

**Health Disparities in Delaware 2004:  
An Overview**

**prepared for**

**Metropolitan Wilmington Urban League  
Office of the Lieutenant Governor  
Delaware Department of Health and Social Services**

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## TABLE OF CONTENTS

|                                       | Page |
|---------------------------------------|------|
| List of Figures .....                 | iv   |
| Introduction .....                    | 1    |
| Health Disparity Indicators.....      | 5    |
| Behavior and Health Disparities ..... | 20   |
| National Perspectives .....           | 31   |
| Quality of Health Care .....          | 39   |

---

## LIST OF FIGURES

| Figure  | Page |
|---|------|
| 1.1 Life Expectancy in Delaware by Race and Gender .....                                | 1    |
| 3.1 Heart Disease Death Rate by Race Delaware 1982-2002 .....                           | 7    |
| 3.2 Heart Disease Death Black/White Disparity Ratio Delaware 1982-2002 .....            | 7    |
| 3.3 Cancer Death Rate by Race Delaware 1982-2002 .....                                  | 8    |
| 3.4 Cancer Death Black/White Disparity Ratio Delaware 1982-2002 .....                   | 8    |
| 3.5 Stroke Death Rate by Race Delaware 1982-2002 .....                                  | 9    |
| 3.6 Stroke Death Black/White Disparity Ratio Delaware 1982-2002 .....                   | 9    |
| 3.7 Diabetes Death Rate by Race Delaware 1982-2002 .....                                | 10   |
| 3.8 Diabetes Death Black/White Disparity Ratio Delaware 1982-2002 .....                 | 10   |
| 3.9 HIV Infection/AIDS Death Rate by Race Delaware 1982-2002 .....                      | 11   |
| 3.10 HIV Infection/AIDS Death Black/White Disparity Ratio Delaware 1982-2002 .....      | 11   |
| 3.11 Homicide Rate by Race Delaware 1982-2002 .....                                     | 12   |
| 3.12 Homicide Black/White Disparity Ratio Delaware 1982-2002 .....                      | 12   |
| 3.13 Alcohol-Induced Death Rate by Race Delaware 1982-2002 .....                        | 13   |
| 3.14 Alcohol-Induced Death Black/White Disparity Ratio Delaware 1982-2002 .....         | 13   |
| 3.15 Infant Death Rate by Race Delaware 1982-2002 .....                                 | 14   |
| 3.16 Infant Death Black/White Disparity Ratio Delaware 1982-2002 .....                  | 14   |
| 3.17 Teen Birth Rate by Race Delaware 1982-2002 .....                                   | 15   |
| 3.18 Teen Birth Black/White Disparity Ratio Delaware 1982-2002 .....                    | 15   |
| 3.19 Percentage of Late or No Prenatal Care by Race Delaware 1982-2002 .....            | 16   |
| 3.20 Late or No Prenatal Care Black/White Disparity Ratio Delaware 1982-2002 .....      | 16   |
| 3.21 Percentage of Low Birth Weight Births by Race Delaware 1982-2002 .....             | 17   |
| 3.22 Low Birth Weight Black/White Disparity Ratio Delaware 1982-2002 .....              | 17   |
| 3.23 Asthma Hospitalization Rate by Race Delaware 1994-2002 .....                       | 18   |
| 3.24 Asthma Hospitalization Black/White Disparity Ratio 1994-2002 .....                 | 18   |
| 3.25 Delaware Black/White Disparity Ratios .....  | 19   |
| 4.1 How is Your General Health by Race/Ethnicity .....                                  | 21   |
| 4.2 Do You Have Any Kind of Health Insurance by Race/Ethnicity .....                    | 22   |
| 4.3 Do You Have A Personal Doctor or Health Care Provider by Race/Ethnicity .....       | 22   |
| 4.4 Did You Need to See a Doctor But Was Too Costly by Race/Ethnicity .....             | 23   |
| 4.5 Have You Exercised in the Last 30 Days by Race/Ethnicity .....                      | 24   |
| 4.6 Do You Eat Five or More Servings of Fruits/Vegetables Daily by Race/Ethnicity ..... | 25   |

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## LIST OF FIGURES (continued)

| Figure |   | Page |
|--------|---|------|
| 4.7    | At Risk for Being Overweight by Race/Ethnicity .....                | 26   |
| 4.8    | Ever Been Told You Have Diabetes by Race/Ethnicity .....            | 26   |
| 4.9    | At Risk for Binge Drinking by Race/Ethnicity .....                  | 27   |
| 4.10   | At Risk for Smoking by Race/Ethnicity .....                         | 28   |
| 4.11   | Ever Had Cholesterol Checked by Race/Ethnicity .....                | 29   |
| 4.12   | Ever Had Blood Stool Test Using Home Kit by Race/Ethnicity .....    | 29   |
| 5.1    | Delaware CAHPS Quality Ratings by Category and Race/Ethnicity ..... | 45   |

## Introduction

The issue of health disparity is of concern to all of us. It affects each of us as individuals and as a society in general. Differences in the length of our lives and the quality of life are largely influenced by health. Both impact the contribution that any member of society is likely to make.

At the outset it is important to understand that there are two different views of what is meant by health disparities, and both views are valid. The first view deals largely with early death. Longevity differs by race as can be seen in Figure 1.1 below.

**Figure 1.1**  
**Life Expectancy in Delaware by Race and Gender**

| Year | All Races |      |        | White |      |        | Black |      |        |
|------|-----------|------|--------|-------|------|--------|-------|------|--------|
|      | Both      | Male | Female | Both  | Male | Female | Both  | Male | Female |
| 2001 | 76.3      | 73.9 | 78.7   | 77.1  | 74.6 | 79.5   | 72.1  | 69.5 | 74.4   |
| 2000 | 76.5      | 73.9 | 79.0   | 77.1  | 74.5 | 79.6   | 72.5  | 69.4 | 75.5   |
| 1999 | 76.8      | 73.9 | 79.6   | 77.6  | 74.7 | 80.3   | 72.6  | 68.8 | 76.2   |
| 1998 | 75.9      | 73.3 | 78.4   | 77.0  | 74.5 | 79.4   | 70.3  | 66.9 | 73.5   |
| 1997 | 75.8      | 73.3 | 78.2   | 76.7  | 74.2 | 79.1   | 71.0  | 68.3 | 73.5   |
| 1996 | 75.4      | 72.5 | 78.1   | 76.7  | 73.9 | 79.4   | 68.8  | 65.2 | 72.2   |
| 1995 | 75.5      | 72.5 | 78.4   | 76.8  | 74.2 | 79.4   | 68.9  | 64.4 | 73.5   |
| 1994 | 75.1      | 71.4 | 78.7   | 76.1  | 72.6 | 79.6   | 69.5  | 65.0 | 74.1   |
| 1993 | 75.2      | 71.9 | 78.5   | 76.5  | 73.6 | 79.3   | 68.5  | 63.4 | 73.6   |
| 1992 | 75.4      | 72.4 | 78.2   | 76.3  | 73.5 | 78.9   | 70.3  | 66.2 | 74.3   |
| 1991 | 75.0      | 71.9 | 77.9   | 76.0  | 73.0 | 78.9   | 69.4  | 66.2 | 72.4   |
| 1990 | 75.0      | 71.9 | 77.9   | 76.0  | 73.2 | 78.8   | 69.3  | 65.4 | 73.1   |
| 1989 | 74.3      | 71.1 | 77.3   | 75.3  | 72.2 | 78.2   | 68.4  | 64.4 | 72.4   |
| 1988 | 74.2      | 70.9 | 77.3   | 75.1  | 71.9 | 78.2   | 68.8  | 65.0 | 72.6   |
| 1987 | 74.3      | 71.0 | 77.5   | 75.1  | 71.8 | 78.3   | 69.7  | 66.1 | 73.1   |
| 1986 | 74.0      | 70.5 | 77.5   | 74.9  | 71.4 | 78.3   | 68.9  | 65.0 | 72.8   |
| 1985 | 73.9      | 70.5 | 77.1   | 74.9  | 71.7 | 78.0   | 68.3  | 64.2 | 72.6   |
| 1984 | 74.6      | 71.3 | 77.8   | 75.5  | 72.2 | 78.7   | 69.1  | 65.8 | 72.4   |
| 1983 | 74.6      | 71.1 | 78.0   | 75.5  | 72.1 | 78.8   | 69.4  | 65.5 | 73.4   |
| 1982 | 73.7      | 70.1 | 77.2   | 74.6  | 70.9 | 78.3   | 68.4  | 65.2 | 71.5   |
| 1981 | 73.6      | 70.1 | 77.0   | 74.3  | 70.9 | 77.6   | 69.4  | 65.1 | 73.9   |
| 1980 | 73.1      | 69.5 | 76.7   | 74.0  | 70.5 | 77.5   | 67.6  | 63.3 | 72.4   |
| 1979 | 73.1      | 69.2 | 77.1   | 74.0  | 70.0 | 78.1   | 67.6  | 64.1 | 71.2   |

Source: Delaware Health Statistics Center, Division of Public Health

A black newborn in Delaware is expected to live 72.1 years, while a white newborn is expected to live 77.1 years, a difference of five years. A black female newborn is expected to live 74.4 years as opposed to a white female newborn, who is expected to live 79.5 years. A black male newborn has the lowest life expectancy at 69.5 years compared to a white male newborn at 74.6. As Figure 1.1 shows, life expectancy for both black males and black females has steadily climbed in since 1979. Both black males and black females improved far more than their white counterparts but still lag significantly behind both whites and the all race, all sex averages. While the black female trails the average white female life expectancy by just over four years, it is the black male who is behind all of the groups, including black females, by almost five years. The differences in life expectancy are directly related to differences in mortality for a wide range of diseases. This report is intended to highlight the problems and challenges associated with health disparities among the races.

Improving health promotion in all areas is achieved by educating the general public of the long-term benefits of a healthier lifestyle. J. Michael McGinnis writes that ninety-five percent of all funding in this country put towards health is spent on the medical services, leaving only five percent for health promotion.<sup>1</sup> But it is estimated that forty percent of deaths are caused by specific behavior problems that could be prevented with more education, while only ten to fifteen percent of deaths could be avoided by better access to, or availability of, health care.

Behavioral choices are the biggest determinant in an individual's health in the United States. The way we eat, whether we smoke or drink, and having unprotected sex are just a few of the many choices that affect our health. McGinnis believes through better health care promotion, there would be a dramatic improvement in the mortality and morbidity of all races. This is shown through the Healthy People initiative started in 1990, which showed large improvements in Infant Mortality, Childhood Death Rates, Adolescent Death Rates, and Adult Death Rates.

As health disparities grow in certain areas such as HIV/AIDS and Diabetes, it is important that education of the masses takes place in the regions of most need. As blacks continue to lag behind whites in many health areas, it is important to examine a wide array of causal factors including behavior, genetics, social, environmental conditions, and shortfalls in medical care.

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<sup>1</sup> McGinnis, J.M., Pamela Williams-Russo, James R. Knickman. "The Case for More Active Policy Attention To Health Promotion", *Health Affairs*, Vol. 21, No. 2, 2002.

Shortfalls in medical care are central to the second view of the health disparity issue. Differences in the delivery of health care along racial/ethnic lines are of concern and need to be examined. In many respects this is a subset of the broader early death view.

The most influential recent study is the congressionally commissioned Institute of Medicine (IOM) 2003 report entitled “Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.” This study’s conclusion is not new, but it seems to have made a lasting impression on the nation’s health policy dialogue. Despite steady improvement in the overall health of the U.S. population, racial and ethnic minorities, with few exceptions, suffer higher rates of morbidity and mortality when compared to non-minority populations. While the causes of these disparities are complex and not easily identified, the IOM report indicates that some may be attributed to socioeconomic status, culture, language, environment, and behavioral risk factors.

The IOM study committee reviewed more than 100 studies, and “was struck by the consistency of research findings,” indicating that minorities are “less likely than whites to receive needed services, including clinically necessary procedures.” These disparities were found to exist across a number of disease areas, including cancer, cardiovascular disease, HIV/AIDS, diabetes, and mental illness.

The key difference in these two views is the focus of the effort to reduce these disparities. Should it broadly focus on areas such as personal behavior or more narrowly on health care delivery. Currently we spend most of our resources on the latter. This report provides background information that will help inform local policymakers as they struggle with this critical issue.

Following this brief introduction are five substantive sections. The first section describes 12 health disparity indicators such as comparative death rates from heart disease, cancer and stroke. Due to small sample sizes for other racial and ethnic groups, the discussion focuses on the differences between the rates for white and black Delawareans.

The second section addresses potential behavioral reasons for health disparities. It uses interviews with more than 16,000 adult Delawareans over the past five years to shed light on some areas that might prove fruitful for reducing the observed disparities.

The third section provides information regarding the current thinking about health disparities and the potential causes and likely strategies for reducing them. The material is largely focused at the national level but has wide applicability to the State of Delaware.



The final section looks at the interaction of individuals with the health care system and the problems they have observed obtaining quality care. This analysis also relies on survey data gathered from nearly 9,000 adult Delawareans over the past five years. Using the suggestions from the first section, it looks for differences that would indicate strategies for improving the quality of care received by minorities in particular.

## Health Disparity Indicators

There were 12 indicators used in this study to outline the degree of disparity that exists between blacks and whites. The three data sources for these indicators were birth records, death records, and inpatient hospital discharge records.

***Heart Disease Death Rate*** represents the number of heart disease deaths per 100,000 population. Rates are age-adjusted to the 2000 U.S. population standard. Heart disease was the leading cause of death in Delaware for 1998-2002, accounting for over 9,800 deaths.

***Cancer Death Rate*** represents the number of cancer deaths per 100,000 population. Rates are age-adjusted to the 2000 U.S. population standard. Cancer was the second leading cause of death in Delaware for 1998-2002, accounting for over 8,300 deaths.

***Stroke Death Rate*** represents the number of stroke deaths per 100,000 population. Rates are age-adjusted to the 2000 U.S. population standard. Stroke was the third leading cause of death in Delaware for 1998-2002.

***Diabetes Death Rate*** represents the number of diabetes mellitus deaths per 100,000 population. Rates are age-adjusted to the 2000 U.S. population standard. Diabetes represents the sixth leading cause of death in Delaware for 1998-2002.

***HIV Infection/AIDS Death Rate*** represents the number of HIV Infection/AIDS deaths per 100,000 population. Rates are age-adjusted to the 2000 U.S. population standard. HIV Infection/AIDS was the thirteenth leading cause of death in Delaware for 1998-2002.

***Homicide Rate*** represents the number of homicide deaths per 100,000 population. Rates are age-adjusted to the 2000 U.S. population standard. Homicide was the seventeenth leading cause of death in Delaware for 1998-2002.

