

Running Head: HEALTH CARE ACCESS DISPARITIES

**Health Care Access Disparities And Their Relation To Health Status: A
Comparison Between African And Caucasian Americans.**

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Table of Contents

Abstract.....3

Introduction.....4

 Blacks and Health Care Access.....6

 Problem Statement.....15

Methodology.....18

Data Analysis & Findings.....21

 Results.....26

 Descriptive and Analytical.....26

 Summary of Results.....37

Discussion & Conclusions.....38

 Research Review.....40

References.....42

Abstract

Health insurance is a common method of accessing the health care system in the United States. Many factors influence the procurement of health insurance include but are not limited to education, employment, and income. Health insurance provides access to health care, and studies have shown blacks are less likely to have health insurance coverage when compared to white Americans of working ages 18 -64 years. The subsequent investigation is aimed at analyzing the disparities between white and black ethnicities regarding health insurance coverage and the factors associated with attainment. The analysis attempts to identify the socioeconomic factors (education, employment, and income) associated with the attainment of health insurance. The Behavioral Risk Factor Surveillance System (BRFSS) (2008) was used to analyze the differences in health insurance coverage and explore the relationships among the influencing factors.

Research suggests that blacks are more likely than whites to have no health insurance, have not completed college, have a lower annual income and be unemployed. The factor having the most influence on coverage was employment, which was deficient in the black community. An employed individual is more likely to have health insurance, and blacks are less likely to be employed when compared to whites in the U.S. and Georgia. An individual is more likely to have gainful employment and receive health insurance when that person has a college education. Employment provides the necessary income to fund medical care when it may be required. No health insurance can decrease the opportunities of access to primary and preventative health care, and this places blacks at a greater risk of not receiving medical treatment and access to prevention techniques.

Introduction

Blacks experience decreased access to health care, when compared to whites in the United States. Lack of access to adequate health care among the black population can be described as being the product of many factors such as: lack of health insurance, lack of income to fund medical bills and treatment, unemployment, educational deficiencies, health practices, or the lack of health care facilities in the geographic area. Education and employment can be a factor of predicting whether an individual has health insurance coverage. In 2007, there were about 45 million people uninsured in the United States; of this number 9.4 million (20.9%) were black and 5.4 million (12.2%) were white (Kaiser Commission, 2007). “The number of uninsured African-American men and women in the country increased from 6.3 million in 2000 to 7.2 million in 2004” (Families USA, 2006, p. 1). The detachment from a primary means of health care and prevention techniques places blacks at a greater risk for having a negative health outcome from emergency, acute and chronic illnesses due to lack of treatment. Access to health care can greatly improve the health status of the black community. Being uninsured increases the possibility that one will not receive the recommended health screenings and preventative care.

In the State of Georgia, there are considerable health care access disparities between blacks and whites, between the ages of 18 and 64. The black population in Georgia is the fourth largest in the country with 2,665,629 inhabitants as of 2005 and they are the second largest uninsured group in Georgia (Georgia Department of Community Health [GDCH], 2008). When compared to whites in Georgia, blacks are more likely to be uninsured, experience lower than quality health care, live below the

poverty level, receive lower annual incomes, have a lower educational status and report a poorer health status.

Lacking insurance puts certain blacks in situations where they are unable to obtain adequate health care for pertinent health issues. Doty and Holmgren (2006) found that “...45% of African American adults reported they have hypertension, heart disease, diabetes, or asthma; in contrast, 31% of whites reported any one of these conditions” (Doty & Holmgren, 2006, p. 5). Access to health care services can contribute to the early detection of chronic diseases, and increasing the probability of reducing associated morbidity and mortality. Working aged adults without health insurance and a means of medical bill payment become a problem for the state. The Georgia Department of Community Health (2008) stated the following:

“The costs to the health system are significant when care for Georgia’s uninsured people are uncompensated and the costs are absorbed by the health institutions. Treating individuals without health insurance can make it difficult for facilities to remain open. When populations have disproportionately higher illness rates and higher uninsured rates, it results in higher costs to the health system overall”. (p.13)

Blacks lacking the income to fund medical care are likely to not have insurance or be covered by Medicaid.

Blacks and Health Care Access

Reviews on health status, health care access, and utilization have been created by the U.S. Census Bureau, the Office of Minority Health, the Georgia Department of Community Health, the Kaiser Family Foundation, the U.S. Department of Health and Human Services, and the Centers for Disease Control and Prevention. National and local resources were assessed including: the Georgia Department of Human Resources, the Commonwealth Fund, Healthy People 2010, and Kaiser Health Facts. The subsequent study hypothesizes that blacks are less likely to receive health care and health insurance due to a number of reasons including: educational level, employment status, and income level when compared to whites in the U.S. Low socioeconomic status (SES) can influence the possibility of health care coverage and access, and sequentially affect health status.

Collins, Hughes, Doty, Ives, Edwards and Tenney (2002) found 19% of blacks in the U.S. had less than a high school education compared to 11% of whites (Collins et al., 2002). The chances of having a lower income or living below the poverty level are increased due to a lack of education. In a study of 6,299 participants, Johnson, Saha, Arbelaez, Beach, and Cooper (2004) found that blacks were dissimilar to whites with regard to educational status. Regarding college education, 16.3% of blacks finished college compared to 27.5% of whites (Johnson et al., 2004).

