demonstrate an increase in tobacco or nicotine use in Kentuckians with IDD to 18%.[39]

[39] National Core Indicators. (2019). In person survey (IPS) state report. 2018-2019. Kentucky report. https://www.nationalcoreindicators.org/upload/core-indicators/KY_IPS_state_508.pdf. Note that the most recent data national averages are not available due to the data collection cycles being interrupted by COVID.

Figure 23. 2018-2019 NCI preventative screening rates for Kentuckians with intellectual and developmental disabilities.



The data above demonstrate the need for inclusion in preventative screenings efforts for Kentuckians with IDD. Additionally, of Kentuckians with IDD ages 50 and over, 15% reported not having had a screening for colorectal cancer within the past 10 years. Many individuals with IDD may not have the ability to communicate what they are experiencing and/or may lack the knowledge or education to understand the cause for concern themselves. Individuals with IDD should be included in screening awareness campaigns in order to address the low percentage of preventative screenings in this population. Also in Kentucky, 64% of individuals with IDD also experiences a mental health concern (or dual diagnosis).[40] COVID-19 has increased the need for mental health services and highlighted the gap in services in underserved populations. Barriers include a lack of providers and lack of training for existing providers.[41] Outcomes for those with dual diagnosis are also poor, with NCI analyses finding respondents more likely to feel lonely, more likely to want additional support to maintain relationships, and less likely to be employed.[42]

[40] National Core Indicators. (2019). In person survey (IPS) state report. 2018-2019. Kentucky report. https://www.nationalcoreindicators.org/upload/core-indicators/KY_IPS_state_508.pdf
[41] Sheppard-Jones K. (2018). University of Kentucky Human Development Institute.
[42] National Core Indicators. (2019). In person survey (IPS) state report. 2018-2019. Kentucky report. https://www.nationalcoreindicators.org/upload/core-indicators/KY_IPS_state_508.pdf

Overweight and Obesity

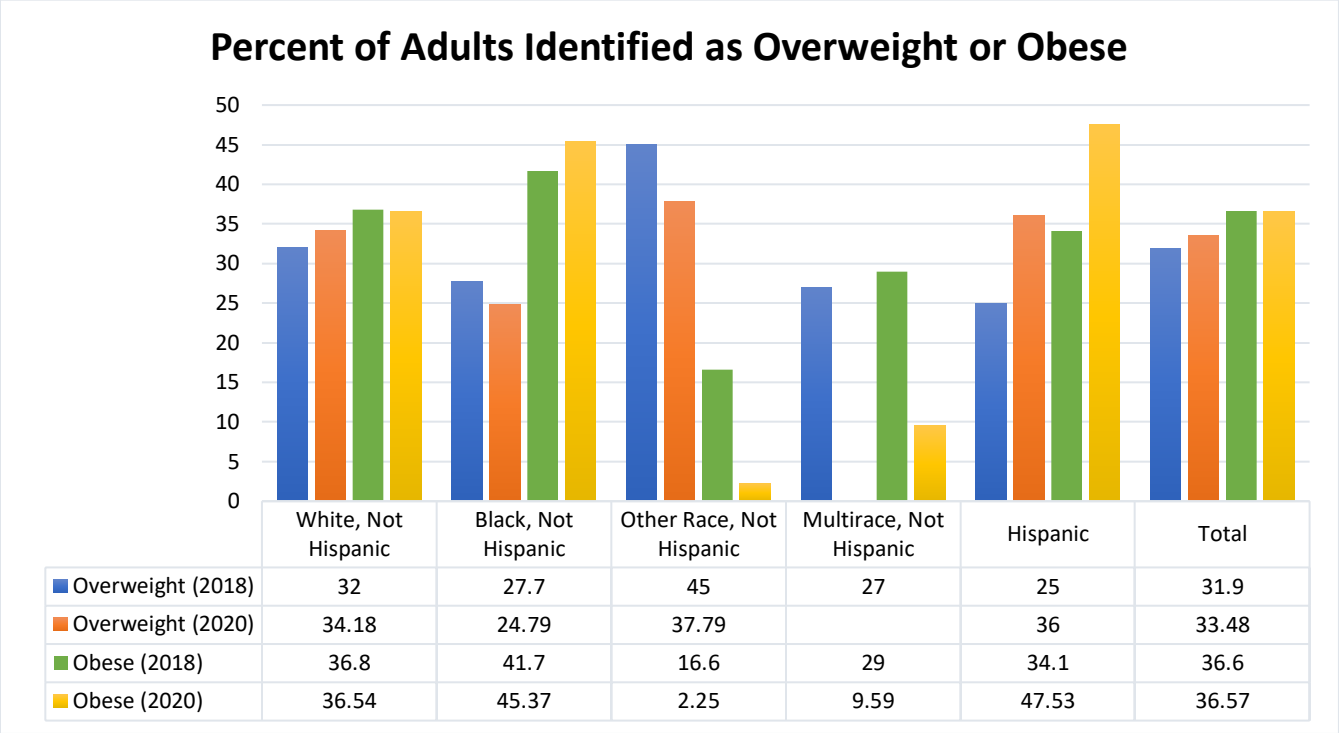
The National Environmental Public Health Tracking Network (NEPHTN) estimates that 36.6% of all Kentuckians were obese in 2018, while 31.9% of all Kentuckians were overweight.[43] Obesity here is defined by body mass index (BMI); a person is considered overweight in the data when their BMI is between 25 and 29.9 and obese when their BMI is greater than 30.[44] These results are similar to the 2020 KyBRFS findings.

The chart below compares figures for Kentucky in these two categories. As shown below, in almost every racial category except those of *other race*, the percentage of adults considered obese far exceeded that of those considered overweight. The percentage of Black Kentuckians identified as obese is significantly higher than the other racial and ethnic categories within the NEPHTN data presented here, with the next closest being white Kentuckians in both years. In the KyBRFS data, the highest percentages of obese Kentuckians are found among Hispanic Kentuckians.
Persons identified as being of a race identified as "Other" were more overweight than any other group, though less obese: the next highest percentage of overweight Kentuckians, at 32%, was among white Kentuckians, 13 percentage points lower; the next highest percentage of obese Kentuckians was among those identified as multiracial, 12.4 percentage points higher.

[43] National Environmental Public Health Tracking Network Query Tool. Accessed July 19, 2021. https://ephtracking.cdc.gov/DataExplorer/

[44] Assessing obesity in this manner has been controversial and identified as a potentially poor estimate of the figure, particularly disadvantaging minority populations. See below. However, as of yet there has yet to be another method proposed that is comparable in terms of ease of use (BMI data require minimal training to collect) and practicality in the field (all that is needed is a scale and a measuring tape). Though potentially flawed, it is the best measure available at the present time.
Stern C. Why BMI is a flawed health standard, especially for people of color. Washington Post. https://www.washingtonpost.com/lifestyle/wellness/healthy-bmi-obesity-race-/2021/05/04/655390f0-ad0d-11eb-acd3-24b44a57093a_story.html. Published May 5, 2021. Accessed July 19, 2021.

Figure 26. Percent of adults age 18+ that are considered overweight or obese in Kentucky by race and ethnicity, 2018.



	White, Not Hispanic	Black, Not Hispanic	Other Race, Not Hispanic	Multirace, Not Hispanic	Hispanic	Total
Overweight (2018)	32	27.7	45	27	25	31.9
Overweight (2020)	34.18	24.79	37.79		36	33.48
Obese (2018)	36.8	41.7	16.6	29	34.1	36.6
Obese (2020)	36.54	45.37	2.25	9.59	47.53	36.57

Note: Overweight is defined as having a BMI between 25.0 and 29.9. Obese is defined as having a BMI between 30.0 and 99.8.

Note 2: The estimates for persons considered multi-race and Hispanic persons for the overweight category in the 2018 data should be interpreted with caution; the estimate for Hispanic persons for the obese category in the 2018 data should also be interpreted with caution. In the 2020 data, percentages for other race and multi-race should be interpreted with caution as they are based on low cell counts.

Source: National Environmental Public Health Tracking Network (2018); Behavioral Risk Factor Survey (2020)

Obesity has been identified as a risk factor for many cancers, as well as cardiovascular and endocrine conditions, such as hypertension, stroke, and diabetes.

Tobacco Use

Tobacco use is well known for its association with many cancers, including liver[45] and lung[46] cancers. While rates of tobacco use have been decreasing,[47] in a state like Kentucky that once relied on the cash crop for economic stability,[48] the substance remains in use at a relatively high rate.

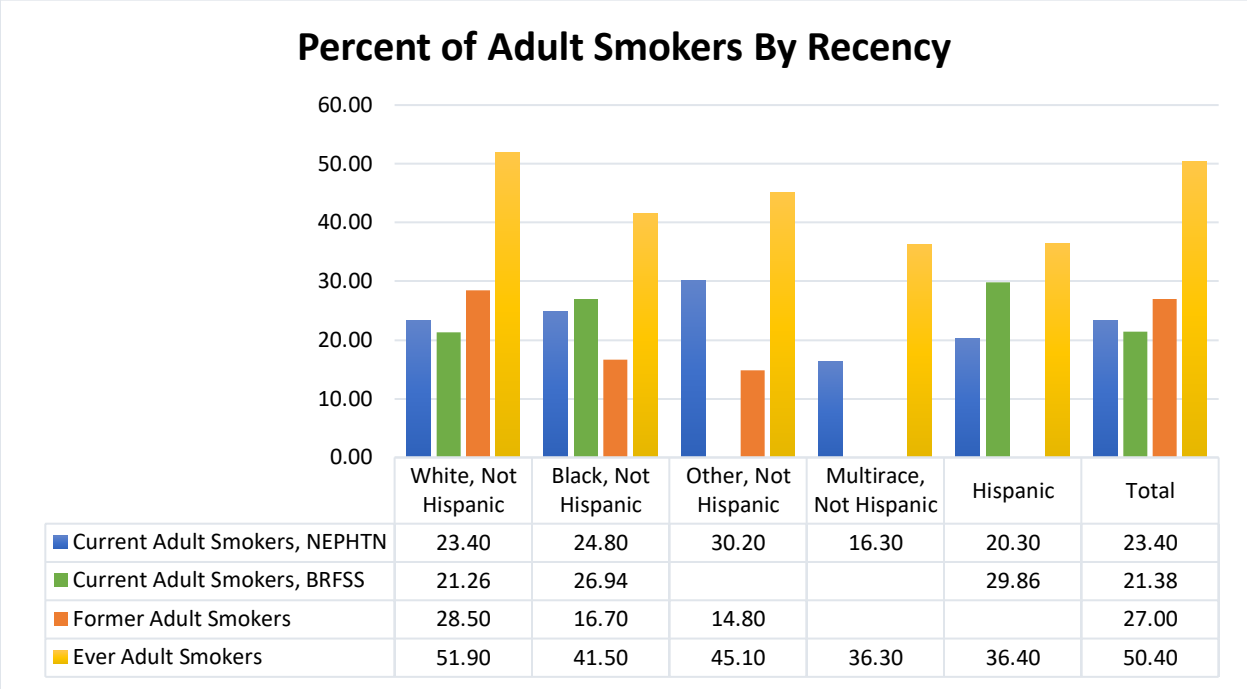
In the 2020 KyBRFS, 21.38% of Kentuckians were estimated to be current smokers. White Kentuckians were largely driving this percentage as the largest demographic group. The percentage of Black Kentuckians that identified as current smokers was higher than the percentage of white Kentuckians, at 26.9% and 21.3% respectively.

50.4% OF KENTUCKIANS WERE IDENTIFIED AS EVER SMOKERS. THOSE IDENTIFIED AS "OTHER, NOT HISPANIC" AND "BLACK, NOT HISPANIC" HAD THE HIGHEST PERCENTAGE OF CURRENT SMOKERS. WHITE KENTUCKIANS HAD THE LARGEST PERCENTAGE OF PERSONS IDENTIFIED AS FORMER SMOKERS.

Comparatively, the NEPHTN estimated that, in 2018, 23.4% of Kentuckians were current smokers and 27% of Kentuckians were ever smokers. Ever smoker is a term used to designate persons both current and former that had ever used a number of cigarettes, usually quantified as at least 100 cigarettes. This means that 50.4% of Kentuckians were considered ever smokers, representing half the population of Kentucky. Among current smokers, the Other, Not Hispanic category had the highest percentage at 30.2%, followed by Black, Not Hispanic at 24.8%. The largest percentage of former smokers reported were among white, Not Hispanics, at 28.5%; all other race categories reported for this measure were less than 20%, indicating that the largest percentage of adult ever smokers for all race categories except white, Not Hispanic was comprised of current smokers. In other words, most categories had fewer persons having reported to quit smoking than are currently smoking. Among high schoolers, in 2017, 15.1% of white Kentuckians reported current cigarette use. This is compared to 6.3% of Black Kentuckians. All of this is shown in the figure below.

