North Carolina Minority Health Facts: African Americans

State Center for Health Statistics and Office of Minority Health and Health Disparities July 2010

In 2008, North Carolina had the sixth highest total African-American population, and the seventh highest percentage African-American population, of the 50 states.[1] African Americans comprise a significant portion of the history, tradition, and culture of the state of North Carolina. To help ascertain the health status of African Americans in North Carolina, this report presents basic health facts in the areas of mortality, chronic diseases, HIV and sexually transmitted diseases, health risk factors, access to health care, quality of life, maternal and infant health, and child and adolescent health. First we present some characteristics of the African-American population in the state.

Age and Geographic Characteristics of African Americans in North Carolina

In 2008, there were almost two million (1,990,496) African-American residents of North Carolina, representing 21.6 percent of the total population. While the percentage of the North Carolina population that is African American has remained relatively constant, the number of African Americans in the population has increased by 13 percent since 2000.[2]

The first map in Figure 1 shows the estimated number of African Americans living in each county and also the percentage of each county's total population that is African American according to 2008 Census population figures. It can be seen from the second map that counties in the northeastern part of North Carolina have the largest percentages of African Americans.

African Americans in North Carolina are younger, on average, than the white population. According to the Census Bureau, the median age of the state's African-American population was 33.7 years, compared to 40.5 years for the white population of the state.[1] The average life expectancy at birth is 73.4 years for African Americans in North Carolina, compared to 78 years for whites.[3]

Social and Economic Well-Being

The percentage of African-American families in North Carolina living below the federal poverty level ($21,834 annual income for a family of four) in 2008 was 21.3, compared to 6.7 for whites. The median annual household income where the head of the household is African American was $32,345, compared to $52,412 for households headed by whites. Forty-four percent of African-American families were headed by single female householders, compared to 12.6 percent of white families. Of the families with a single female householder, 37 percent of the African-American families lived in poverty, compared to 24.5 percent of the families headed by single white females. Twenty percent of African American adults ages 25 and older had less than a high school education, compared to 12.6 percent for whites. The unemployment rate for African Americans was double that for whites (11% vs. 5.4% in 2008).[1] Low income, low educational level, and unemployment are all associated with a higher rate of health problems.[4]

Table 1
Leading Causes of Death Among African Americans in North Carolina, 2008

Rank	Cause of Death	Number of Deaths
1	Diseases of the heart	3,466
2	Cancer	3,459
3	Cerebrovascular disease	1,025
4	Diabetes mellitus	747
5	Kidney disease	560
6	Chronic lower respiratory diseases	497
7	Other unintentional injuries	373
8	Alzheimer's disease	346
9	Septicemia (blood poisoning)	341
10	Homicide	325
	All other causes (residual)	4,625
	Total Deaths—All Causes	**15,764**

Table 2
Age-Adjusted Death Rates* for Major Causes of Death by Race/Ethnicity, North Carolina Residents, 2004–2008

Cause of Death	African American	White
Chronic Conditions		
Heart disease	236.0	192.6
Cancer	224.0	185.2
Stroke	73.5	49.2
Diabetes	51.0	19.5
Chronic lower respiratory diseases	30.4	51.1
Kidney disease	36.5	14.8
Chronic liver disease	8.4	9.3
Infectious Diseases		
Pneumonia/influenza	19.2	20.2
Septicemia (blood poisoning)	22.3	12.3
HIV disease	16.5	1.2
Injury and Violence		
Motor vehicle injuries	18.0	18.1
Other unintentional injuries	21.8	30.9
Homicide	16.4	3.6
Suicide	5.0	14.4

* Rates are age-adjusted to the 2000 U.S. standard population and are expressed as deaths per 100,000 population using underlying cause of death.