***Alcohol-Induced Death Rate*** represents the number of alcohol-induced deaths per 100,000 population. Rates are age-adjusted to the 2000 U.S. population standard. The category alcohol-induced deaths includes not only the deaths from dependent and non-dependent use of alcohol, but also accidental poisoning by alcohol. It excludes unintentional injuries, homicides, and other causes indirectly related to alcohol use.

***Infant Death Rate*** represents the number of deaths to children less than one year of age per 1,000 live births.

***Teen Birth Rate*** represents the number of births to teens 15-19 years of age per 1000 females in that age group.

***Late or No Prenatal Care*** represents the percent of all women giving birth who received their first prenatal visit in the third trimester of pregnancy or received no prenatal visits.

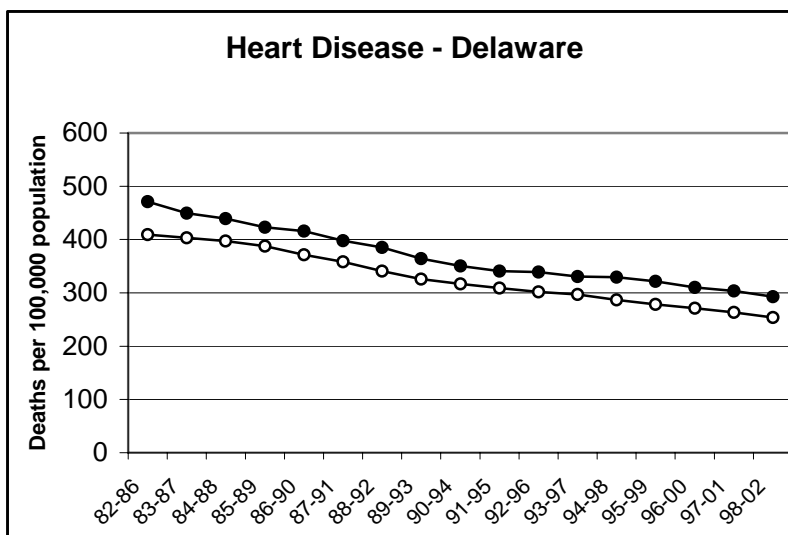
***Percent of Low Birth Weight Babies*** represents the percent of all babies weighting less than 5.5 pounds (<2500 grams) at birth.

***Asthma Hospitalization Rate*** represents the number of in-patient hospitalizations for asthma per 100,000 population. Rates are adjusted to the 2000 U.S. population standard.

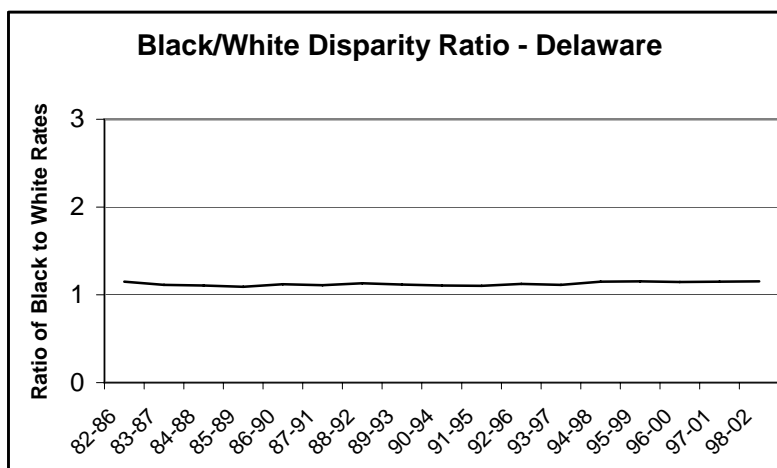
## **Results**

For each death rate, birth rate, or hospitalization rate there will be two graphs that will represent a specific geographic region. The values in each graph show the five-year moving average for each period designated on the horizontal axis. The first graph will track the rates over a designated set of years for both blacks and whites within the state. While most of the graphs span a 20-year period, Asthma Hospitalization Rates and Percentage of Births by Late or No Prenatal Care only cover an 8-year period. The second graph will show the black/white disparity ratio, which is the black rate divided by the white rate. The black/white disparity ratio will represent the percentage of disparity in the state as well as any progress that is being made in regard to disparity between blacks and whites. The further the ratio is above one, the higher the disparity between blacks and whites in the state. The rates are age adjusted to the 2000 U.S. population standard, and the data was compiled by the Delaware Health Statistics Center.

**Figure 3.1**  
**Heart Disease Death Rate by Race**  
**Delaware 1982-2002**

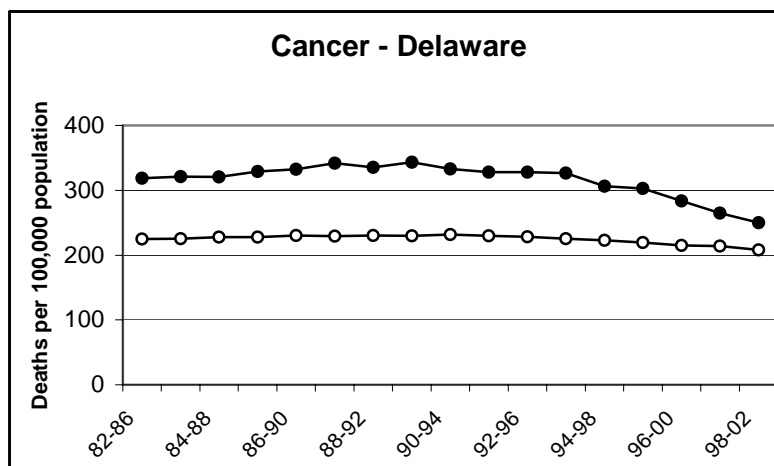


**Figure 3.2**  
**Heart Disease Death Black/White Disparity Ratio**  
**Delaware 1982-2002**

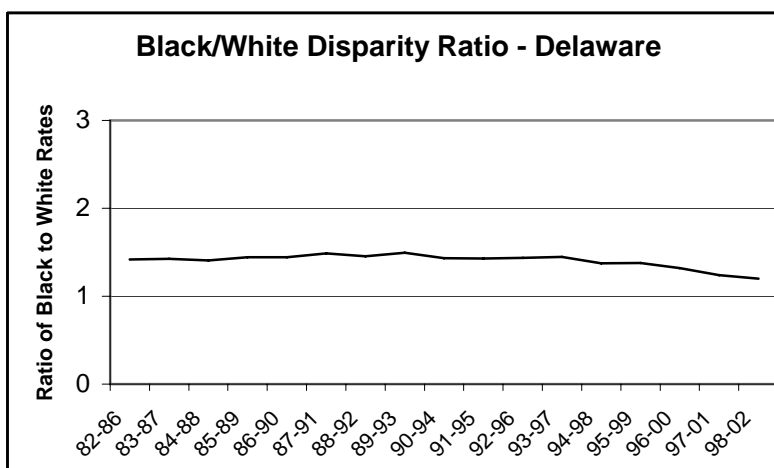


Since 1982-86, there has been a steady decrease in the amount of deaths per 100,000 in both blacks and whites with a leveling off around 1991-95. But there has been little change between blacks and whites with the ratio staying just above one. The state information provides a much better look at the black/white disparity because the counties tend to offer more active changes year to year, while the state shows gradual trends.

**Figure 3.3**  
**Cancer Death Rate by Race**  
**Delaware 1982-2002**

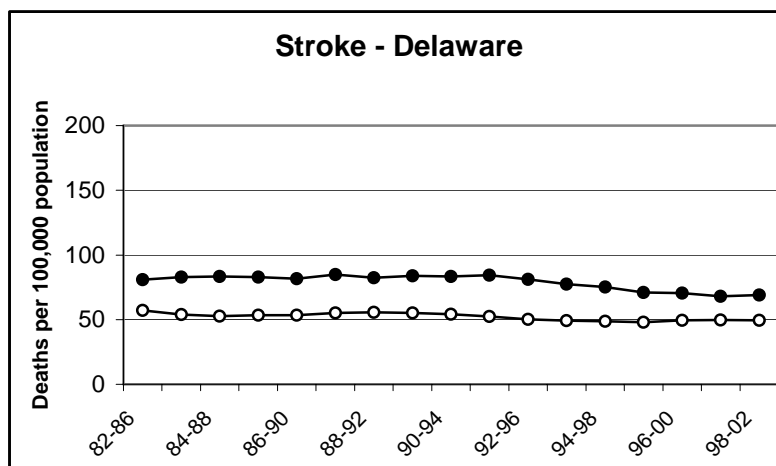


**Figure 3.4**  
**Cancer Death Black/White Disparity Ratio**  
**Delaware 1982-2002**

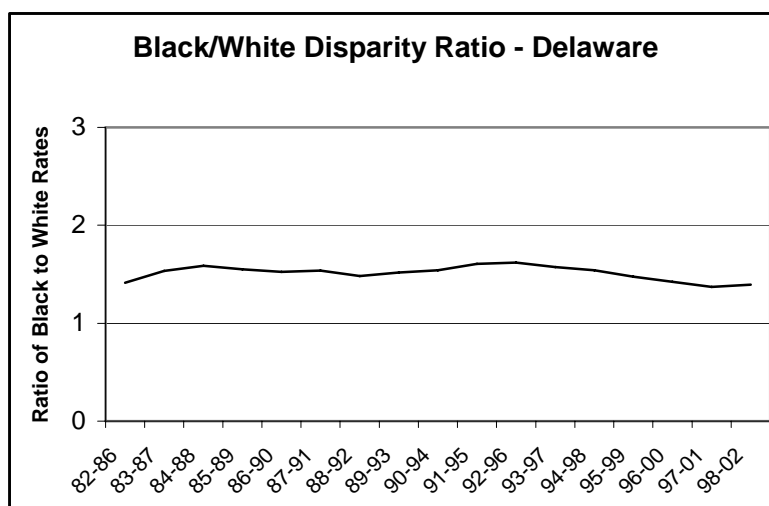


In 1982-86 there were over 100 more deaths by blacks per 100,000 than whites due to cancer in Delaware. This trend continued until 1994-98 where the ratio slowly started to decline. The amount of deaths by cancer from whites has remained static since 1982-86 to the present, hovering around 200 deaths per 100,000, while blacks have started to make a steady improvement in cancer deaths since 1995-99. The black/white disparity ratio has steadily been declining for the past five years.

**Figure 3.5**  
**Stroke Death Rate by Race**  
**Delaware 1982-2002**

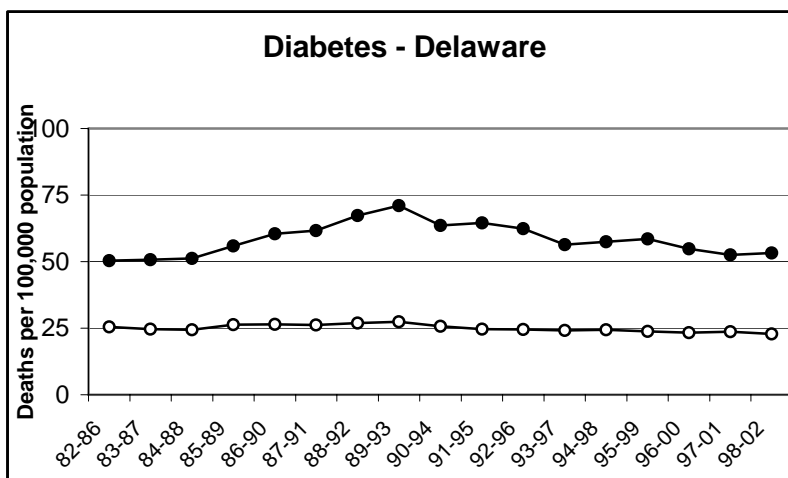


**Figure 3.6**  
**Stroke Death Black/White Disparity Ratio**  
**Delaware 1982-2002**

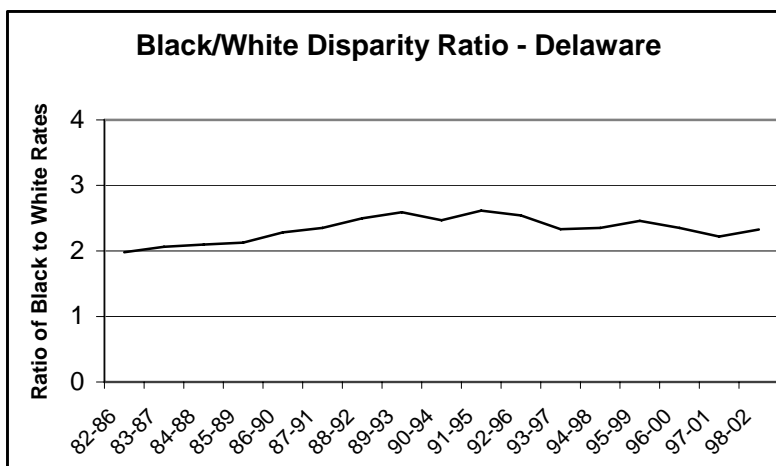


From 1982-86 to 1991-95, there was a difference of about 25 more stroke deaths per year for blacks than for whites in Delaware. The stroke deaths for blacks gradually started to decrease in 1996 and have steadily moved closer to the death rates of whites. The black/white disparity ratio remained around 1.5 for most of the last twenty years and has recently started to decline somewhat. The amount of stroke death for whites has remained around 50 per 100,000 in Delaware for the last twenty years, while the blacks have shown improvement in the last five years.