[45] Liver Cancer Risk Factors. Accessed July 19, 2021. https://www.cancer.org/cancer/liver-cancer/causes-risks-prevention/risk-factors.html
[46] Lung Cancer Risk Factors | Smoking & Lung Cancer. Accessed July 19, 2021. https://www.cancer.org/cancer/lung-cancer/causes-risks-prevention/risk-factors.html
[47] Cigarette Smoking Among U.S. Adults Hits All-Time Low. CDC. Published November 14, 2019. Accessed July 19, 2021. https://www.cdc.gov/media/releases/2019/p1114-smoking-low.html
[48] Kentucky Tobacco Still No.1 for Some Farm Families. Kentucky Farm Bureau. Published April 12, 2016. Accessed July 19, 2021. https://www.kyfb.com/federation/newsroom/kentucky-tobacco-still-no-1-for-some-farm-families/

Figure 27. Percent of adult smokers in Kentucky, stratified by recency and race and ethnicity, 2018 and 2020.



	White, Not Hispanic	Black, Not Hispanic	Other, Not Hispanic	Multirace, Not Hispanic	Hispanic	Total
Current Adult Smokers, NEPHTN	23.40	24.80	30.20	16.30	20.30	23.40
Current Adult Smokers, BRFSS	21.26	26.94			29.86	21.38
Former Adult Smokers	28.50	16.70	14.80			27.00
Ever Adult Smokers	51.90	41.50	45.10	36.30	36.40	50.40

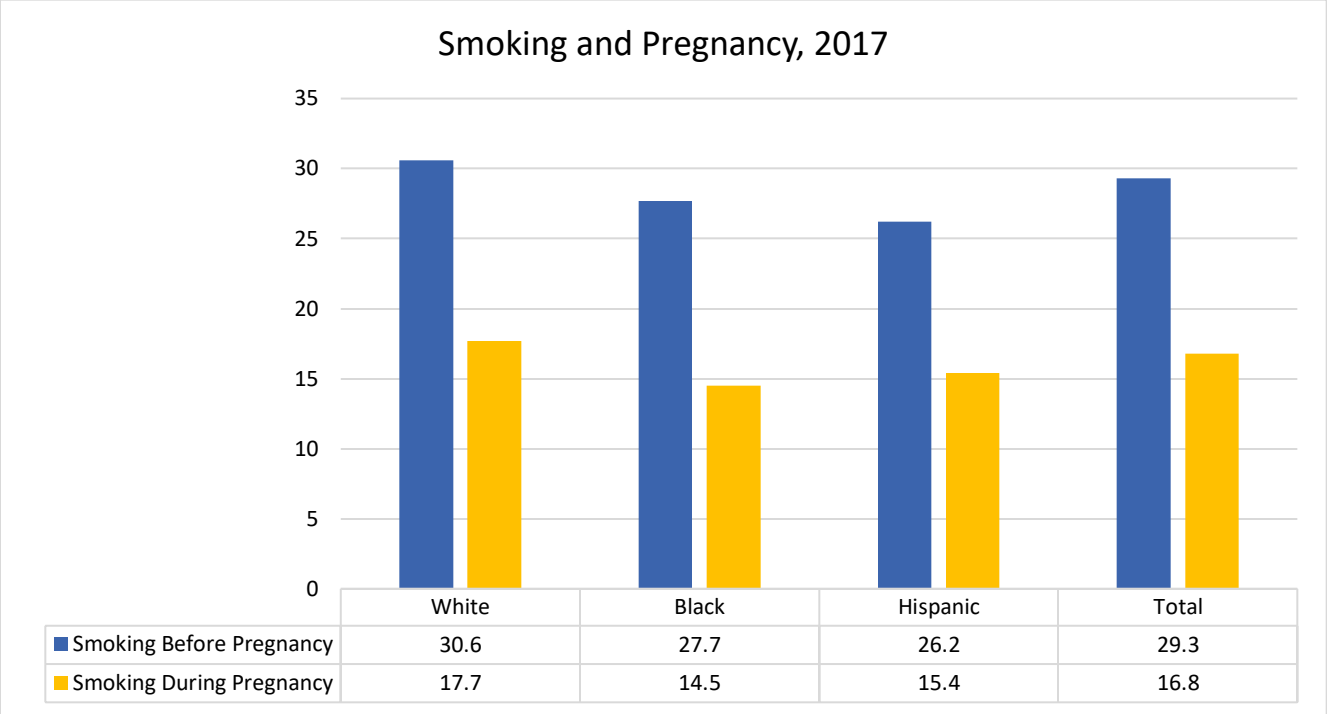
Note: Among current smokers, results for Other, not Hispanic *and* multi-race, Not Hispanic should be interpreted with caution. Among ever adult smokers, results for Hispanics should also be interpreted with caution. Data were not available for multi-race, not Hispanic and Hispanic former smokers in the NEPHTN and Other and multiracial Kentuckians within KyBRFS.
Source: National Environmental Public Health Tracking Network (2018); Behavioral Risk Factor Surveillance Survey (2020)

Pregnancy and Smoking

March of Dimes Peristats reported that in 2017, 27.5% of women of childbearing age (defined by the organization as women aged 18 to 44) in Kentucky were smokers.[49] Nationally, the percentage was 15.5%.[50] Smoking during pregnancy can be dangerous not only for the birthing person, but also for the infant. The bar chart below details the racial and ethnic breakdown available on March of Dimes Peristats reflecting smoking in and around pregnancy in Kentucky.[51] As shown below, a large percentage of women manage to quit smoking during pregnancy. Among women in Kentucky, percentages of smoking were highest among white women, followed by Hispanic women.

[49] Smoking among women of childbearing age Kentucky | PeriStats | March Of Dimes. Accessed July 20, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=9&stop=146&lev=1&slev=4&obj=1
[50] Smoking among women of childbearing age United States | PeriStats | March Of Dimes. Accessed July 20, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=99&top=9&stop=146&lev=1&slev=1&obj=1
[51] Smoking before pregnancy by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 20, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=9&stop=440&lev=1&slev=4&obj=35; Smoking during pregnancy by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 20, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=9&stop=435&lev=1&slev=4&obj=35

Figure 28. Smoking and pregnancy in Kentucky, by recency of smoking and race and ethnicity, 2017.



	White	Black	Hispanic	Total
Smoking Before Pregnancy	30.6	27.7	26.2	29.3
Smoking During Pregnancy	17.7	14.5	15.4	16.8

Source: March of Dimes Peristats

HEALTH OUTCOMES

The previous sections described social and health risk factors. This section illustrates how these risk factors can negatively influence quality and quantity of life. To measure (or ascertain) quality and quantity of life, proxies known as health outcomes are used. Some health outcome measures include life expectancy, mortality rates, suicide rates, drug overdose rates, birthrates, infant and maternal mortality, Child Protective Services involvement, and gun violence, as well as rates of cancer, cardiovascular disease, asthma, diabetes, and sexually transmitted infections. By examining health outcomes, we can assess the overall health and wellbeing of a population and, in turn, demonstrate areas of need of interventions.[1] Knowledge of health outcomes also allows us to determine which interventions are successful.

This section is not intended to provide an all-encompassing list or narrative surrounding all the health outcomes affecting Kentuckians but to draw attention to some areas. Our intention is to highlight where additional interventions are needed to create better health for persons – and to highlight successes. This information is an evaluation of the structural implications of disparities in services and interventions within populations. Recall that when we focus our efforts on the areas of greatest need, all other areas benefit.

Births

National Vital Statistics reported 53,069 births in Kentucky in their report of 2019 data.[52] This created an overall birth rate in 2019 of 11.9 births in every 1,000 women for Kentucky, comparable to the national average at 11.4 births in every 1,000 women in the United States as a whole. Of these, 42,215 were among white women (79.55%), 5,034 were among Black women (9.49%), 50 were among American Indian or Alaskan Native women (0.09%), 1,078 were among Asian women (2.03%), 69 were among Native Hawaiian or other Pacific Islander women (0.13%), and 3,450 were among Hispanic women (6.50%). This is largely reflective of the overall population demographics of Kentucky discussed earlier.

AGE-ADJUSTED RATES OF FATAL FIREARM DEATHS FOR BLACK KENTUCKIANS EXCEEDED THE NATIONAL AND REGIONAL AVERAGE AND WERE MORE THAN TWICE THE RATE OF FATAL FIREARM DEATHS COMPARED TO WHITE KENTUCKIANS.

Life Expectancy

Life expectancy has been described as a fundamental element of assessing the health of a population, as a longer expectation for years lived often correlates to improved health within a population.[53] A 2021 report of the rankings for life expectancy based on 2018 data placed Kentucky at 48th among

[52] Martin JA, Hamilton BE, Osterman MJK, Driscoll AK. Births: Final Data for 2019. Natl Vital Stat Rep. 2021;70(2):51
[53] Roser M, Ortiz-Ospina E, Ritchie H. Life Expectancy. Our World Data. Published online May 23, 2013. Accessed July 14, 2021. https://ourworldindata.org/life-expectancy

the 50 states and the District of Columbia, with an overall life expectancy of 75.3 years.[54] For men of all races, life expectancy in Kentucky was 72.6 years; for females, 77.9 years.

In the 2017 report, white women had a higher life expectancy than Black women, and white men had a higher life expectancy than Black men.[55] 2020 estimates suggest that the COVID-19 pandemic resulted in a slight decrease in life expectancy for all persons.[56]

Gun Violence

CDC Web-based Injury Statistics Query and Reporting System (WISQARS) reported a total of 682 gun deaths in Kentucky in 2019.[57] A state, regional, and national comparison of fatal firearm deaths are shown below. Age-adjusted rates for Black Kentuckians exceed the national and regional average within Kentucky and are more than twice the age-adjusted rates for white Kentuckians. Of note, no information on American Indian or Asian or Pacific Islander data was available for Kentucky in the CDC WISQARS system. Data on Hispanic Kentuckians was not available for this measure in the database.

Research by Redelings and colleagues[58] indicate that forms of gun violence like homicide are driven by a myriad of causes that are often poorly understood such as local economic development, historically inequitable policies, and poor allocation of public resources to address structural barriers that negatively impact communities where minorities overwhelmingly live.

---

[54] Arias E, Bastian B, Xu J, Tejada-Vera B. U.S. State Life Tables, 2018. National Center for Health Statistics; 2021. doi:10.15620/cdc:101128

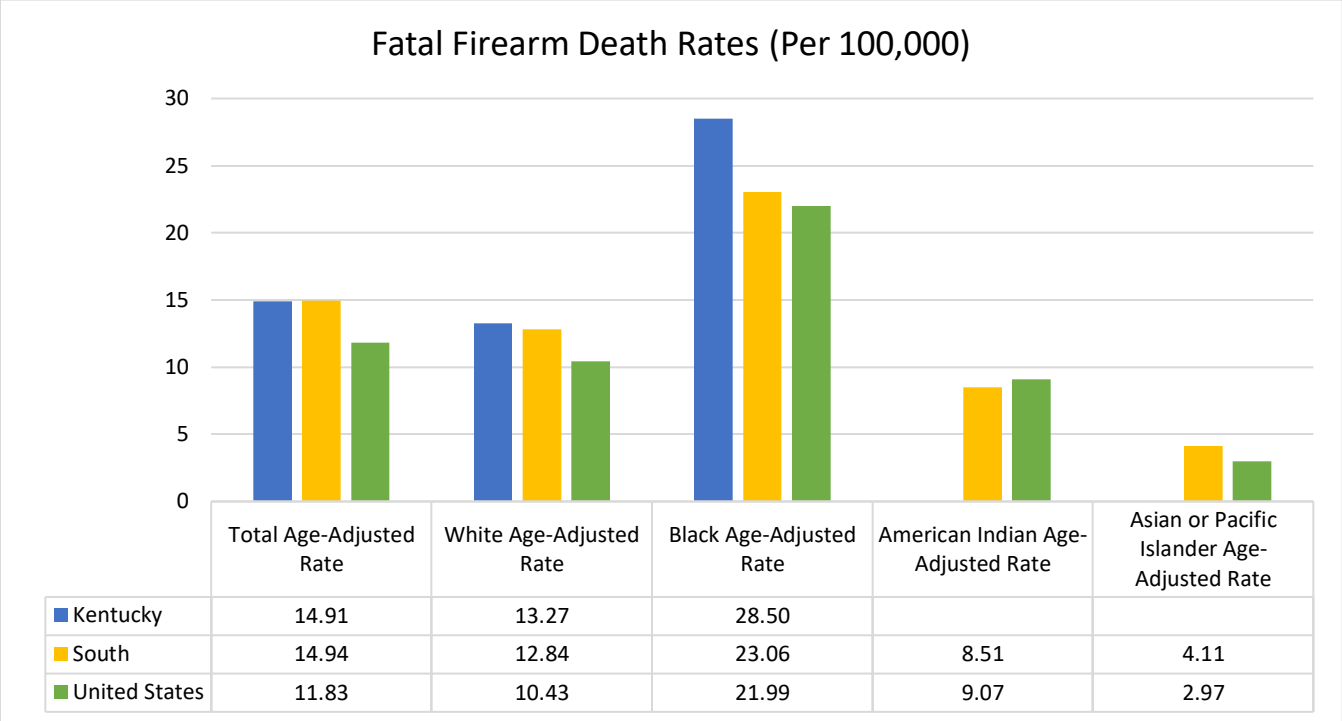
[55] This report did not explore how educational attainment affected these rates. Future research should consider education in order to better understand how this factor affects life expectancy.