Mortality

Table 1 shows the 10 leading causes of death for African Americans in North Carolina in 2008. Consistent with the white population, heart disease and cancer are the top two causes of death. Homicide ranks considerably higher (10th) as a cause of death among African Americans than among whites (19th). Other causes that rank higher for African Americans than whites are diabetes, kidney disease, and HIV. Some causes that rank lower for African Americans than whites are pneumonia and influenza, suicide, and Parkinson's disease. Injuries are the leading cause of death for younger African Americans. **Unintentional injuries (motor vehicle and other) rank first among among children up to 14 years old. Homicide ranks first and motor vehicle injuries rank second among 15–34 year-olds.**

Table 2 shows 2004–2008 age-adjusted death rates (deaths per 100,000 population) for major causes of death, comparing African Americans and whites. **The largest health disparities, in which the African-American death rate is at least twice that of whites, are in diabetes, kidney disease, HIV, and homicide.** The death rates for suicide and chronic lower respiratory diseases are much lower for African Americans than for whites.

Cancer Incidence

Table 3 presents cancer incidence rates for African Americans and whites for the five-year period 2002–2006. African Americans in North Carolina had a higher rate of total new cancer cases than whites (age-adjusted rate of 497.9 versus 478.0 for whites).

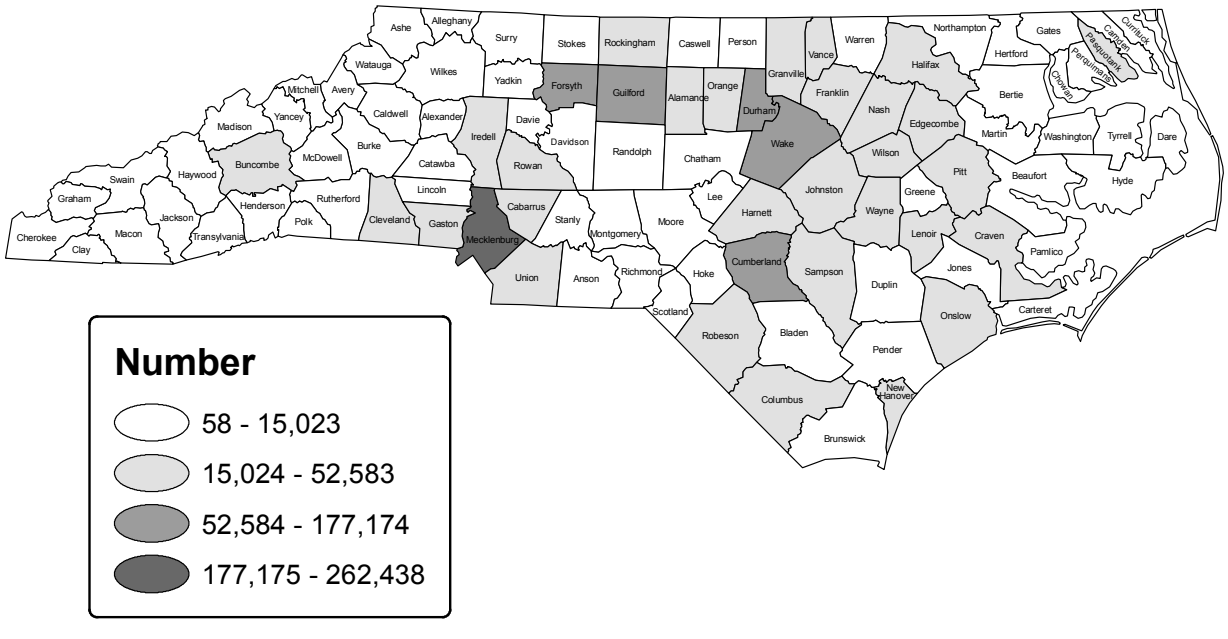
Table 3
Age-Adjusted Rates* for Cancer Incidence by Race/Ethnicity North Carolina Residents, 2002–2006

Site:	African American	White
Female Breast	143.0	149.5
Cervical Cancer	9.8	7.2
Lung/Bronchus	69.9	76.9
Prostate	242.5	136.8
Colon/Rectum	57.5	46.9
Bladder	10.9	21.6
Total Cancer (All types)	497.9	478.0