**Figure 3.7**  
**Diabetes Death Rate by Race**  
**Delaware 1982-2002**

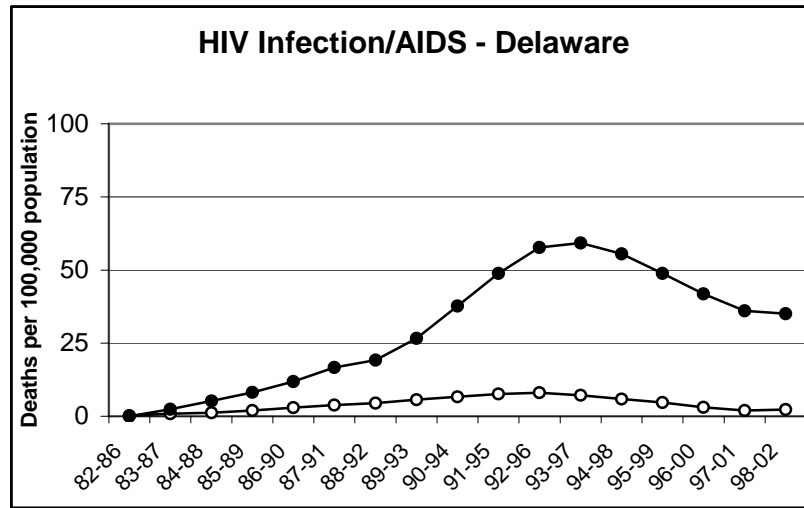


**Figure 3.8**  
**Diabetes Death Black/White Disparity Ratio**  
**Delaware 1982-2002**

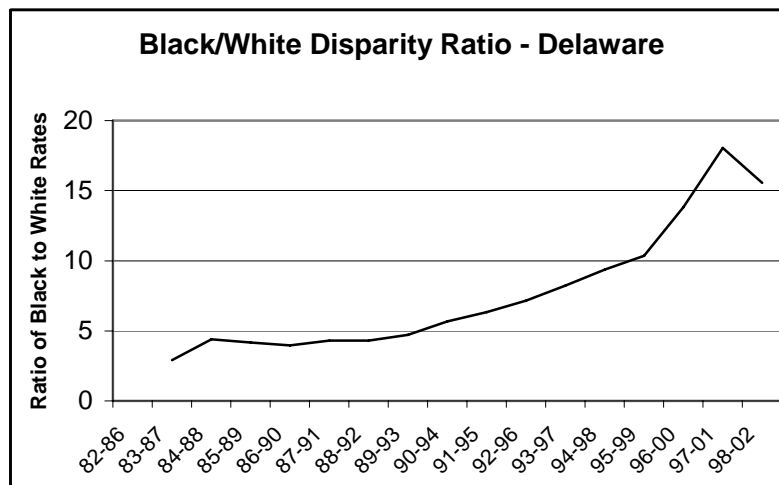


While death rates for whites have remained around 25 per 100,000 for the last twenty years, death rates for blacks have not improved at all. In fact, there was a sharp increase in diabetes deaths from 1985-89 to 1993-97 in blacks and has since come back down to the previous rate around 50 deaths per 100,000. Because of the higher rate of diabetes deaths for blacks, they are more than twice as likely as whites to die from diabetes, as stated in the black/white disparity ratio. There have been slight ups and down in the ratio but it has consistently been double that of whites.

**Figure 3.9**  
**HIV Infection/AIDS Death Rate by Race**  
**Delaware 1982-2002**



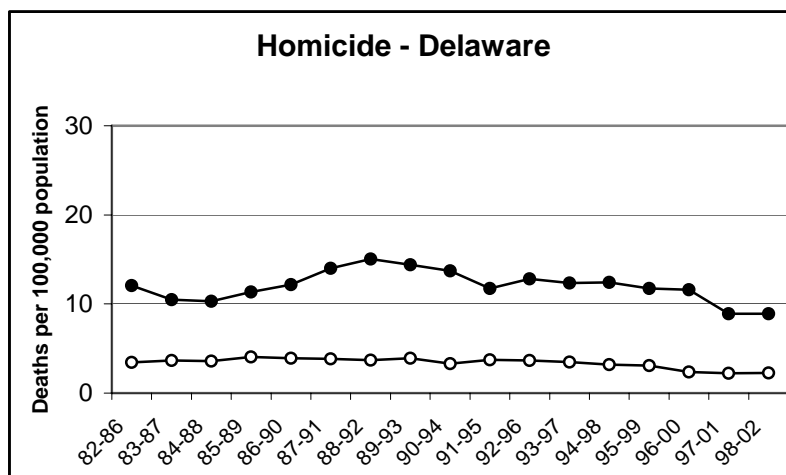
**Figure 3.10**  
**HIV Infection/AIDS Death Black/White Disparity Ratio**  
**Delaware 1982-2002**



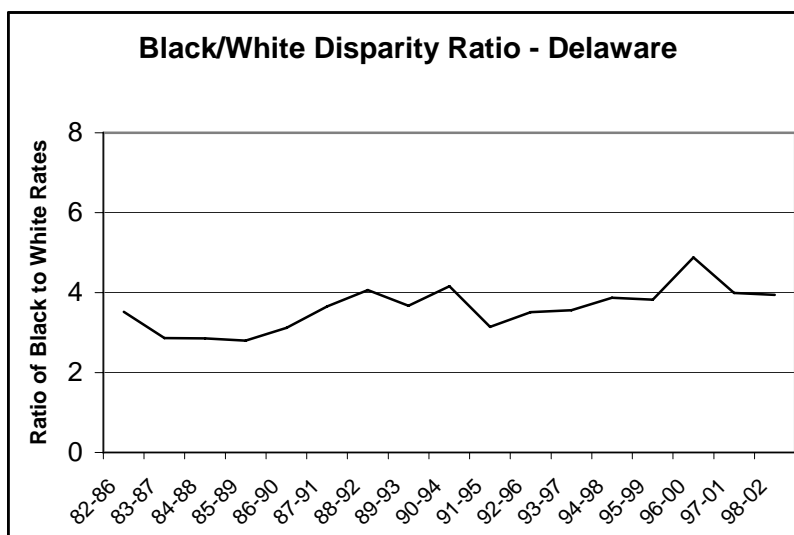
Measurable death rates for HIV Infection/AIDS did not start until 1984-88. Since that point Delaware saw a steep increase of HIV Infection/AIDS death rates in blacks and saw only a marginal increase in the white population death rates from HIV Infection/AIDS. The HIV Infection /AIDS rates peaked in 1993-97 for blacks and since have steadily declined. However, the black/white disparity ratio has continued to climb since 1984-88 and has since peaked at a ratio of fifteen, meaning that blacks are fifteen times more likely than whites to die from HIV Infection/AIDS in Delaware. The deaths per 100,000 for whites in Delaware have never been over 10 per year, which is a likely explanation for the high ratio.



**Figure 3.11**  
**Homicide Rate by Race**  
**Delaware 1982-2002**

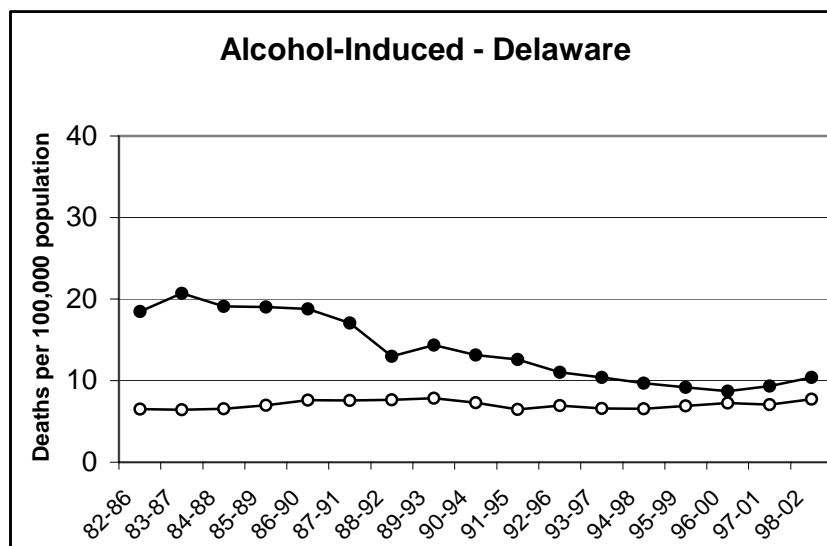


**Figure 3.12**  
**Homicide Black/White Disparity Ratio**  
**Delaware 1982-2002**

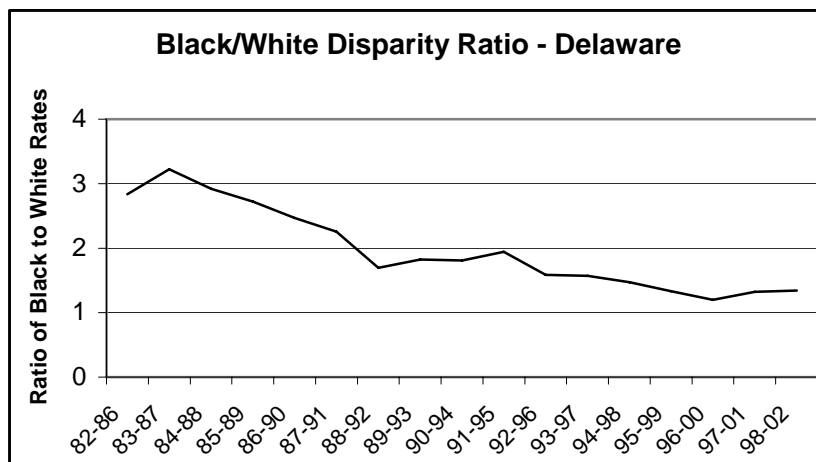


Since 1982-86 Homicide death rates for whites have remained fairly constant in Delaware staying between 2.3 and 4.0 per 100,000. The number of black homicides has been up and down for the past twenty years with the rate leveling out at slightly fewer than 10 deaths per 100,000. The black/white disparity ratio for Delaware has also been up and down due to the inconsistency of the black homicides year to year but has leveled out with blacks being about four times more likely to die from homicide than whites.

**Figure 3.13**  
**Alcohol-Induced Death Rate by Race**  
**Delaware 1982-2002**

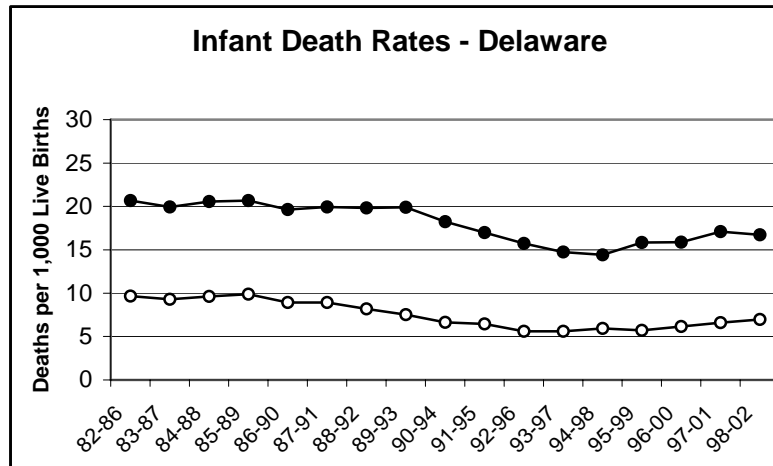


**Figure 3.14**  
**Alcohol-Induced Death Black/White Disparity Ratio**  
**Delaware 1982-2002**

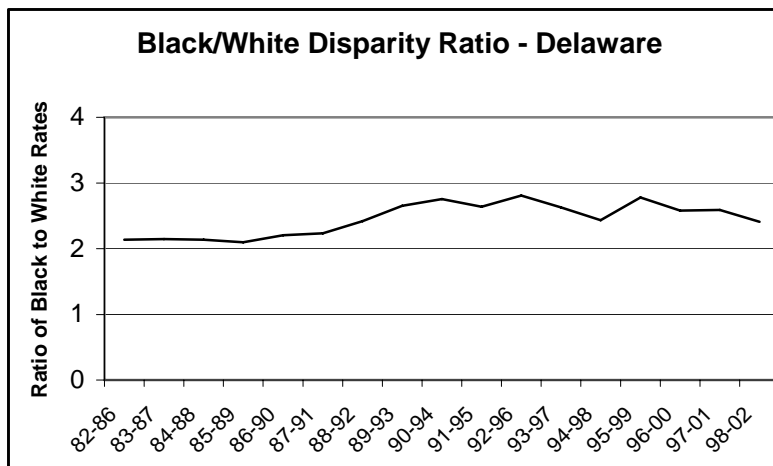


In 1982-86 blacks were about three times more likely in Delaware to die from an alcohol-induced incident than whites. For the next twenty years, the death rate for whites had little variance while the death rate for blacks made steady improvements. This was also reflected in the black/white disparity ratio with a gradual decline to the present day number, which has dropped to about 1.34. In the past two years, there has been a slight increase in the amount of alcohol-induced deaths by both blacks and whites.

**Figure 3.15**  
**Infant Death Rate by Race**  
**Delaware 1982-2002**

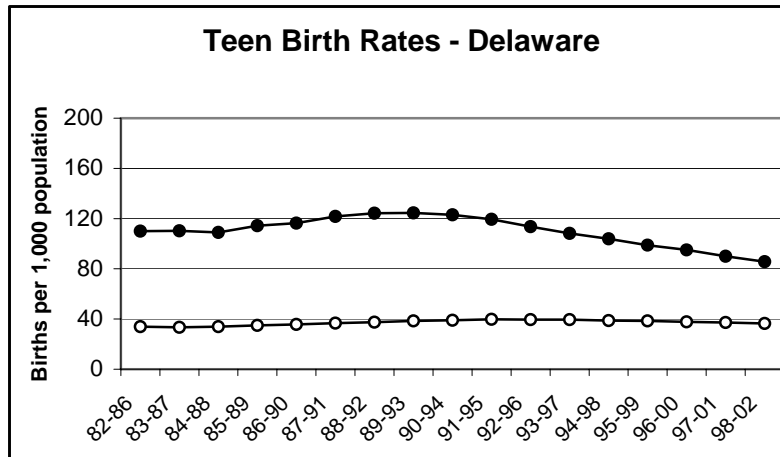


**Figure 3.16**  
**Infant Death Black/White Disparity Ratio**  
**Delaware 1982-2002**

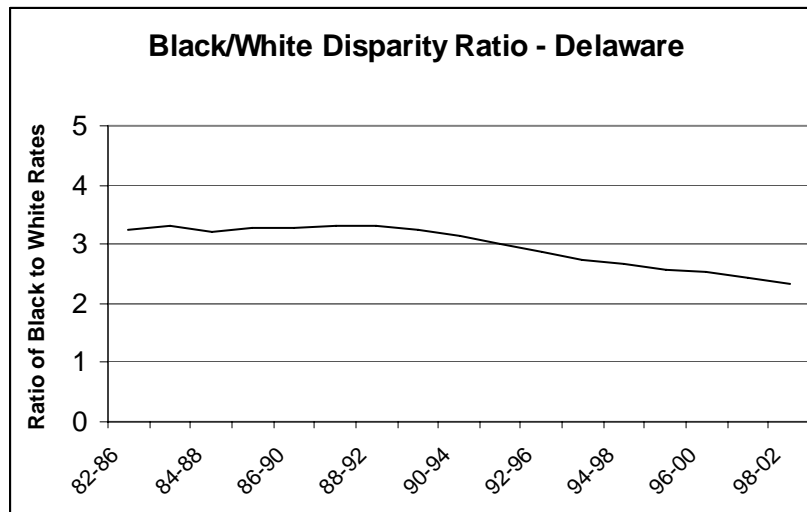


For the past 20 years, blacks have had infant death rates that were at least twice that of whites in Delaware. From 1982-86 to 1993-97 blacks and whites showed steady improvement towards reducing infant death rates. But since 1994-98, white rates have started to increase with black rates also increasing since 1995-1999. As mentioned previously, the black/white disparity ratio has remained well above two. While Delaware blacks remained much higher in the deaths per 100,000, the changes in yearly death rates closely mirrored each other.

