



Youth Risk Behavior Survey
2017 | Durham County

Introduction

Overview

The Durham County Youth Risk Behavior Survey (YRBS) is a part of a national school-based survey produced by the Centers for Disease Control and Prevention (CDC) and administered every other year by the Durham Public Schools. The purpose of this survey is to assess health risk behaviors that can contribute to injury and leading causes of death among the adolescent population.

The YRBS results are used by state and local education and public health officials to develop and track goals, seek funding for programs, implement strategies, and inform policies that promote prevention and health promotion among youth.

Acknowledgements

The Durham County Department of Public Health (DCoDPH) and Durham Public Schools (DPS) collaborated with the North Carolina Department of Public Instruction to create a survey sample and collect surveys. DCoDPH analyzed the data and created the report, with input from community partners.

A special thanks is owed to DPS students who participated in the 2017 survey and the DPS staff who supported the data collection. In addition, leadership and support from the following people is gratefully acknowledged:

Durham Public Schools

- Amy Davis, Ed.D
- Deborah Polen-Pittman, PhD
- Julie Spencer, Ed.D

North Carolina Healthy Schools

- Les Spell, MAEd

Report Author

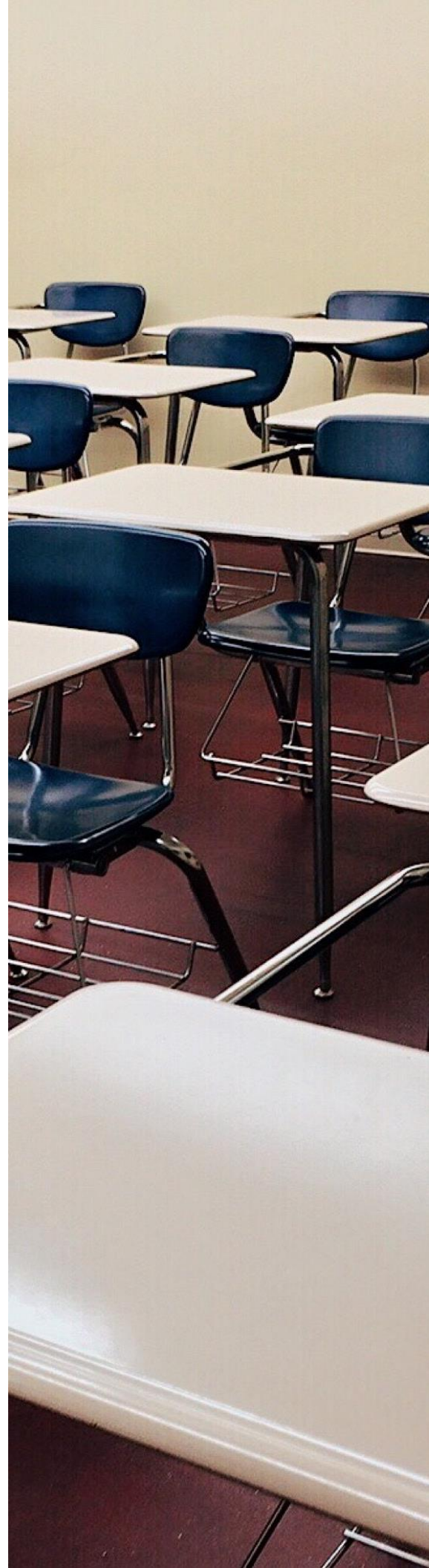
- Denver Jameson, MPH, Durham County Department of Public Health

Report Editors

- Jannah Bierens, MPH, Durham County Department of Public Health
- Lara Khalil, MPH, RD, City-County Youth Initiatives Manager
- Mel Downey-Piper, MPH, Durham County Department of Public Health

Report Reviewers

- Joanne Pierce, MA, MPH, Durham County Department of Public Health
- Marissa Mortiboy, MPH, Durham County Department of Public Health
- Tara Blackley, MA, MPH, MBA, Durham County Department of Public Health



Report Contents

Characteristics of Survey Participants.....4

Racial Inequities.....6

Physical Health.....8

Physical Activity.....10

Nutrition.....11

Safety.....12

Sexual Behavior.....13

Bullying.....14

Mental Health.....15

Substance Use.....16

Resources.....19

Summary Tables.....20

Methods

Questionnaire

The 2017 Durham County middle school YRBS consisted of 70 questions; the high school YRBS consisted of 99 questions. All questions were designed and validated by the Centers for Disease Control and Prevention (CDC). At least two thirds of the questions on each survey must come from the national core set of questions. The remaining one third were selected by a multi-sector team at the State. Surveys were administered on paper.

Sampling

In the spring of 2017, the Durham County YRBS was administered to randomly selected middle and high school classes. Systematic equal probability sampling with a random start was used to select classes from 12 middle schools and 10 high schools. Survey responses were anonymous and voluntary. Prior to survey administration, parents and guardians were provided with a permission form to allow students to opt out of the survey. Students who participated in the survey recorded responses during their second period classes.

Analysis

All survey responses were sent to the CDC. The CDC cleaned the data and provided weighted middle school data and unweighted high school data to DCoDPH. Data were analyzed and high school data were weighted at DCoDPH using SAS 9.4. Weighting accounted for race, ethnicity, sex, survey design, and nonresponse. Both middle school and high school data are reported as weighted percentages in this report. Tests for statistical significance were performed for each survey question. Data are disaggregated by race, ethnicity, and sex throughout the report when differences are statistically significant.

Analysis Notes:

- In some cases, percentages may not add up to 100% due to rounding.
- If the number of students in a given group was less than 10, results were excluded to protect identities.
- For analysis purposes, the “other race” category includes students who reported being Asian, Native American, Alaska Native, Native Hawaiian, Pacific Islander, and multiracial.
- In this report, students who answered yes to the question on the survey that asked if they are Hispanic or Latino are included in the Latinx race and ethnicity category. Therefore, black, Latinx, and white should be understood as mutually exclusive categories throughout the report.

Limitations

YRBS results do not include information from youth who attend charter and private schools and therefore cannot be generalized to all students in Durham. Responses are limited to students who attended class on survey days. Additionally, all data are self-reported and may be under- or over-represented. Finally, a large DPS high school did not participate, which resulted in a low overall high school response rate. To account for this, high school data were weighted to account for sex, race and ethnicity, survey design, and nonresponse.

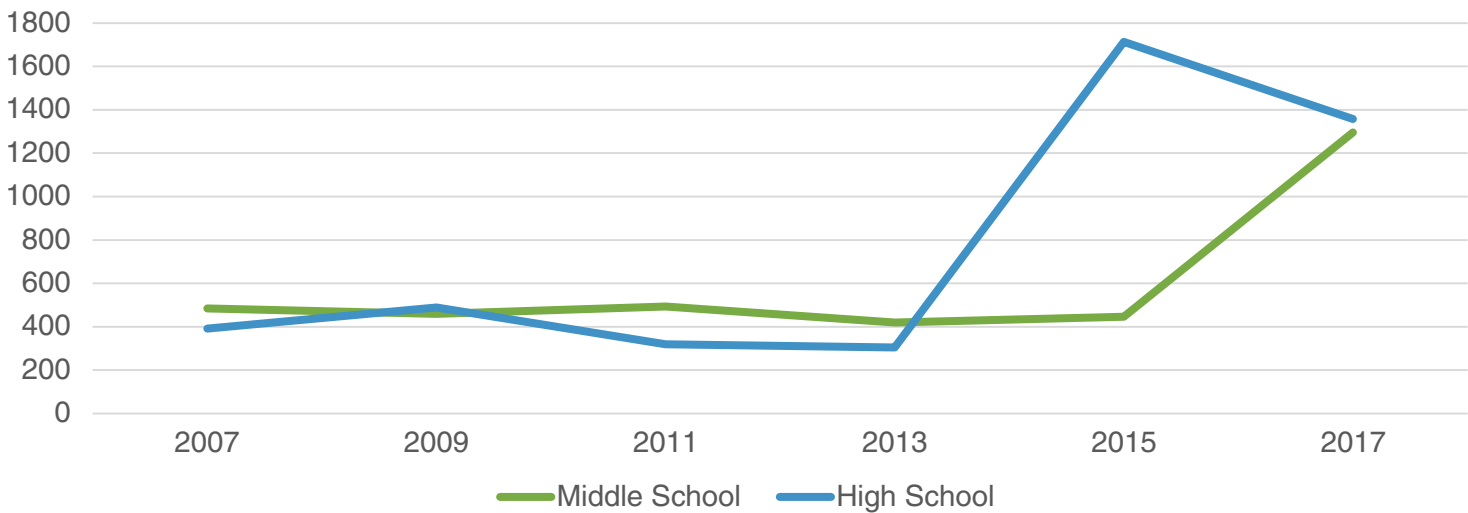


Survey Participant Characteristics

Responses were collected from 11 out of the 12 middle schools in the sample and 8 of the 10 high schools selected. Response rates account for the percent of schools and students who responded to the surveys. The response rate for the middle school survey was 61% (n=1,357) and 43% (n=1,296) for the high school survey.

The trend in the number of survey participants since 2007 is reflected in the chart below. The sampling methods changed in 2015 in order to draw a large enough sample to produce representative data for Durham. The change is visualized in Figure 1 with a substantial increase in the sample size for high school students in 2015 and for all students in 2017.

Figure 1. Number of Students who Participated in the YRBS by Year, 2007-2017



The weighted high school and middle school survey results are representative of the overall DPS middle school and high school students in terms of race, ethnicity, and sex. Figures 2 and 3 below depict the reported race and ethnicity breakdown of students who participated in the 2017 surveys as well as the overall DPS student population for middle school and high school students enrolled during 2016-2017. Differences in race/ethnicity among the survey populations and student populations for the middle school and high school surveys were not statistically significant. Sex is not displayed, as weighted data yielded equivalent distributions (50%) of males and females in both surveys.