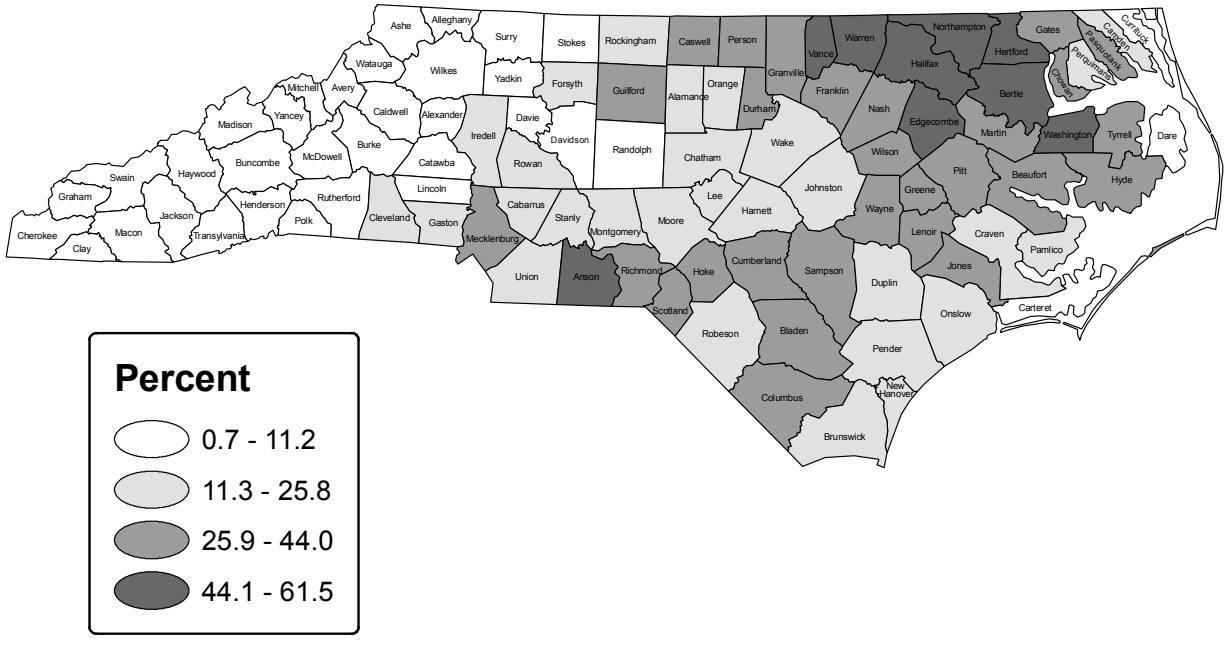
* Rates are age-adjusted to the 2000 U.S. standard population and are expressed as cases per 100,000 population.

Figure 1

African American Population North Carolina: Numbers



African American Population North Carolina: Percents



Source: NCHS, 2008 Bridged Population

Figure 2
Percentage of North Carolina Adults with Selected Chronic Conditions by Race/Ethnicity
(Based on Weighted 2005/2007 and 2006–2008 BRFSS Survey Data)

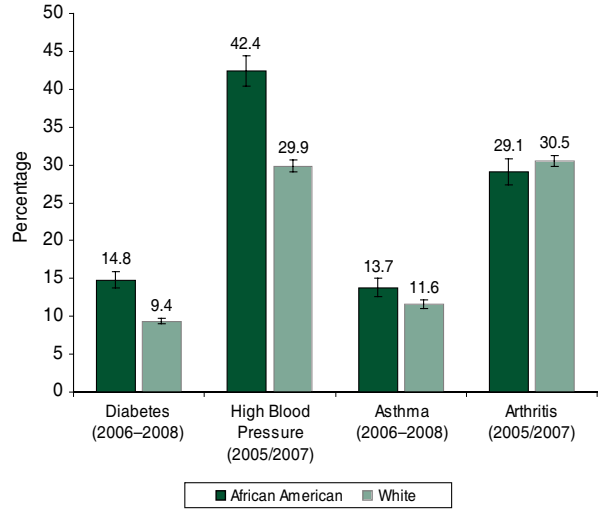
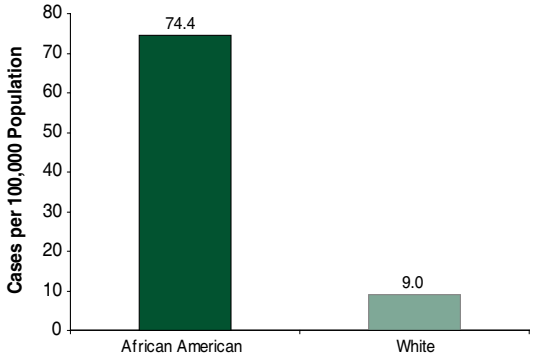


Figure 3
Rates (per 100,000 Population) of Diagnosed Adult/Adolescent (Ages 13+) New Cases of HIV, by Race/Ethnicity, North Carolina, 2004–2008



African Americans had a substantially higher rate of prostate cancer compared to whites (242.5 vs. 136.8) and higher rates of colon/rectum cancer (57.5 vs. 46.9) and cervical cancer (9.8 vs. 7.2).