**Figure 3.17**  
**Teen Birth Rate by Race**  
**Delaware 1982-2002**

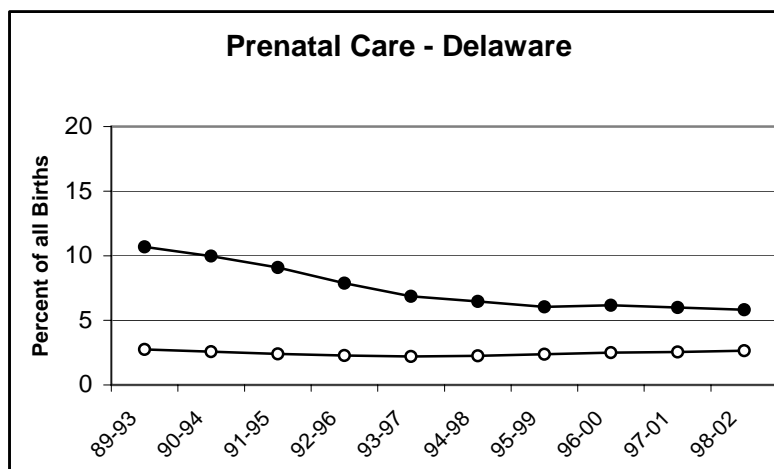


**Figure 3.18**  
**Teen Birth Black/White Disparity Ratio**  
**Delaware 1982-2002**

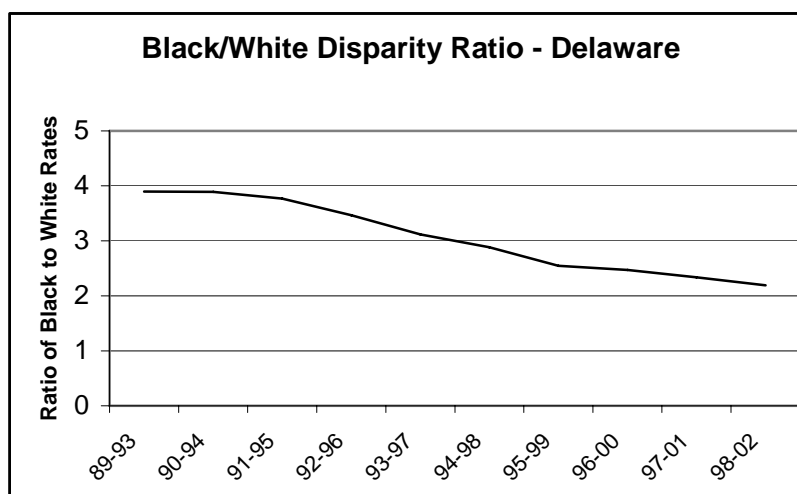


In 1982-86 Teen Birth Rates for blacks were triple that of whites in the state of Delaware, and continued to increase gradually over the next seven years. Rates started to decline in 1990-94 and have continued to do so. Whites have maintained stable teen birth rates for the past twenty years in Delaware with about forty births per one thousand teenage girls. The black/white disparity ratio showed only slight reductions from just over 3 twenty years ago to a ratio of 2.35 currently.

**Figure 3.19**  
**Percentage of Late or No Prenatal Care by Race**  
**Delaware 1989-2002**

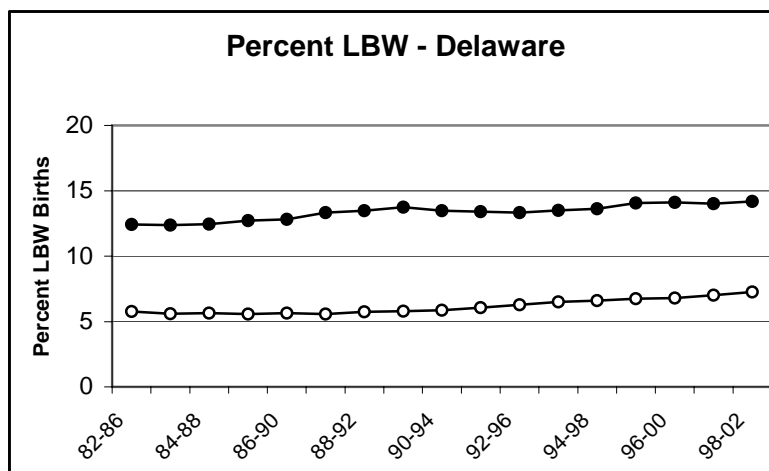


**Figure 3.20**  
**Late or No Prenatal Care Black/White Disparity Ratio**  
**Delaware 1989-2002**

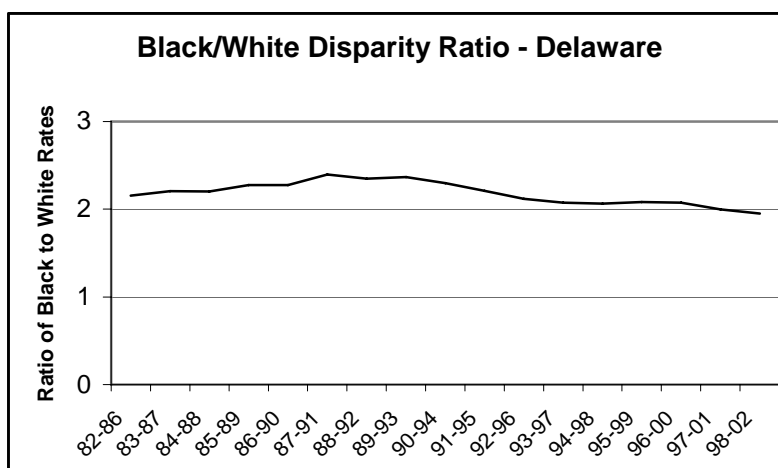


From 1989-93 to 1994-98 there was a steady decline in the percentage of births with little or no prenatal care in Delaware for blacks that have since plateaued from 1995 to the present. Whites remained at consistent levels that were well below the percentages of blacks. In 1989-93 blacks had a disparity ratio that showed blacks as being four times more likely than whites as having a birth with little or no prenatal care. The current level has since been lowered to just about twice the rate of whites and has been steadily falling for the last thirteen years.

**Figure 3.21**  
**Percentage of Low Birth Weight Births by Race**  
**Delaware 1982-2002**

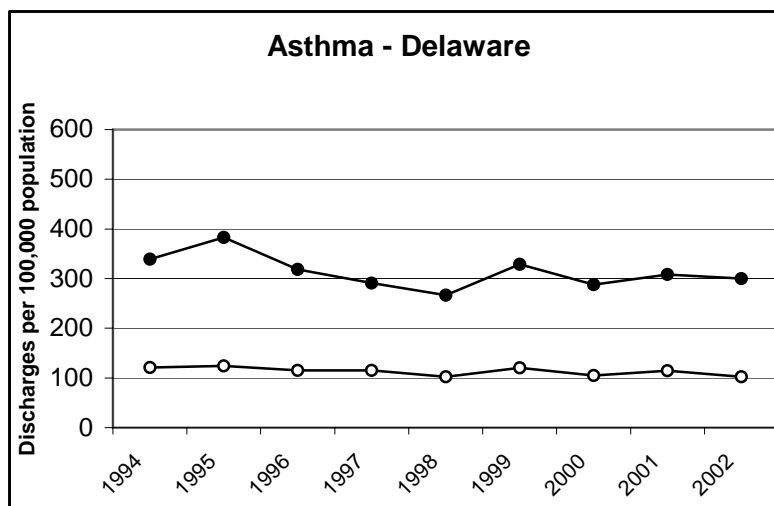


**Figure 3.22**  
**Low Birth Weight Black/White Disparity Ratio**  
**Delaware 1982-2002**

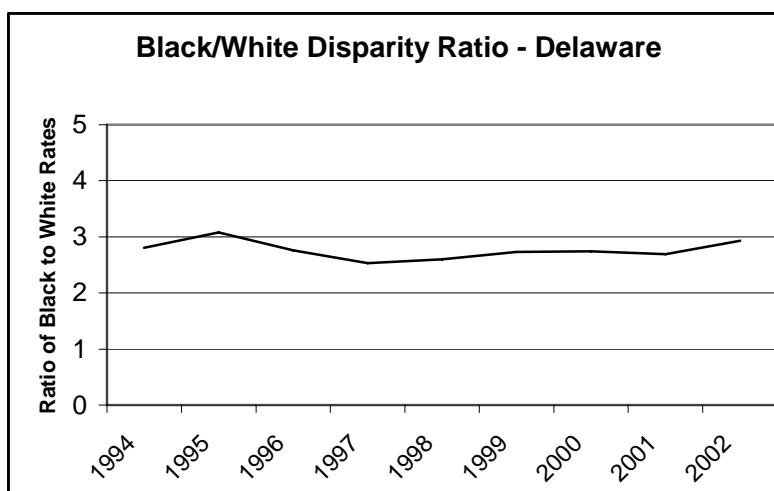


Both blacks and whites have shown measured increases in the percent of low birth weight births in Delaware for the past twenty years. While blacks have shown a steady climb, whites have shown increases that started in 1988-92 and continue to 1998-2002. The black/white disparity ratio has consistently shown blacks as being twice as likely as whites of having a low birth weight baby. Blacks have started to close on the disparity gap despite the increasing numbers because of the surging low birth weight births for whites in Delaware.

**Figure 3.23**  
**Asthma Hospitalization Rates by Race**  
**Delaware 1994-2002**



**Figure 3.24**  
**Asthma Hospitalization Black/White Disparity Ratio**  
**Delaware 1994-2002**



Blacks in Delaware have shown very little progress in reducing the asthma hospitalization rates per 100,000. Whites also have shown very little progress in reducing the asthma hospitalization rates, but whites maintain levels that are significantly lower than blacks. Over the last nine years blacks have shown both progress and recoil with asthma rates, but still maintain about 300 asthma hospitalizations per 100,000. The black/white disparity ratio has also shown very little change over the past nine years and blacks are still at a rate of asthma hospitalization that is three times that of whites.

The Delaware black/white disparity ratios are summarized in Figure 3.25 below.

**Figure 3.25**  
**Delaware Black/White Disparity Ratios**

| Indicator              | DE 2002 | DE 1997 | US 2002 | Trend     |
|------------------------|---------|---------|---------|-----------|
| Heart Disease          | 1.16    | 1.11    | 1.30    | Increase  |
| Cancer                 | 1.20    | 1.45    | 1.25    | Decrease  |
| Stroke                 | 1.39    | 1.57    | 1.40    | Decrease  |
| Diabetes               | 2.33    | 2.33    | 2.14    | No Change |
| HIV/AIDS               | 15.56   | 8.23    | 8.65    | Increase  |
| Homicide               | 3.94    | 3.56    | 5.67    | Increase  |
| Alcohol Induced        | 1.34    | 1.57    | N/A     | Decrease  |
| Infant Death           | 2.41    | 2.63    | 2.48    | Decrease  |
| Teen Births            | 2.35    | 2.74    | 1.86    | Decrease  |
| Prenatal Care          | 2.19    | 3.11    | N/A     | Decrease  |
| Low Birth Weight       | 1.95    | 2.08    | N/A     | Decrease  |
| Asthma Hospitalization | 2.93    | 2.53    | N/A     | Increase  |

Source: Center for Applied Demography & Survey Research, University of Delaware



## **Behavior and Health Disparities**

There is ample evidence that personal behavior can affect the health of some people. The impact of the same behavior will vary from person to person largely due to sensitivities related to genetic differences. For example, smoking is generally known to cause cancer. However it does not have the same predictable effect for every individual. When we look at large groups of people, it is clear that a significant number will be affected.

If the personal behavior varies among groups, then to the extent the behavior is related to a disease process, disparities may result. In the previous section, it was shown that there is a measurable but not large difference in death rates between blacks and whites. If there was a significant difference in smoking between the races then the disparity might be all or partially attributable to that behavioral difference.

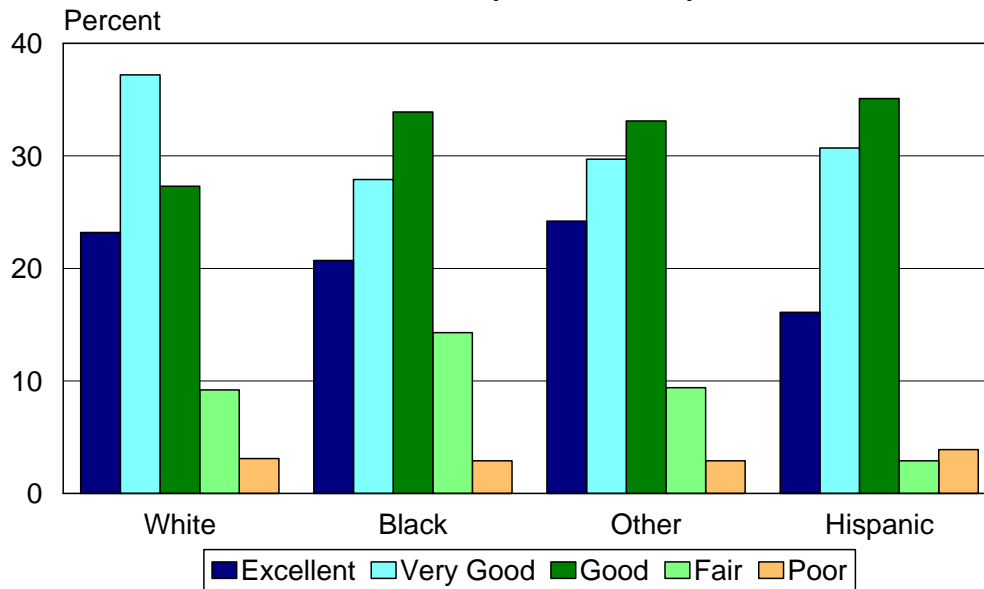
In this section, data drawn from five years of the Behavioral Risk Factor Surveillance System (BRFSS) is examined. BRFSS is a survey research project that now reaches 4,000 Delaware adults annually. It is sponsored by the Centers for Disease Control and Prevention through the Delaware Division of Public Health. The survey is executed by the Center for Applied Demography and Survey Research at the University of Delaware.