Figure 2. Race and Ethnicity, Middle School

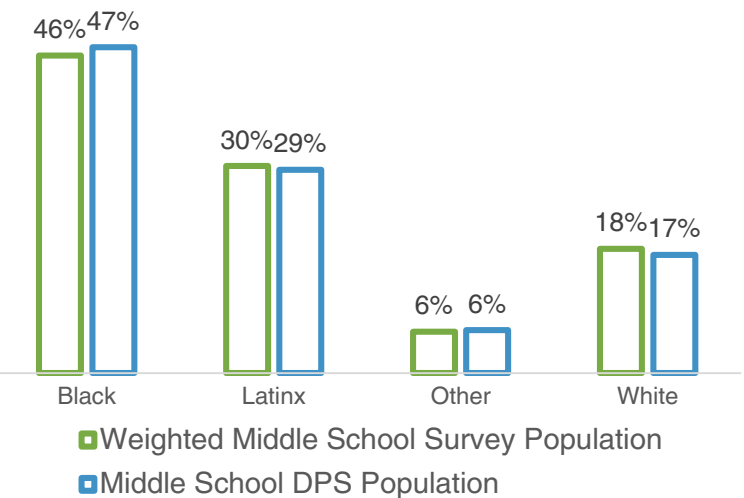
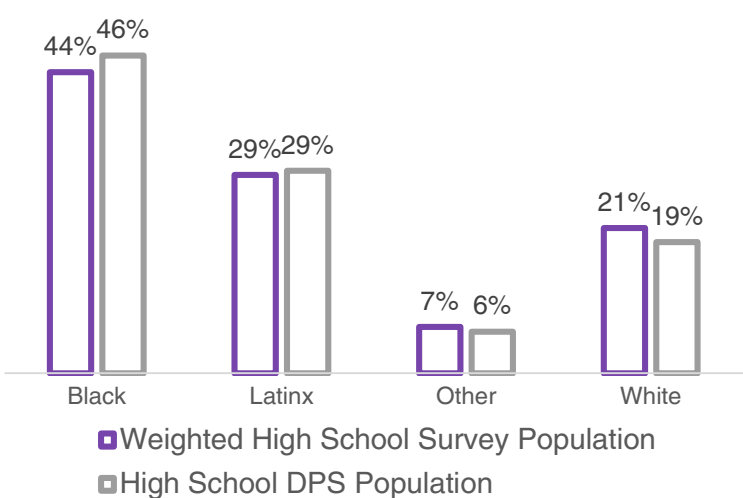


Figure 3. Race and Ethnicity, High School



Survey Participant Characteristics

Age

Grade level (not shown) among middle school students was representative of the DPS middle school population. However, 9th graders were overrepresented in the high school survey while 11th and 12th graders were underrepresented. This is mirrored below in Figures 4 and 5 in the age distribution. Age rather than grade level is displayed to provide a more complete picture of age distribution, as students who have been held back or advanced to higher grade levels are not detectable when looking at grade level alone.

Figure 4. Age among Middle School Survey Respondents

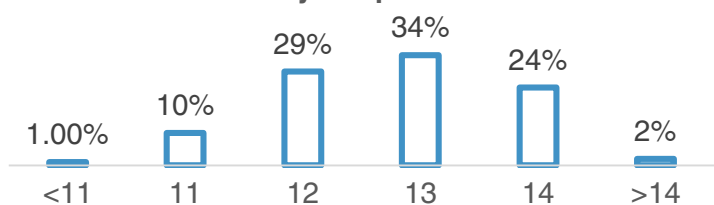
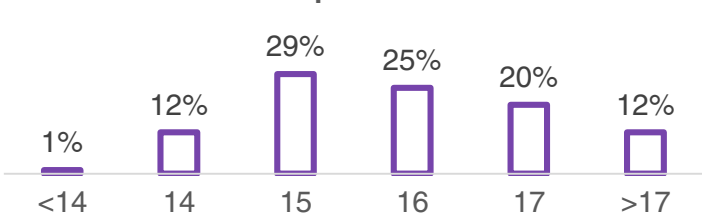


Figure 5. Age among High School Survey Respondents



Sexual Orientation

High school students were asked about their sexual orientation. A total of 81% of students reported being heterosexual, 3% of students reported being gay or lesbian, and 10% of students reported being bisexual. The remaining 7% of students reported they were unsure of their sexual orientation. Sexual orientation varied by race and ethnicity. Graphs showing sexual orientation among high school students are displayed below.

Figure 6. Sexual Orientation among High School Students

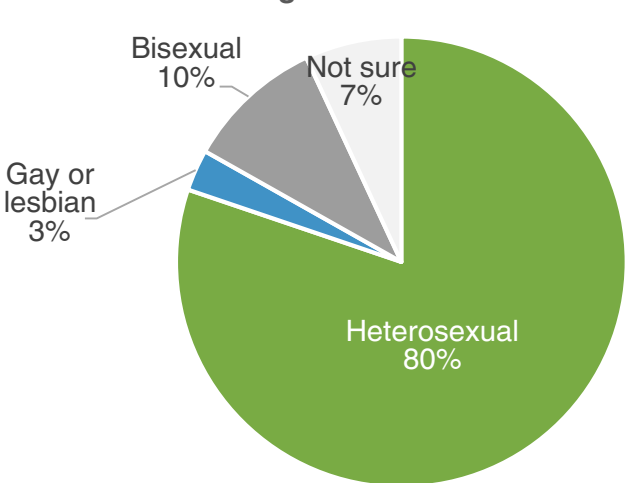
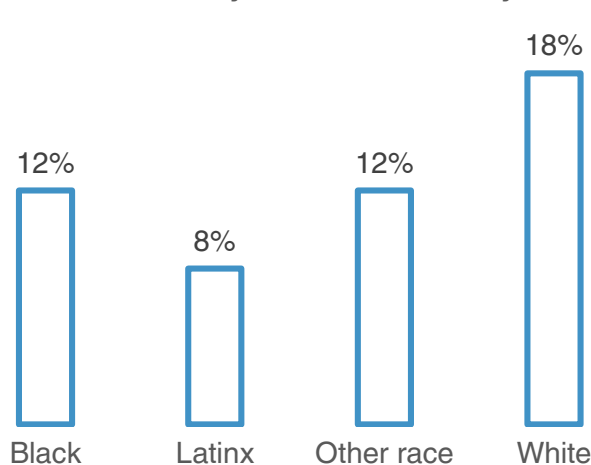


Figure 7. Percent of High School Students who are Gay, Lesbian, or Bisexual by Race and Ethnicity



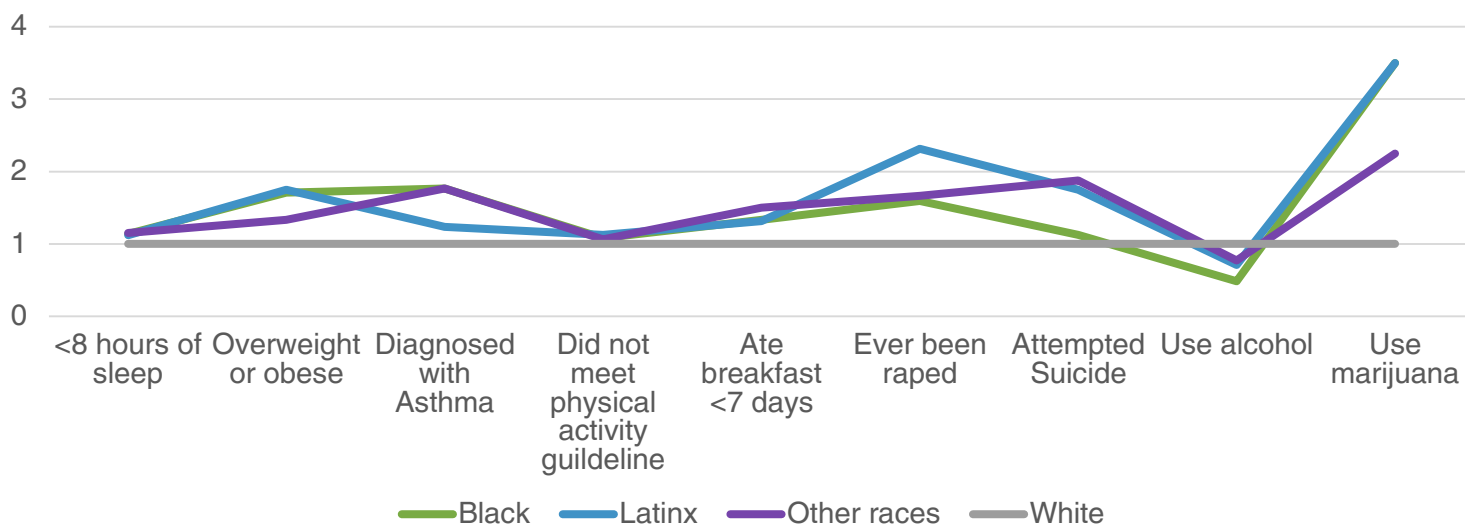
Racial Inequities

Health Disparities versus Health Inequities

Health disparities are differences in health outcomes between two groups of people. When differences between two groups are unjust and avoidable, the differences are called inequities.⁷ For example, if we looked at the rate of injuries from falls in older adults compared to younger adults, we would see that the rate of injury is higher for older adults compared to young adults. Aging is unavoidable and we expect to see falls increase with age, so this is an example of a health disparity. However, if we saw that black women had more preterm babies than white women then we would call this a health inequity because it is avoidable and unjust.

Figure 8 below shows student behaviors by race for various YRBS questions. Behaviors and experiences for each race are shown as rates compared to whites to highlight system level inequities. With the exception of alcohol use, outcomes for students of color are worse compared to whites in every area. For example, the chart shows that Latinx youth are more than twice as likely to have been raped compared to white youth. This points to a systemic issue and indicates that the differences are avoidable, unjust, and inequitable.