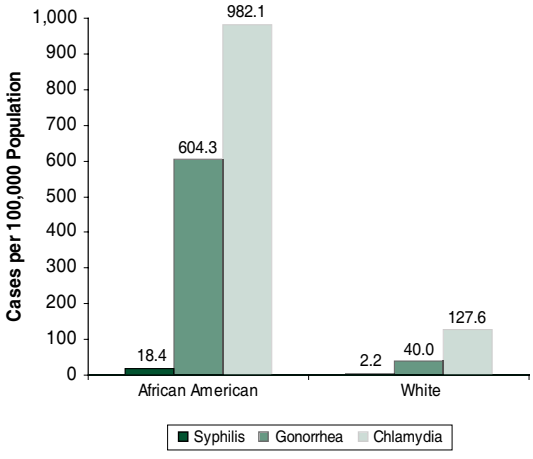
Chronic Diseases

The North Carolina Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing statewide telephone survey of adults that collects information on the prevalence of several chronic conditions. More than 10,000 North Carolina residents respond to the BRFSS survey, and approximately 15 percent of NC BRFSS respondents are African American. Figure 2 compares the percentages of North Carolina African-American and white adults who reported that they had certain chronic conditions. African Americans were substantially more likely than whites to report that they had diabetes and high blood pressure.

HIV and Sexually Transmitted Diseases

Figure 3 shows the rate of new cases of HIV and Figure 4 shows the rates of reported gonorrhea, early syphilis, and chlamydia for African Americans and whites during the period 2004–2008. The HIV and STD rates for African Americans are at least seven times higher than the rates for whites.

Figure 4
Rates (per 100,000 Population) of New Cases of Sexually Transmitted Diseases, by Race/Ethnicity North Carolina, 2004–2008



Health Risk Factors

Table 4 presents data from the North Carolina BRFSS survey on percentages of adults who reported selected risk factors or conditions. **African**

Americans in North Carolina were less likely than whites to engage in physical exercise, less likely to eat the recommended amount of fruits and vegetables each day, and more likely to be obese. African Americans were less likely than whites to report that they engaged in binge drinking (five or more drinks on one or more occasions in the last month).

Access to Health Care

Figure 5 shows the age-adjusted percentages of African-American and white adults who reported certain problems related to access to health care, again using data from the 2006–2008 North Carolina BRFSS telephone survey. Twenty-three percent of African Americans reported having no current health insurance, compared to 14 percent for whites.

Quality of Life

Table 5 shows the age-adjusted percentages of African-American and white adults with selected indicators related to quality of life, using self-reported data from the 2006–2008 North Carolina BRFSS telephone survey. A slightly higher percentage of African Americans reported poorer quality of life than whites for each of the indicated measures. Approximately one-third of African Americans reported a disability.

Maternal and Infant Health

Figure 6 presents data on smoking during pregnancy and prenatal care collected from birth certificates for live births occurring in 2004–2008 to African-American and white women residing in North Carolina. **The percentage with late or no prenatal care is more than twice as high among African-American women, but the rate of smoking during pregnancy is lower for African-American women than white women.**

Table 6 presents selected 2003–2007 results from the Pregnancy Risk Assessment Monitoring Systems

Table 4
Percentages of North Carolina Adults with Selected Risk Factors/Conditions, by Race/Ethnicity
(Based on Weighted BRFSS Survey Data)

	African American	White
Current smoking[1]	22.4	22.2
Did not get recommended level of physical activity[2]	63.6	53.6
No leisure-time physical activity[1]	29.4	21.3
Consumption of less than 5 servings of fruits and vegetables per day[2]	82.2	76.2
Binge Drinking[1]	9.5	12.8
Overweight/Obese[1]	74.9	62.3