In this research, responses from 16,907 adults gathered over five years are used. These adults include 13,430 non-Hispanic Caucasians, 2,293 non-Hispanic African Americans, 572 non-Hispanic Others (largely Asian), and 479 Hispanics.

The sample size on any particular question will depend on a number of factors: whether the same question was asked every year, the population to whom the question applied, e.g. men/women, and the total number of adults that were interviewed in a given year.

The analysis presented in this section falls into three areas. First are questions dealing with access to the health care system. Second are questions about unhealthy behavior. Finally, questions about the utilization of preventative testing for particular conditions are addressed. Before beginning with the three substantive areas, it is insightful to see how members of different groups view their own health. Some physicians have opined that if you feel good you probably are in good health. Survey respondents were asked about their general health. The results are found in Figure 4.1 below.

**Figure 4.1**  
**How is Your General Health?**  
**by Race/Ethnicity**



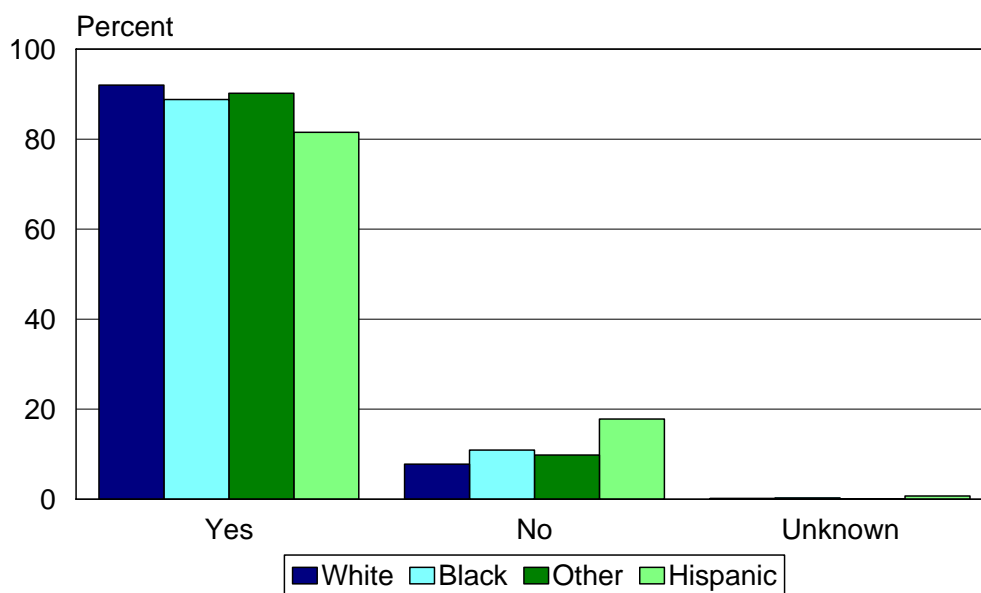
Source: Center for Applied Demography & Survey Research, University of Delaware

Clearly there are significant differences among the races in their general perception of their overall health. Caucasians and Others (primarily Asians) are more likely to consider themselves in excellent or very good health than either African Americans or Hispanics. All three minority groups had a larger percentage in the good health category than Caucasians. Finally, African Americans had by far the largest percentage in the least healthy categories (fair and poor) combined.

While having health insurance doesn't by any means guarantee that one will have good health, it does improve access to care. Access to care raises the probability of early detection and even prevention. Access however doesn't imply anything about quality or utilization by the individual. Availability of health insurance by race is shown in Figure 4.2, below.

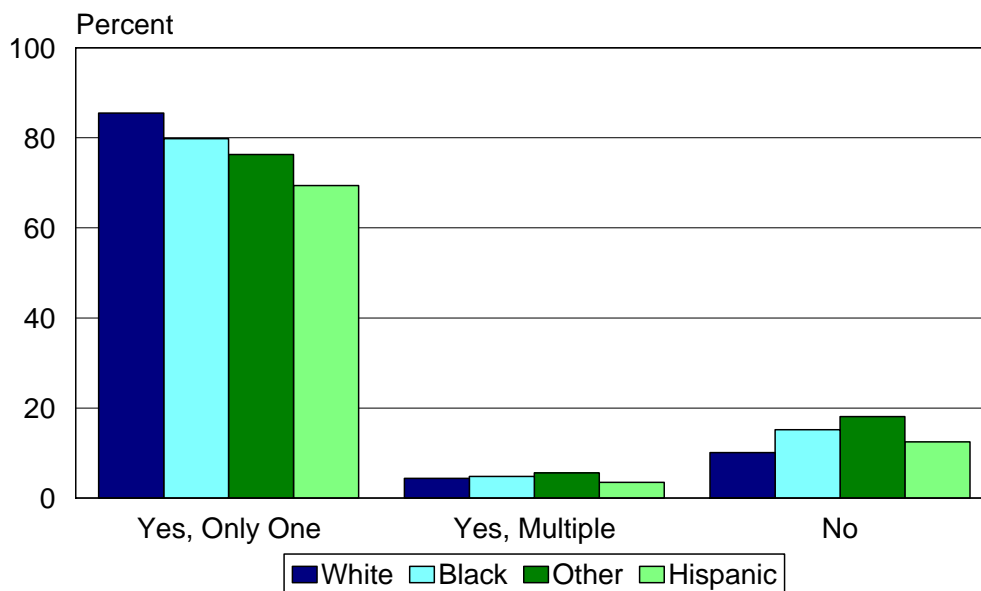
The figure shows that Caucasians have the highest percentage of health insurance. African Americans are lower but not substantially so. Hispanics are the group most at risk if they need access with almost 20% of adults without health insurance. If adults are without coverage, then it is likely a high proportion of their children are as well. Hispanics face other barriers as well. Language may be a problem for many. They also may not be comfortable with government programs for which they qualify if their residency status is unclear.

**Figure 4.2**  
**Do You Have Any Kind of Health Insurance?**  
**by Race/Ethnicity**



Source: Center for Applied Demography & Survey Research, University of Delaware

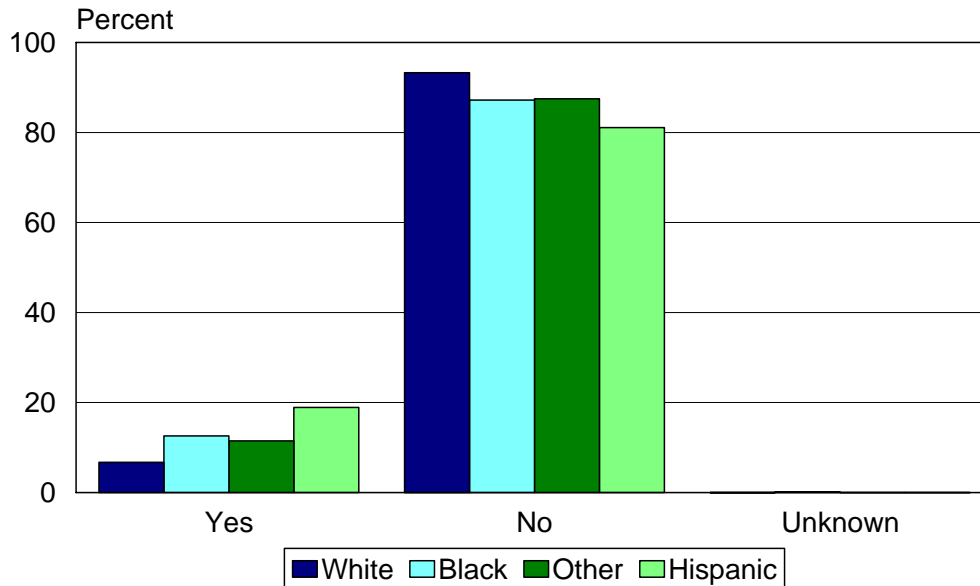
**Figure 4.3**  
**Do You Have A Personal Doctor or Health Care Provider?**  
**by Race/Ethnicity**



Source: Center for Applied Demography & Survey Research, University of Delaware

It is generally agreed that reporting having a “personal” doctor or health care provider is a useful indicator of access and quality of health care. (This assumes of course that the provider is competent and current on his or her medical practice.) Figure 4.3 shows how adults in the various racial/ethnic groups responded to that question. Caucasians were more likely to say they had a “personal” doctor. Hispanics were the least likely to answer the question affirmatively.

**Figure 4.4**  
**Did You Need to See a Doctor but Was Too Costly?**  
**by Race/Ethnicity**



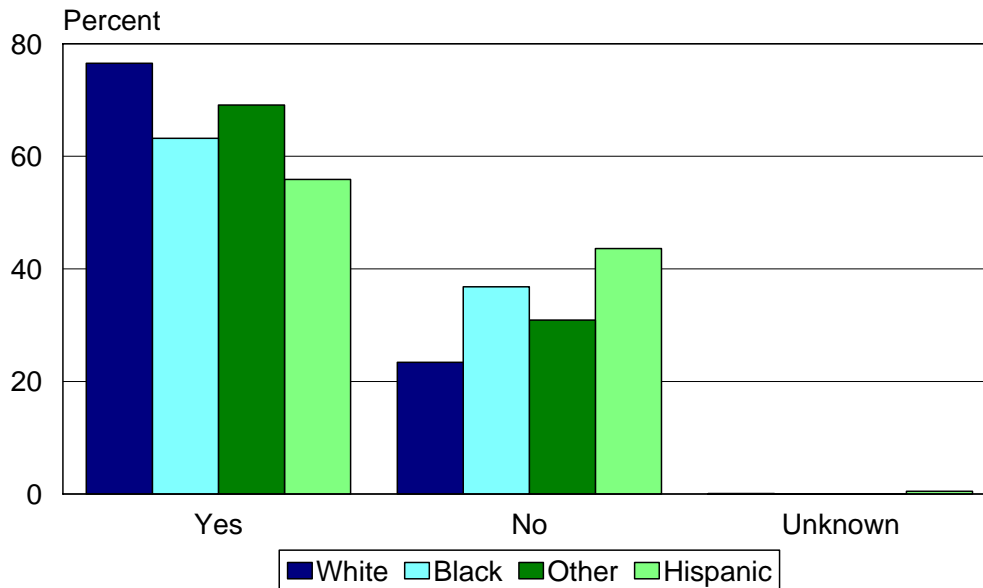
**Source: Center for Applied Demography & Survey Research, University of Delaware**

Another indicator of access is if the person has needed to see a doctor but found it too costly. This may be because of the lack of health insurance, insufficient coverage, or problems with co-pays. People with and without health insurance answered this question affirmatively. The results for this question are found in Figure 4.4, above. Once again Caucasians have the smallest percentage with this characteristic and Hispanics have the largest.

In all the variations of the access issues addressed here, there are enough differences between races and ethnicities that one cannot say unequivocally that health disparities are unrelated to access to care. However, it is good to keep in mind that the differences in assessment of general health are probably larger than could be attributed to access to care. Other areas need to be examined.

One indicator of attention to personal health is the amount of exercise a person gets on a regular basis. The respondents to the survey were asked if they had exercised in the last 30 days. There are more detailed questions about exercise in the survey but this one is a better gross indicator. The results are found in Figure 4.5, below.

**Figure 4.5**  
**Have You Exercised in the Last 30 Days?**  
**by Race/Ethnicity**

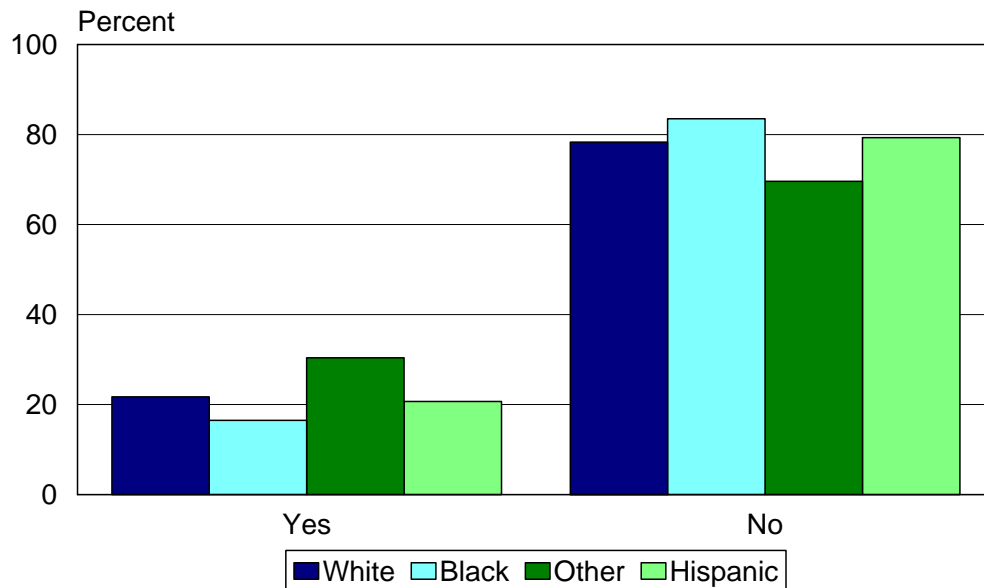


**Source: Center for Applied Demography & Survey Research, University of Delaware**

African Americans and Hispanics are substantially less likely to say they exercise than either Caucasians or the Other race category. To the extent exercise makes a difference to cardiovascular health, this behavior may account for some of the disparity between the races in heart disease and possible stroke. These are complex issues so there are not simple answers. However, it is another piece of evidence as to why differences exist.

Diet is another area that can affect personal health. Eating behavior is measured in BRFSS through a series of questions. Using these questions, an index was derived that measures whether or not a person eats the recommended five servings of fruits and vegetables a day. Poor diet, especially when coupled with a lack of exercise, can have an effect on body weight and thus on overall health. The results for this question are found in Figure 4.6, below.

