THE FACE OF DISPARITIES IN HEART FAILURE

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DISCLOSURES

NONE
HEALTHCARE DISPARITIES IN CARDIOVASCULAR DISEASE
CARDIOVASCULAR DISEASE IN AFRICAN AMERICAN WOMEN:
THE HEART OF THE MATTER

What Black Women Need to Know About Heart Disease
HISTORY, BACKGROUND AND IMPACT OF HEALTHCARE DISPARITIES
HISTORICAL PERSPECTIVE

- MYTHS
- MISUNDERSTANDINGS
- MISMANAGEMENT
MR. HOFFMANN AND THE “SLAVE HEALTH DEFICIT”
Dr. Martin Luther King, Jr.
On Health Care Disparities

"Of all the forms of inequality, injustice in health is the most shocking and inhumane."

Dr. Martin Luther King, Jr.
By ten things is the world created,
By wisdom and by understanding,
And by reason and by strength,
By rebuke and by might,
By righteousness and by judgment,
By loving kindness and by compassion.

– Talmud Higaga 12A
Race And Ethnicity Definitions:

- **Healthcare disparity**: A **differential in outcomes** of prevention and treatment of illness and disease which can be shown to vary according to the race, gender, and/or ethnic identity of patients. These differences may be ascribed to racism, denial of equal access to care, possession of different health-seeking behavior and idiosyncratic responses to treatment, or to poorly understood biological and genetic mechanisms.
African and African-American Contributions to Medical History

Humans had its origin in Africa. So it seems reasonable that civilizations originated there as well.

Not all you believe some mainstream history books.

Many scientists and scholars have been slow to acknowledge Africa’s contributions to civilization—particularly to science and medicine. But the truth is, Egyptians and Ethiopians had advanced civilizations more than 5,000 years ago.

Hippocrates, the legendary "father of medicine," was influenced greatly by the works of Imhotep, an Egyptian who established his reputation and was deemed for his medical contributions thousands of years before. Hippocrates, too, studied and were developing themselves in the sciences.

Today, we recognize this and are learning from these ancient contributions. Imhotep, the god of medicine, was a symbol of healing and health.

Ancestral knowledge of African medicine is still practiced today, especially in countries like Tanzania, where the tenets of traditional medicine are still well-respected.

Indeed, African countries, such as Egypt, Tanzania were the sources of knowledge that Greeks and Romans used to advance European society. And the notable achievements of ancient Africa were the foundations of modern medicine, says Dr. Charles Finlay, director of international health at the Morehouse School of Medicine and a noted historian on African influences on Western medicine.

"There’s absolutely no question about it," he says. "Not because you have any evidence, but because you have the first surgeon 5,000 years ago. It’s not a question. People did it and were part of it. Africa made major contributions to world medicine.

In fact, when thinking of the first surgical procedure, the Edwin Smith Papyrus, the first book that dates back to the 16th century B.C., it contains techniques for treating fractures, operations, and surgical procedures that are still used today.

Pick up the other pages and you’ll see. In medicine and surgery, the names of gods and the principles of astrology, geometry, and astronomy were imported from Egypt to Greece. Thousands of years later, Greek physicians and scientists, including Thales, Solon, Pythagoras, and Plato, were educated in Egypt.

Don’t know much about this history? HealthQuest has put together a timeline of African and African-American contributions to medical history from 4,000 B.C. to the present. From medicine to Dr. Mae Jemison, these black achievements have changed the face of science and medicine—and, indeed, of humanity.
Daniel Hale Williams, M.D. (1856-1931). In 1893 he performed the first successful operation on the human heart, thus paving the way for the DeBakeys, Codleys and Barnards of our day. Schomburg Collection.
A black surgical ward in Charleston’s segregated “Old Roper” Hospital, c. 1950. Although patients were all black, the professional staff here were all white. Courtesy of the Waring Historical Library, Medical University of South Carolina.
Those Who Fail To Heed
The Lessons Of History
Are Destined To Repeat Them.

-Santayana
Evidence of Racial and Gender Bias in Medical Procedures and Treatment

1. Treatment of cardiac arrest
2. Selection of patients for cardiac catheterization
3. Coronary artery bypass graft surgery (CABG)
4. Thrombolytic therapy
5. Percutaneous transluminal coronary angioplasty (PTCA)
6. Selection of patients for treatment to prevent stroke
Give it to me straight, Doc. I can take it. What's wrong with me?

You're not a white male.
Doctor, studies show that if I were a white male, you'd be rushing me to a cardiac catheterization procedure.