[1] 2006–2008
[2] 2005/2007

Figure 5
Percentages of North Carolina Adults with Problems Related to Access to Health Care, By Race/Ethnicity
(Based on Weighted 2006–2008 BRFSS Survey Data)

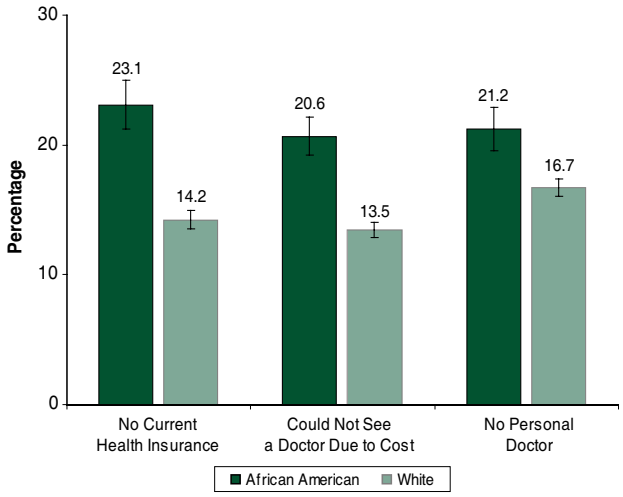


Table 5
Percentages of North Carolina Adults with Selected Quality-of-Life Indicators, by Race/Ethnicity
(Based on Weighted 2006–2008 BRFSS Survey Data)

	African American	White
Fair or poor health	21.6	15.7
Disability	34.3	31.8
14 or more days in past month with poor mental health	11.4	10.8
14 or more days in past month with poor physical health	12.2	11.6
14 or more days in past month when the usual activities of daily living were limited	16.0	14.0

Figure 6
Percentages of 2004–2008 North Carolina Resident Live Births with Maternal Smoking During Pregnancy and with Late or No Prenatal Care, by Race/Ethnicity

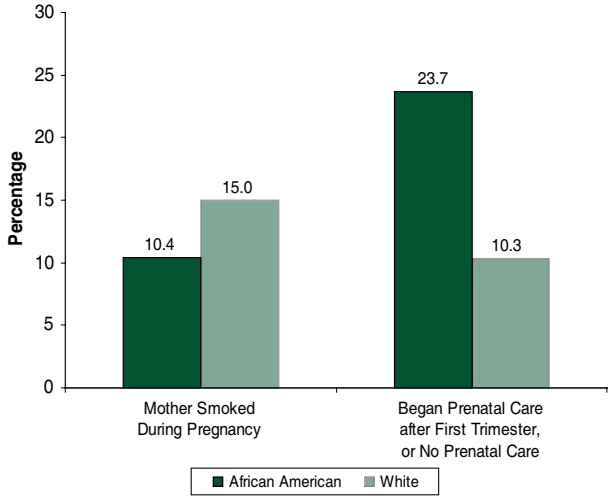
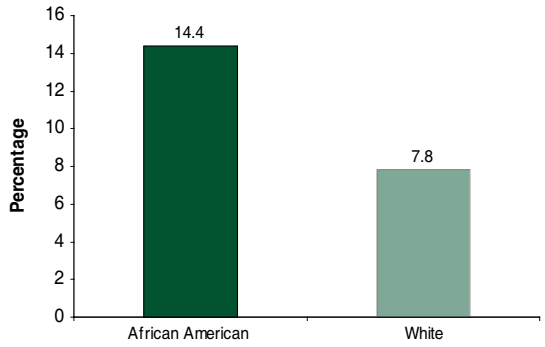


Table 6
Percentages of North Carolina Women with a Recent Live Birth Who Had Selected Risk Factors, by Race/Ethnicity
(Based on Weighted 2003–2007 PRAMS Survey Data)

	African American	White
Pregnancy was unintended (wanted later or not at all)	61.2	36.7
Mother did not take folic acid every day before pregnancy	80.5	64.9
Usual sleeping position for baby was not on back	53.1	31.0
Mother reported physical violence during pregnancy	7.4	3.3
Mother did not breastfeed at all	41.6	25.3
Mother reported smoking after pregnancy	17.0	18.1

Figure 7
Percentages of 2004–2008 North Carolina Resident Live Births that Were Low Birth Weight, by Race/Ethnicity



(PRAMS), which is a statewide mail and telephone survey of women at three to five months after giving birth. African-American women were at substantially higher risk than white women for the first five measures presented in Table 6. However, their reported rate of smoking after pregnancy was slightly lower.