**Figure 4.6**  
**Do You Eat Five or More Servings of Fruits/Vegetables Daily?**  
**by Race/Ethnicity**



**Source: Center for Applied Demography & Survey Research, University of Delaware**

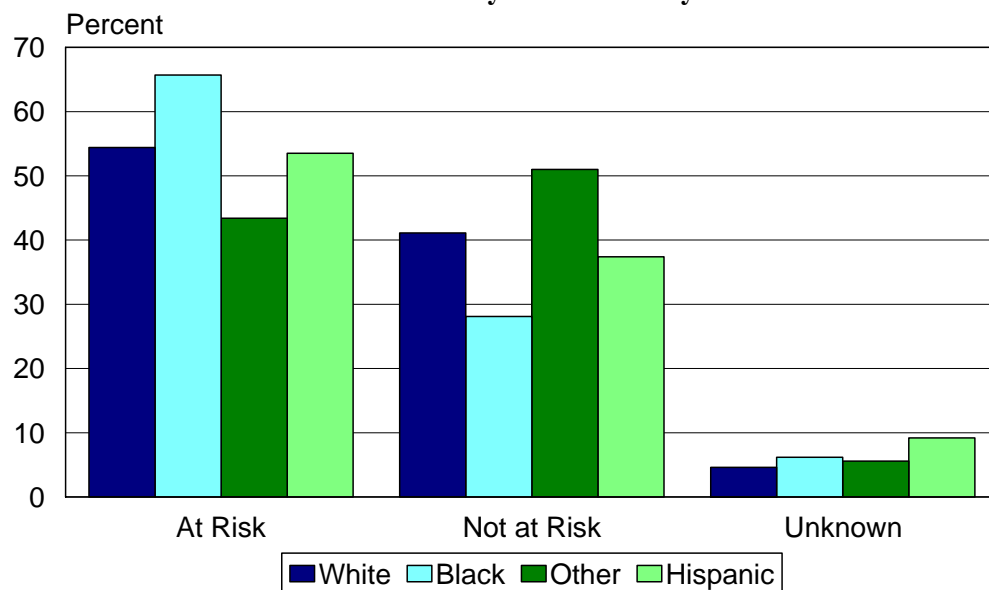
It is apparent from Figure 4.6 that only one in five adults follows the dietary guidelines promoted by the professionals in the field and the US government. African Americans are a few percentage points lower in following the guideline. This seems likely not to be a substantive difference although coupled with other variables it may have a cumulative effect.

Diet and exercise can affect a person's weight. Additional pounds may lead to higher risk of heart disease, stroke, and diabetes. Respondents were asked a series of questions to determine if they were likely to be overweight as indicated by their body mass index. The results are found in Figure 4.7 below.

African Americans were the most likely of the racial/ethnic groups to be designated as being at risk for overweight. The Other category (largely Asians who were likely to exercise and eat their vegetables) showed the least risk for being overweight.

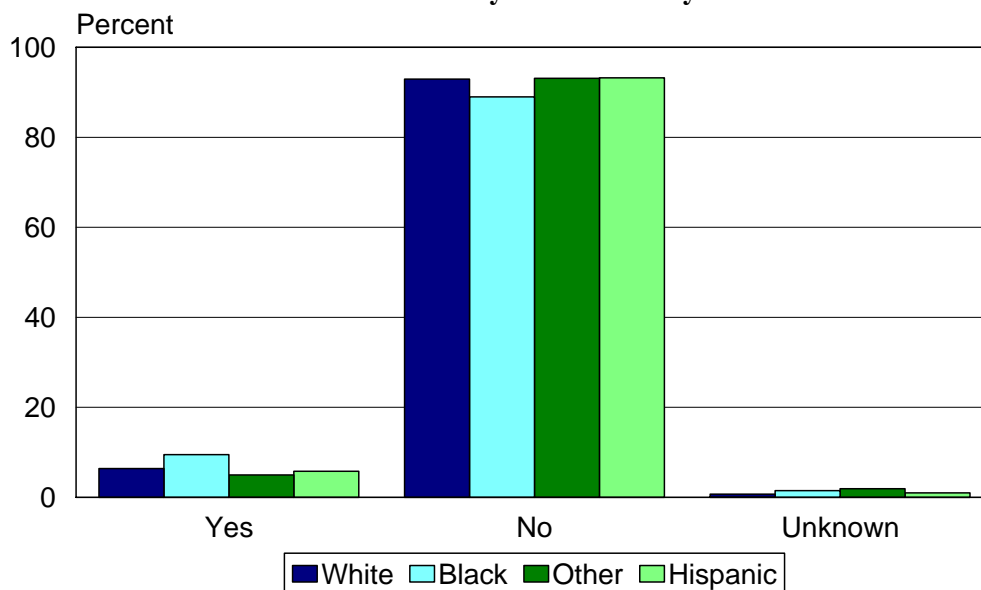
Being overweight is a risk factor for diabetes. In the previous section it was noted that the diabetes mortality rate for African Americans was more than double that for Caucasians. This difference is also observable in Figure 4.8 below where respondents were asked if they have ever been told they have diabetes.

**Figure 4.7**  
**At Risk for Being Overweight**  
**by Race/Ethnicity**



Source: Center for Applied Demography & Survey Research, University of Delaware

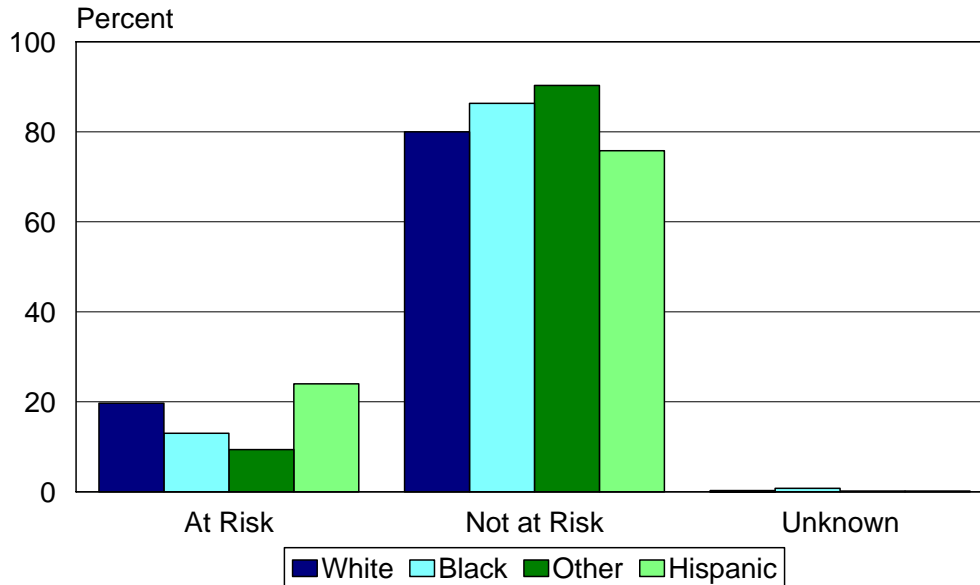
**Figure 4.8**  
**Ever Told You Have Diabetes?**  
**by Race/Ethnicity**



Source: Center for Applied Demography & Survey Research, University of Delaware

While reported diabetes is below 10% for all race/ethnic groups, the relative differences between African Americans and the other groups is measurable and significant. Looking at a time series from 1999 to 2003 (not shown), the rate reported for Caucasians has risen from 6% to 7% while African Americans have averaged 10% through the period. That differential is nearly 40%.

**Figure 4.9**  
**At Risk for Binge Drinking**  
**by Race/Ethnicity**



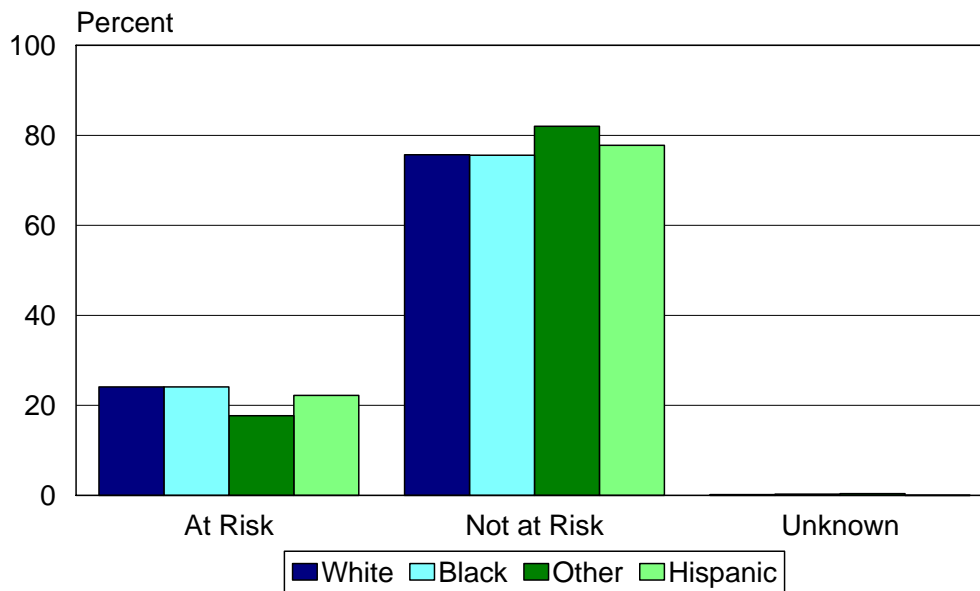
**Source: Center for Applied Demography & Survey Research, University of Delaware**

Since 1982, alcohol-induced mortality disparity has been reduced from a factor of three to nearly parity. All of that reduction was from a reduced rate for African Americans rather than an increase for Caucasians. One of the factors measured in the BRFSS is the risk factor for binge drinking that could lead to alcohol-induced mortality. In contrast to other charts, the risk factor for African Americans is now less than that for Caucasians. This is certainly consistent with the mortality data provided earlier.

There are many kinds of cancer that can lead to mortality. Certainly lung cancer is one of the more deadly. Smoking is a contributing factor to lung cancer. In Figure 4.10 below, the results for the smoking risk factor are shown. These data suggest that smoking is indistinguishable between Caucasians and African Americans. In fact this has been the case for the five years from which these data were drawn. This may in part explain why cancer disparities are also converging as well.



**Figure 4.10**  
**At Risk for Smoking**  
**by Race/Ethnicity**



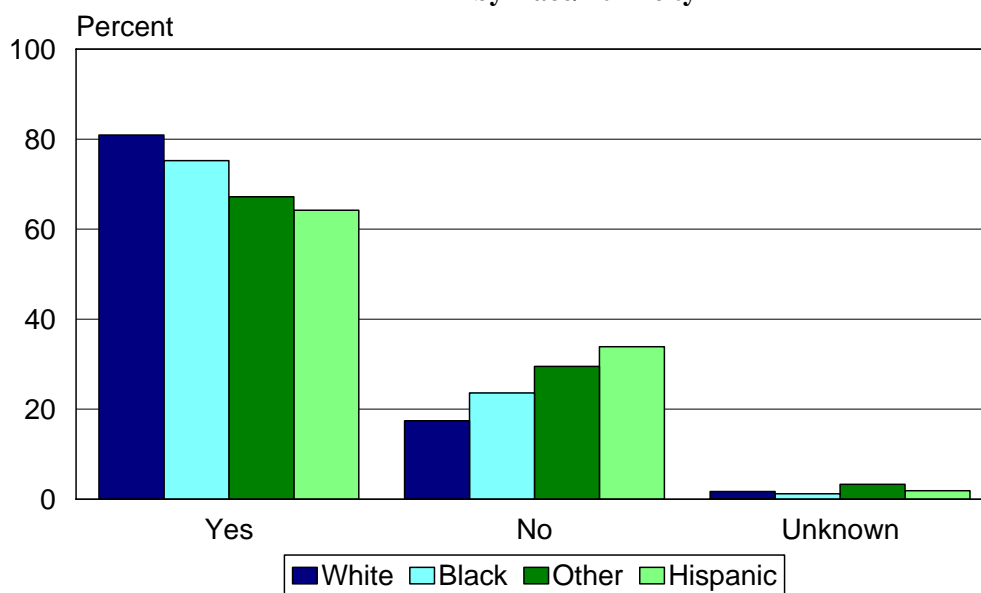
**Source: Center for Applied Demography & Survey Research, University of Delaware**

The last area that might provide some evidence for these health disparities is the use of tests for risk factors. High cholesterol is perhaps the most widely discussed problem associated with heart disease. The tests are routine and are widely available from physicians, wellness centers, and public health centers. The respondents were asked if they had been tested for high cholesterol. Their responses are displayed in Figure 4.11, below.

Very clearly, Caucasians have the highest rate of screening, and all of the minority groups trail. Hispanics and the Other category are substantially below Caucasians. African Americans are lower as well but only by about 5%. Still the evidence accumulates that there are actions that can be taken that might reduce the current levels of health disparities.

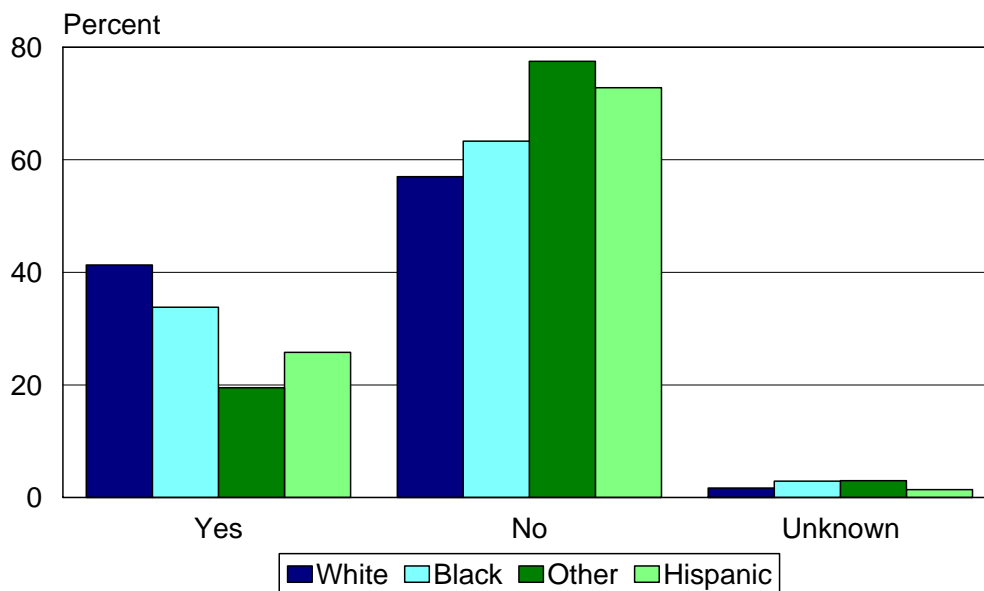
Respondents were also asked about using a blood stool home test kit. This could help with early detection of colon-rectal cancer or other related diseases. Here the utilization percentages were much lower than those measured for cholesterol by about half. The patterns were similar with all minorities reporting lower rates than those for Caucasians. The differences were also larger with the Other category showing only half of the percentage reported by Caucasians.

**Figure 4.11**  
**Ever Had Cholesterol Checked?**  
**by Race/Ethnicity**



Source: Center for Applied Demography & Survey Research, University of Delaware

**Figure 4.12**  
**Ever Had Blood Stool Test Using Home Kit?**  
**by Race/Ethnicity**



Source: Center for Applied Demography & Survey Research, University of Delaware

The data from BRFSS suggests that strategies for improving health literacy, promoting healthier behavior, and stressing simple diagnostic tests may prove beneficial for reducing some of the health disparities observed in Delaware. However, these are not quick fixes but some strategies may yield results faster than others. Given that the risks of smoking have been well-known since the 1960's and we still have 23% of the adult population smoking, it will not be easy.