Figure 8. Relative Rate Index of Reported High School Outcomes by Race



Race is a Social Construct

Many think race is genetic, but it is not. There is not a single genetic variant that all Africans have that differs from all Europeans.²⁰ In fact, there are 10 times more genetic differences among people of the same race than there are among people of different races.¹³ Skin color and other differences in physical appearance are adaptations based on where people's ancestors evolved in relation to the equator.² Race is a social construct supported by an ideology that favors those who are identified as white to the disadvantage of people of color.

Although race is not real, the categorization of people by race has real consequences affecting people's access to resources. It also influences the way people interact with systems and other people. Policies leading to slavery, mass incarceration, segregated schools, forced sterilization, redlining, the environment, and many others perpetually operate to withhold wealth, power, and health from people of color since the beginning of this nation's history. This is known as structural racism. Structural racism results in good outcomes for whites in every system compared to people of color – which persist today even as these policies are overturned.¹⁵

Racism is a Risk Factor

Race is not biologically real yet it has a real effect on all of us, regardless of our race – robbing us of our humanity. Examples of how structural racism is a primary contributor to poor outcomes among students of color will be used to explain why there are inequities throughout this report. However, this report does not provide an exhaustive list.

Report Highlights

Physical Health

- Overall, the percent of high school students who slept eight or more hours a night increased from 17% in 2015 to 28% in 2017. The change in the bell schedule at DPS may have contributed to the increase in sleep.
 - Nearly half (48%) of middle school students and 28% of high school students reported getting 8 or more hours of sleep per night.
- A total of 37% of high school students were overweight or obese, according to self-reported height and weight. Middle school students were not asked to self report their height and weight.
- A total of 59% of middle school students had a routine physical exam and 63% saw a dentist for a check-up, exam, teeth cleaning, or other dental work in the past year. High school students were not asked these questions.
- Overall, 25% of middle school students and 24% of high school students reported being told by a doctor or nurse that they had asthma during their lifetime.

Physical Activity

- Nearly half of middle school students (47%) and a third (33%) of high school students reported being physically active for at least 60 minutes per day on 5 or more days per week.

Nutrition

- A total of 40% of middle school students and 32% of high school students reported eating breakfast on all 7 days prior to taking the survey.
- Among high school students, 31% reported drinking a sugar sweetened beverage at least once per day. Middle school students were not asked about sugar sweetened beverage consumption.

Safety

- A total of 6% of middle school students and 11% of high school students reported that they did not go to school at least once in the past month leading up to the survey because they felt unsafe at school or going to or from school.
- A total of 25% of middle school students and 37% of high school students reported that there was gang activity in their schools.
- A total of 3% of high school students reported that they had carried a weapon such as a gun, knife, or club at school at least once during the past 30 days. Middle school students were not asked this question.

Sexual Health

- A total of 14% of middle school students and 36% of high school students reported that they had ever had sexual intercourse.
- A total of 9% of high school students reported being physically forced to have sexual intercourse. Middle school students were not asked this question.

Bullying

- A total of 38% of middle school students and 19% of high school students reported being bullied on school property.
- A total of 61% of middle school students and 51% of high school students reported seeing another student bullied at school.
- A total of 20% of middle school students and 14% of high school students reported being teased or called names because someone thought they were lesbian, gay, or bisexual.

Mental Health

- A total of 26% of middle school students and 30% of high school students reported feelings or depression in the past year.

Substance Use

- Marijuana was reported as the most commonly used substance within the month leading up to the survey for all school levels.
- A total of 12% of middle school students and 22% of high school students reported current use of marijuana.

Physical Health

Sleep

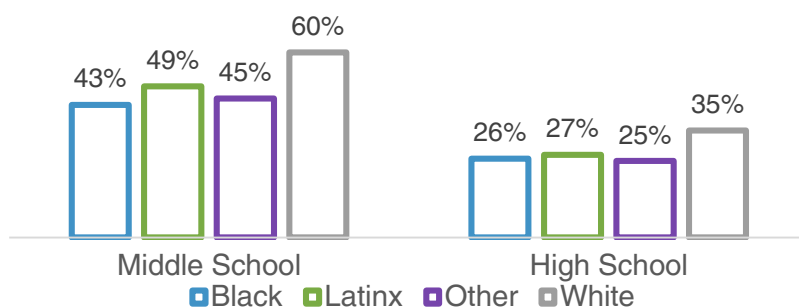
The CDC recommends teenagers get 8 to 10 hours of sleep each night.¹¹ To help increase sleep among high school students, DPS changed the bell schedule at the start of the 2016-2017 school year. In 2015, 17% of students reported getting 8 or more hours of sleep a night compared to 28% of students in 2017.

- Nearly half (48%) of middle school students reported getting 8 or more hours of sleep per night. Black, Latinx, and students of other races were less likely than white students to get at least 8 hours of sleep a night. There were no statistically significant differences by sex.
- Among high school students, 28% reported getting 8 or more hours of sleep on an average school night. However, Black and Latinx students were significantly less likely than white students to get 8 or more hours of sleep. Differences by sex were not statistically significant.

Why are there inequities?

Studies aimed at identifying the cause of inequities in sleep by race and ethnicity show that the **more racial or ethnic discrimination** people experience, the **less sleep** they get. Stress due to discrimination is likely the cause.³⁵ Students' stress due to discrimination may contribute to the inequities in hours of sleep. Youth of color are also more likely to live in areas with more noise pollution compared to whites, which can impact quality of sleep.²⁶

Figure 9. Students Who Reported 8 or More Hours of Sleep on an Average School Night



Overweight and Obesity

Overall, 37% of high school students were overweight or obese, according to self-reported height and weight. Black, Latinx, and students of other races were more likely than whites to be overweight or obese. There were no statistically significant differences by sex. Self-reported weight data was not collected in the middle school survey.

Figure 10. Body Mass Index (BMI) Category among High School Students

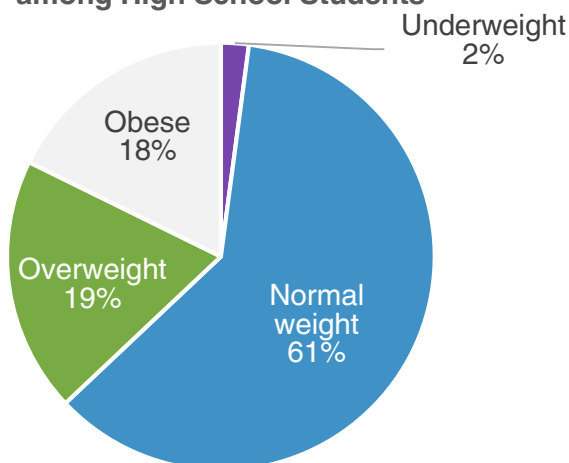
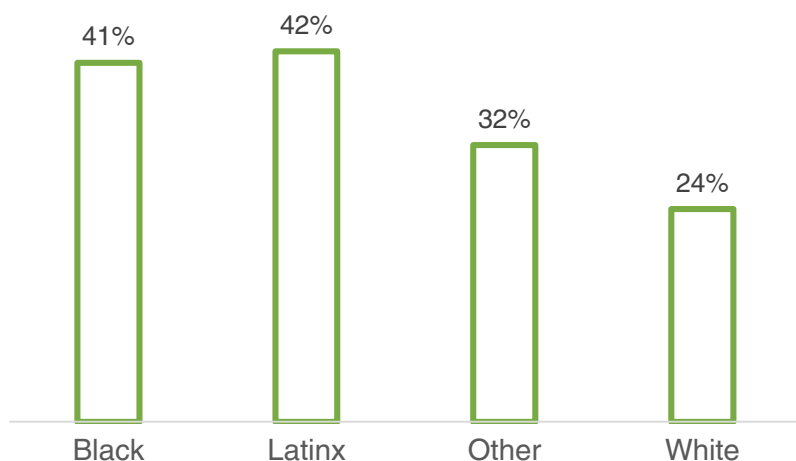


Figure 11. Overweight and Obesity by Race and Ethnicity among High School Participants



Why are there inequities?

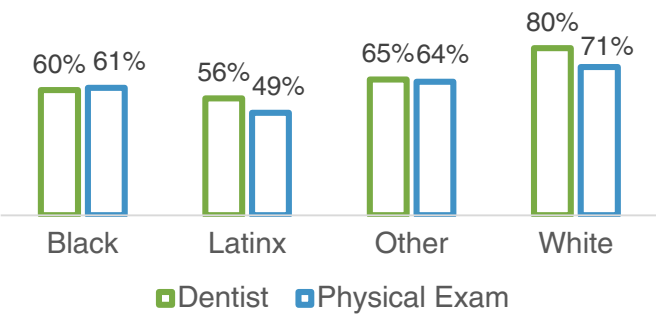
People of color are exposed to more fast food marketing due to inequitable targeted marketing practices and are more likely to have fast food restaurants in their neighborhoods.^{19,1,27} This is compounded by the fact that they are more likely to live in areas without a nearby grocery store and have lower levels of access to fresh produce compared to whites.⁸ People of color are also more likely to live in areas without access to parks, playgrounds, and recreational centers due to policies like redlining and inequitable practices in the mortgage industry.^{23,32,41,42}

Physical Health

Routine Check-Ups

Middle school students were asked about routine check-ups. A total of 59% of middle school students had a routine physical exam and 63% saw a dentist for a check-up, exam, teeth cleaning, or other dental work in the past year. Black, Latinx and students of other races were less likely than white students to have seen a doctor or dentist in the past year. Differences by sex were not statistically significant.

Figure 12. Middle School Students who Visited a Medical Provider in the Past 12 Months



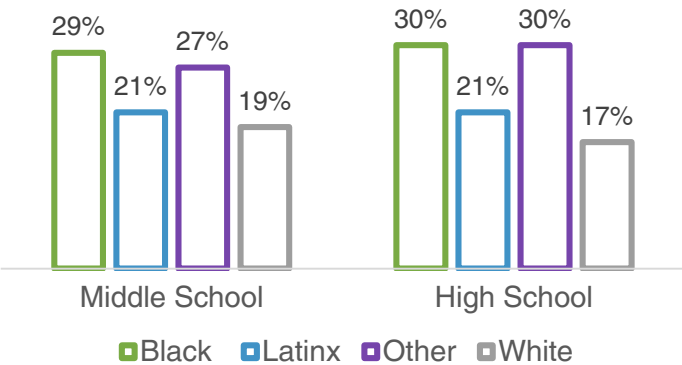
Why are there inequities?