Figure 7 shows the percentage of live births that were low birth weight (less than 5 lb. 9 oz.) and Figure 8 shows the infant death rate (infant deaths per 1,000 live births) for African Americans and whites. **The rate of low birth weight among African Americans is nearly twice the rate of whites and the African American infant mortality rate is more than two times higher.**

Child and Adolescent Health

Table 7 compares the percentages of North Carolina children whose parents reported that they had certain chronic conditions or risk factors, using data from the 2008 North Carolina Child Health Assessment and Monitoring Program (CHAMP). According to self-reports from parents, compared to white children, African-American children were significantly more likely to have poor or fair health, engage in no leisure time physical activity, and have the size of their meals cut because there was not enough money for food. African-American children were also more likely not to have had health insurance in the past 12 months, to have fair or poor dental health, and to have ever had asthma.

Figure 9 shows the 2004–2008 death rate for children 1–17 years of age (per 100,000 population) for African Americans and whites. **African-American children had a death rate 40 percent higher than the rate for white children.** Their rate of 33.1 deaths per 100,000 population means that about 170 African-American children ages 1–17 die

each year. The leading causes of death in this age group were motor vehicle injuries, homicide, other unintentional injuries, cancer, and heart disease.

Figure 10 displays the teen pregnancy rate (reported pregnancies per 1,000 female population for ages 15–19) for African Americans and whites. African-American teen girls had a pregnancy rate almost twice as high as the rate for white teenagers.

Figure 11 shows data from the 2007 Youth Risk Behavior Survey, a statewide survey of middle and high school students conducted by the North Carolina Department of Public Instruction. African-American high school students reported the lowest rates of current cigarette smoking and alcohol consumption of any racial/ethnic group.

Understanding the Data

In most instances the data presented for African Americans, American Indians, and whites in this report exclude Hispanics and Latinos. Hispanic is considered an ethnicity, not a race, and Hispanics are often included in the white racial category. Removing Hispanics/Latinos from the racial groups allows for a more accurate portrayal of health disparities by race[5] (for data on persons of Hispanic/Latino ethnicity, see the report "North Carolina Minority Health Facts: Hispanics/Latinos") which often artificially improves the rates for whites for many chronic disease measures.

Some of the rates presented in this fact sheet are age-adjusted. This is a statistical technique for calculating rates or percentages for different populations as if they all had the age distribution of a "standard" population (in this publication, the 2000 United States population). Rates adjusted to the same standard population can be directly compared to each other, with differences being attributed to factors other than the age distributions of the populations.

Figure 8
Infant Deaths per 1,000 Live Births, by Race/Ethnicity
North Carolina, 2004–2008

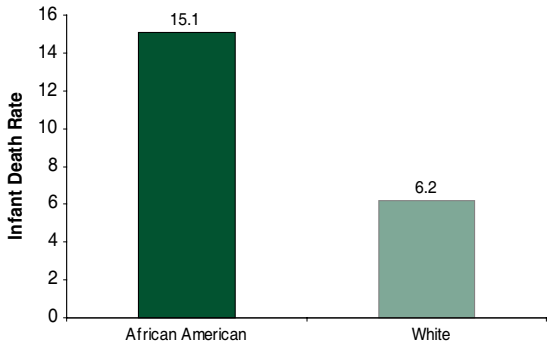


Table 7
Percentages of North Carolina Children with Selected Risk Factors/Conditions, by Race/Ethnicity
(Based on Weighted 2008 CHAMP Survey Data)

	African American	White
Asthma, ever had	18.6	13.7
Elevated need for medical, mental health, or educational services	7.7	11.5
No health insurance some time in past 12 months	12.3	8.0
No personal doctor	15.0	13.5
No regular dentist	23.8	17.4
Fair or poor dental health	8.5	4.6
Cut size of child's meals in last year/not enough money for food	9.0	2.8
Spends no time in physically active play	5.6	2.0