## National Perspectives

Research for this project included a review of the literature on health disparities and cultural competence. We focused on three areas in the literature review: 1) studies that have been most influential; 2) studies that offer policymakers a menu of policy interventions that have been implemented at the state level to address minority health and health care disparities; and, 3) studies that examine root causes (or sources) of health care disparities.

As a launching point for the full project, we identified seven national studies/programs that likely will be of particular interest to Delaware's health care community. These seven studies were picked from a preliminary list of more than thirty journal articles and technical reports. We narrowed the preliminary list after interviewing national experts from the Institute of Medicine, the federal Agency for Healthcare Research and Quality, the Center for Medicare and Medicaid Services, the US House of Representatives House Energy and Commerce Committee, and Blue Cross/Blue Shield. In addition we looked for "impact" (or how often a study is cited) by using library databases and Internet resources available from the *New England Journal of Medicine*, *Health Affairs*, and Kaiser Family Foundation.

Each of the following summaries presents a brief description of the report, and when not obvious, we explain why we included this report in our "top-seven" list. Interested readers and policy makers are encouraged to obtain copies of the full reports and supplemental Internet resources.

There is a somewhat technical but important point to make before proceeding. The literature is far from consistent in use of racial and ethnic categories; some studies, for example, focus only on black-white comparisons. The reports described below generally use categories consistent with – or similar to – the accepted national standard for data collection relies (and consequently analysis) specified in the Federal Office of Management and Budget's Directive 15: American Indian or Alaska Native; Asian; black or African American; Native Hawaiian or other Pacific Islander; white; and ethnic group: Hispanic or Latino. In the previous section, we had sufficient data to report results for three racial/ethnic categories: black, white and Hispanic (and the "Other" group). In the next section, Quality of Health Care, we have enough data to separate the Asian respondents from the Other group. Our data analysis shows statistically significant differences among these categories in measures of consumer experiences and ratings.

**Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare (IOM).**

The most influential recent study is the congressionally commissioned Institute of Medicine (IOM) 2003 report entitled “Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.” This study’s conclusion is not new, but it seems to have made a lasting impression on the nation’s health policy dialogue. Despite steady improvement in the overall health of the U.S. population, racial and ethnic minorities, with few exceptions, suffer higher rates of morbidity and mortality when compared to non-minority populations. While the causes of these disparities are complex and not easily identified (a topic for a future UD project update), the IOM report indicates that some may be attributed to socioeconomic status, culture, language, environment, and behavioral risk factors. Regardless of the sources of disparities, it is clear that the health gap has increased in recent years and many key stakeholders remain unaware of the problem.

Responding to a request from Congress, the IOM examined the extent of racial and ethnic disparities, identified potential sources of these disparities, and suggested interventions. The IOM study committee reviewed more than 100 studies, and “was struck by the consistency of research findings,” indicating that minorities are “less likely than whites to receive needed services, including clinically necessary procedures.” These disparities were found to exist across a number of disease areas, including cancer, cardiovascular disease, HIV/AIDS, diabetes, and mental illness. Information about potential sources of disparities and interventions can be found in other sections of our report.

The IOM provides a series of resources to increase awareness of the disparity issue. The complete 782-page report, a report summary, and a report brief, are available online at [www.nap.edu/catalog/10260.html](http://www.nap.edu/catalog/10260.html). In addition, the IOM offers a series of report summaries for different stakeholders:

- Report Brief for Healthcare Providers
- Report Brief for Healthcare Consumers
- Report Brief for Healthcare Consumers (in Spanish)
- Report Brief. What Health Care System Administrators Need to Know About Racial and Ethnic Disparities in Healthcare

These briefs also are available to download from the IOM web site at <http://www.iom.edu/report.asp?id=4475>.

### **REACH 2010/Healthy People 2010: Racial and Ethnic Approach to Community Health**

REACH 2010 is a branch of Healthy People 2010, a health improvement program operating under the direction of the Centers for Disease Control and Prevention (CDC). Healthy People 2010 is a unique national health initiative that sets measurable goals intending to eliminate health disparities by 2010. Created in 1999, REACH 2010 focuses on specific targets to narrow disparities and improve health among racial and ethnic minorities in the United States.

REACH 2010 has identified the following six priority areas:

1. Infant Mortality
2. Deficits in Breast and Cervical Cancer Screening and Management
3. Cardiovascular Diseases
4. Diabetes
5. HIV Infections/AIDS
6. Child and Adult Immunizations

One objective, for example, is to decrease the breast cancer death rate for various racial and ethnic minorities by twenty percent from those found in 1998. We have investigated REACH 2010 initiatives in 24 states and have found widespread variations in the development of programs designed to meet the REACH 2010 goals. (This variation in state experience will be a topic for a future UD project update)

### **National Healthcare Disparities Report (DHHS)**

On December 22, 2003, the US Department of Health and Human Services (DHHS) released its first annual comprehensive report on disparities in health care, the National Healthcare Disparities Report (NHDR). Produced in conjunction with the Agency for Healthcare Research and Quality (AHRQ), the NHDR identifies the scope and characteristics of differences in access and quality of health care associated with patient race, ethnicity, income, education, and place of residence. This report is unique in many aspects including: 1) providing a systematic overview of differences in health care for both racial and ethnic groups -- as well as by

socioeconomic status, and 2) creating a framework, backed by community-level data, for better understanding and narrowing disparities – at least at the national level.

The NHDR offers seven key findings to policymakers, clinicians, health system administrators, and community leaders:

1. Inequality in quality persists
2. Disparities come at a personal and societal price
3. Differential access may lead to disparities in quality
4. Opportunities to provide preventive care are frequently missed
5. Knowledge of why disparities exist is limited
6. Improvement is possible
7. Data limitations hinder targeted improvement efforts

#### **A State Policy Agenda to Eliminate Racial and Ethnic Disparities (The Commonwealth Fund)**

This report was developed to offer policymakers a menu of policy interventions that have been implemented at the state level to address minority health and health care disparities. The first half of the report focuses on system-wide programs developed to improve state infrastructure and capacity. Specific areas include: minimum standards for cultural competency, consistent data collection and analysis, expanded screening and insurance coverage, greater minority representation within the health care workforce, greater use of state purchasing leverage, expanded use of regulatory approaches, and enhancement of state infrastructure (e.g., minority health commissions and offices). The second half of the State Policy Agenda report turns its attention to priority health conditions. These conditions include the six emphasized by REACH 2010, plus asthma, injury prevention, mental health, obesity/ physical activity/tobacco use, and oral health.

The authors offer three to four page discussions for each category presented in the “health conditions” and “state infrastructure and capacity” discussions. Each category discussion includes important background information (e.g., low income children miss 12 times as many days of school due to dental problems in comparison to higher-income children), followed by a listing of promising practices currently in operation in states and localities, policy

recommendations, and finally a short list of Web links for readers interested in additional resources.

For stakeholders looking to find and narrow (or eliminate) racial and ethnic disparities in their states and communities, the report underscores two current roadblocks, which the authors did not anticipate as they began this project. First, major inadequacies in data collection hinder efforts to document, understand, and develop policy recommendations. And, secondly, the authors abandoned the term “best practices” when they confronted a shortage of state-level research assessing cost-effectiveness -- or even effectiveness -- of various strategies. The authors do not mention that some clues to the relative effectiveness can be found in the academic literature. A 2003 study published in *Health Services Research*, “The Contribution of Insurance Coverage and Community Resources to Reducing Racial/Ethnic Disparities in Access to Care” concludes that lack of health insurance, followed by income differences, were the two most important factors in white-Hispanic and white-African American differences in access to care. Community characteristics (e.g., availability of safety net providers) generally were much less important.

**Primary Care Physicians Who Treat Blacks and Whites (Peter Bach et al., *New England Journal of Medicine*, August 5, 2004)**

“Dramatic,” enough to “incite a fundamental shift in thinking,” is the way the *Wall Street Journal* (Aug 8, 2004, p W13) describes the findings of this research study. Based on data from more than 150,000 visits by black and white Medicare beneficiaries to 4,335 primary-care physicians across the United States in 2001, the research team found that most visits by black patients were with a small number of physicians. More specifically, 80 percent of the visits were made to less than a quarter (22 percent) of all physicians in the study panel. Although black patients were more likely than whites to receive care from black physicians, the large majority of their visits were with non-black doctors.

What is particularly disturbing is the strong evidence from the study showing that doctors (of any race) who disproportionately treat black patients are different from other doctors. And, clinicians who disproportionately treat black patients are less well trained and have less access to important clinical resources.

More specifically, physicians of any race who disproportionately treat black patients were significantly less likely to have been board certified (having passed a demanding certification



exam in their specialty). And they were less likely to say that they could “always” or “near always” provide access to high-quality sub specialists, high-quality diagnostic imaging, high-quality ancillary services, and nonemergency admission to a hospital. These patterns of access to care reflect, to a large extent, geographic distribution. Primary care physicians, who lack board certification and face larger obstacles in obtaining specialized services for their patients, are more likely to practice in areas where blacks receive their medical care, lower income neighborhoods as measured by median income.

So, black patients enrolled in the Medicare program – and presumably other black patients – receive treatment from a group of physicians who differ in clinically significant ways from physicians who treat white patients. Even given the limitations of this study (e.g., data based on subjective responses of physicians, data only for Medicare patients, etc...), the results give health researchers and policy makers reason to think that there are important structural differences in the delivery system. And, these imbalances may underlie disparities in the delivery of care.

### **Cultural Competence in Health Care: Emerging Frameworks and Practical Approaches (IOM)**

Joseph R. Betancourt from Massachusetts General Hospital and Harvard Medical School is the lead author of this 2002 report. Betancourt also consults with state organizations (e.g., Blue Cross/Blue Shield of Florida) looking to reduce health disparities. In this report, the authors set out to:

1. Evaluate current definitions of cultural competence.
2. Identify opportunities for improvement by reviewing the medical literature and interviewing health care experts in government, managed care, academia, and community health care settings.
3. Identify promising models of culturally competent care.
4. Determine the most critical components of cultural competence and develop recommendations to help government and organizations implement culturally competent interventions and improve the quality of health care.

Examples of recommendations include:

1. Provide on-site interpreter services in health care settings with significant populations of limited-English-proficiency (LEP) patients. Other kinds of interpreter services should be used in settings with smaller LEP populations or limited financial or human resources.
2. Develop health information for a patient that is written at the appropriate literacy level and is targeted to the language and cultural norms of specific populations.
3. Require large health care purchasers to include systemic cultural competence interventions as part of their contracting language.
4. Collect race/ethnicity and language preference data for all beneficiaries, members, and clinical encounters in programs sponsored by governments and private organizations. Systematic data analysis should be used to monitor racial and ethnic disparities in health care delivery, for reporting to the public, and for quality improvement initiatives. (A June 2004 article published in the Wall Street Journal reports progress: “A new survey released today finds that 51% of health plans either ask beneficiaries to provide their race voluntarily on enrollment and other forms, or use less direct methods to obtain aggregate data on the racial makeup of their members.”)

### **Health Literacy: A Prescription to End Confusion (IOM)**

The IOM Committee on Health Literacy reports that 90 million US adults are unable to read complex texts, including many health-related materials, and consequently have difficulty benefiting from much that the health and health care system have to offer. The Committee Chair, David Kindig states, “It will become widely understood that efforts to improve quality, to reduce costs, and to reduce disparities cannot succeed without simultaneous improvements in health literacy.”

According to the IOM, health literacy is “the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions. But health literacy goes beyond the individual. It also depends upon the skills, preferences, and expectations of health information and care providers: our doctors; nurses; administrators; home health workers; the media; and many others.”

The IOM report and related literature offer many examples underscoring the need for a more health literate population:

A two-year-old is diagnosed with an ear infection and prescribed an antibiotic. Her mother understands that her child has an ear infection and knows she should take the prescribed medication twice a day. After looking at the label on the bottle and deciding that it does not tell how to take the medicine, she fills a teaspoon and pours the antibiotic into her daughter's ear.

(IOM, p. 19, from: Parker, 2003. Health Literacy: A Policy Challenge for Advancing High-Quality Health Care, *Health Affairs*. 22(4): 147.)

We have included the IOM Health Literacy report in our top-seven reading list for three reasons: 1) An increasing body of literature (see Healthy People 2010, for example) suggests that health literacy can contribute to and be an underlying factor for socioeconomic health disparities. Moreover, many individuals with the greatest health care needs have the least ability to comprehend information required to navigate and function in our complex U.S. health care system. 2) Our preliminary analysis of Delaware consumer assessment data suggests that, along with other factors such as insurance status, language barriers likely are a key to understanding negative reports and ratings by certain subgroups of the population. And, 3) the IOM report includes strategies for improving health literacy, which is particularly important as more plan sponsors look to consumer-driven health plans\* as the latest “answer” to skyrocketing health care costs.

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\*Consumer-driven health plans empower health consumers to make more decisions about their health care and health insurance plans.

# Quality of Health Care

## The Role of Quality Measurement

In a recent August 2005 editorial in *The New England Journal of Medicine*, Harvard professor and physician Arnold Epstein reminds readers that understanding health disparities requires a parallel investigation of health care quality: “We might also consider that efforts to improve the quality of care in general might reduce racial disparities in the quality of care. This is so because racial and ethnic disparities in care are, in some ways, just another manifestation of the broad problems in quality of care that exist throughout our health care system.”<sup>i</sup> Following Epstein’s suggested path, this section begins by explaining the link between the CAHPS data and its recent role in efforts to improve quality of care – and improving our health care system.

In an era of double-digit health care inflation, providing higher quality health care is seen as one way to stem exorbitant cost increases. Quality health care, typically defined as “doing the right thing right, at the right [appropriate] time,”<sup>ii</sup> has quickly become a critical priority in health policy. The movement to measure and improve quality has grown substantially. But why is this the case? Why do so many people care about *quality*? Two reasons. First, quality health care improves patient outcomes and decreases morbidity. Second, quality health care saves money. According to a recent National Committee for Quality Assurance (NCQA) report, this is the annual tally for failure to deliver appropriate, quality health care: 57,000 avoidable deaths, 41 million sick days, over \$11 billion in lost productivity, and billions in hospital costs. Put another way, more than one thousand Americans die each week because the care they get is not consistent with the care that medical science says they should get. When doctors operate on the wrong side of the brain, remove the wrong kidney, or fail to prescribe beta blockers to heart attack victims, patients suffer. And when diabetics, asthmatics, and heart disease patients die because their conditions are not adequately monitored and controlled, health outcomes suffer. Unfortunately, quality is elusive. As a recent study in *The New England Journal of Medicine* highlights, Americans typically receive only half of the care recommended by the current best medical practices.<sup>iii</sup> The “quality gap” between care that is proven to work and the care that is actually delivered is astonishingly wide. It is also quite expensive.