As a result of workforce discrimination, people of color are less likely to be interviewed for a job than whites with the same credentials.⁶ People of color are also more likely to have low wage and hourly jobs.^{12,33,34} Often these types of jobs do not include employer sponsored health insurance, which was one of the most common barriers to accessing health care in Durham in 2016.²⁸ Low paying jobs can make it hard to afford health insurance for themselves and their children.¹² Parents with with hourly jobs may also not have sick leave benefits, which can mean missing work and losing income in order to take their child to the doctor.²²

Asthma

Overall, 25% of middle school students and 24% of high school students reported being told by a doctor or nurse that they had asthma during their lifetime. Among middle and high school students, black students and students of other races were more likely than white students to have been diagnosed with asthma during their lifetime. Differences by sex were not statistically significant.

Figure 13. Students who Were Diagnosed with Asthma During their Lifetime



Why are there inequities?

People of color are exposed to more pollution compared to whites.⁵ This stems from racist policies, like redlining, that banned people of color from being able to access loans and homes available to whites, and from federally funded highways which were primarily built in neighborhoods where people of color lived.^{5,39} Exposure to pollution and environmental contaminants has been linked to an increased likelihood of developing asthma.⁵

Black children are also exposed to more secondhand smoke compared to any other race or ethnicity, which has been linked to asthma development in children.^{9,4}



Physical Activity



Sports Participation

Middle school students were asked about sports participation within the past year. About half of students (53%) reported participating in sports. Males, black students, and white students were significantly more likely than their peers to participate.

Physical Activity

The CDC recommends 60 minutes (1 hour) or more of daily physical activity for adolescents.¹⁰ The DPS wellness policy requires schools to provide a minimum of 30 minutes of vigorous physical activity for all K-8 students each day, which may contribute to higher levels of physical activity among middle school students.¹⁷

- Nearly half of middle school students (47%) and a third (33%) of high school students reported being physically active for at least 60 minutes per day on 5 or more days in the past week.
- Males in high school and middle school were significantly more likely to meet the physical activity recommendation than females.
- Black and Latinx students were also less likely to meet the recommendation compared to white students.



Why are there inequities?

A study of parks in Durham found that physical activity varied depending on park characteristics like presence of basketball courts, water features, shelters, and picnic areas.³¹ Lower quality parks in neighborhood where youth of color live may contribute to lower levels of physical activity.^{38,40}

Figure 14. Middle School Students who were Physically Active (≥60 Minutes ≥5 Days per Week)

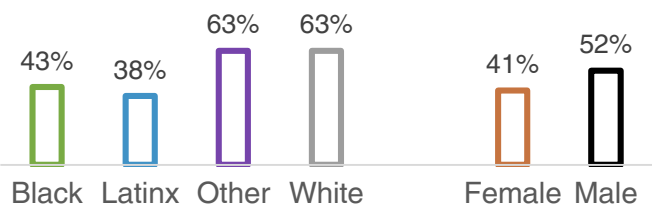
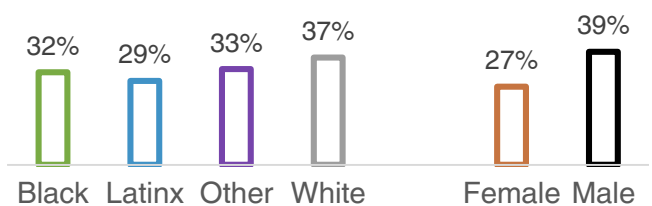


Figure 15. High School Students who were Physically Active (≥60 Minutes ≥5 Days per Week)



TV and Computer Screen Time

Screen time, which accounts for watching TV, playing video or computer games, and using a smartphone or tablet, was similar among all school levels. Overall, 66% of middle school students and 63% of high school students reported spending 3 or more hours engaged in screen time on an average school day doing things unrelated to school.

- Among middle school students, white students were less likely to engage in screen time compared to their peers.
- Among high school students, students of other races were more likely than black, Latinx, or white students to engage in screen time. Other differences were not significant.
- Differences by sex were not significant for middle school or high school students.

Nutrition

Breakfast

A total of 40% of middle school students and 32% of high school students reported eating breakfast on all 7 days prior to taking the survey. The percentage of students who ate breakfast varied significantly by race, ethnicity, and sex as indicated below.

- Males in middle school and high school were more likely than females to eat breakfast on all 7 days.
- Among middle school and high school students, black, Latinx, and students of other races were less likely than whites to eat breakfast on all 7 days.



Figure 16. Middle School Students who Ate Breakfast Every Day in Past Week

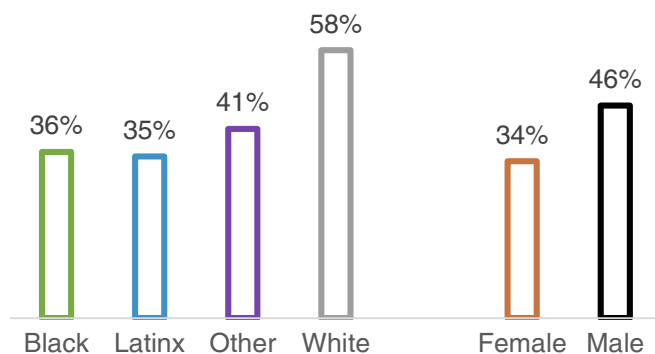
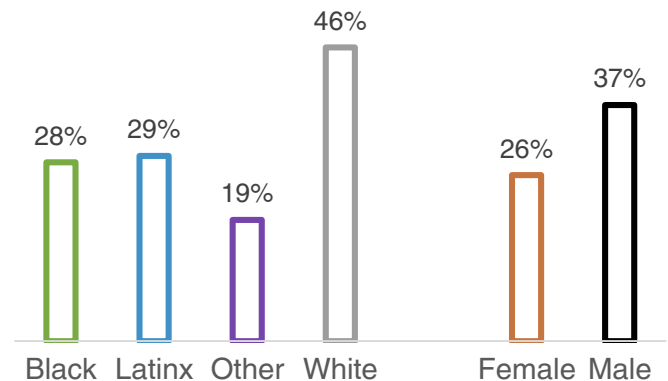


Figure 17. High School Students who Ate Breakfast Every Day in Past Week



Why are there inequities?

DPS offers free breakfast to all students on school days, but disparities in the proportion of students eating breakfast by race, ethnicity, and sex still exist, even when looking at the proportion of students who ate breakfast 5 days a week.¹⁶ Research shows that participation in school breakfast programs decreases when parents perceive the nutritional value of meals to be substandard. Breakfast programs are also seen by students and parents as being intended for use among low-income students, which may contribute to stigma among students who participate in the breakfast program.^{24,30} Thus, stigma associated with the breakfast program may be a barrier to eating breakfast at school. Additional research is needed to understand why there are disparities among students who eat breakfast every day.

Sugar Sweetened Beverages

High school students were asked about their consumption of soda and sugar-sweetened beverages, including sports drinks, energy drinks, lemonade, sweetened tea or coffee drinks, flavored milk, Snapple, and Sunny Delight. Responses from these questions were combined to provide a general understanding of sugar sweetened beverage consumption among high school students. Beverage consumption questions were not included in the middle school survey.

Among high school students, 31% reported drinking a sugar sweetened beverage at least once per day. Differences by race, ethnicity, and sex were not statistically significant.



Safety

Feelings of Safety at School

Approximately 6% of middle school students and 11% of high school students reported that they did not go to school at least once in the past month leading up to the survey because they felt unsafe at school or going to or from school. Among middle school students, females were more likely than males to feel unsafe. However there were no other significant differences among middle school or high school students.

Figure 18. Middle School Students who Missed School at Least Once in the Past Month Because They Felt Unsafe at School

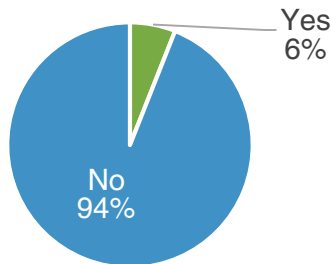
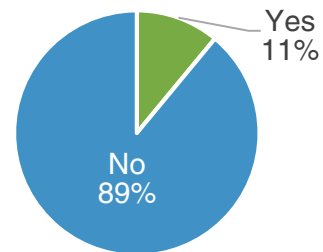


Figure 19. High School Students who Missed School at Least Once in the Past Month Because They Felt Unsafe at School

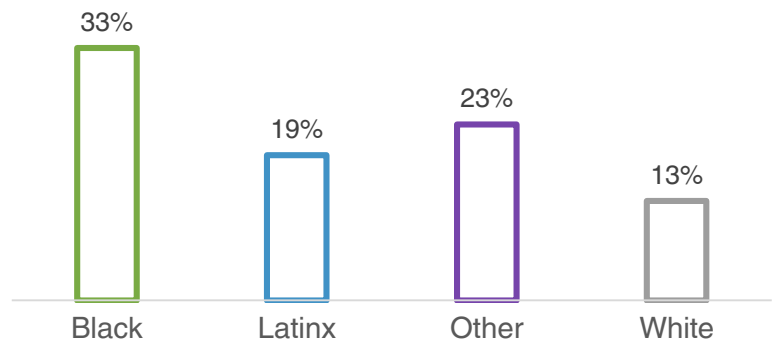


Gang Activity at School

A total of 25% of middle school students and 37% of high school students reported that there was gang activity in their schools.

- Among middle school students, there were significant differences in reports of gang activity by race and ethnicity, but not by sex. Black, Latinx, and students of other races were more likely than white students to report gang activity.
- There were no significant differences by race, ethnicity, or sex among high school students who reported gang activity.