In 2002, 41% of blacks lacked employer based insurance compared to 30% of whites (Collins et al., 2002). These low employment rates can provide some explanation as to why blacks have a higher uninsured rate. "Only 53% of working age African Americans had health insurance coverage through their own employer or that of a family

member, well below the average for white working age adults (71%)” (Doty & Holmgren, 2006, p. 5). Blacks lacking insurance through their employer are more likely than whites to be covered by Medicaid (Collins, et al., 2002). Johnson et al. (2004) reported the uninsured rate for whites to be 10.6% and 20.6% for blacks in the study population (Johnson et al., 2004).

According to the 2006 U.S. Census Report, the average black household had a median income of \$31,969/yr while the average white household income was \$52,423/yr (DeNavas-Walt, Proctor & Smith, 2007). Additionally, Johnson et al. (2004) reported blacks to be more likely to have a lower household income and exist below the poverty level in comparison to whites. A lack of income and health insurance to fund medical care increases the likelihood of forgoing preventative care and ending up using hospital emergency services, which can be more costly. “Forty-four percent of African Americans reported they were unable to pay their medical bills, were contacted by a collection agency for unpaid medical bills, had to change their way of life significantly in order to pay their bills, or had outstanding medical debt” (Doty, & Holmgren, 2006, p. 6).

Doty and Holmgren (2006) of the Commonwealth Fund used the Commonwealth Fund’s Biennial Health Insurance Survey (2005) to study the access to health care for minority adults in America. This telephone survey of 6,722 adults over the age of 18 found blacks to have high uninsured rates and a high incidence of chronic disease (Doty & Holmgren, 2006). Fiscella and Williams (2004) also noted that blacks “...have significantly higher mortality rates from cardiovascular and cerebrovascular disease, most cancers, diabetes, HIV, unintentional injuries, pregnancy, sudden infant death syndrome, and homicide than do whites” (Fiscella, & Williams, 2004, p. 1140).

In 2005, there was a reported one in three blacks uninsured compared to one in five whites in the U.S. (Doty, & Holmgren, 2006). According to the research, this may be occurring due to a lack of employer based health insurance coverage for black Americans. Blacks are likely to work in settings that provide access to employment-based health insurance, but when compared to whites in similar situations they aren't as likely to receive insurance (Brown, Ojeda, Wyn, & Levan, 2000). Lillie-Blanton & Hoffman found that, "...56% of uninsured blacks compared to 69 % of uninsured whites, had at least one full-time worker in the family in 2003" (Lillie-Blanton, & Hoffman, 2005, p. 400). "In the United States the uninsured rate for blacks increased in 2006 to 20.5 percent, from 19.0 percent in 2005" (DeNavas-Walt et al., 2007, p. 22). Blacks are twice as likely to be uninsured when compared to whites (Doty & Holmgren, 2006).

A study performed by Zuvekas & Taliaferro (2003) explained factors that affect health care and access disparities using the Medical Expenditure Panel Survey. The survey study mentioned that health insurance explained about 42% of the difference between blacks and whites when it came to a regular source of health care while education and income made up the majority of the disparity. "Socioeconomic status (SES) has been identified as a fundamental cause of the observed social inequalities in health" (Williams & Collins, 2001, p. 406). SES accounts for educational attainment, income level and employment status. "In 2002, one in five African Americans reported incomes that were below the federal poverty level (about \$18,000 for a family of four); an additional one-third of each group lives at 100 percent to 199 percent of the poverty level" (Collins et al., 2002, p. 2).

The Georgia Department of Community Health's Office of Health Improvement and the Minority Health Advisory Council released their 2008 Georgia Health Equality Initiative Health Disparities Report, which includes statistics related to minority health care access in Georgia on a county-by-county analysis. In review of this report, 6 counties were chosen to analyze based on population. These counties included: Clayton, Cobb, DeKalb, Jefferson, Screven, and Tattnall. Clayton, Cobb, and DeKalb are considered urban while Jefferson, Screven, and Tattnall are considered to be more rural, based on population size.

Urban Counties

Clayton County. Clayton county (2008) is majority black at 166,439 (62%) compared to 82,790 (31%) whites. The median family income for blacks was \$44,451 and \$51,219 for whites annually. About 10.4% of blacks live below the poverty level, and 2.2% have less than a ninth grade education. In addition, about 6.6% of blacks in Clayton county are unemployed. Around 7.9% of whites live below the poverty level and there is a two percent unemployment rate within the county. Lastly seven percent of whites have less than a ninth grade education. Blacks in Clayton county have a higher mortality rate than whites and more emergency department visits for diabetes, asthma, and hypertension. (GDCH, 2008)

Cobb County. Cobb county (2008) is majority white at 477,300 (72%) compared to 149,159 (22%) blacks. The median family income for blacks is \$49,283 and for whites it is \$75,035 annually. Around, 9.5% of blacks live below the poverty level, 2.5% have less than a ninth grade education, and about 6.4% are unemployed. Comparatively, 4.9% of whites live below the poverty level, 2.9% have less than a ninth grade education and

there is a 1.5% unemployment rate in the white community. In Cobb county blacks have a higher mortality rate and emergency department visits for chronic illness including asthma, diabetes, and hypertension. (GDCH, 2008)