George Halvorson and George Isham underscore the costs of poor health care quality in their new book *Epidemic of Care*. After all, the authors note, “It costs a lot more to do [health]

care wrong. It saves a lot of money to do it right.”<sup>iv</sup> The Kaiser Family Foundation (KFF) estimates that “Not providing the best treatments costs the United States more than \$1 billion per year in avoidable health care bills” (KFF Daily Report, 9/22/03). Avoidable episodes of congestive heart failure and preterm births create many billions of dollars in unnecessary and avoidable expenditures. Conversely, the tremendous cost savings that improved quality could generate are staggering. Some analyses estimate that closing the “quality gap” could generate cost-savings ranging from 15 to 30 percent of the country’s \$1.4 trillion annual health care tab (Wall Street Journal, 12/23/03). Moreover, geographic variations in the delivery of quality care are expensive. Dr. John Wennberg, known for his research in health care variation, predicts that “Medicare could trim 30 % of its \$285 billion budget by bringing the highest-spending regions of the U.S. in line with the rest” (WSJ, 12/23/03). Wennberg’s research argues that such a leveling of expenditures could be achieved without causing a decrease in health outcomes.

Thus, in the eyes of many, quality is the solution to health care’s chronic cost and access problems. Provide more right care, and less wrong care, and this country will save money while delivering better health for *everyone*. Of course, this is much easier said than done. But the quality proponents do submit compelling arguments, and efforts to measure and report quality have become increasingly prevalent. Halvorson and Isham submit that this is a positive step because, as they pointed out in *Epidemic*, “care improves when quality is reported publicly.”<sup>v</sup> Taking quality information public improves quality of care because consumers—armed with quality data—will demand the best, while providers become incentivized to meet that demand. Doctors, for example, have a strong incentive to improve their management of diabetic patients when they know that their performance will be monitored publicly.

Recent quality measurement and reporting initiatives, like ones taken by CMS, Leapfrog Group, and NCQA, aim to narrow the “quality gap,” improving health care and saving money for all Americans. In Delaware, rigorous quality measurement and quality-improvement efforts are essential if Delawareans are to receive a better value for the more than \$3 billion spent annually on health care. Delaware’s Consumer Assessment of Health Plans Survey (CAHPS) represents one such effort at the state level. As if to punctuate the emergence of quality as a national issue, The Agency for Healthcare Research and Quality (AHRQ) recently published the first comprehensive, national report card to measure the quality of health care for the entire country. A measure of the current state of health care quality in the United States, this report card gauges quality in everything from the screening for cervical cancer to the immunization of respiratory diseases to the chronic care provided in nursing homes. While AHRQ’s initiative is itself

encouraging, their findings are not. Finding high quality health care to be lacking, the report notes that 37 of 57 areas measured have either shown no improvement or have worsened.

### ***Methodology: Data***

This study analyzes survey data from the Consumer Assessment of Health Plans Survey (CAHPS) to investigate barriers to quality health care for Delaware's adult population. In particular, the analysis focuses on the following question: How do reports and ratings of health care vary by race and ethnicity? To generate a sample sufficiently large to permit analysis of experiences *within* this population, we pooled together data from the 1999, 2000, 2001, 2002, and 2003 Delaware CAHPS datasets.

### **CAHPS Background**

CAHPS was created in 1995 by the Agency for Healthcare Research and Quality (AHRQ), in collaboration with Harvard Medical School, RAND, and the Research Triangle Institute. These organizations developed the CAHPS methodology and survey instrument. CAHPS examines health care quality by measuring patients' health care experiences. It is widely recognized as the standard for measuring consumers' experiences within the health care system. The standardized set of surveys allows researchers to gather comparative information about the experiences of enrollees with their health plans and health care providers. Since its inception, CAHPS has grown steadily into a major source of health care quality information. CAHPS surveys now assess everything from health plans to hospitals to nursing homes to physician group practices. Moreover, usage of CAHPS has increased from four users and three demonstration sites in 1997, to an active network of CAHPS users in all but four states. Today, CAHPS is used to assess the care provided by health plans covering more than 123 million lives across private, Medicaid, and Medicare markets.<sup>vi</sup> Governments use CAHPS to help with purchasing decisions. The nonprofit National Committee on Quality Assurance (NCQA) uses CAHPS to accredit health plans.

As the use of CAHPS continued to grow, AHRQ promoted the development of the National CAHPS Benchmarking Database (NCBD). The NCBD is the central clearinghouse of CAHPS data, intended as a national database that can be used for benchmarking analyses. Health plans can use the NCBD to compare their own results to relevant national benchmarks in order to identify performance strengths as well as opportunities for improvement. As if to underscore the ubiquity of CAHPS methods, AHRQ includes several measures taken from the NCBD in its

National Healthcare Quality Report. This report, mandated by Congress, is the first comprehensive, national report on the current state of health care quality in the United States. It gauges quality in everything from the screening for cervical cancer to the immunization of respiratory diseases to the chronic care provided in nursing homes. The national report card uses CAHPS data to conduct state-level assessments of health plan performance, as measured in three areas: timeliness, patient-centeredness, and overall performance.

### **CAHPS in Delaware**

Since 1997, the Delaware Health Care Commission has contracted with the College of Human Services, Education and Public Policy (CHEP) at the University of Delaware to administer CAHPS. The Delaware CAHPS survey collects information on issues related to Delaware's health care services and delivery systems. These reports on experiences with the health care system provide information to both consumers and policymakers in Delaware. One year of CAHPS data is collected over a period of twelve months, with approximately 150 monthly surveys of adults aged eighteen and older conducted throughout the state.

### ***Measures***

For the National Healthcare Quality Report, AHRQ chose data that is clinically important, scientifically sound, readily available, and regularly collected at both the national and state levels. That NCBD data met each of these standards, and that CAHPS measures are a part of this national health report card, is proof of the measures' validity and reliability. The survey instrument is designed to address reliability and validity concerns, so what is measured is both repeatable for other researchers, and a genuine reflection of the quality of care provided. This sets CAHPS measures apart from other measures that simply gauge satisfaction.

The dependent variables consist of CAHPS global rating items (personal doctor, specialist, health care, health plan) and multi-item reports of care (getting needed care, getting care quickly, doctor communication, courtesy and helpfulness of office staff). Health plan customer service is omitted. Respondents are limited to health care experiences of the past twelve months when surveyed. The four ratings questions are scored on a 0 to 10 scale, where 10 is the best possible rating. Questions included in the getting needed care composite are answered using a *Big Problem, Small Problem, Not a Problem* response scale; questions included in the getting care quickly, doctor communication, and courtesy and helpfulness of office staff composites are answered using a *Never, Sometimes, Usually, Always* response scale.

The composite scores are calculated with a two-step process found in the CAHPS literature.<sup>vii</sup> We linearly transform each item score to a 0 to 100 scale, then compute the mean score for items within each composite. Non-responses are coded as “missing” (not 0) and excluded from the calculation. To better enable comparisons between global ratings and composites the 0 to 10 ratings also were transformed to a 0 to 100 scale.

Race/ethnicity and income are used to explore quality of care differences within the data. CAHPS survey respondents were asked to identify their ethnicity and race, then assigned an ethnicity (Hispanic/Latino or not Hispanic/Latino) and one of six racial categories: white, black/African American, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, or Other. These racial groupings are employed by the U.S. Census Bureau for Census 2000.<sup>viii</sup> As for ethnicity, according to the federal government’s Office of Management and Budget (OMB), ethnicity and race are two separate questions. They reflect separate characteristics, just as age and gender reflect separate characteristics, and are not mutually exclusive. A Hispanic/Latino individual may be of any race, just as a male or female may be of any age group. However, in recent CAHPS literature concerning racial/ethnic minorities, Hispanic/Latino is effectively treated as its own, mutually exclusive racial/ethnic grouping.<sup>ix</sup> This analysis mimics the literature. That is, if a respondent indicates he or she is of Hispanic/Latino origin, then he or she is *not* included in the analysis as a member of any of the six Census/OMB racial groups. Likewise, all individuals included in any one of the six race groups are not of Hispanic/Latino origin. This methodology disentangles ethnicity from race to examine quality variations.

Because survey respondents are able to check more than one box for race, a small percentage (1.4%) of respondents identify themselves as multiracial. For this analysis, only respondents who indicated a single race were included in the sample. Respondents who did not check a single box to identify their race (0.3%) were also omitted. To create satisfactory sample sizes, we combined Hispanic/Latino, black/African American, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Other into a single category. This creates a new dichotomous race variable, with categories “white” and “nonwhite.”



### ***Analysis Plan***

To ensure that the Delaware sample is representative and to adjust for sampling biases due to socio-demographic differences between respondents and non-respondents, responses are weighted according to the most recent U. S. Census data for county of residence, age, and gender.

For the purpose of this phase of our analysis, we pool data and conduct preliminary data analysis. This analysis focuses on mean differences in CAHPS quality ratings and reports (variables), broken down by race/ethnicity.

### ***Findings***

This section examines mean differences by racial and ethnic subgroup. Detailed results are presented below, and show the following results:

- For all 9 Delaware CAHPS quality ratings and report variables, there are at least 2 subgroups that show statistically significant differences (at the 0.05 or 0.01 level).
- For 8 of the 9 Delaware CAHPS variables, blacks report higher results than the whites (the reference group). Nearly all (7 of 8) are by statistically significant margins.
- For all 9 variables, Asians report lower results than whites, and 5 of 9 are by statistically significant margins.
- For 8 of 9 Delaware CAHPS variables, the Hispanic/Latino subgroup reports lower ratings and reports than whites. Three of these 8 differences are by statistically significant margins. If we had more Hispanic/Latino data, it is very possible that more of these differences would prove to be statistically significant.

**Figure 5.1****Delaware CAHPS Quality Ratings  
by Category and Race/Ethnicity**

|                        | <i>Doctor</i> | <i>Specialist</i> | <i>Health<br/>Care</i> | <i>Health<br/>Plan</i> | <i>Getting<br/>Needed<br/>Care</i> |
|------------------------|---------------|-------------------|------------------------|------------------------|------------------------------------|
| <b><i>Race</i></b>     |               |                   |                        |                        |                                    |
| <i>Hispanic/Latino</i> | 82.623        | 79.206**          | 81.679                 | 78.014                 | 81.818**                           |
| <b><i>White</i></b>    | <b>83.914</b> | <b>85.152</b>     | <b>82.561</b>          | <b>76.175</b>          | <b>89.834</b>                      |
| <i>Black</i>           | 86.125**      | 86.025            | 84.196**               | 81.477**               | 87.987**                           |
| <i>Asian</i>           | 79.254**      | 80.938            | 76.667**               | 71.310**               | 89.263                             |
| <i>Combined/other</i>  | 81.690        | 79.286**          | 78.649**               | 73.810                 | 84.465**                           |
| <b><i>Total</i></b>    | <b>84.155</b> | <b>85.015</b>     | <b>82.690</b>          | <b>76.965</b>          | <b>89.262</b>                      |

\* p&lt;.10    \*\* p&lt;.05

(Probability that the value is significantly different from White rating)

**Figure 5.1****(continued)****Delaware CAHPS Quality Ratings  
by Category and Race/Ethnicity**

|                        | <i>Getting<br/>Care<br/>Quickly</i> | <i>Health<br/>Plan<br/>Customer<br/>Service</i> | <i>Doctor<br/>Communi-<br/>cation</i> | <i>Helpful<br/>Office<br/>Staff</i> |
|------------------------|-------------------------------------|---|---------------------------------------|-------------------------------------|
| <b><i>Race</i></b>     |                                     |   |                                       |                                     |
| <i>Hispanic/Latino</i> | 66.722**                            | 71.897  | 79.903**                              | 82.323*                             |
| <b><i>White</i></b>    | <b>72.202</b>                       | <b>72.219</b>                                   | <b>83.492</b>                         | <b>85.618</b>                       |
| <i>Black</i>           | 71.102                              | 78.687**  | 85.364**                              | 87.531**                            |
| <i>Asian</i>           | 60.795**                            | 72.884  | 79.412*                               | 78.922**                            |
| <i>Combined/other</i>  | 72.583                              | 71.635  | 82.320                                | 82.658                              |
| <b><i>Total</i></b>    | <b>71.745</b>                       | <b>73.200</b>                                   | <b>83.652</b>                         | <b>85.737</b>                       |

\* p&lt;.10    \*\* p&lt;.05

(Probability that value is significantly different from White rating)

<sup>i</sup> Arnold Epstein, "Health Care in America — Still Too Separate, Not Yet Equal," *The New England Journal of Medicine*. Vol 351, No 6, p. 603.

<sup>ii</sup> David Blumenthal. "Quality of Health Care," *The New England Journal of Medicine*. Vol. 335, No. 12. p. 892. Blumenthal also notes that one of the more widely cited definitions of quality belongs to the IOM,

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which holds that quality consists of the “degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”

<sup>iii</sup> Elizabeth A. McGlynn, et al. “The Quality of Health Care Delivered to Adults in the United States.” *The New England Journal of Medicine*. Vol. 348, No. 26. 2003

<sup>iv</sup> George C. Halvorson and George J. Isham, M.D. *Epidemic of Care*. Jossey-Bass. p.18. 2003.

<sup>v</sup> Ibid. p. 29.

<sup>vi</sup> See <http://www.cms.gov/quality/hospital/HCAHPSqanda3.pdf>

<sup>vii</sup> See Weech-Maldonado, Hays, et al. *Health Plan Effects on Patient Assessments of Medicaid Managed Care Among Racial/Ethnic Minorities*, and *Race/Ethnicity, Language, and Patients' Assessments of Care in Medicaid Managed Care*.

<sup>viii</sup> See <http://www.census.gov/prod/2001pubs/c2kbr01-1.pdf>. According to this document, *Census 2000* adheres to the standards for collecting and analyzing racial data as designated by the Office of Management and Budget (OMB) in 1997. Beginning with *Census 2000*, OMB requires federal agencies to use at least five categories (White, Black/African American, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native) in its data collection. OMB also approved the use of a sixth category (“Some other race”) for those respondents unable to identify with any of the five race categories.

<sup>ix</sup> See Langwell and Moser. “Strategies for Medicare Health Plans Serving Racial and Ethnic Minorities.” *Health Care Financing Review*. Vol. 23, No. 4.