Figure 20. Middle School Students Aware of Gang Activity in their Schools



Carrying Weapons on School Property

High school students were asked whether they carried a weapon at school in the 30 days leading up to the survey. A total of 3% of students reported that they had carried a weapon such as a gun, knife, or club at least once during that time period. Males were significantly more likely than females to have carried a weapon to school. Differences by race were not significant.



Sexual Behavior

Sexual Activity

In 2017, 14% of middle school students and 36% of high school students reported that they had ever had sexual intercourse. Statistically significant differences are highlighted below.

- Among middle school students, males (18%) were more likely to report ever having sexual intercourse compared to females (10%). Black, Latinx, and students of other races were also more likely to report ever having sexual intercourse compared to white students.
- Similarly, among high school students, males (41%) were more likely to report ever having sexual intercourse compared to females (31%). Differences by race and ethnicity among high school students were not statistically significant.

Why are there inequities?

Research shows that adults perceive young black girls as having more knowledge about sex compared to white girls.¹⁸ Adults also perceive black girls as young as five years old as being older than they are. As a direct result of this **false perception**, black girls are expected to behave more like adults than girls of other races.¹⁸ These misperceptions and expectations may contribute to differences in sexual activity by race and ethnicity.³⁶

Rape

A total of 9% of high school students reported being physically forced to have sexual intercourse. Females (11%) were significantly more likely than males (6%) to have been raped. Black, Latinx, and students of other races were significantly more likely to have been raped compared to whites.

Research is needed to determine why black, Latinx, and students of other races are at higher risk for being raped compared to white students.

Age at First Sexual Encounter

High school students were asked how old they were when they first had sexual intercourse. Sample sizes were too small to make comparisons by sex, race and ethnicity. However, overall percentages are displayed below. Among students who reported having sex, the majority of students had sex for the first time when they were 14-15 years old. However, the unequal distribution of grade levels among survey respondents may have impacted the generalizability of the findings displayed below. Freshman made up the largest proportion of the high school survey population (34%) compared to sophomores (27%), juniors (22%) and seniors (17%).

Figure 21. Percent of Middle School Students who Reported Ever Having Sexual Intercourse

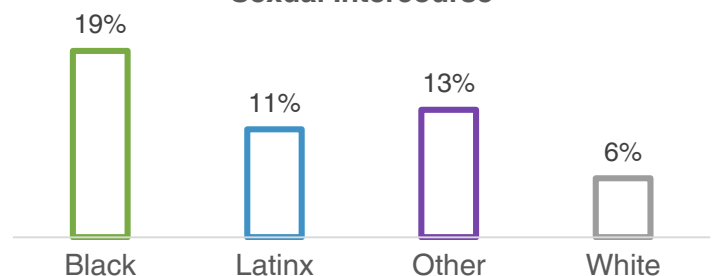


Figure 22. Percent of High School Students who Have Been Raped

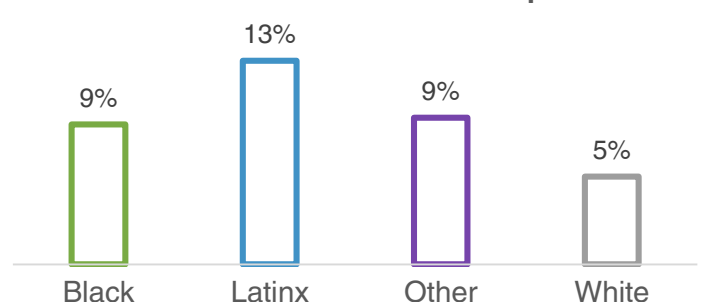
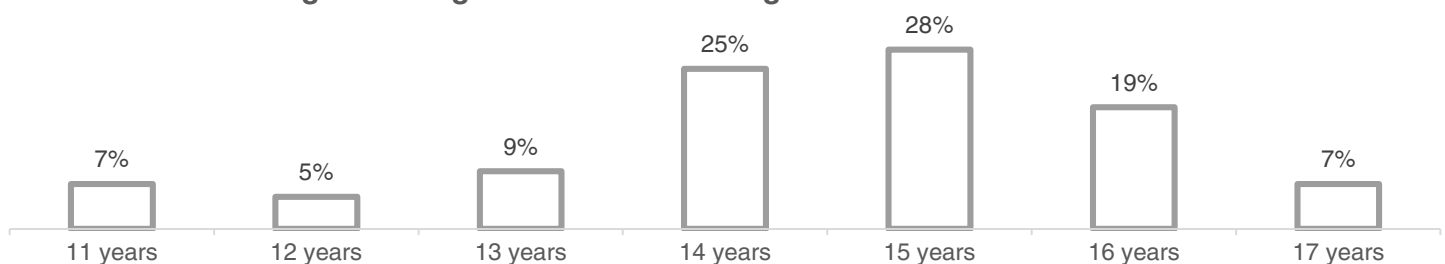


Figure 23. High School Students' Age at First Sexual Intercourse



Bullying

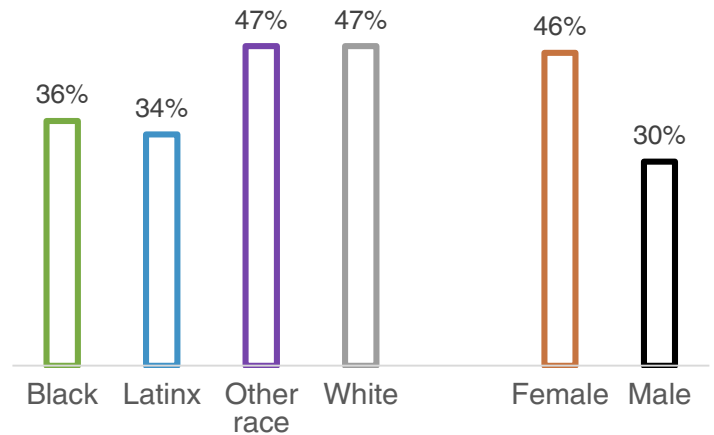
Bullying at School

Bullied at School

Both middle school and high school students reported being bullied more in person compared to being bullied online. A total of 38% of middle school students and 19% of high school students reported being bullied on school property.

- Among middle school students, females were significantly more likely to be bullied on school property compared to males. Differences by race were also significant and are shown to the right.
- Among high school students, differences by sex were not statistically significant. Latinx students (14%) were less likely to be bullied than their peers; other differences by race were not statistically significant.

Figure 24. Middle School Students who were Bullied on School Property



Saw Other Students Bullied

In 2017, 61% of middle school students and 51% of high school students reported seeing another student bullied at school. High school students were asked specifically about seeing bullying that occurred during the 12 months leading up to the survey, while middle school students were asked more generally about ever witnessing bullying occur. Because of these differences, middle school and high school results should not be compared.

- For both middle school and high school students, females were more likely to report seeing bullying compared to males.
- Differences by race and ethnicity among middle school students were not significant. However, there were significant differences among high school students. White students (64%) were significantly more likely to have seen other students being bullied at school compared to black (52%), Latinx (39%), and students of other races (56%).

Bullied due to Sexual Orientation

Overall, 20% of middle school students and 14% of high school students reported being teased or called names because someone thought they were lesbian, gay or bisexual (LGB). Differences by sex were not significant for middle or high school students but differences by race were. Students of other races and white students were significantly more likely to have reported being LGB or unsure of their sexual orientation compared to black and Latinx students in high school. This may explain why a higher proportion of students of other races and white students reported being bullied due to their sexual orientation compared to their peers. A question on sexual orientation was not included in the middle school survey.

Figure 25. Middle School Students who were Teased Because of Perceived LGB Status

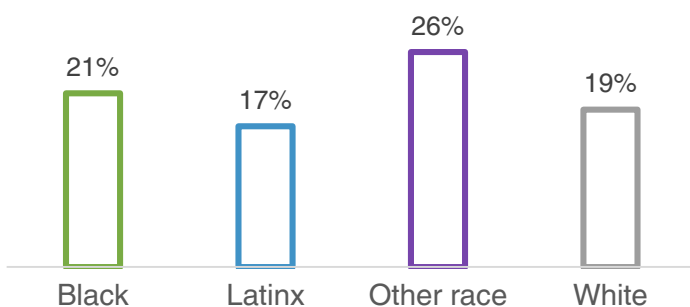
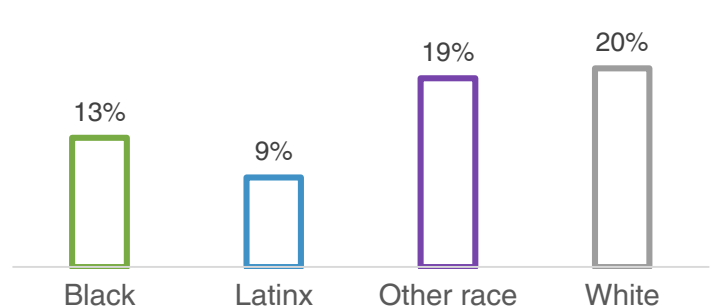


Figure 26. High School Students who were Teased Because of Perceived LGB Status



Mental Health

Feelings of Depression

Depression was defined in the YRBS as feeling so sad or helpless that you stopped doing usual activities almost every day for two weeks or more. In 2017, 1 in 4 middle school students (26%) and nearly 1 in 3 (30%) high school students reported feelings of depression. For both middle and high school students, females were significantly more likely than males to report feelings of depression. Differences by race were significant and are displayed below.