DeKalb County. DeKalb county (2008) is majority black at 377,038 (56%) compared to 263,526 (39%) whites. The median family income for blacks is \$46,619 and for whites it is \$74,363 annually. About 11.8% of blacks live below the poverty level, four percent have less than a ninth grade education, and seven percent are unemployed. Comparatively, 7.2% of whites live below the poverty level, 4.3% have less than a ninth grade education and 1.5% are unemployed. Blacks have a higher mortality rate and more visits to the emergency department for hypertension, asthma, and diabetes when compared to whites as well. (GDCH, 2008)

Rural Counties

Jefferson County. Jefferson county (2008) consists of 9,483 (56%) blacks and 7,344 (43%) whites. The median annual family income for blacks in Jefferson is \$24,075 compared to the white median of \$42,137. Around 31% of blacks live below the poverty level while 11% of whites are impoverished. With regards to employment, 18% of blacks are unemployed compared to 2.9% of whites. Lastly, 21.2% of blacks have less than a ninth grade education in contrast to the 11.7% of whites. The mortality rate for blacks is higher than that of whites as well. Blacks also require more health care for asthma, hypertension, and diabetes than whites in Jefferson in addition. (GDCH, 2008)

Screven County. Screven county (2008) has 8,462 (55%) whites and 6,849 (44%) black inhabitants. The median family income for blacks is \$27,366 and for whites it is \$41,455 annually. Twenty-seven percent of blacks live below the poverty level, 24% did

not complete the ninth grade and 13% are without jobs. Fifteen percent of whites live below the poverty level, 7.9% have less than a ninth grade education and 3.8% are unemployed. As with the other counties in this comparison, the black population experiences more emergency room visits for diabetes, asthma, and hypertension than their white counterparts. (GDCH, 2008)

Tattnall County. Tattnall county (2008) is majority white at 16,071 (69%) inhabitants along with 6,879 (30%) blacks. The median family income for blacks is \$17,924 and for whites it is \$41,898 annually. Forty-four percent of blacks live below poverty, nine percent did not complete the ninth grade and 15.7% are unemployed. In the white population, there are 12.9% living in poverty, 8.7% having less than a ninth grade education, and 2.1% unemployed. In Tattnall county whites visit the emergency room more when compared to blacks, but blacks receive more treatment for hypertension, diabetes, asthma, mental health concerns and other medical conditions in relation to whites. (GDCH, 2008)

It is clear that blacks do not equally compare to whites in the presented variables whether they live in an urban or rural community. However, living in a rural community limits ones access to health care. Blacks that live in these areas are likely to be unemployed, uneducated and of a lower SES. “Poverty, a major risk factor for poor health outcomes, is more prevalent in inner-city and rural areas than suburban areas” (Blumenthal & Kagen, 2002, p. 109). Rural areas contain more blacks below the poverty level than suburban areas. From this analysis it can be seen that regardless of the availability of health care services and employment opportunities, blacks come up disparate to their white counterparts. The increased number of emergency department

visits for blacks in these counties is indicative of the lack of health insurance in the population.

Mwachofi and Broyles (2007) stated that income possibly "...exerts a direct influence on health status and an indirect effect that is attributable to the relation between an individual's socioeconomic status and their environment" (Mwachofi & Broyles, 2007, p. 104). Income is a major factor in minority health status and access; it directly affects one's socioeconomic status, educational level, and ability to pay health care costs. Income is primarily affected by employment status. Unemployed blacks are more likely to lack consistent income and insurance coverage. The study performed by Mwachofi and Broyles relies on two theories which are the social model of disability and the capabilities model which are as follows:

The social model of disability posits that poor health status, disability and periods of limited activity are a result of physical, organizational and attitudinal barriers. The capabilities model argues that capabilities are practical opportunities that are available to an individual and functioning is the state of being that the individual considers valuable (p. 105).

The study was performed in order to discover whether racial origin and economic status were a factor in determining health status. The study concluded that those of a wealthier status were more likely to report better health. Though the study did not compare blacks to whites, it did provide information to agree with the idea that those of a lower SES of any ethnic group were likely to suffer from a poorer health status.

In a study performed by Kennedy (2005), it was again presented that blacks and other minorities are less likely to have health insurance coverage. Kennedy (2005)

suggests that health insurance coverage can improve racial health disparities and improve the health of minorities (Kennedy, 2005). Additionally, the expansion of Medicaid and the State Children's Health Insurance Program (SCHIP) can help to insure the uninsured minorities. Altering the particulars of these federal health plans can have a positive effect on minorities (Kennedy, 2005). Health promotion and education of minorities can also have a positive effect on the health status of the disparate group. Kennedy states that minorities experience a lower health status for reasons including: "...less access to healthy foods, fewer opportunities for physical activity, and constant advertising of alcohol, cigarettes, and junk food in their communities" (Kennedy, 2005, p. 456).

Brown et al. (2000) looked at the disparities in access to health care and insurance among the racial groups. This study displayed blacks as less likely to receive health insurance from their employers when compared to whites. According to Brown et al., blacks are more likely than whites to have a low income, low educational attainment, live in single parent households and receive Medicaid. "Among African-American adults and children in single-parent families, 38% are covered by Medicaid compared to 23% of whites in single-parent families" (Brown et al., 2000, p. 34). Single parent households provide only one opportunity to obtain employer based insurance, therefore decreasing the probability. Uninsured blacks lack a consistent source of primary preventative health care. "Uninsured African-American women in fair or poor health are particularly disadvantaged; one in five (19%) went for more than a year without seeing a physician" (Brown et al., 2000, p. 39).