Figure 9
Deaths per 100,000 Population of Children Ages 1–17, by Race/Ethnicity
North Carolina, 2004–2008

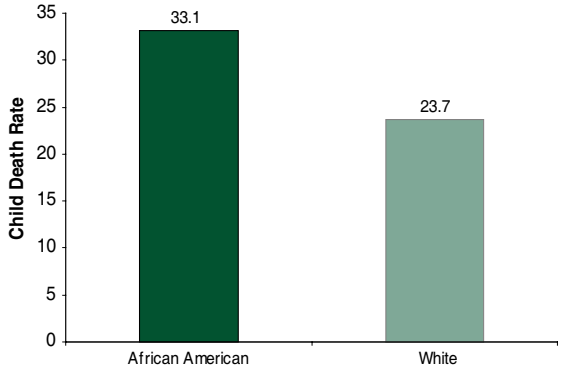
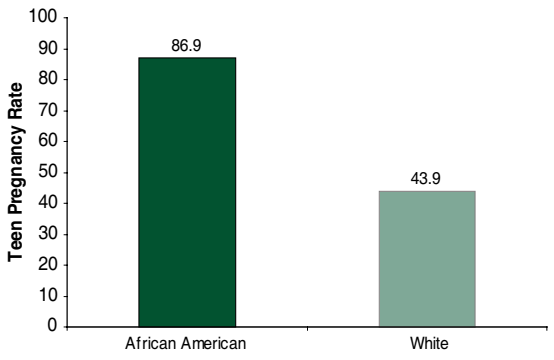
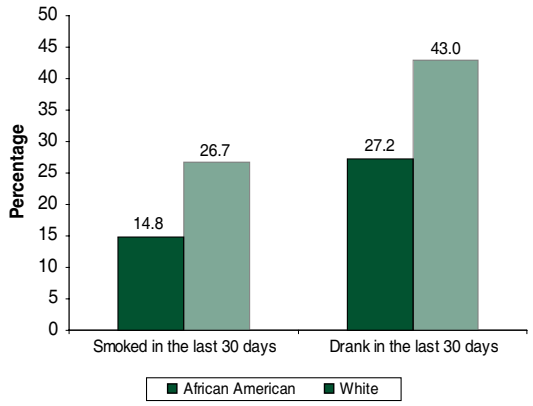


Figure 10
Pregnancies* per 1,000 Girls Ages 15–19, by Race/Ethnicity
North Carolina, 2004–2008



* Pregnancies are the sum of live births, fetal deaths of 20 or more weeks gestation, and reported induced abortions.

Figure 11
Percentages of North Carolina High School Students Who Smoked Cigarettes or Drank Alcohol in the Last 30 Days By Race/Ethnicity
(Data from the 2007 Youth Risk Behavior Survey)



Confidence intervals are displayed for the BRFSS figures (Figures 2 and 5). The confidence interval is the range within which we would expect the "true" population percentage to fall 95 percent of the time. As an approximation, if the confidence intervals of groups being compared do not overlap, then the difference is statistically significant at the 95 percent level.

Following are descriptions of several of the data sources that we used to compile the information for this report. The North Carolina Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing statewide telephone survey of adults that collects information on the prevalence of chronic conditions, risk factors, access to health care, and quality of life.

The North Carolina Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing statewide mail/telephone survey of women who have recently given birth. The survey is conducted approximately three to five months postpartum. The Child Health Assessment and Monitoring Program (CHAMP) is an ongoing statewide telephone survey of adults designed to measure the health characteristics of children up to age 17. Eligible children for the CHAMP survey are drawn each month from the BRFSS survey. One child is randomly selected from the household and the adult most knowledgeable about the health of the selected child is interviewed in a follow-up survey.

The white population is often used as a point of comparison in the report to determine the health disparities for African Americans, because whites are the majority population in North Carolina and because they often have the best health outcomes. Comparing African Americans to the white majority population does not mean that whites are setting a "gold standard" that all must follow. The white population in North Carolina also has major health issues that need to be addressed.