Figure 27. Middle School Students with Feelings of Depression

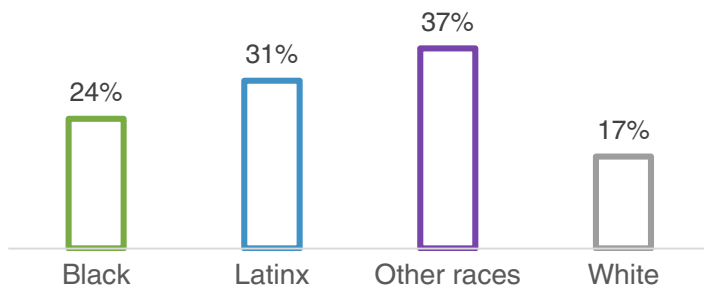
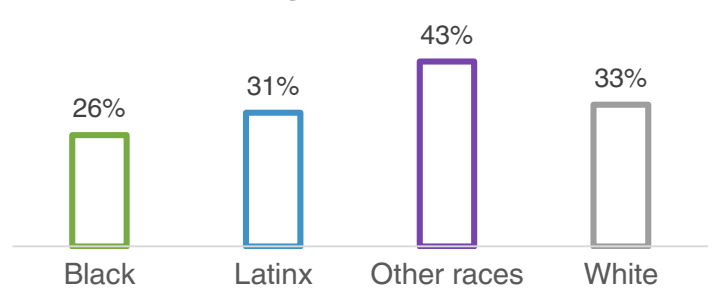


Figure 28. High School Students with Feelings of Depression

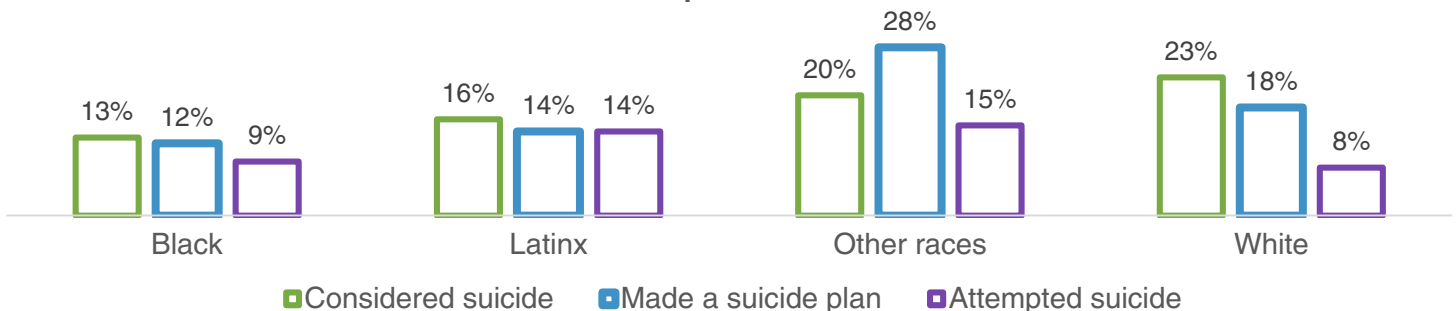


Suicide

One quarter (25%) of middle school students reported that they considered committing suicide at some time during their lifetime, representing a significant increase compared to 2015 (19%). A total of 16% of high school students reported that they considered committing suicide during the 12 months leading up to the survey. There was no change compared to 2015. Differences by race, ethnicity, and sex were significant for both middle and high school students. A breakdown by race and ethnicity of high school students who considered, planned, and attempted suicide are shown below.

Among middle school students, females were more likely to consider committing, planning, and attempting suicide. White students were significantly less likely than their peers to consider committing and attempting suicide.

Figure 29. High School Students who Considered Suicide, Made a Suicide Plan, and Attempted Suicide



Why are there inequities?

White Americans are less resilient than black and Latinx Americans, which may contribute to higher levels of depression among whites.³ Rates of suicide may be higher among Latinx and students of other races compared to white students due to differences in access to mental health services.²⁹

Substance Use

Current Substance Use

The YRBS assessed current use of cigarettes, e-vape products, and marijuana for middle and high school students. High school students were also asked about current alcohol use. Marijuana was reported as the most commonly used substance within the month leading up to the survey for all school levels. Figures 30 and 31 show current substance use among middle and high school students.

Figure 30. Middle School Students who Reported Substance Use in the Past Month

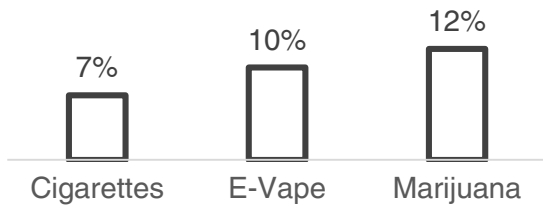
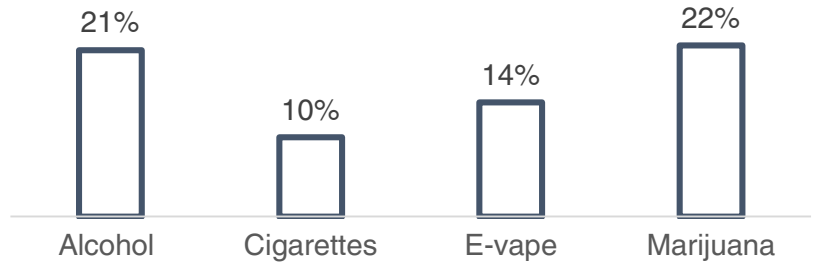


Figure 31. High School Students who Reported Substance Use in the Past Month

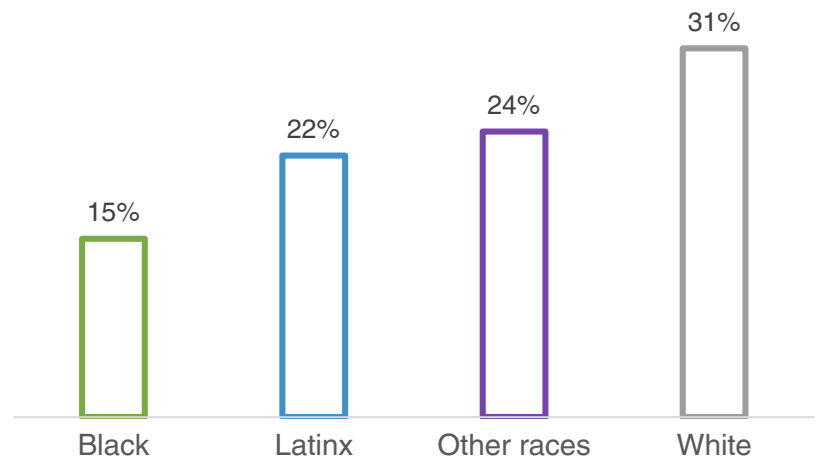


Alcohol Use

Middle school students were asked whether they had ever drank more than a few sips of alcohol. Approximately 1 in 5 (21%) students responded “yes”. Students who are black, Latinx, and of other races were significantly more likely than white students to have tried alcohol during their lifetime. Differences by sex were not statistically significant.

Current use of alcohol was assessed among high school students. White students were significantly more likely than their peers to report drinking alcohol within the past month (see Figure 32). Differences by sex were not significant.

Figure 32. High School Students who Reported Current Alcohol Use



Why are there differences by race?

Black and Latinx communities have more conservative norms related to alcohol compared to white communities.³⁷ Families, especially parents, are a big influence on teen drinking.³⁷ Since white adults drink more than people of color, that may explain why there are higher rates of drinking among white teens.³⁷

Cigarette Use

A total of 7% of middle school students and 10% of high school students reported current cigarette use (smoked at least once in the past month).

- High school males (11%) were more likely than females (8%) to report current cigarette use. Differences by race and ethnicity were not significant in the high school survey.
- The difference between males and females who reported current cigarette use was not significant for middle school students. Latinx students were more likely than their peers to report current cigarette use.

Substance Use

E-Vape Products

Questions assessing use of e-vaping products were added to the YRBS in 2015. Overall, current use of e-vaping devices has decreased among high school students from 24% in 2015 to 14% in 2017. There has also been a decrease among middle school students who e-vape from 13% to 10%. Vaping varies significantly by race, ethnicity, and sex among all school levels. Differences by sex were significant among high school students but not among middle school students.

Figure 33. Middle School Students who Reported Current E-Vape Use

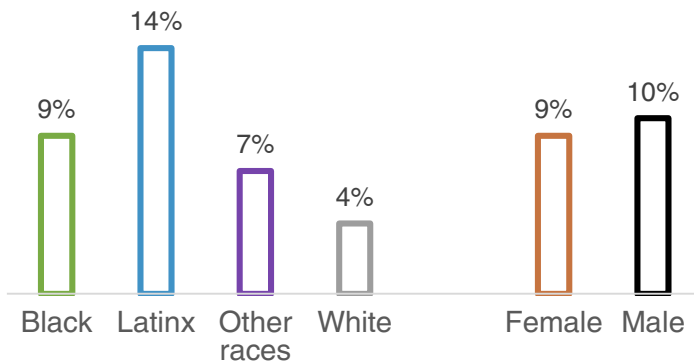
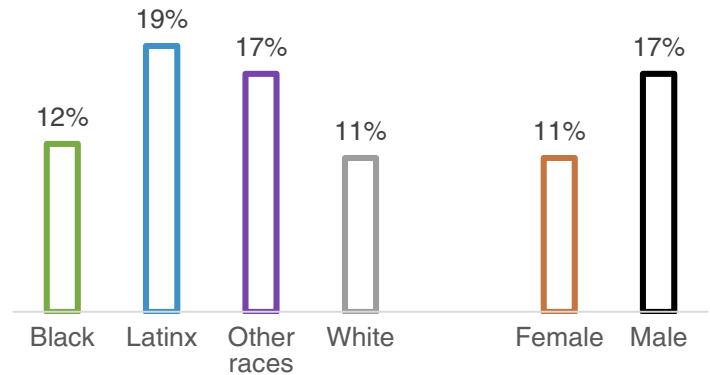


Figure 34. High School Students who Reported Current E-Vape Use



Why are there inequities?

The density of vape shops is higher in census tracts with larger proportions of people of color, which contributes to more access and higher exposure to vaping ads among people of color in the U.S.¹⁴

Vape shops in Latinx communities also used “ethnic specific marketing materials” more than in other communities.²¹ These targeted marketing tactics may contribute to increased e-vaping among youth of color.