The U.S. Department of Health and Human Services set goals to be accomplished by 2010 with regards to the study issues. "The second goal of Healthy People 2010 is to

eliminate health disparities among segments of the population, including differences that occur by gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation” (U.S. Department of Health and Human Services [DHHS], 2000, p. 11). The journal agrees that blacks are disparate when compared to white Americans. “The death rate for all cancers is 30% higher for African Americans than for whites; for prostate cancer, it is more than double that for whites” (DHHS, 2000, p. 12). The DHHS also states the following:

African American women have a higher death rate from breast cancer despite having a mammography screening rate that is higher than the rate for white women. The death rate from HIV/AIDS for African Americans is more than seven times that for whites (p. 12).

Healthy People 2010 agrees that blacks have a higher occurrence of negative health outcomes when compared to whites in the U.S.

Problem Statement

There is a need to address the dissimilarities among blacks and whites with regards to health insurance coverage. In order to compare blacks and whites, and discover whether the health status of blacks is affected by factors affecting the access to health care, the following questions will to be answered.

- I. Is there a difference in the health insurance coverage within the minority population of interest (black) compared to whites aged 18 - 64 in the state of Georgia?
- II. What demographics had the largest influence the general health status among the black and white populations in Georgia?
 - A. Income
 - B. Employment Status
 - C. Educational Level
 - D. Health Insurance Coverage
- III. What demographics influence the health care coverage of blacks and whites in Georgia?
 - A. Educational Level
 - B. Employment Status
 - C. Income Level
- IV. Does health insurance coverage equate to a better general health status among black and white Americans, and is there a difference among the races?
- V. (Null) Access to health care is equal between minorities (blacks) and non minorities (whites) in Georgia.

Within this analysis there will be some terms referenced that will require definition in order to maintain understanding of the literature. The commonly referenced terms are defined within the literature (see Table 1).

Table 1

Commonly Referenced Terms

| Term | Description |
|----------------------------|---|
| Black or African American | Refers to people having origins in any of the black racial groups of Africa. It includes people who indicate their race as black, African American, or Negro, or provide written entries such as African American, Afro American, Caribbean American, Haitian, Kenyan or Nigerian. |
| White | Refers to people having origins in any of the original peoples of Europe, the Middle East or North Africa. It includes people who indicate their race as Caucasian American or report entries such as Arab, Assyrian, British, German, Iraqi, Irish, Italian, Near Easterner, Persian, Polish or Spanish. |
| Health Disparities | Differences in health status among distinct segments of the population including differences that occur by gender, race or ethnicity, education or income, disability, or living in various geographic localities. |
| Socioeconomic Status (SES) | Classification of one's standing in society which can include: educational attainment, employment status, and yearly income. The |

socioeconomic status can also include that of the immediate family.

| | |
|--------------------|--|
| Health Disparities | Differences in health status among distinct segments of the population including differences that occur by gender, race or ethnicity, education or income, disability, or living in various geographic localities. |
| Race | An Artificial social construct that characterizes and separates people on the basis of visibly identifiable characteristics such as skin color, facial features, hair and body types. It has often been used as the basis to perpetuate superiority/inferiority between groups of people. The term race is sometimes used interchangeably with ethnicity. Ethnicity is related to culture, language and geography, and can be, but is not necessarily, associated with race. While there is a difference, for the purposes of this report, our definitions and classifications are consistent with that of the U.S. Census |

Note. From The Georgia Health Disparities Report 2008: A County-Level Look at Health Outcomes for Minorities in Georgia, by R. Meadow, 2008, *Georgia Department of Community Health*.

Methodology

Design

“The objective of the BRFSS is to collect uniform, state specific data on preventive health practices and risk behaviors that are linked to chronic diseases, injuries, and preventable infectious diseases in the adult population.” (Behavioral Risk Factor Surveillance System [BRFSS], 2007, p. 1). The design of the BRFSS Questionnaire consists of three sections including the core component, optional modules and state-added questions. The core component consists of questions relating to health perception, current conditions and behaviors which may include: health status, health insurance, diabetes, tobacco use, disability, and HIV/AIDS risks. The optional modules contain questions on specific topics such as cardiovascular disease, arthritis, and women’s health. Lastly, state-added questions are questions that a state can add for their own purposes (BRFSS, 2007).

Participants

Participants in this analysis of ethnicity and health access according to socioeconomic status will be the black and white inhabitants in Georgia. The data set is provided by the BRFSS of the CDC. The dataset is obtained from the BRFSS website, and is available to anyone who would like to download the data. The respondents include inhabitants of Georgia surveyed during the 2007 period. There were a total of 7,709 respondents to the questionnaire in Georgia. Of these 7,709 respondents, 1,517 of them were black and 5,595 of them were white. The participants used were over the age of 18 and reside within a household, and one adult per household is surveyed at random.

Setting

The setting for the questionnaire was within the participant's home. The questionnaire is issued via telephone service. A majority of the participants had telephones but the ones who did not were compensated for by the BRFSS. The BRFSS is issued to the entire United States along with the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

Independent Variables

The independent variables of the BRFSS are the participants of the study. The participants are controlled in the fact that they must be over the age of 18 and live in a household. In order to participate in this study the participants must be of white or black ethnicity and living in the state of Georgia. Within the data set analysis, the primary independent variables included: educational level (high school & college graduate), employment status, income level (<25,000, <50,000, <75,000, >75,000), and health insurance coverage. Health insurance coverage is used as an independent variable to determine its effect on general health status.