[56] Bach PB. CDC estimated a one-year decline in life expectancy. Try five days. STAT. Published February 25, 2021. Accessed July 16, 2021. https://www.statnews.com/2021/02/25/cdc-one-year-decline-life-expectancy-really-five-days/

[57] WISQARS Data Visualization. Accessed July 16, 2021. https://wisqars-viz.cdc.gov:8006/explore-data/explore/selected-years?ex=eyJ0YmkiOlsiMCJdLCJpbnRlbnRzIjpbIjAiXSwibWVjaHMiOlsiMjA4OTAiXSwic3RhdGUiOlsiMjEiXSwicmFjZSI6WyIxIiwiMiIsIjMiLCI0Il0sImV0aG5pY3R5IjpbIjEiLCIyIiwiMyJdLCJzZXgiOlsiMSIsIjIiXSwiYWdlR3JvdXBzTWluIjpbIjAwLTA0Il0sImFnZUdyb3Vwc01heCI6WyIxOTkiXSwiY3VzdG9tQWdlc01pbiI6WyIwIl0sImN1c3RvbUFnZXNNYXgiOlsiMTk5Il0sImZyb21ZZWFyIjpbIjIwMTkiXSwidG9ZZWFyIjpbIjIwMTkiXSwieXBsbEFnZXMiOlsiNjUiXSwibWV0cm8iOlsiMSIsIjIiXSwiYWdlYnV0dG4iOiI1WXIiLCJncm91cGJ5MSI6IkFHRUdQIn0%3D

[58] Redelings M, Lieb L, Sorvillo F. Years off your life? The effects of homicide on life expectancy by neighborhood and race/ethnicity in Los Angeles county. J Urban Health. 2010; 87(4): 670-676. doi: 10.1007/s11524-010-9470-4.

Figure 29. Age-adjusted rates of fatal firearm deaths in Kentucky, the South, and the United States in 2019, by race and ethnicity, per 100,000.

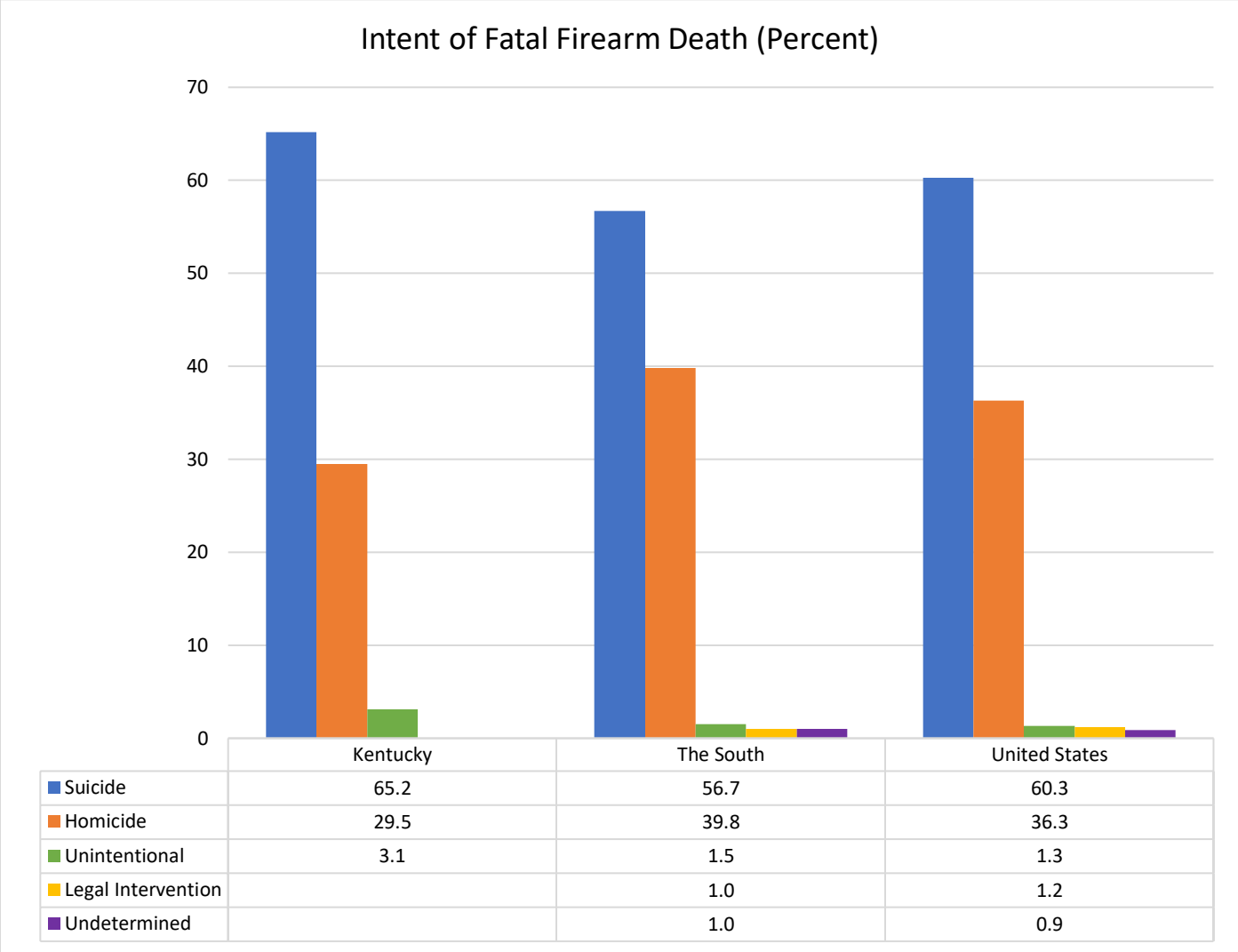


	Total Age-Adjusted Rate	White Age-Adjusted Rate	Black Age-Adjusted Rate	American Indian Age-Adjusted Rate	Asian or Pacific Islander Age-Adjusted Rate
Kentucky	14.91	13.27	28.50		
South	14.94	12.84	23.06	8.51	4.11
United States	11.83	10.43	21.99	9.07	2.97

Source: CDC WISQARS

Data on intent behind the fatal firearm deaths were also examined at a state, regional, and national level, and is shown in the figure below from the same data system. Kentucky had a lower percentage of fatal firearm homicides than the South or the United States as a whole. In the 2019 data, Kentucky did not have any data available for firearm deaths by legal intervention or of undetermined intent.

Figure 30. Intent of fatal firearm deaths in Kentucky, the South, and the United States, 2019.



	Kentucky	The South	United States
Suicide	65.2	56.7	60.3
Homicide	29.5	39.8	36.3
Unintentional	3.1	1.5	1.3
Legal Intervention		1.0	1.2
Undetermined		1.0	0.9

Source: CDC WISQARS

Additionally, information was obtained from the Kentucky Injury Prevention Research Center (KIPRC) on non-fatal firearm-related inpatient hospitalizations and mortality. Overall, the rate of inpatient hospitalizations for non-fatal firearm-related injuries was 5.84 hospitalizations per every 10,000 Black Kentuckians, compared to 0.65 hospitalizations per every 10,000 white Kentuckians, a rate approximately 9 times higher for Black Kentuckians than white Kentuckians. The mortality rate related to all non-fatal firearm injuries was 5.4 deaths per every 10,000 Black Kentuckians compared to 1.65 deaths per every 10,000 white Kentuckians, a rate approximately 3 times higher among Black Kentuckians than white Kentuckians. For the Latino population, the rate was estimated to be 0.77 deaths per every 10,000 Latino Kentuckians, though this rate was calculated from a low cell count and should therefore be interpreted with caution.

Regarding inpatient hospitalizations related to non-fatal firearm assaults, the rate was 2.62 hospitalizations per every 10,000 Black Kentuckians, a rate 11.9 times higher than the estimate for white Kentuckians (0.22 hospitalizations per every 10,000 white Kentuckians). In deaths related to firearm assaults in 2020, the rate among Black Kentuckians was 11.35 times higher than the rate

among white Kentuckians, at 4.54 deaths per every 10,000 Black Kentuckians and 0.4 deaths per every 10,000 white Kentuckians. Latino Kentuckians also saw a higher mortality rate than white Kentuckians, at 0.6 deaths per every 10,000 Latino Kentuckians, though this rate is based on small cell counts and should therefore be interpreted with caution.

Drug Overdose

The number of deaths due to drug injury in Kentucky in 2018 were 29.8 deaths in every 100,000 people; nationally, this figure was 20.6 deaths in every 100,000 people.[59] White Kentuckians and Hispanic Kentuckians both exceeded national estimates, at 32.1 in every 100,000 people and 17.3 in every 100,000 people respectively, compared to 25.1 and 11.1 in every 100,000 people. Black Kentuckians saw slightly lower rates than the national estimates, at 21.4 in every 100,000 compared to 22.3 in every 100,000.

Suicide

Data were obtained from KIPRC from the hospital discharge data investigation inpatient hospitalizations and mortality rates related to intentional self-harm in 2020. In 2020, among Black Kentuckians, the rate of inpatient hospitalizations related to intentional self-harm was 3.74 hospitalizations per every 10,000 Black Kentuckians. Among white Kentuckians, this rate was roughly equivalent at 3.67 hospitalizations per every 10,000 white Kentuckians. Among Latino Kentuckians, this rate was significantly lower, at 1.19 hospitalizations per every 10,000 Latino Kentuckians.

Completed suicides saw a significant increase among Black Kentuckians in 2020, rising from 0.93 suicides per every 10,000 Black Kentuckians in 2018 and 0.96 suicides per every 10,000 Black Kentuckians in 2019 to 1.16 suicides per every 10,000 Black Kentuckians in 2020. While this did increase within the demographic, it remained lower than the rate of suicides among white Kentuckians in 2020, at 1.81 suicides per every 10,000 white Kentuckians. Among Latino Kentuckians, the rate was significantly lower than both, at 0.6 suicides per every 10,000 Latino Kentuckians, though this rate was calculated from low cell counts and should therefore be interpreted with caution.[60]

Cancer

Kentucky is currently ranked second for cancer deaths, with 176.4 deaths per 100,000 total population,[61] and has been high ranking in cancer statistics for many years, especially in the eastern portion of the state.[62] The Kentucky Cancer Registry's data for 2018 indicate that incidence rates for all invasive cancers for white Kentuckians are 489.7 cases per every 100,000 people.[63] The incidence

[59] Explore Drug Deaths (1-year) in Kentucky | 2020 Annual Report. America's Health Rankings. Accessed July 15, 2021. https://www.americashealthrankings.org/explore/annual/measure/drug_deaths_1yr/state/K
[60] Explore Suicide in Kentucky | 2020 Annual Report. America's Health Rankings. Accessed July 15, 2021. https://www.americashealthrankings.org/explore/annual/measure/Suicide/state/KY
[61] Stats of the States - Cancer Mortality. Published February 10, 2021. Accessed July 14, 2021. https://www.cdc.gov/nchs/pressroom/sosmap/cancer_mortality/cancer.htm
[62] Zuppello S. The cancer capital of America. The Outline. Accessed July 14, 2021. https://theoutline.com/post/7457/the-cancer-capital-of-america
[63] Cancer-Rates.info | Kentucky. Accessed July 14, 2021. https://www.cancer-rates.info/ky/