Challenges of Collecting Accurate Data

African Americans in North Carolina experience worse outcomes on many health measures than do whites. Some of these measures rely on death certificate data, where there may be misreporting of the race of the decedent.[7] Also, the U.S. Census has historically undercounted minority populations, and low population estimates (based on the

Census) in the denominators of rates would lead to overestimation of health problems. A study by the National Center for Health Statistics found that death rates for minority groups tend to be biased in two directions: upward due to undercounting of the population in the denominator, and downward due to undercounting of health events in the numerator.[8] This study found that the net effect of these two biases was that officially reported death rates for African Americans were overstated by 5 percent, due mainly to undercounting of the population in the census. Death rates for American Indians, however, were understated by 21 percent.

The survey data used in this report also have limitations. The BRFSS and CHAMP surveys are landline telephone surveys. While only about 5 percent of households in North Carolina do not have a telephone, the surveys will miss all of these households, which often are lower socioeconomic status. This may result in underreporting of certain health problems. In addition, recent increases in the number of cell phone only households, has implications for traditional landline surveys such as the BRFSS and NC CHAMP. Cell phone-only samples are more likely to be male, African American or Hispanic, under the age of 34, employed, of lower income, and unmarried. Both NC BRFSS and NC CHAMP weight their survey data to adjust for landline sampling deficiencies. Due to a lack of knowledge about a particular question or a tendency to provide socially acceptable answers, some respondents may misreport some health problems.

The BRFSS, CHAMP, PRAMS, and birth certificate data that are presented in this report have the advantage that the respondent is asked to self-report their own race during the survey or on the mother's birth certificate worksheet. For the cancer and HIV/STD case data, however, race may be determined by the health care provider's observation or derived from medical records, which can lead to misclassification. For death certificates, the funeral director should ask a family member or other informant what the race of the decedent is, but sometimes the race is assigned just by physical appearance, leading to possible misclassification.[9]

Conclusion

This report shows that, for most of the measures presented here, African Americans in North Carolina experience substantially worse health problems than whites. However, there are certainly some areas of advantage for African Americans. They have substantially better rates than whites for chronic lung disease mortality, suicide, maternal smoking during pregnancy, and reported binge drinking, as well as high school smoking and drinking.

Many studies suggest that racism — prejudice or discrimination based on race — is an important determinant of health disparities and quality of life. A State Center for Health Statistics study found that adults who reported having emotional upset and/or physical symptoms due to treatment based on race, and those who reported experiences worse than other races when seeking health care, had significantly lower reported quality of life (e.g., more days in the past month with poor physical health) and higher rates of reported chronic diseases (such as arthritis and diabetes) and health risks (such as obesity).[10] These results persisted after controlling for demographic characteristics, education, and income. African-American adults in North Carolina were significantly more likely than white adults to report having emotional upset and/or physical symptoms due to treatment based on race and to report experiences worse than other races when seeking health care.

The data contained in this fact sheet are useful tools for describing the burden of disease and risk factors contributing to the health status of African Americans in our state. But this report does not begin to capture the strengths, assets, contributions,

and rich history of African Americans living in North Carolina.

Leaders from all sectors of the state are called upon to identify and promote solutions to the glaring health disparities documented in this report. State and local governments, community-based organizations, faith-based organizations, health and human service providers, public/private business and industries, and academic institutions need to invest in these efforts. Policy makers, administrators, and program managers are challenged to address system barriers, engage communities in new ways, and make sure that the resources target the problems identified by these data. Eliminating these health disparities will require a renewed investment in African-American, poor, and historically underserved communities throughout our state.

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State Center for Health Statistics
Karen L. Knight, Director
1908 Mail Service Center
Raleigh, NC 27699-1908
919.733.4728
www.schs.state.nc.us/SCHS

Office of Minority Health and Health Disparities
Barbara Pullen-Smith, Director
1906 Mail Service Center
Raleigh, NC 27699-1906
919.431.1613
www.ncminorityhealth.org

State of North Carolina
Beverly Eaves Perdue, Governor

Department of Health and Human Services
Lanier M. Cansler, Secretary
www.ncdhhs.gov

Division of Public Health
Jeffrey P. Engel, M.D., State Health Director

Chronic Disease and Injury Section
Ruth Petersen, M.D., M.P.H., Chief

Department of Health and Human Services
State Center for Health Statistics
1908 Mail Service Center
Raleigh, NC 27699-1908