Dependent Variables

The dependent variables of the study include the participant's responses to the specific questions. The questions include a range of behavioral characteristics that are dependent on the respondent's socioeconomic status and education. Responses to the questions describe overall health access and status, which are expected vary according to ethnicity. Within the data set analysis, the main dependent variable is general health status, but in order to complete certain analysis the status of health insurance coverage

was used as well. Health insurance coverage is used to determine if there is a relationship to educational level, employment status, and income level.

Procedure

The procedure performed by the CDC includes a random interview with one adult over the age of 18 per household over the telephone. “The core portion of the questionnaire lasts an average of ten minutes. Interview time for modules and state-added questions is dependent upon the number of questions used, but generally extend the interview period by an additional five to ten minutes” (BRFSS, 2007). The telephone interviews are made either day or night and can be delivered on any day of the week or month.

Data Analysis Plan

Statistical measures are used to determine the number of inhabitants in Georgia with and without health insurance and determine the reasons this may be occurring. The data analyses used will be a combination of cross tabulation, frequency, correlation, descriptive and regression analysis.

Data Analysis and Findings

The Statistical Package for the Social Sciences (SPSS) 16.0 was used to analyze the BRFSS dataset. Multiple testing procedures were used to analyze the relationships between the independent (educational level, employment status, income level, and health insurance coverage) variables and the dependent (health insurance coverage and general health status) variables including: stepwise regression, correlation, cross tabulation, and frequency analysis.

Hypothesis #1

Is there a difference in the health insurance coverage within the minority population of interest (black) compared to Caucasian Americans aged 18 - 64 in the state of Georgia?

A descriptive analysis was used to determine the health insurance coverage among blacks and whites. A frequency test determined the amount of people with and without health insurance coverage between the ethnic groups. The group percentages were then compared to extract conclusions.

Hypothesis #2

What demographics had the largest influence on general health status among the black and white populations in Georgia?

- A. Income
- B. Employment Status
- C. Educational Level
- D. Health Insurance Coverage

Cross tabulation was used to determine the occurrences of each independent variable compared to the dependent variable of general health status. In addition, a correlation and

stepwise regression analysis was used to determine if there was a possible interrelation of the independent variables compared to the general health status.

Hypothesis #3

What demographics influence the health care coverage of blacks and whites in Georgia?

- A. Educational Level
- B. Employment Status
- C. Income Level

Cross tabulation analysis was used to determine the occurrences of the independent variables compared to health care coverage. A stepwise multiple regression was also used to analyze the independent variables against the dependent variable.

Hypothesis #4

Does health insurance coverage equate to a better general health status among black and white Americans, and is there a difference among the races?

Cross tabulation analysis was used to compare general health status and health insurance coverage and to determine the general health status as it compared to health insurance coverage. Those with a positive general health response (excellent, very good, and good) were considered to have a better health status. Those with a negative general health response (fair and poor) were considered to have a poorer health status.

Results

Descriptive Results

The respondents to the BRFSS survey from Georgia totaled 7,709. Of these 7,709 respondents, 1,517 of them were black and 5,595 of them were white. Upon stratification of the data for age range (18-64 years) the concluding total of blacks is 1,274 and 4,013 whites (see Table 2).

Table 2

Descriptive Analysis of Black and White Respondents in Georgia, 2007

| | N | Range | Min. | Max. | Mean | Std. Deviation |
|-------------------------|------|-------|------|------|-------|----------------|
| Black | 1274 | 0 | 2 | 2 | 2.00 | .000 |
| Respondent Age in Years | 1274 | 46 | 18 | 64 | 43.03 | 11.88 |
| White American | 4013 | 0 | 1 | 1 | 1.00 | .000 |
| Respondent Age in Years | 4013 | 46 | 18 | 64 | 45.76 | 11.76 |

The study variables used in the study included educational level, employment status, income level, and health care coverage (see Tables 3-6). A descriptive analysis of the black and white population was used prior to the comparison of the groups.

Table 3**Educational Attainment for Black and White Americans in Georgia, 2007**

| | Frequency | Percent |
|------------------|-----------|---------|
| Black | | |
| High School Grad | 430 | 33.8 |
| College Grad | 338 | 26.5 |
| Total | 768 | |
| White American | | |
| High School Grad | 1067 | 26.6 |
| College Grad | 1595 | 39.7 |
| Total | 2662 | |

Note. Total Population – Black (n=1274), White (n=4013)

Table 4**Employment Status for Black and White Americans in Georgia, 2007**

| | Frequency | Percent |
|----------------|-----------|---------|
| Black | | |
| Employed | 857 | 67.3 |
| Unemployed | 107 | 8.4 |
| Total | 964 | |
| White American | | |
| Employed | 2804 | 69.9 |
| Unemployed | 186 | 4.6 |
| Total | 2990 | |

Note. Total Population – Black (n=1274), White (n=4013)