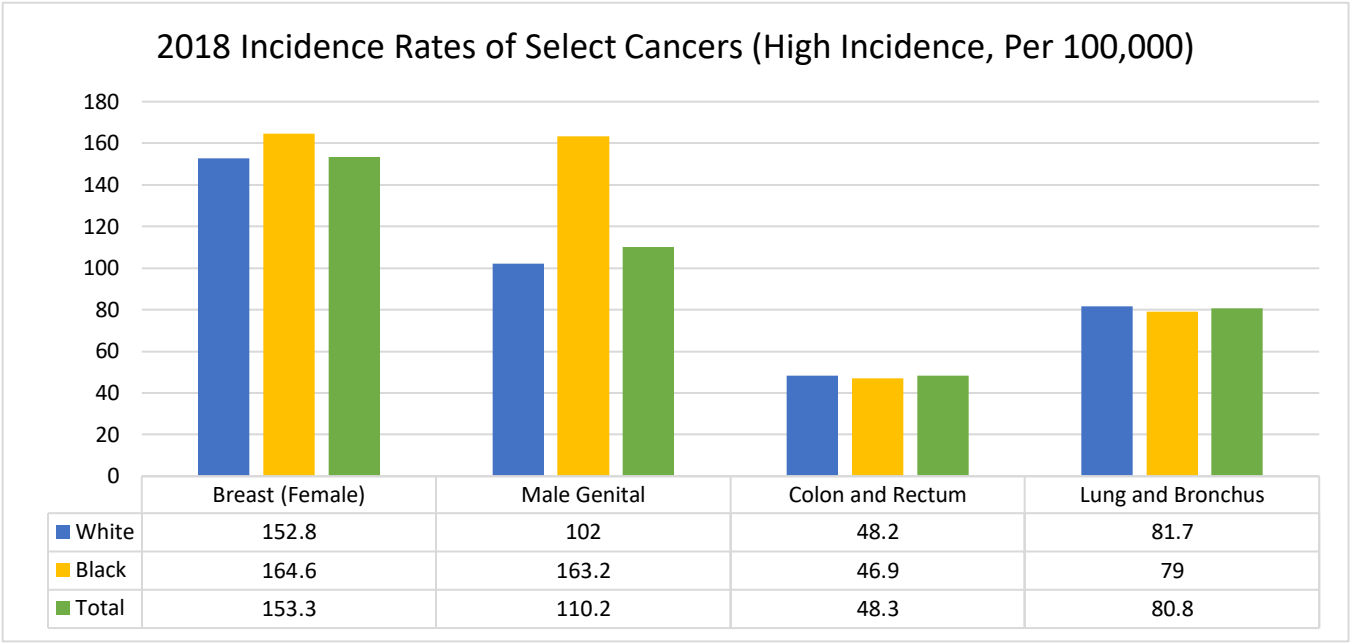
rate for Black Kentuckians is 469 cases per every 100,000 people. For all cancers, among white Kentuckians, the rate is 535.7 cases per every 100,000 people; among Black Kentuckians, the rate is 494.3 cases per every 100,000 persons statewide.

Cancer mortality rates for 2017 among white Kentuckians were 182.7 deaths per every 100,000 people. For Black Kentuckians in this same year, the cancer mortality rate was 169.5 deaths per every 100,000 people.

One of the highest disparities is among male genital cancers, with Black Kentuckians facing an incidence rate of 163.2 cases per every 100,000 males compared to 102 cases per every 100,000 males in white Kentuckians.

Some additional common cancers are shown below in Figures 39 and 40. Among cancers with high incidence (here, defined as incidence rates exceeding 45 cases per 100,000 people), only male genital cancers were extremely elevated among Black Kentuckians compared to white Kentuckians, with an additional 61.2 cases per 100,000 people for Black Kentuckians. This is a larger difference than the crude rates (the frequency in which a disease or condition occurs in a defined population in a specified period of time) of colon and rectal cancers for Black Kentuckians as a whole.

Figure 39. Incidence rates of select cancers by race in Kentucky, 2018, per 100,000.



	Breast (Female)	Male Genital	Colon and Rectum	Lung and Bronchus
White	152.8	102	48.2	81.7
Black	164.6	163.2	46.9	79
Total	153.3	110.2	48.3	80.8

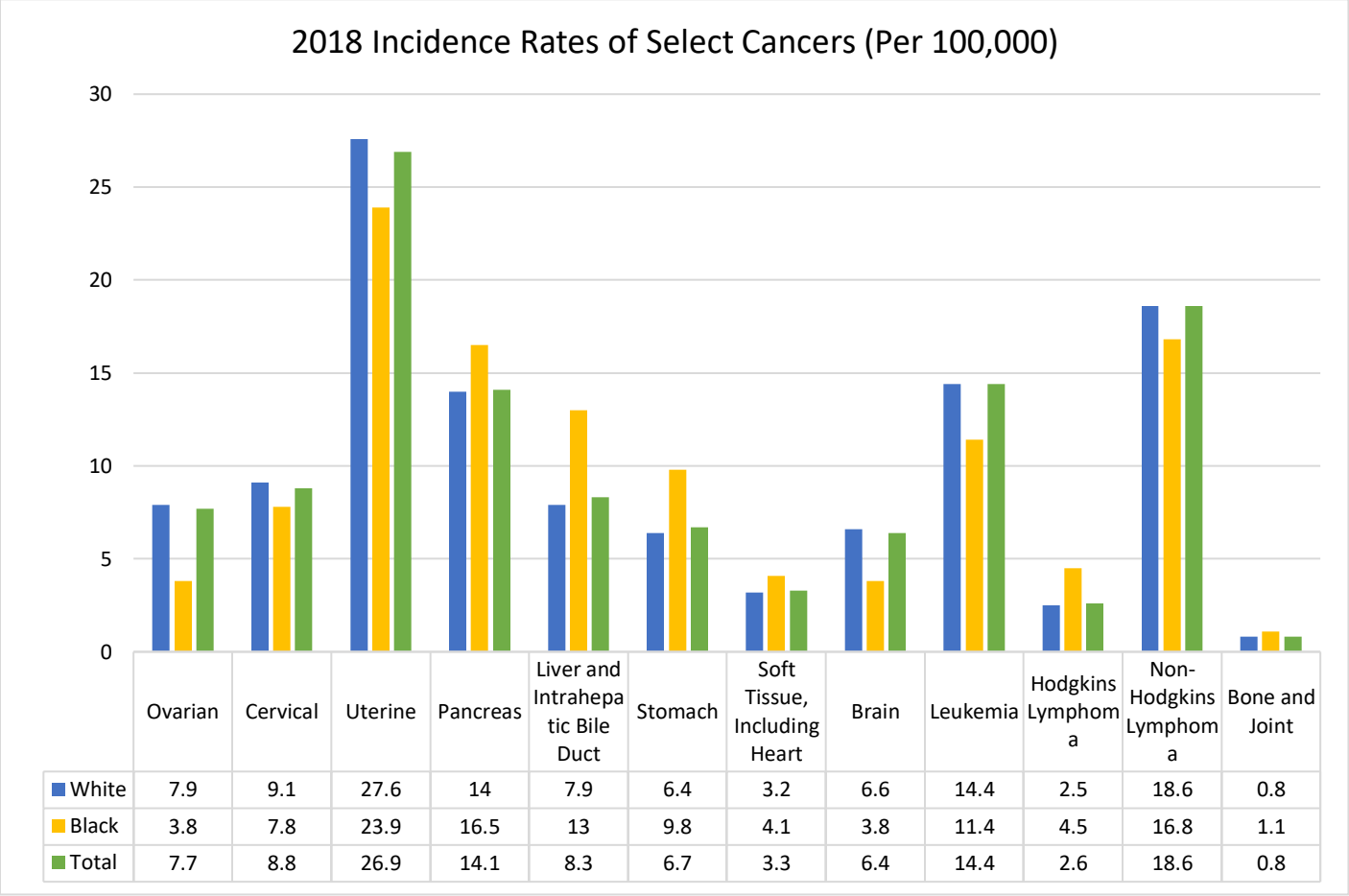
Source: Kentucky Cancer Registry

Other cancers were also examined. The patterns shown above were largely consistent for most of the selected cancers examined in these figures. It is worth noting that the cancers for which Black Kentuckians saw an increased crude rate over white Kentuckians were largely cancers likely to be caught in later stages and produce minimal symptoms, such as pancreatic cancer,[64] stomach cancer,[65]

[64] Signs and Symptoms of Pancreatic Cancer. Accessed July 16, 2021. https://www.cancer.org/cancer/pancreatic-cancer/detection-diagnosis-staging/signs-and-symptoms.html
[65] 7 Potential Warning Signs of Stomach Cancer – Health Essentials from Cleveland Clinic. Accessed July 16, 2021. https://health.clevelandclinic.org/7-potential-warning-signs-of-stomach-cancer/

and liver and intrahepatic bile duct cancers.[66] Also interesting, though crude rates are low, there are elevated rates of Hodgkin's lymphoma among Black Kentuckians, at almost twice the rate of white Kentuckians and the general population. Hodgkin's lymphoma is rarer and tends to affect younger persons than non-Hodgkin's lymphoma.[67]

Figure 40. Incidence rates of select cancers by race in Kentucky, 2018, per 100,000.



	Ovarian	Cervical	Uterine	Pancreas	Liver and Intrahepatic Bile Duct	Stomach	Soft Tissue, Including Heart	Brain	Leukemia	Hodgkins Lymphoma	Non-Hodgkins Lymphoma	Bone and Joint
White	7.9	9.1	27.6	14	7.9	6.4	3.2	6.6	14.4	2.5	18.6	0.8
Black	3.8	7.8	23.9	16.5	13	9.8	4.1	3.8	11.4	4.5	16.8	1.1
Total	7.7	8.8	26.9	14.1	8.3	6.7	3.3	6.4	14.4	2.6	18.6	0.8

Source: Kentucky Cancer Registry

[66] Can Liver Cancer Be Found Early? Accessed July 16, 2021. https://www.cancer.org/cancer/liver-cancer/detection-diagnosis-staging/detection.html

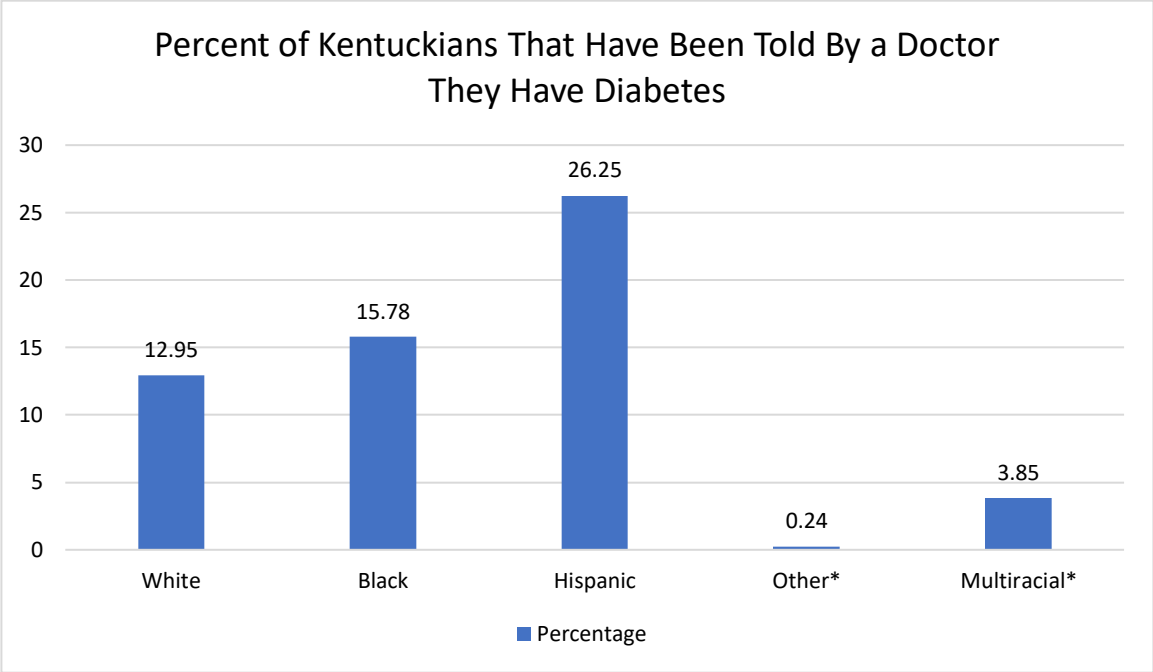
[67] Differences Between Hodgkin & Non-Hodgkin Lymphoma. Moffitt Cancer Center. Accessed July 16, 2021. https://moffitt.org/cancers/lymphomas-hodgkin-and-non-hodgkin/faqs/hodgkin-lymphoma-vs-non-hodgkin-lymphoma/

Diabetes

Data from respondents in Kentucky to the 2019 Behavioral Risk Factor System survey indicates that more Black Kentuckians have been told by a doctor that they have diabetes than white Kentuckians. This is consistent with data from the 2020 KyBRFS updates. In 2020, 12.99% of Kentuckians overall reported having been diagnosed with diabetes. Percentages are shown in the figure below Estimates from the American Diabetes Association for 2018 indicate that these percentages are higher than the national averages, with 7.5% of non-Hispanic white Americans having diabetes and 11.7% of non-Hispanic Black Americans having diabetes.[68]

A LARGER PERCENTAGE OF BLACK KENTUCKIANS COMPARED TO WHITE KENTUCKIANS HAVE BEEN TOLD BY A DOCTOR THAT THEY HAVE DIABETES.