A JUUL vaping device is pictured to the right.⁴³

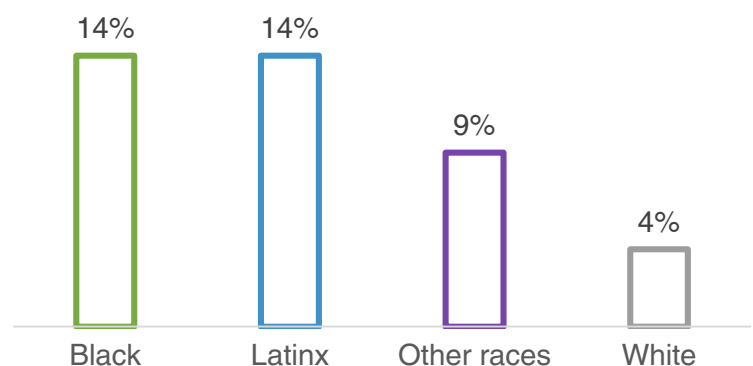


Marijuana Use

A total of 12% of middle school students and 22% of high school students reported current use of marijuana, which is defined as at least once in the past month. Differences by sex were not statistically significant for middle school or high school students.

Differences by race and ethnicity among middle school students were statistically significant (see Figure 35 to the right), but were not statistically significant among high school students. More research is needed to determine why there are inequities.

Figure 35. Middle School Students who Reported Current Marijuana Use



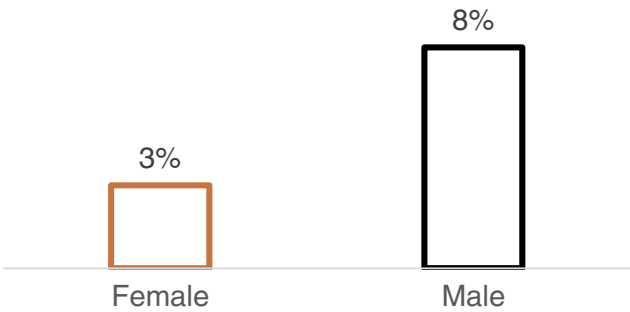
Substance Use

Cocaine

A total of 3% of middle school students and 6% of high school students reported trying cocaine at least once in their lifetime. The number of middle school students who had tried cocaine was too small to compare differences by sex, race, or ethnicity.

The sample size for high school students was also too small to look at differences by race and ethnicity, but large enough to look at differences by sex. Males (8%) were significantly more likely to have tried cocaine compared to females (3%). This was also true in 2015.

Figure 36. High School Students who have Ever Used Cocaine



Inhalants

The YRBS asks about using inhalants, which includes sniffing glue, breathing the contents of aerosol spray cans, and inhaling paints to get high. A total of 4% of middle school students and 9% of high school students reported using an inhalant at least once in their lifetime. For middle and high school students, the number of students who reported using an inhalant was too small to compare by race and ethnicity. There was no difference by sex for high school students. The sample size was too small to compare inhalant use by sex for middle school students.

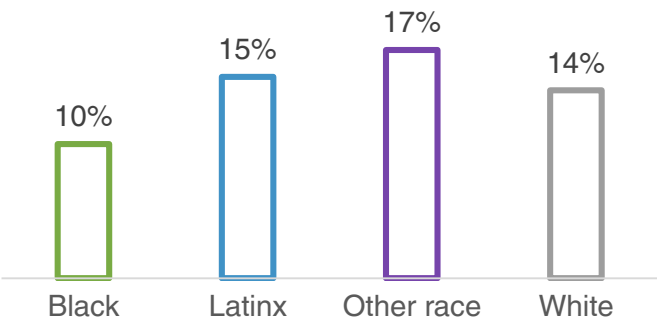
Prescription Drug Use

A total of 5% of middle school students and 13% of high school students have used a prescription medication without a doctor’s prescription or differently than how a doctor told them to use it. The sample size for middle school students was too small to look for differences by sex, race, and ethnicity. However, among high school students, black students were significantly less likely than their peers to have misused a prescription medication. Differences by sex were not significant.

Why are there inequities?

Black children are less likely to receive pain medications and opioids for severe pain compared to white children.²⁵ The same is true for adults.²⁵ Since black patients are less likely than white patients to get appropriate pain medication even for severe pain, they may have less access to prescription pain medications and prescription pills in general compared to people of other races.

Figure 37. Students who have Ever Misused Prescription Pills



Resources

Durham Together for Resilient Youth (TRY)

Together for Resilient Youth (TRY) is a coalition of youth and adults working together to prevent substance use among adolescents, with long term impacts on reduction in substance use in adults. The coalition focuses on advocacy, education, mobilization, and collective action. TRY facilitates work within many domains, including Youth Living in Future Tense (LIFT), young adults (CollegeTRY), parents, faith community, Forward Together (Community Support for Recovering), Resilient Together (family members that have lost loved ones due to overdose or substance use) and Achieving Health Hand in Hand (AHHH - ACE's and Resilience). For more information on TRY or to get involved, contact Dr. Wanda Boone at 919-491-7811 or visit www.DurhamTRY.org.

Co-Located Mental Health Services at Durham Public Schools

Durham Public Schools provides co-located mental health services at all of its public schools. Service offerings include a comprehensive assessment, individual therapy, group therapy, family therapy, and training for school staff and support teams. In order to receive care, students must bring written consent from a parent and must not already be receiving mental health care from another provider. All mental health service records are confidential and are not shared with school staff.

Co-located mental health services are insurance based, which means that if a student has insurance that covers mental health services, their insurance will be billed for services provided in school. However, pro bono care is also available for students without insurance coverage and for students with high copays or deductibles.

In order to receive mental health services at school, students can contact a school social worker, counselor, principal, DPS mental health specialist, or Beatrice Laney. Beatrice Laney can be reached at 919-560-2208 extension 30223. Students can also be referred by parents, teachers, or other individuals who are familiar with the student's needs. More information can also be found online at tinyurl.com/DPSmentalhealth.

Universal Free Breakfast

Free breakfast is available to all students enrolled in DPS. Students are not required to complete any forms or documents.

To receive a free breakfast on school days, students must go to their school cafeteria. Students are given a choice of four items and are asked to choose three of the four items for breakfast.

Breakfast offerings vary throughout the week but cereal, juice, fresh fruit, and milk are always available.



Project BUILD

Project BUILD outreach workers engage with representatives from the education, social service, mental health, substance use, and criminal justice sectors to provide coordinated case management to youth between the ages of 14 and 21 who are at high risk for gang involvement. Outreach workers provide one-on-one coaching for youth to help them make positive decisions, connect them with employment, encourage academic success, and support involvement in extracurricular activities.

Project BUILD outreach workers are available to meet students at school, home, or in the community. They facilitate weekly group meetings and voluntary summer and holiday camps when school is out. Participation in Project BUILD programming is free. For more information on Project BUILD, contact Arkeem Brooks at the Durham County Department of Public Health. Mr. Brooks can be reached at 919-560-7725 or visit tinyurl.com/projectBUILDDurham.

Middle School Summary

Durham County YRBS Highlights: Middle School	Durham	NC
Physical Health		
Students who get 8 or more hours of sleep on an average school night	48%	50%
Students who have seen a doctor or nurse for a routine health check-up in the past year	59%	62%
Students who have seen a dentist for a routine check-up in the past year	63%*	68%
Students who have ever been told by a doctor or nurse that they had asthma	25%	23%
Physical Activity		
Students who played on a sports team in the past year	53%	58%
Students who were physically active 60 minutes or more at least 5 days a week	47%*	56%
Students who engaged in 3 hours or more of screen time on an average school day	66%	NA
Nutrition		
Students who ate breakfast every day in the past week	40%*	44%
Safety		
Students who did not feel safe at school or going to or from school in the past 30 days	6%	6%
Students who reported gang activity in their school	25%*	15%
Sexual Behavior		
Students who have ever had sexual intercourse	14%	10%
Bullying		
Students who have been bullied at school	38%*	44%
Students who have been teased or called names because someone thought they were gay, lesbian, or bisexual	20%	20%
Mental Health		
Students who reported depression in the past year	26%	25%
Students who considered suicide during their lifetime	25%*	21%
Students who attempted suicide in their lifetime	13%*	10%
Substance Use		
Students who have smoked cigarettes in the past 30 days	7%	5%
Students who have used electronic vapor products in the past 30 days	10%	10%
Students who have smoked marijuana in the past 30 days	12%	7%
Students who have ever had more than a few sips of alcohol	21%	21%
Students who have ever used cocaine, including powder, crack or freebase	3%	2%
Students who have ever taken a prescription drug without a prescription	5%	6%

*Statistically significant difference from statewide result

High School Summary

Durham County YRBS Highlights: High School	Durham	NC
Physical Health		
Students who get 8 or more hours of sleep on an average school night	28%*	24%
Students who were overweight or obese	37%*	31%
Students who have ever been told by a doctor or nurse that they had asthma	24%	25%
Physical Activity		
Students who were physically active 60 minutes or more at least 5 days a week	33%*	42%
Students who engaged in 3 hours or more of screen time on an average school day	63%	NA
Nutrition		
Students who ate breakfast every day in the past week	32%*	34%
Students who had at least one sugar-sweetened beverage per day	31%	NA
Safety		
Students who did not feel safe at school or going to or from school in the past 30 days	11%	10%
Students who reported gang activity in their school	37%*	27%
Students who carried a weapon on school property in the past 30 days	3%	3%
Sexual Behavior		
Students who have ever had sexual intercourse	36%	38%
Students who have been physically forced to have sexual intercourse	9%	8%
Bullying		
Students who have been bullied at school	19%	19%
Students who have been teased or called names because someone thought they were gay, lesbian, or bisexual	14%	13%
Mental Health		
Students who reported depression in the past year	30%	29%
Students who considered suicide in the past year	16%	16%
Students who attempted suicide in the past year	10%*	8%
Substance Use		
Students who have smoked cigarettes in the past 30 days	10%*	12%
Students who have used electronic vapor products in the past 30 days	14%*	22%
Students who have smoked marijuana in the past 30 days	22%*	19%
Students who have had one or more drinks of alcohol in the past 30 days	21%*	27%
Students who have ever used cocaine, including powder, crack or freebase	6%	5%
Students who have ever taken a prescription drug without a prescription	13%*	15%