Table 5**Income Level for Black and White Americans in Georgia, 2007**

| | Frequency | Percent |
|-----------------------|-----------|---------|
| Black | | |
| < 50,000 annually | 794 | 62.2 |
| > 50,000 annually | 345 | 27.1 |
| Total | 1139 | |
| White American | | |
| < 50,000 annually | 1536 | 38.4 |
| > 50,000 annually | 2037 | 50.8 |
| Total | 3573 | |

Note. Total Population – Black (n=1274), White (n=4013)

Table 6**Health Care Coverage among Black and White Americans in Georgia, 2007**

| | Frequency | Percent |
|-----------------------|-----------|---------|
| Black | | |
| Have Health Insurance | 975 | 76.5 |
| No Health Insurance | 299 | 23.5 |
| Total | 1274 | |
| White American | | |
| Have Health Insurance | 3449 | 85.9 |
| No Health Insurance | 564 | 14.1 |
| Total | 4013 | |

Note. Total Population – Black (n=1274), White (n=4013)

Results

Hypothesis #1

Is there a difference in the health insurance coverage within the minority population of interest (black) compared to Caucasian Americans aged 18 - 64 in the state of Georgia?

Results: Study results show a disparity regarding health insurance coverage in the comparison of the black and white population in Georgia as of 2007. Tables 7 and 8 present the percentages of the black (see Table 7) and white (see Table 8) population and whether or not they possess health insurance. According to the percentage reading, blacks (76.5%) do not receive the amount of coverage as compared to whites (85.9%).

Table 7

Black Health Care Coverage Statistics in Georgia

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Yes | 975 | 76.5 | 76.5 | 76.5 |
| No | 299 | 23.5 | 23.5 | 23.5 |
| Total | 1274 | 100.0 | 100.0 | |

Table 8

White American Health Care Coverage Statistics in Georgia

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Yes | 3449 | 85.9 | 85.9 | 85.9 |
| No | 564 | 14.1 | 14.1 | 14.1 |
| Total | 4013 | 100.0 | 100.0 | |

Hypothesis #2

What demographics had the largest influence on general health status among the black and white populations in Georgia?

- A. Income
- B. Employment Status
- C. Educational Level
- D. Health Insurance Coverage

Results: Tables 9-12 display the frequencies of general health status among blacks as compared to educational status, employment, income level and health care coverage (see Tables 9-12). For blacks, health care coverage had the largest influence on positive health status followed by employment.

Table 9

Black Educational Status Related to General Health Status

| Educational Status | General Health Status | | | | | Total |
|----------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| High School Graduate | 55 | 104 | 175 | 72 | 21 | 427 |
| College Graduate | 74 | 138 | 105 | 16 | 5 | 338 |
| Total | 129 | 242 | 280 | 88 | 26 | 765 |

Note. Total population = 1274

Table 10**Black Employment Status Related to General Health Status**

| Educational Status | General Health Status | | | | | Total |
|--------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| Employed | 158 | 278 | 336 | 71 | 10 | 853 |
| Unemployed | 17 | 26 | 35 | 19 | 9 | 106 |
| Total | 175 | 304 | 371 | 90 | 19 | 959 |

Note. Total Population = 1274

Table 11**Black Income Level Related to General Health Status**

| Income Level | General Health Status | | | | | Total |
|---------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| < \$50,000 annually | 105 | 198 | 310 | 129 | 48 | 790 |
| >\$50,000 annually | 75 | 136 | 113 | 15 | 4 | 343 |
| Total | 180 | 334 | 423 | 144 | 52 | 1133 |

Note. Total Population = 1274

Table 12**Black Health Insurance Coverage Related to General Health Status**

| Health Insurance Coverage | General Health Status | | | | | Total |
|---------------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| Have Health Insurance | 160 | 295 | 366 | 107 | 43 | 971 |
| No Health Insurance | 45 | 78 | 102 | 56 | 15 | 296 |
| Total | 205 | 373 | 468 | 163 | 58 | 1267 |

Note. Total Population = 1274

Tables 13-16 display the frequencies of general health status among whites as compared to educational status, employment, income level and health care coverage (see Tables 13-16). For the white population, the largest influence on positive health status was health insurance coverage followed by employment status.

Table 13

White American Educational Status Related to General Health Status

| | General Health Status | | | | | Total |
|-----------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| High School Education | 154 | 333 | 358 | 138 | 76 | 1059 |
| College Education | 525 | 631 | 339 | 72 | 17 | 1584 |
| Total | 679 | 964 | 697 | 210 | 93 | 2643 |

Note. Total Population = 4013

Table 14

White American Employment Status vs. General Health Status

| Employment Status | General Health Status | | | | | Total |
|-------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| Employed | 716 | 1075 | 772 | 188 | 30 | 2781 |
| Unemployed | 26 | 47 | 57 | 26 | 28 | 184 |
| Total | 742 | 1122 | 829 | 214 | 58 | 2965 |

Note. Total Population = 4013

Table 15**White American Income Level Related to General Health Status**

| Income Level | General Health Status | | | | | Total |
|---------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| < \$50,000 annually | 226 | 477 | 455 | 233 | 133 | 1524 |
| > \$50,000 annually | 619 | 796 | 489 | 100 | 18 | 2022 |
| Total | 845 | 1273 | 944 | 333 | 151 | 3546 |

Note. Total Population = 4013

Table 16**White American Health Insurance Coverage vs. General Health Status**

| Health Insurance Coverage | General Health Status | | | | | Total |
|---------------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| Have Health Insurance | 852 | 1229 | 906 | 289 | 145 | 3421 |
| No Health Insurance | 93 | 162 | 173 | 89 | 42 | 559 |
| Total | 945 | 1391 | 1079 | 378 | 187 | 3980 |

Note. Total Population = 4013

A correlation analysis was used to determine the relationships between the independent variables (see Table 17). The independent variables that appear to have the strongest positive relationship are employment status and health insurance coverage. Employment status is also positively related to income level. There appears to be a moderate negative relationship between educational status, health care coverage, and employment status.