Figure 44. Percent of Kentuckians that have been told by a doctor that they have diabetes by race, 2020.



Note: percentages based on low cell counts. Results should be interpreted with caution.
Source: 2020 Kentucky Behavioral Risk Factor Survey

[68] Statistics About Diabetes | ADA. Accessed July 14, 2021. https://www.diabetes.org/resources/statistics/statistics-about-diabetes

Cardiovascular Diseases

Data from the 2019 KyBRFS indicated that 12.1% of all Kentuckians had been told by a health professional that they had an angina or coronary heart disease, heart attack or myocardial infarction, or a stroke.[69] Nationally, this same estimate is 8.4%, making Kentucky higher than the national average. Dichotomizing (separating out) by race, both Black Kentuckians and white Kentuckians are nearly equal in this realm, with 12% and 12.3% respectively self-reporting in the affirmative to this question. These are both equally inflated over national estimates, which are also largely consistent with one another, at 9.1% and 9.4%.

Infant Mortality

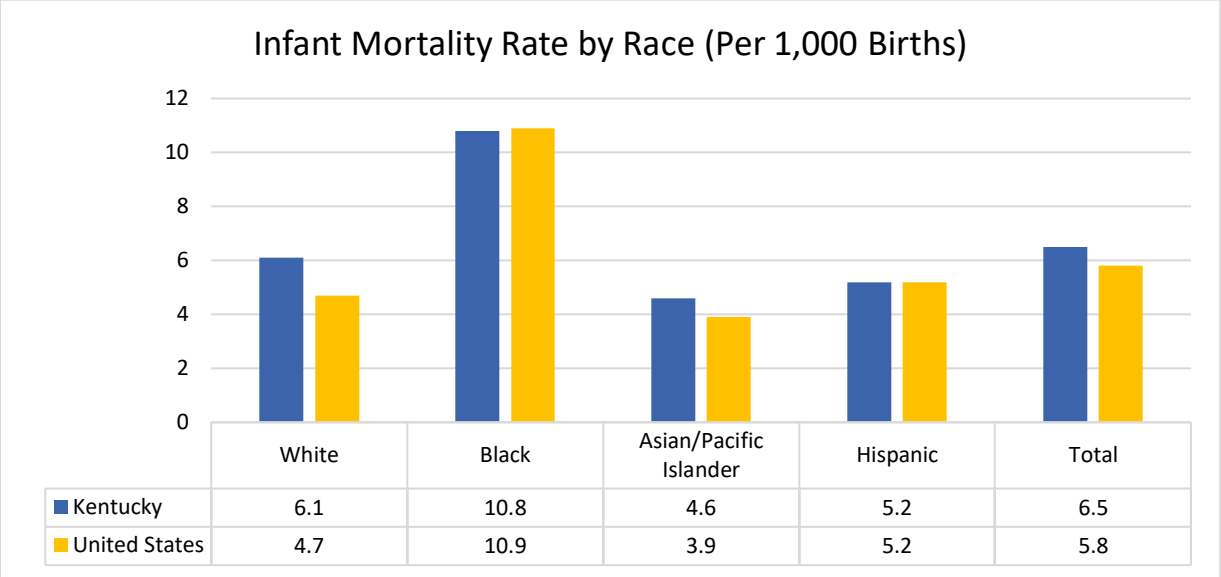
The CDC defines infant mortality as "…the death of an infant before his or her first birthday."[70] In 2019, Kentucky had an overall infant mortality rate of 5 in every 1,000 births.[71] In Kentucky, between 2016 and 2018, the infant death rate for Black infants was 10.8 deaths in every 1,000 births, or 1.08%; for white children, this was 6.1 deaths in every 1,000 live births.[72] Rates were lowest for persons of Asian and/or Pacific Islander descent, at 4.6 deaths in every 1,000 births.

THE INFANT MORTALITY RATE FOR BLACK INFANTS IN KENTUCKY IS SIGNIFICANTLY HIGHER THAN THE INFANT MORTALITY RATE FOR ANY OTHER RACIAL AND ETHNIC DEMOGRAPHIC IN KENTUCKY.

The rate of Black infant deaths was functionally equivalent to the national average, at 10.8 and 10.9 deaths in every 1,000 births.[73] This is nearly double the national total average of infant deaths within the United States. An issue brief by Novoa and Taylor explored why this is the case, concluding that physical health risk factors alone could not account for the gap in these disparities which are better explained by racial inequities in healthcare provision.[74]

[69] Explore Cardiovascular Diseases in Kentucky | 2020 Annual Report. America's Health Rankings. Accessed July 16, 2021. https://www.americashealthrankings.org/explore/annual/measure/CVD/state/KY
[70] Infant Mortality | Maternal and Infant Health | Reproductive Health | CDC. Published September 10, 2020. Accessed July 14, 2021. https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.ht
[71] Stats of the States - Infant Mortality. Published March 12, 2021. Accessed July 14, 2021. https://www.cdc.gov/nchs/pressroom/sosmap/infant_mortality_rates/infant_mortality.htm
[72] Infant mortality rates by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 14, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=6&stop=92&lev=1&slev=4&obj=1
[73] Infant mortality rates by race/ethnicity United States | PeriStats | March Of Dimes. Accessed July 14, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=99&top=6&stop=92&lev=1&slev=1&obj=1
[74] Novoa C, Taylor J. Exploring African Americans' High Maternal and Infant Death Rates. Center for American Progress. Accessed July 16, 2021. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/01/445576/exploring-african-americans-high-maternal-infant-death-rates/

Figure 31. Infant mortality rates in Kentucky and the United States by race and ethnicity, per 1,000.



	White	Black	Asian/Pacific Islander	Hispanic	Total
Kentucky	6.1	10.8	4.6	5.2	6.5
United States	4.7	10.9	3.9	5.2	5.8

Source: March of Dimes Peristats

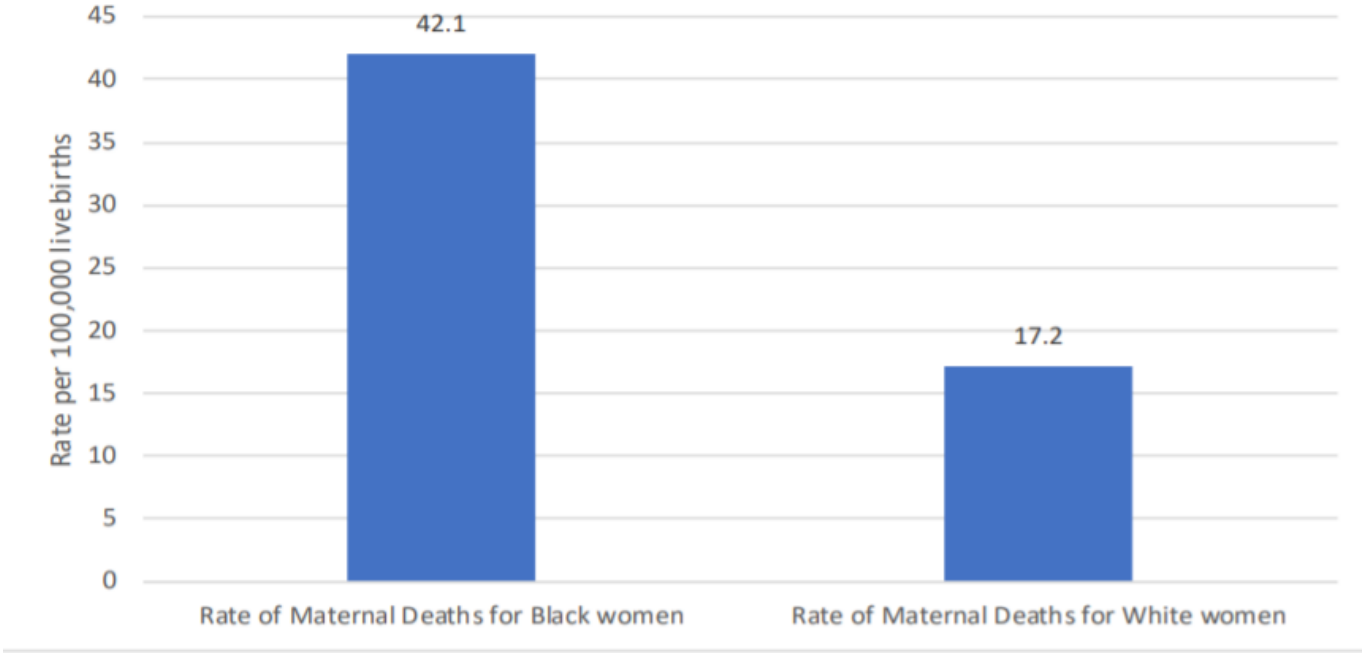
Maternal Morbidity and Mortality

The Kentucky Maternal Mortality Review (MMWR) 2020 Annual Report from the Kentucky Department for Public Health Division of Maternal and Child Health indicates that Black women are significantly more likely to experience maternal death than white women.[75] Using data from 2018 Vital Statistics, the figure below indicates the validity of that assessment. A 2019 MMWR report explored reasons for these drastic differences, finding that cardiovascular conditions of pregnancy, such as hypertensive disorders and cardiomyopathy, on a national scale, contributed to more deaths among Black mothers than white mothers.[76] Another predominant condition was pulmonary embolism.

[75] Maternal Mortality Review 2020 Annual Report. Kentucky Department for Public Health Division of Maternal and Child Health; 2020:12. Accessed July 14, 2021.
https://chfs.ky.gov/agencies/dph/dmch/Documents/MMRAnnualReport.pdf
This report did not explore how educational attainment affected these rates. Future research should consider education in order to better understand how this factor affects life expectancy.

[76] Petersen EE, Davis NL, Goodman D, et al. Racial/Ethnic Disparities in Pregnancy-Related Deaths — United States, 2007–2016. MMWR Morb Mortal Wkly Rep. 2019;68. doi:10.15585/mmwr.mm6835a3

Figure 32. Maternal mortality rate among Black Kentuckians and white Kentuckians, 2018.



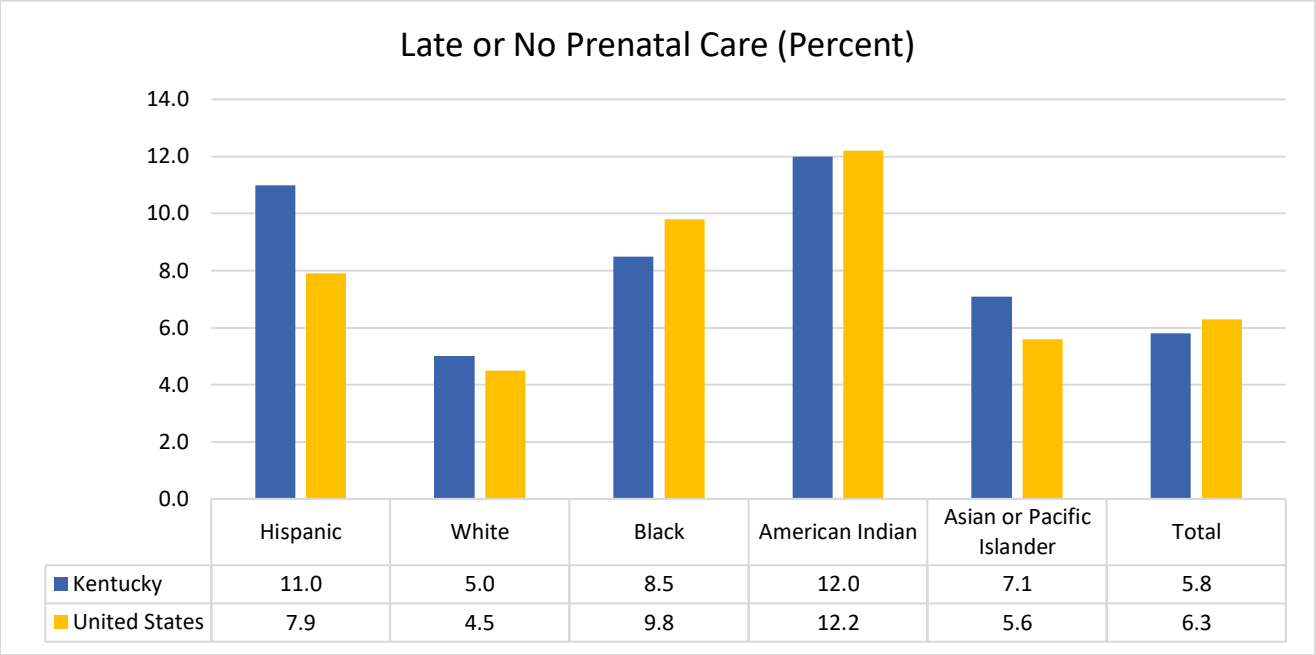
Source: Kentucky Maternal Mortality Review 2020 Annual Report

Prenatal Care

Additionally, March of Dime Peristats data was used to assess the percent of women that received late or no prenatal care and inadequate prenatal care between 2017 and 2019 on both a state and national level.[77] Percentages are shown in the figure below. American Indian women, both within Kentucky and nationally, had the highest percentages of late or no prenatal care. Hispanic women in Kentucky also saw an increased percentage compared to the other categories, and an increase over the national average.