*Statistically significant difference from statewide result

References

1. Agnihotri, I. (2014, October 30). *Fast food marketing for children disproportionately affects certain communities*. Retrieved from Arizona State University: <https://asunow.asu.edu/content/fast-food-marketing-children-disproportionately-affects-certain-communities>
2. American Anthropological Association. (n.d.). *Human Variation*. Retrieved from Understanding Race: <http://www.understandingrace.org/>
3. Assari, S. (2016, September 16). *News and Briefs*. Retrieved from University of Michigan Institute for Healthcare Policy and Innovation: <https://ihpi.umich.edu/news/black-americans-may-be-more-resilient-stress-white-americans>
4. Asthma Initiative of Michigan. (n.d.). *Tobacco Smoke and Asthma*. Retrieved from AIM for healthy lungs: <https://getasthmahelp.org/asthma-tobacco.aspx>
5. Badger, E. (2014, August 15). *Pollution is segregated, too*. Retrieved from The Washington Post: https://www.washingtonpost.com/news/wonk/wp/2014/04/15/pollution-is-substantially-worse-in-minority-neighborhoods-across-the-u-s/?noredirect=on&utm_term=.4ec1c1b71970
6. Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg More Employable Than Lakisha and Jamal? A field experiment on labor market discrimination. *The American Economic Review*, 1-23.
7. Boston Public Health Commission. (n.d.). *What is health equity?* Retrieved from Boston Public Health Commission: <http://www.bphc.org/whatwedo/health-equity-social-justice/what-is-health-equity/Pages/what-is-health-equity.aspx>
8. Brooks, K. (2014). Research shows food deserts more abundant in minority neighborhoods. *Johns Hopkins Magazine*, 1.
9. Centers for Disease Control and Prevention. (2018, August 21). *African Americans and Tobacco Use*. Retrieved from Smoking and Tobacco Use: <https://www.cdc.gov/tobacco/disparities/african-americans/index.htm>
10. Centers for Disease Control and Prevention. (2018, November 14). *Youth Physical Activity Guidelines*. Retrieved from Healthy Schools: <https://www.cdc.gov/healthyschools/physicalactivity/guidelines.htm>
11. Centers for Disease Control and Prevention. (2017, March 2). *How much sleep do I need?* Retrieved from Sleep and Sleep Disorders: https://www.cdc.gov/sleep/about_sleep/how_much_sleep.html
12. Cooper, D. (2018, June 21). *Workers of color are far more likely to be paid poverty-level wages than white workers*. Retrieved from Economic Policy Institute: <https://www.epi.org/blog/workers-of-color-are-far-more-likely-to-be-paid-poverty-level-wages-than-white-workers/>
13. Cosmides, L., Tooby, J., & Kurzban, R. (2003). Perceptions of Race. *Trends in Cognitive Science*, 173-179.
14. Dai, H., Hao, J., & Catley, D. (2017). *Vape Shop Density and Socio-Demographic Disparities: A US Census Tract Analysis*. Nicotine & Tobacco Research.
15. Durham County Department of Public Health. (2018). *System Level Overview of Racial Inequities in Durham County*. Durham County Department of Public Health.
16. Durham Public Schools. (n.d.). *School Nutrition Services*. Retrieved from Durham Public Schools: <https://www.dpsnc.net/domain/117>
17. Durham Public Schools. (2017, August 24). *School Wellness Policy*. Retrieved from District Policies: <https://www.dpsnc.net/site/default.aspx?PageType=3&DomainID=112&ModuleInstanceID=227&ViewID=6446EE88-D30C-497E-9316-3F8874B3E108&RenderLoc=0&FlexDataID=217&PageID=261>
18. Epstein, R., Blake, J., & Gonzalez, T. (n.d.). *Girlhood Interrupted: The Erasure of Black Girls' Childhood*. Georgetown Law Center on Poverty and Inequality.
19. Fleming-Mliici, F., & Harris, J. L. (2016). Television food advertising viewed by preschoolers, children and adolescents: contributors to differences in exposure for black and white youth in the United States. *Pediatric Obesity*, 1-7.
20. Gannon, M. (2016, February 5). *Race is a Social Construct, Scientists Argue*. Retrieved from Scientific American: <https://www.scientificamerican.com/article/race-is-a-social-construct-scientists-argue/>
21. Garcia, R., Sidhu, A., Allem, J.-P., Baezconde-Garbanati, L., Unger, J., & Sussman, S. (2017). Marketing activities of vape shops across racial/ethnic communities. *Open Access article*, 1-10.
22. Gould, E., & Schieder, J. (2017, June 28). *Work sick or lose pay? The high cost of being sick when you don't get paid sick days*. Retrieved from Economic Policy Institute: <https://www.epi.org/publication/work-sick-or-lose-pay-the-high-cost-of-being-sick-when-you-dont-get-paid-sick-days/>
23. Hannon, L., Sawyer, P., & Allman, R. (2012). Housing, the Neighborhood Environment, and Physical Activity among Older African Americans. *Journal of Health Disparities Research and Practice*, 27-41.
24. Hearst, M., Shanafelt, A., Wang, Q., Leduc, R., & Nanney, M. (2016). Barriers, benefits and behaviors related to breakfast consumption among rural adolescents. *Journal of School Health*, 187-194. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4825869/>
25. Hoffman, K., Trawalter, S., Axt, J., & Oliver, M. N. (2016). Racial bias in pain assessment and treatment recommendations, and false beliefs and biological differences between blacks and whites. *Proceedings of the National Academy of Sciences of the United States of America*, 4296-4301.
26. Israel, B. (2017, July 25). *Noise pollution loudest in black neighborhoods, segregated cities*. Retrieved from Berkeley News: <https://news.berkeley.edu/2017/07/25/noise-pollution-loudest-in-black-neighborhoods-segregated-cities/>
27. James, P., Arcaya, M., Parker, D., & Tucker-Seeley, R. (2016). *Do minority and poor neighborhoods have higher access to fast-food restaurants in the United States?* Health Place.
28. Jameson, D. (2018). *Access to Healthcare and Insurance*. Retrieved from Partnership for a Healthy Durham: <http://healthydurham.org/cms/wp-content/uploads/2018/06/Access-to-Healthcare-and-Insurance-FINAL.pdf>
29. Le Cook, B., Trinh, N.-H., Zhihui, L., Shu-Yeu Hou, S., & Progovac, A. (2016). Trends in Racial-Ethnic Disparities in Access to Mental Health Care, 2004-2012. *Psychiatric Online*.

References, continued

30. McDonnell, E., Probart, C., Weirich, E., Hartman, T., & Birkenshaw, P. (2004). School Breakfast Programs: Perceptions and Barriers. *School Nutrition Association*, 1-13.
31. Moore, R., Floyd, M., Baran, P., Bocarro, J., Smith, W., & Cosco, N. (2008). *Investigating Parks for Active Recreation*. Retrieved from NC State University: <http://www4.ncsu.edu/~kperver/research.html>
32. Powell, L., Slater, S., & Chaloupka, F. (2004). The relationship between community physical activity settings and race, ethnicity, and socioeconomic status. *Evidence-Based Preventive Medicine*, 135-144.
33. Population Reference Bureau. (n.d.). *Racial Inequalities in Managerial and Professional Jobs*. Retrieved from <https://www.prb.org/racialinequalitiesinmanagerialandprofessionaljobs/>.
34. Randall, V. (2010, March 10). *Institutional Racism in US Health Care*. Retrieved from The University of Dayton School of Law: <http://academic.udayton.edu/health/07humanrights/racial01c.htm>
35. Resnick, B. (2015, October 27). *The Racial Inequality of Sleep*. Retrieved from The Atlantic: <https://www.theatlantic.com/health/archive/2015/10/the-sleep-gap-and-racial-inequality/412405/>
36. Rosenthal, D., Smith, M. A., & de Visser, R. (1999). *Personal and Social Factors Influencing Age at First Sexual Intercourse*. *Archives of Sexual Behavior*.
37. Sudhinaraset, M., Wigglesworth, C., & Takeuchi, D. (2016). Social and Cultural Contexts of Alcohol Use. *Alcohol Research*, 35-45.
38. Suminski, R., Connolly, E., May, L., & Wasserman, J. A. (2012). Park quality in racial/ethnic minority neighborhoods. *Environmental Justice*, 271-278.
39. Stromberg, J. (2016, May 11). *Highways gutted American cities. So why did they build them?* Retrieved from Vox: <https://www.vox.com/2015/5/14/8605917/highways-interstate-cities-history>
40. Taylor, S., Romley, J., Malcolm, L., & Brown, A. (2006, February). *Racial/Ethnic Disparities in Likelihood of Physical Activity: The Role of Neighborhood Characteristics*. Retrieved from Active Living Research: <https://www.activelivingresearch.org/racialethnic-disparities-likelihood-physical-activity-role-neighborhood-characteristics>
41. University of California, Berkeley. (2011, July). *Disparities in Park Space by Race and Income*. Retrieved from Active Living Research: <https://activelivingresearch.org/disparities-park-space-race-and-income>
42. Zonta, M. (2014, October 20). *The Unequal Mortgage Market is No Coincidence*. Retrieved from Center for American Progress: <https://www.americanprogress.org/issues/economy/news/2014/10/20/99320/the-unequal-mortgage-market-is-no-coincidence/>
43. Carman, Ashley. (2008). *The FDA is coming for teens' JUUL vapes*. The Verge.



This report was prepared by the Durham County Department of Public Health (DCoDPH). DCoDPH sponsored the printing for this report. For more information about the report or to obtain copies, please visit www.healthydurham.org or call (919) 560-7832.



Public Health