Table 17

Intercorrelations Between Subscales for Black and White Americans

| Subscale | 1 | 2 | 3 | 4 |
|----------------------------------|---|------|------|------|
| Blacks (n = 1274) | | | | |
| 1. Educational Level | - | -.26 | -.10 | -.22 |
| 2. Employment Status | | - | .09 | .09 |
| 3. Income Level | | | - | -.00 |
| 4. Have Any Health Care Coverage | | | | - |
| Whites (n = 4013) | | | | |
| 1. Educational Level | - | -.21 | -.04 | -.23 |
| 2. Employment Status | | - | .08 | .09 |
| 3. Income Level | | | - | .02 |
| 4. Have Any Health Care Coverage | | | | - |

Hypothesis #3

What demographics influence the health care coverage of black and whites in Georgia?

- A. Educational Level
- B. Employment Status
- C. Income Level

Results: Table 18 presents the occurrences of health insurance coverage among blacks and whites as related to the identified variables (see Table 18). According to the data analysis, it is clear that the factor most associated with health insurance coverage is employment followed by income. With regards to employment, whites have a lower unemployment rate (3%) and higher instances of health insurance coverage (62%) of the employed and unemployed than blacks. Blacks have more instances of employed workers not receiving health insurance at 13% compared to the white population of 8%.

Table 18

Demographic Characteristic Influences on Health Insurance Coverage, 2007.

| | Have Health Insurance | | No Health Insurance | |
|--------------------------------|-----------------------|------------|---------------------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| Educational Status | | | | |
| Blacks | | | | |
| High School Education | 288 | 23% | 142 | 11% |
| Undergraduate College Graduate | 296 | 23% | 42 | 3% |
| Whites | | | | |
| High School Education | 852 | 21% | 215 | 5% |
| Undergraduate College Graduate | 1497 | 37% | 98 | 2% |
| Employment Status | | | | |
| Blacks | | | | |
| Employed | 693 | 54% | 164 | 13% |
| Unemployed | 45 | 4% | 62 | 5% |
| Whites | | | | |
| Employed | 2489 | 62% | 315 | 8% |
| Unemployed | 108 | 3% | 78 | 2% |
| Income | | | | |
| Blacks | | | | |
| Income < 50,000 | 167 | 13% | 17 | 1% |
| Income > 50,000 | 316 | 25% | 29 | 2% |
| Whites | | | | |
| Income < 50,000 | 481 | 12% | 95 | 2% |
| Income > 50,000 | 1935 | 48% | 92 | 2% |

Note. Black (n): 1274, White (n): 4013

Regression Analysis (Blacks)

The regression analysis indicates that that educational level has the most notable predictive influence on health insurance coverage for blacks. However, the R^2 is rather low to consider this prediction equation to be statistically significant. A prediction equation created from this analysis would not yield useful information.

Table 19

Summary of Stepwise Regression Analysis for Variables with the Largest Influence on Health Insurance Coverage Among Blacks (N = 1274)

| Variable | <i>B</i> | <i>SE B</i> | β |
|-------------------|----------|-------------|---------|
| Step 1 | 1.66 | .053 | |
| Educational Level | -.090 | .011 | -.22* |

Note. $R^2 = .049$ for Step 1. Dependent variable = Have any health care coverage

* $p < .05$

Regression Analysis (Whites)

The regression analysis for the white population indicates that educational level and employment status have the greatest bearing on the attainment of health insurance coverage in the white population (see Table 20). As with the black population the R^2 is is still to low to consider this a meaningful reading. A prediction equation created from this analysis would not yeild useful information. The information does however report the independent variables to not interrelated.

Table 20

Summary of Stepwise Regression Analysis for Variables with the Largest Influence on Health Insurance Coverage Among White Americans (N = 1274)

| Variable | <i>B</i> | <i>SE B</i> | β |
|-------------------|----------|-------------|---------|
| Step 1 | | | |
| Educational Level | -.077 | .005 | -.23* |
| Step 2 | | | |
| Educational Level | -.074 | .005 | -.22* |
| Employment Status | .006 | .002 | .04* |

Note. $R^2 = .049$ for Step 1; $R^2 = .053$ for Step 2. Dependent variable = Have any health care coverage

* $p < .05$

Hypothesis #4

Does health insurance coverage equate to a better general health status among blacks and white Americans, and is there a difference among the races?

Results: The general health status of the black and white population as related to health insurance coverage presents whites to have more positive health outcomes than blacks (see Table 21).