[77] Petersen EE, Davis NL, Goodman D, et al. Racial/Ethnic Disparities in Pregnancy-Related Deaths — United States, 2007–2016. MMWR Morb Mortal Wkly Rep. 2019;68. doi:10.15585/mmwr.mm6835a3; Late/no prenatal care by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=5&stop=28&lev=1&slev=4&obj=1

Figure 33. Percent of women receiving late or no prenatal care by race and ethnicity, Kentucky and national averages, 2017-2019.



	Hispanic	White	Black	American Indian	Asian or Pacific Islander	Total
Kentucky	11.0	5.0	8.5	12.0	7.1	5.8
United States	7.9	4.5	9.8	12.2	5.6	6.3

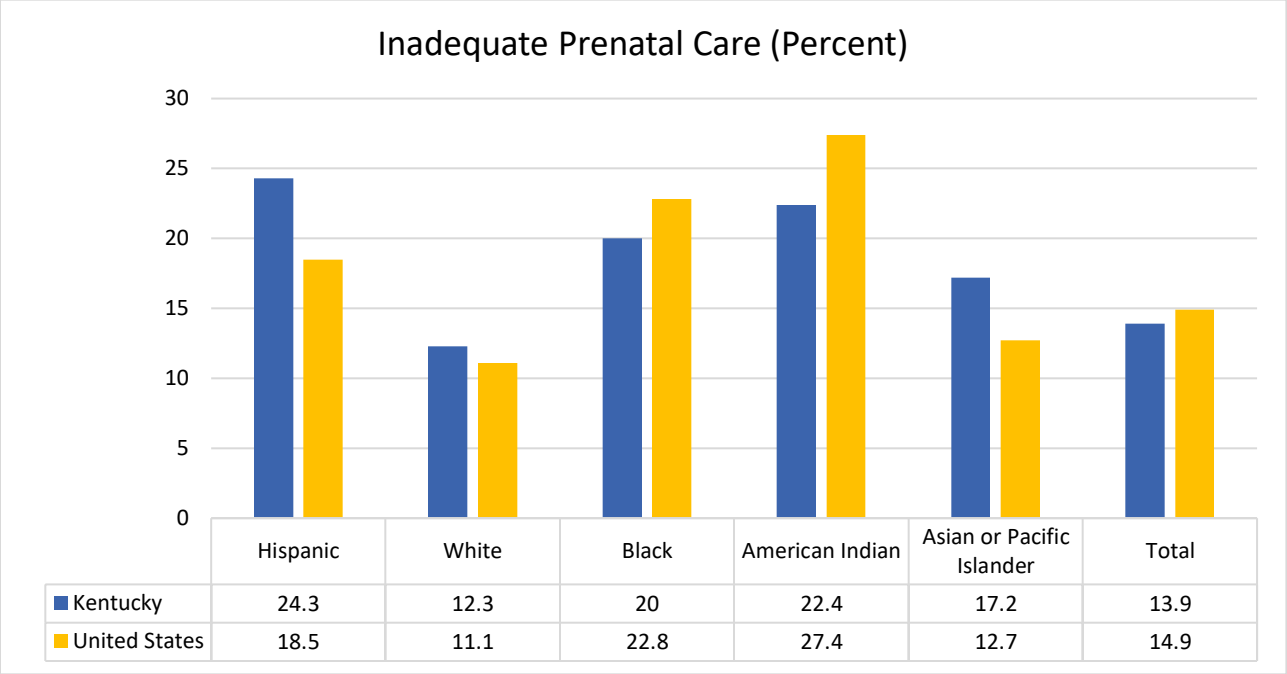
Source: March of Dimes Peristats

Inadequate prenatal care between 2017 and 2019 was also assessed using March of Dimes Peristats data.[78] March of Dimes defines inadequate prenatal care as care beginning in the fifth month of a pregnancy, or less than 50% of the recommended prenatal visits for an infant's gestational age. The results from the database are shown in the figure below.

MORE WOMEN IN RACIAL OR ETHNIC MINORITY GROUPS RECEIVED LATE OR NO PRENATAL CARE COMPARED TO WHITE WOMEN IN KENTUCKY. THE LARGEST PERCENTAGES OF WOMEN RECEIVING LATE OR NO PRENATAL CARE IN KENTUCKY WERE AMONG AMERICAN INDIAN AND HISPANIC WOMEN, FOLLOWED BY BLACK WOMEN IN KENTUCKY.

[78] Late/no prenatal care by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=5&stop=28&lev=1&slev=4&obj=1; Late/no prenatal care by race/ethnicity United States | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=99&top=5&stop=28&lev=1&slev=1&obj=1

Figure 34. Percent of women receiving inadequate prenatal care, Kentucky and national averages, by race and ethnicity, 2017-2019.



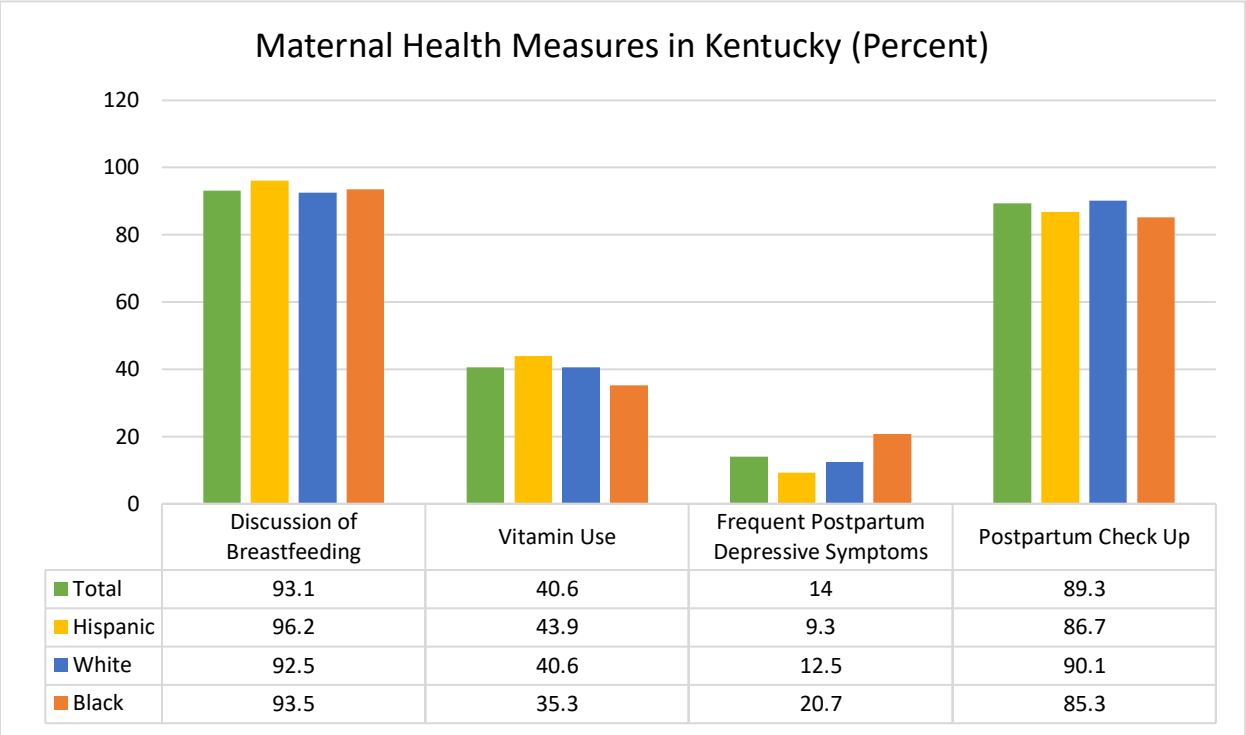
	Hispanic	White	Black	American Indian	Asian or Pacific Islander	Total
Kentucky	24.3	12.3	20	22.4	17.2	13.9
United States	18.5	11.1	22.8	27.4	12.7	14.9

Source: March of Dimes Peristats[79]

Additional maternal health measures from Kentucky from March of Dimes Peristats are shown in the figure below for year 2017. As shown below, discussions of breastfeeding are functionally equivalent for all groups. Self-reported vitamin use is slightly higher among Hispanic mothers, and self-reported frequent post-partum depressive symptoms are highest among Black mothers. Self-reported postpartum checkup visits are also high for all groups, though slightly lower for Hispanic and Black mothers.

[79] Inadequate prenatal care by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=5&stop=37&lev=1&slev=4&obj=1; Inadequate prenatal care by race/ethnicity United States | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=99&top=5&stop=37&lev=1&slev=1&obj=1

Figure 35. Maternal health measures in Kentucky by race and ethnicity, 2017.



	Discussion of Breastfeeding	Vitamin Use	Frequent Postpartum Depressive Symptoms	Postpartum Check Up
Total	93.1	40.6	14	89.3
Hispanic	96.2	43.9	9.3	86.7
White	92.5	40.6	12.5	90.1
Black	93.5	35.3	20.7	85.3

Source: March of Dimes Peristats[80]

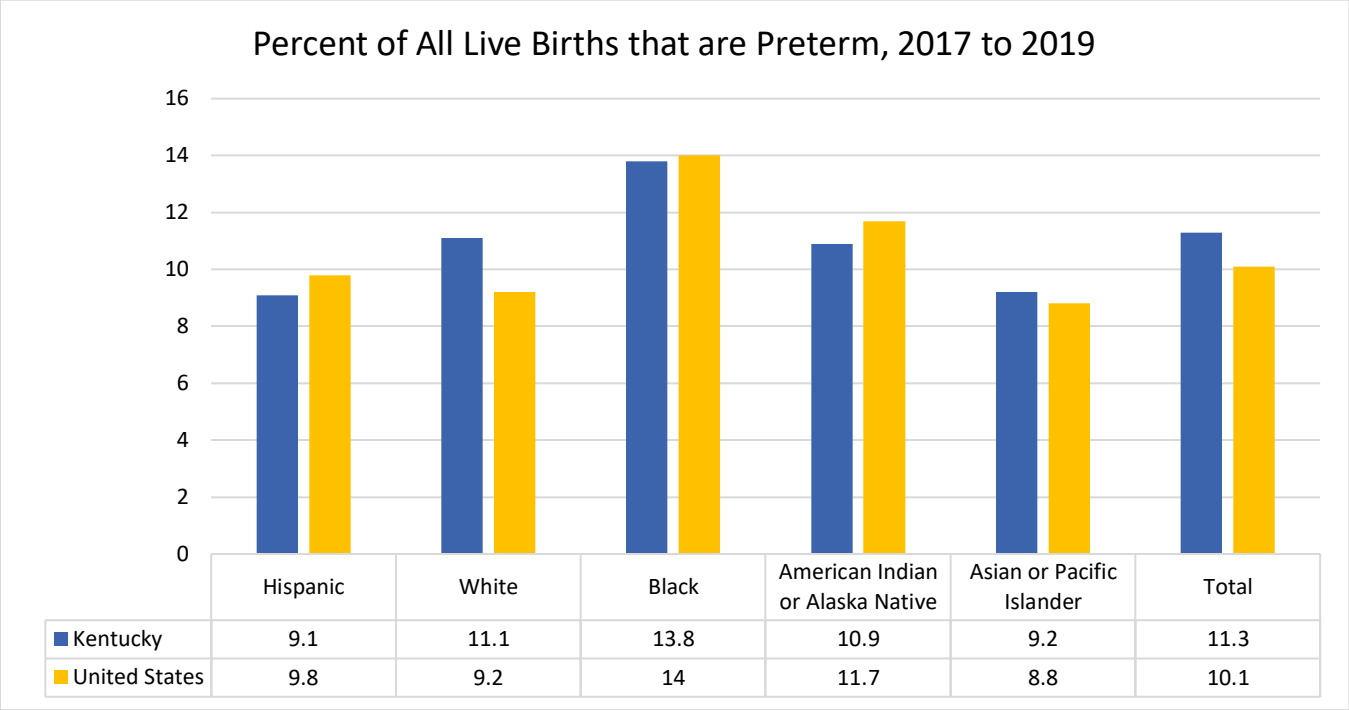
Preterm Births

March of Dimes reports 11.3% of all live births in Kentucky between 2017 to 2019 were preterm births.[81] For infants that are Black in Kentucky, 13.8% were born preterm between 2017 and 2019, compared to 11.1% among white Kentuckians. American Indian or Alaskan Native and Asian or Pacific Islander infants saw lower rates of preterm birth, with 10.9% and 9.2% born preterm. Hispanic infants also had lower percentages, with 9.1% born preterm. A comparison with national averages is shown below.

[80] Discussion about breastfeeding by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=5&stop=572&lev=1&slev=4&obj=35; Vitamin use by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=13&stop=385&lev=1&slev=4&obj=35; Frequent postpartum depressive symptoms by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=21&stop=632&lev=1&slev=4&obj=35; Postpartum checkup for mother by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 16, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=21&stop=627&lev=1&slev=4&obj=35

[81] Preterm Birth Kentucky | PeriStats | March of Dimes. Accessed July 15, 2021. https://www.marchofdimes.org/peristats/ViewTopic.aspx?reg=21&top=3&lev=0&slev=4

Figure 36. Percent preterm births, Kentucky and national averages, by race and ethnicity, 2017 to 2019.



	Hispanic	White	Black	American Indian or Alaska Native	Asian or Pacific Islander	Total
Kentucky	9.1	11.1	13.8	10.9	9.2	11.3
United States	9.8	9.2	14	11.7	8.8	10.1

Source: March of Dimes Peristats[82]

NICU Admissions

In 2019, a systematic review by Sigurdson et al. found disparities in NICU care among infants of color compared to white infants.[83] Data from March of Dimes was also used to assess the percent of infants in 2017 that were admitted to the NICU. Overall, 10.7% of infants in Kentucky were admitted to a NICU in 2017.[84] This was higher for Hispanic infants (14.6%) and Black infants (16.1%). Among white infants, only 9.7% of infants were admitted to the NICU in 2017.

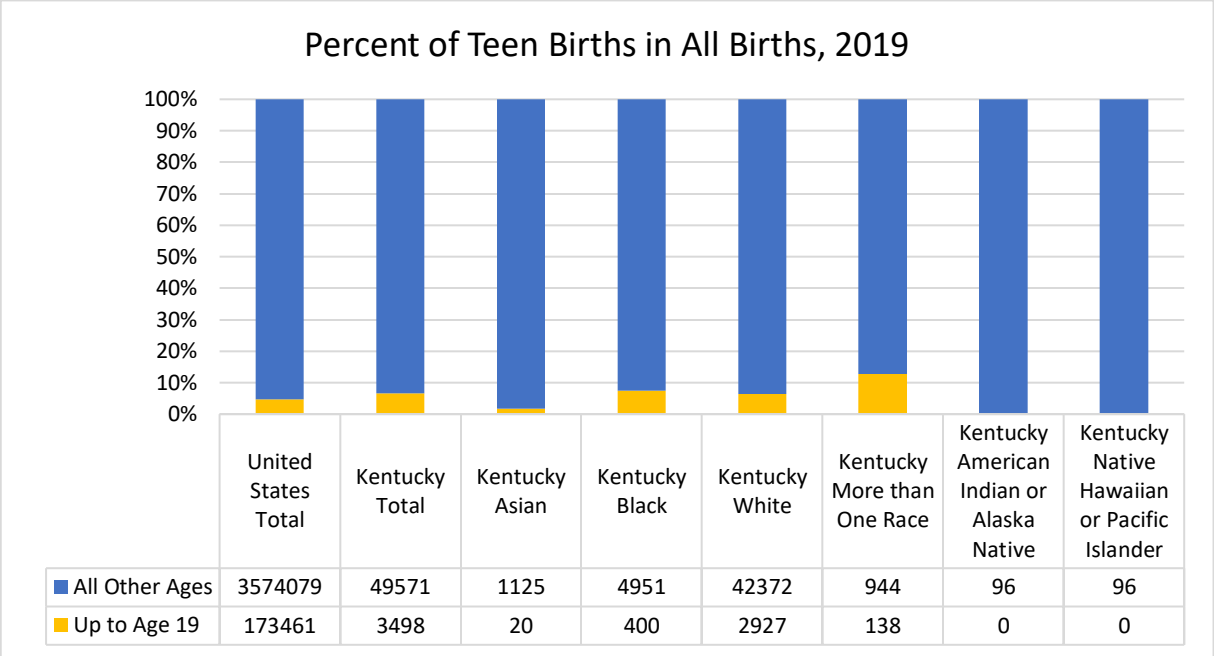
Teen Births

Nationally, the rate of teen births has been declining, though rates remain elevated for teenage mothers that are Black and Hispanic compared to white teenagers.[85] Data from the CDC WONDER system was used to examine this phenomenon between 2016 and 2019.[86] Nationally, births up to age 19 (which included the age categories "To Age 15" and "15 – 19") represented

[82] Preterm by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 15, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=3&stop=63&lev=1&slev=4&obj=1; Preterm by race/ethnicity United States | PeriStats | March Of Dimes. Accessed July 15, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=99&top=3&stop=63&lev=1&slev=1&obj=1
[83] Sigurdson K, Mitchell B, Liu J, et al. Racial/Ethnic Disparities in Neonatal Intensive Care: A Systematic Review. Pediatrics. 2019;144(2):e20183114. doi:10.1542/peds.2018-3114
[84] NICU admissions by race/ethnicity Kentucky | PeriStats | March Of Dimes. Accessed July 15, 2021. https://www.marchofdimes.org/peristats/ViewSubtopic.aspx?reg=21&top=18&stop=390&lev=1&slev=4&obj=35
[85] CDC Features - Teen Birth Rates Drop, But Disparities Persist. Published June 16, 2020. Accessed July 15, 2021. http://www.cdc.gov/Features/dsteenpregnancy/
[86] CDC WONDER. Accessed July 15, 2021. https://wonder.cdc.gov/

4.63% of all births between these years. In Kentucky, teenage births represented 6.59% of all births between these years. Among white Kentuckians, teenage births represented 6.46% of all births; for Black Kentuckians, the same age group composed 7.48% of all births. Asian Kentuckians saw lower rates, at 1.75% of all births during the same years. The CDC WONDER system did not produce any information on teenage births among Kentuckians that identified as American Indian and Alaska Native or Native Hawaiian and Pacific Islander, though both groups did have births that registered among all births in the system.

Figure 37. Percent of teen births among all births by race and ethnicity, 2019.



	United States Total	Kentucky Total	Kentucky Asian	Kentucky Black	Kentucky White	Kentucky More than One Race	Kentucky American Indian or Alaska Native	Kentucky Native Hawaiian or Pacific Islander
All Other Ages	3574079	49571	1125	4951	42372	944	96	96
Up to Age 19	173461	3498	20	400	2927	138	0	0

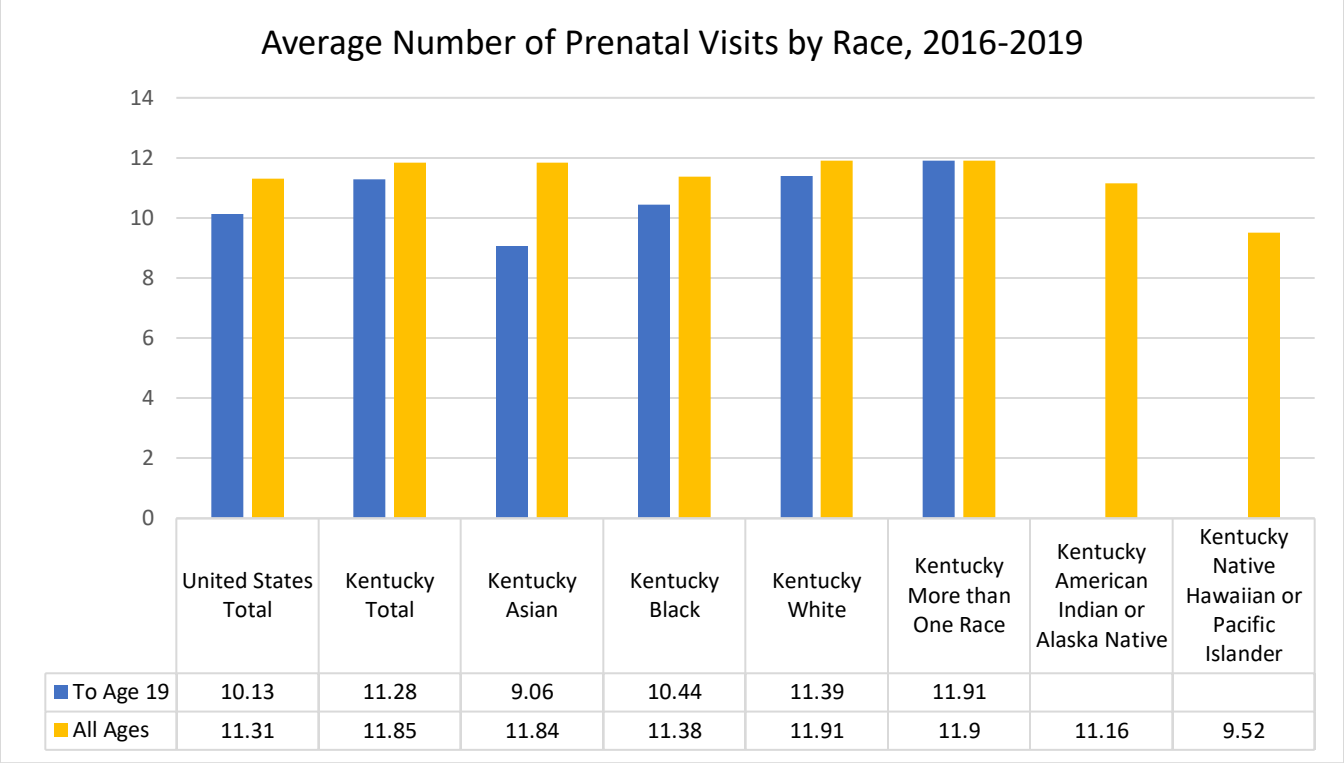
Source: CDC WONDER

A report by National Vital Statistics indicated that the birth rate for Kentucky teenagers aged 15 to 19 overall declined in 2019.

Additionally, prenatal visits among all Kentuckians and teenage mothers in Kentucky were examined in the CDC WONDER system. Except for Kentuckians that identify as more than one race, the average number of prenatal visits were lower for mothers up to age 19 between 2016 and 2019 in each race category than the average number of prenatal visits for all ages. The largest differences were seen among Asian Kentuckians (9.06 visits on average for mothers up to age 19 compared to 11.84 for all mothers) and Black Kentuckians (10.44 visits on average for mothers up to age 19 compared to 11.38 for all mothers).

Among all mothers up to age 19, only Asian Kentucky mothers had a lower number of average prenatal visits compared to the national average for that age category; the other race categories examined exceeded the national average. Among mothers of all ages, American Indian or Alaska Native and Native Hawaiian or Pacific Islander mothers in Kentucky had a lower number of prenatal visits than the national average.

Figure 38. Average number of prenatal visits by race and ethnicity, 2016-2019.



	United States Total	Kentucky Total	Kentucky Asian	Kentucky Black	Kentucky White	Kentucky More than One Race	Kentucky American Indian or Alaska Native	Kentucky Native Hawaiian or Pacific Islander
To Age 19	10.13	11.28	9.06	10.44	11.39	11.91		
All Ages	11.31	11.85	11.84	11.38	11.91	11.9	11.16	9.52

Source: CDC WONDER

HEALTH EQUITY MOVING FORWARD

This report uses a health equity lens to describe differences in health care access and in health outcomes. Because these differences result in worse quality and quantity of life for members of particular groups, these differences are disparities and are fundamentally unjust.

Before we recommend public health interventions based on this health equity framework, we must first advocate for widespread education and understanding of this framework. Health equity is not preferential treatment, nor is it reverse racism. Health equity is not taking away rights of some to give to others. Health equity is not a plan to target particular groups and move them to the front of the line by cutting in front of others. Rather, the goal of health equity is to ensure that there is no line because everyone deserves the opportunity to be healthy.

Our health equity framework aligns with the concept of *targeted universalism*, meaning that if we are able to succeed in reducing, and ultimately eliminating, health disparities for minority groups, acknowledging the intersectionality of other factors related to health and health disparities, we can succeed in improving health outcomes for all groups across the entire state. By eliminating disparities, we can collectively improve life expectancy, reduce unnecessary expenditures, make resources available to more people, and ensure that all Kentuckians have what they need to thrive.

This core tenet of health equity is not widely understood. Moving forward, this understanding is the foundation we must build. Only once this foundation has been laid can we fully realize the potential of the recommendations that follow in the next section.