Table 21**African and White American Health Insurance Coverage vs. General Health Status**

| | General Health Status | | | | | Total |
|-----------------------|-----------------------|-----------|------|------|------|-------|
| | Excellent | Very Good | Good | Fair | Poor | |
| Black | | | | | | |
| Have Health Insurance | 160 | 295 | 366 | 107 | 43 | 971 |
| No Health Insurance | 45 | 78 | 102 | 56 | 15 | 296 |
| Total | 205 | 373 | 468 | 163 | 58 | 1267 |
| White American | | | | | | |
| Have Health Insurance | 852 | 1229 | 906 | 289 | 145 | 3421 |
| No Health Insurance | 93 | 162 | 173 | 89 | 42 | 559 |
| Total | 945 | 1391 | 1079 | 378 | 187 | 3980 |

Note. Total Population – Black (n=1274), White (n=4013)

Summary of Results

The data analysis presents a clear view on the suggestion that blacks are disparate to whites with regards to health insurance coverage. The study illustrates inequalities among the ethnic groups in educational attainment, employment status, income level and general health status. The results proved the suggested study questions to be factual.

Blacks are less likely to have health insurance coverage when compared to whites. Of the blacks studied, 23.5% were without health insurance in 2007 in comparison to the 14.1% of whites. General health status was affected by the study variables, but the variable with the most influence was the presence of health insurance. The presence of health insurance resulted in more positive general health status responses than the other variables. Employment status was the best predictor of health insurance coverage among the study population. This could be due to the participants receiving employer based insurance, although there are some respondents who are unemployed with health insurance.

Discussion

Conclusions

Based on the results obtained in this study, it can be concluded that blacks are dissimilar to whites in each factor presented. In Georgia, whites are reaching higher educational and income levels in comparison to blacks. Additionally, they are remaining employed and obtaining health care insurance at higher rates than blacks. Specifically, blacks are disparate in all of the variables studied including: educational level, employment status, income level, and health insurance coverage. The factor most associated with health insurance coverage is employment. Education can be related to employment status and income level. A person is more likely to have health insurance who is employed, and a person is more likely to be employed and receive health insurance when they have a college education according to the study.

In education, whites have a larger percentage of the population who has graduated from college at 40% of 4,013 compared to the black population of 27% of 1,247. The larger percentage of college graduates can be an indication of the higher employment and health insurance status for white Americans. In regards to employment, 67% (857) of blacks are employed compared to 70% (2,804) or whites. The differences are not as pronounced in employment but in relation to income level they become clearer. White Americans have 51% (2,037) of the population making more than \$50,000 annually, while the black population has 9% (345) reaching the mark. Twenty-three percent (299) of blacks are uninsured compared to the 14% (564) of whites.

Within the stated results the conclusions are easy to withdraw, however there are some alternative explanations to the data results. First, the geographical location of the

respondents was not considered as a variable related to health care coverage. Impoverished areas are less likely to contain citizens with jobs, a college education and health insurance. Secondly, differences in the areas may be due largely to other factors such as availability or public policy implications. Policy implications can include: location of health care facilities, quality of facilities, and housing distribution.

Strengths of this study include the analysis of the variables most likely to have the greatest influence on health care coverage. Socioeconomic factors are the most common indicators of health insurance coverage as reviewed from recent studies. A weakness of the study includes the small population size in relation to the population of Georgia. In 2005, Georgia had 2,665,629 black and 5,411,373 white inhabitants; however the representation of the races within this study were minimal.

The research results should have an influence on research within public health. Knowing that public health strives to improve the health of the entire population, it can be agreed that disparate situations between ethnicities needs to be acknowledged. The large amount of data on the subject can influence future studies and provide areas for action in public health. In order to decrease the health insurance coverage disparities among blacks and whites, further research should include a detailed analysis of the additional factors associated with health insurance coverage. Factors such as: geographical location, behavioral factors, age range, disability, policy analysis, current interventions, etc. Further study of the associated factors will provide target areas for new intervention programs.

To eliminate ethnic disparities, it is imperative that intervention programs aimed at increasing educational status among blacks be developed. Finding ways to assist and

motivate blacks to complete a college education can empower them with the knowledge to obtain gainful employment with health insurance benefits. Education is vital to understanding health care, and with more education these differences can be reduced or eliminated.

The quantity of information obtained black health status and access can be a bit overwhelming, but there are answers to the presented questions within the research data. Studies show that blacks in the United States experience poorer access to care resulting in a poorer health status and outcome. The study intends to educate the unaware about the inequalities that still remain between blacks and whites. Historically, blacks have not been given the same opportunities as whites and the situation is moderately better in present day with regards to health care access and health status. The current situation in the black community in the United States and in Georgia is still subpar to that of the white community. The black community is still suffering from a plethora of health issues including: increased incidence and prevalence of HIV/AIDS, chronic hypertension, diabetes, health disease, depression, and other negative health issues. The situation must be remedied to create equality across racial lines. Blumenthal and Kagan (2002) stated the following:

To achieve this goal, the public health infrastructure must be strengthened.

Collaboration between government and private sector agencies is essential to address issues related to health, education, employment, housing, and transportation. (p. 109)

The communities where uninsured blacks reside need to take action to ensure a positive health care status for blacks. According to Blumenthal & Kagan, “increasing access to

health care, enhancing educational, economic and occupational opportunities, improving housing and transportation, emphasizing disease prevention at the individual and community levels, and strengthening social supports should improve health for all Americans in the 21st century irrespective of where they may live” (Blumenthal & Kagen, 2002, p. 109). Efforts need to be directed towards a solution to this problem, and the only way to increase awareness is to educate the unaware.

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