RECOMMENDATIONS[87]

Based on the findings outlined in the 2021 Kentucky Minority Health Status Report, the Health Equity Branch within the Kentucky Department for Public Health urges leaders in government, health care, education, and beyond to undertake actions to mitigate negative impacts of social determinants of health. Examples are listed below.

- Enacting policies that focus on affordable housing, clean air and water, quality education, and quality healthcare for all.

[87] This document was composed as the result of a collaboration between the Department for Public Health, Health Equity Branch and the Office of Data Analytics, Division of Analytics. The Division of Analytics was established under KRS 194A.101, and consistent with its statutory mandate, the Division maintains the practice of endeavoring to provide factual analysis from empirical sources to inform policy and programmatic decisions in Kentucky. In keeping with this mission, the Division of Analytics adheres to a practice of refraining from making official policy recommendations; preferring to defer to those whom Kentucky's voters and governmental institutions have granted the appropriate authority to make such recommendations on their behalf. Therefore, the reader must understand the policy recommendations included here to be those made by the Department for Public Health, and that the Division of Analytics claims no official involvement in the crafting of policy recommendations made within this report, nor does the Division take any official position on those recommendations.

- Utilizing equity intervention at the systemic/structural level such as the ones proposed by the Government Alliance on Race and Equity (GARE),[88] the National Standards for Culturally and Linguistically Appropriate Services (CLAS), the National Network to Eliminate Health Disparities (NNED), the People's Institute for Survival and Beyond (PISAB), the Cultural Responsiveness Framework, or other organizational intervention strategies.
- Elevating *intersectionality* as an opportunity to more effectively understand and address health adversities that are driven by disparities, for example, by age **and** disability rather than age **or** disability.
- Applying public health policy interventions using a *targeted universalism* approach. According to john a. powell at the Othering and Belonging Institute:

  "Targeted universalism means setting universal goals pursued by targeted processes to achieve those goals. Within a targeted universalism framework, universal goals are established for all groups concerned. The strategies developed to achieve those goals are targeted, based upon how different groups are situated within structures, culture, and across geographies to obtain the universal goal. Targeted universalism is goal oriented, and the processes are directed in service of the explicit, universal goal."[89]

- Making services accessible to people with disabilities, those without consistent transportation, low-income individuals, individuals who work long hours, people whose first language is not English, the elderly, and those worried about perceived discrimination if they were to seek services. Strategies might include:
  - Emphasizing and employing principles of *universal design*, which is the idea that spaces and products should be created so that they are accessible for everyone;
  - Providing transportation vouchers for individuals who lack affordable and reliable transportation;
  - Offering services after work hours on a regular basis;
  - Partnering with community organizations that provide childcare so that caregivers are able to access services;
  - Assessing for language and cultural needs in advance so that those needs can be met;
  - Guaranteeing that interpreter services can be made available; *and*
  - Explicitly displaying anti-discrimination policies and including them in materials that are given to individuals.
- Amplifying narratives and voices of people of color (especially Black and Indigenous people), disabled people, people of marginalized genders and sexualities, and those who live in poverty.
  - This includes centering those voices in decision-making processes.
- Engaging in reciprocal community discussions and outreach with a focus on the social determinants of health and their impact on long term health outcomes.

[88] Nelson, J., Spokane, L., Ross, L., & Deng, N. (2015). Advancing racial equity and transforming government. *The Government Alliance on Race and Equity*, https://racialequityalliance.org/wp-content/uploads/2015/02/GARE-Resource_Guide.pdf

[89] powell ja, Menendian S, Ake W. (2019).

- Elevating the role that systems, structural and institutional barriers, polices, and processes have impacted the health and health outcomes disproportionately impacting rural communities and communities of color.
- Expanding the general public's knowledge of available services, particularly those related to social determinants of health, including Enacting policies that focus on affordable housing, clean air and water, quality education, and quality healthcare for all.

- Hiring and promoting individuals with diverse lived experiences.
- Promoting organizational development strategies across the Cabinet for Health and Family Services (CHFS) that integrate a greater focus on eliminating racial disparities.
    - All CHFS agencies should implement organizational change processes that normalize, organize, and operationalize the work of racial equity. Nelson and colleagues[83] provide a framework for government organizations to advance racial equity.
- Funding programs and contracts that are primarily led by and serve BIPOC community members and members of rural communities.
- Providing training and guidance on applying for contracts and funding opportunities through the state for organizations led by BIPOC, women and other marginalized genders, queer folks, disabled folks, and rural folks.

STRENGTHS AND LIMITATIONS OF COVID-19 RESPONSE

Information for the report was obtained through a department-wide review along with key data and analysis with Kentucky DPH leadership. Overarching strengths, limitations and lessons learned include the following.

Strengths – Kentucky was among the first states to identify and report disparities in COVID-19 cases and deaths among communities of color, prompting both Kentucky DPH and the Health Equity Branch (HEB) to act immediately. Successful efforts included:

- Expanding COVID-19 testing to include testing at neighborhoods sites, especially sites with limited to any access
- Providing increased resources, services, and support to address needs and issues within communities
- Leveraging funds to address increased needs due to COVID-19
- Using data and surveillance in the Commonwealth to provide the necessary assistance from the behaviors and answers within the communities
- Establishing, strengthening, and mobilizing internal and external partnerships to advance equity efforts across the commonwealth

Limitations – Despite the many accomplishments and successful efforts of KYDPH's COVID-19 response, it also encountered several challenges. These included:

- Lack of access to services, technology, and information in marginalized and disenfranchised communities

- Spread of miscommunication about COVID-19 and mistrust of the government and health care providers among communities of color
- Limitations of data access among racial and ethnic groups due to the lack of data collected and/or inconsistency with the data

Lessons Learned – These strengths and limitations have brought to light numerous lessons learned for advancing health equity and equality in the pandemic and beyond. These include:

- The necessity to address social determinants of health and health inequalities and disparities
- The need to improve data access and collection among racial and ethnic populations within the Commonwealth
- The importance of place with equity at the forefront of every effort by establishing it as a foundational element in strategic planning
- Incorporate health equity in onboarding new hires and continued professional development of public health staff
- The importance of providing sustainable funding and investment in the public health/human services infrastructure
- Increased capacity and infrastructure for the sustainability of health equity efforts

Despite these limitations, the Minority Health Status Report (MHSR) provides an outlook at how the department responded during COVID-19, to improve and expand its health and social equity efforts during the pandemic. The MHSR provides the most current data on the health of Kentucky minorities.

CONCLUSIONS

The data presented in this report indicate the health inequities and disparities among racial and ethnic groups in the Commonwealth of Kentucky. The COVID-19 pandemic has highlighted health and social inequities, exacerbated limits on access to care, and identified barriers to services for communities of color and other marginalized populations. Moreover, it has led to unprecedented health, economic and social hardships. However, as Kentucky looks forward to recovery from the COVID-19 pandemic, it can proceed in strategies that will help make Kentucky better, stronger, and healthier. To ensure success in the matter, the Health Equity Branch (HEB) must leverage state and community partnerships, engage with local and community leaders and residents, apply its equity framework to its overall work, and invest governmental resources that align with community needs.

Kentucky's path forward will not be easy, but it is possible with the help of every governmental official and community leader working together to promote optimal health for all. This union must utilize their efforts to determine the various factors and systemic causes that inflict health disparities and inequities. In their efforts collectively, together, Kentucky will incorporate strategies that will advance both short- and long-term solutions, invest in abilities to respond to emergency situations, and strive for systemic change. In addition, these efforts must involve diverse, multisectoral stakeholders to address issues affecting the health and well-being of Kentucky and beyond.

While the health inequities and disparities exposed by COVID-19 are not new, the issue now is whether the pandemic will continue to serve as a catalyst for public officials and public health professionals to make meaningful, sustained changes in the state's public health and human services systems. This includes dedicating the full attention to and driving all necessary resources for optimal health, such as determining and analyzing social determinants of health. Even after the acute phases of COVID-19 pass, the long-term effects will remain and need to be addressed.

Moreover, the pandemic has realigned areas of focus and pushed HEB to determine opportunities for improvement. The hope and vision for the future is that the lessons learned from the COVID-19 crisis will lead to positive, long-lasting changes that will establish more resilient communities and a health equity-focused government, with systems to support the whole scope of public health and social needs. This will eventually lead to a decline in Kentucky's health disparities and inequities. For this vision to come to fruition, this requires keeping equity at the forefront of all efforts and fostering the culture of public health and health equity within DPH, HEB, and the entire state.

A BRIEF NOTE ON THE CHALLENGE OF USING INFORMATION ABOUT RACE IN STATISTICAL ANALYSES[90]

Conclusions drawn from racial demographics statistics should be understood considering a few important limitations: (1) not all surveys and data sources use the same categories to describe racial identity; (2) not all people who complete surveys and questionnaires choose to disclose their race; (3) racial identity is a complicated social construct that entails more than mere skin color.

Why the words we use are important

In this report, the reader will notice that it is necessary to use racial categories as a means of describing populations. Words such as "Black", "white", or "Asian" are used to describe groups of people in this report because they are commonly featured the US census, in popular culture, academic literature, and political discourse. This being the case, the authors acknowledge that these categories are often problematic, for several reasons. For example, this report must rely on data from multiple sources – and these sources do not always present uniform options for respondents to self-report their race. In one source of data, people may be forced to select from options that identify "Hispanic" as an *ethnicity*; while in another source they are given a range of options that allow them to identify "Latino/Latina" as a *racial category*. The fact that two measures of the underlying idea of race can capture different information will inevitably alter or distort the interpretations of analyses like the ones presented in this report. It is critical that we understand this distortion as a feature of racial categorization and not a symptom.

Why the categories we use don't perfectly align with reality

Furthermore, and far more essential, is the reality that race cannot be rigorously defined, because it is composed entirely of abstract beliefs unrelated to biology. There are no markers in the human genome that would account for or correspond to the idea of "race." Instead, the idea of race has been applied historically to categorize groups, most often in ways that are dehumanizing and strip people of their complex and nuanced realities. For example, a common racial category used in American demographic surveys is "Asian/Pacific Islander". This category is wholly insufficient to meaningfully capture the totality of a continent that contains over half of the world's population, especially when Asia contains so many unique ethnic and cultural groups who would not consider themselves to belong to a common racial category. Moreover, there is notable evidence that self-reported race data, as collected in important national surveys, may not be as much of a fixed entity as we are led to believe. For example, between the 2000 and 2010 censuses, nearly 10 million respondents altered their self-identified race or response regarding Hispanic origin. One surprising study noted that, over a roughly twenty-year period, nearly 20% of individuals changed their racial category.

Why it is still important to study the associations between race and health despite these limitations?

[90] Schonfeld, B. & Winter-Levy, S. (August 14, 2020). How to Study Racial Disparities. Scientific American.; Roth, W. D. (2016). The multiple dimensions of race. Ethnic and Racial Studies, 39(8), 1310-1338.; Saperstein, A., & Penner, A. M. (2012). Racial fluidity and inequality in the United States. American Journal of Sociology, 118(3), 676-727.; Sen, M., & Wasow, O. (2016). Race as a bundle of sticks: Designs that estimate effects of seemingly immutable characteristics. Annual Review of Political Science, 19, 499-522.

Biological and genetic differences between human beings, specifically in regard to race, are non-existent. However, the social salience that Americans have attributed to the idea of race explains very important differences in how various groups experience life in the United States. Significant policies have been made based on race, such as the mortgage lending and real estate practices of redlining, or the ways that Black soldiers returning home from World War II were excluded from the benefits of the GI Bill. The sum of these policies has produced the disparities in household wealth and especially how other ethnic groups experience their interactions with our healthcare system.

We hold these truths to be self-evident,
that all men are created equal,
that they are endowed by their Creator with certain unalienable Rights,
that among these are
Life,
Liberty,
and the pursuit of Happiness.

CONTRIBUTING AUTHORS

Office of Data Analytics – Division of Analytics

Dr. Kailyn Conner, PhD, MPH, Staff Epidemiologist

Ben Duncan, MA, Project Manager

Allison Lile, MBA, Former Healthcare Database Administrator (Currently with Personnel Cabinet)

Jacob Mackie, BSBA, BS Research Assistant

Dr. Shawndaya Thrasher, PhD, **MSW, MA** Former Social Sciences Research Analyst

Darby Todd, MS, Research Assistant

Dr. Matthew Walton, PhD, MSSW, Research Lead

Department for Public Health – Health Equity Branch

Vivian Lasley-Bibbs, MPH, Director

Johan Malcolm, **BS**, Health Informatics Planner

Nicole Weiss, PhD, Health Equity Project Manager

Cabinet for Health and Family Services

Rashaad Abdur-Rahman, MSSW, Executive Advisor