No kidding? I thought a Rolaids would do the trick for you.
Estimated Life Expectancy: 2001

THE PROBLEM

- HYPERTENSION
- STROKE
- HEART FAILURE
- MYOCARDIAL INFARCTION
- END-STAGE RENAL DISEASE
- ALL ARE MORE COMMON IN BLACKS
High Blood Pressure Among Women Aged 18 and Older,* by Race/Ethnicity,** 2007–2010

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Controlled</th>
<th>Uncontrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>11.9</td>
<td>15.6</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>10.4</td>
<td>25.9</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>19.5</td>
<td>21.9</td>
</tr>
<tr>
<td>Mexican American</td>
<td>11.6</td>
<td>27.2</td>
</tr>
<tr>
<td>Other Hispanic</td>
<td>12.1</td>
<td>23.7</td>
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</tbody>
</table>

*Includes a measured systolic pressure (during heartbeats) of ≥140mmHg or a diastolic blood pressure (between heartbeats) ≥90mmHg (uncontrolled hypertension, with or without blood pressure-lowering medication) and normal blood pressure (≤140/90mmHg) with reported current medication use (controlled hypertension);

**Percentages may not add to totals due to rounding; estimates are age-adjusted.

The samples of American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, and persons of multiple race were too small to produce reliable results.

Untreated hypertension can result in:

- Arteriosclerosis -- Kidney damage
- Heart Attack -- Stroke
- Enlarged heart -- Blindness
HEART FAILURE:

- 5 MILLION CASES, 500,000/YR
- DEATH RATE 3 TIMES HIGHER IN BLACKS
- HYPERTENSION IS MAJOR RISK IN BLACKS, CORONARY DISEASE IN WHITES
EPIDEMIOLOGY, INCIDENCE, PREVALENCE, AND MORTALITY OF HEART FAILURE

- HF IS THE ONLY CVD THAT IS INCREASING IN PREVALENCE
- IN 2010, 6.6 MILLION (2.8%) OF U.S. ADULTS HAD HF
- PREVALENCE IS EXPECTED TO INCREASE BY ABOUT 25% BY 2030
- ANNUAL INCIDENCE OF HF IN WHITES IS 6 PER 1,000 PERSON-YEARS VS 9.1 IN BLACKS (AHA)
- INCIDENCE OF NEW HF BY RACE AND ETHNICITY (ARIC):
  - CHINESE AMERICANS: 1.0 PER 1,000
  - WHITE AMERICANS: 2.4
  - HISPANIC AMERICANS: 3.5
  - AFRICAN AMERICANS: 4.6
- HF IS 20 X MORE FREQUENT BEFORE AGE 50 IN BLACKS THAN IN WHITES
- BLACKS ARE 45% MORE LIKELY TO DIE WHEN HOSPITALIZED WITH HF THAN WHITES
DISPARITIES IN HOSPITALIZATIONS FOR HF

HOSPITALIZATIONS FOR HF DECLINED 30% OVERALL FROM 2002-2013
HOWEVER, THE RATE FOR BLACKS WAS 200% HIGHER THAN FOR WHITES DURING THAT PERIOD
THE RATE FOR HISPANICS DROPPED MUCH FASTER THAN FOR WHITES
DISPARITIES IN DISEASE BURDEN HAVE NOT IMPROVED FOR BLACKS AND MALES IN THE LAST DECADE

Source: Ziaeian et al, Circulation: Cardiovascular Quality and Outcomes (2017)
CLINICAL DIFFERENCES IN HF BETWEEN BLACKS AND WHITES

BLACKS TEND TO HAVE MORE SYSTOLIC HEART FAILURE (HFrEF)

INCIDENCE OF DIASTOLIC HEART FAILURE (HFpEF) IS ABOUT THE SAME BETWEEN BLACKS AND WHITES

HYPERTENSION IS THE MAJOR HF RISK FACTOR FOR BLACKS ALONG WITH LVH

CHD IS THE MAJOR RISK FACTOR FOR WHITES

NONISCHEMIC CARDIOMYOPATHY PREDOMINATES IN BLACKS

ISCHEMIC CARDIOMYOPATHY PREDOMINATES IN WHITES
Heart Failure

- HT is the leading cause of HF in AA
- HF affects 3.5% of AA men and 3.1% of AA females over 20 years, and 5% over 65 years
- HF outcome is poorer in AA patients with 45% higher rate of functional decline or death in 6 months c/w white
TREATMENT OF HF FOR AFRICAN AMERICANS

• THERE IS INSUFFICIENT EVIDENCE OF A THERAPEUTIC DIFFERENCE BETWEEN BLACKS AND WHITES FOR MOST TREATMENT MODALITIES (ACEI, ARBS, BB EXCEPT BUCINDOLOL, ALDOSTERONE ANTAGONISTS, DIURETICS, CCBS, ICD, CRT, LVADS, SALT RESTRICTION)

• HYDRAZINE AND ISOSORBIDE DINITRATE (HYD-ISDN) IN FIXED DOSE COMBINATION IS CONSIDERABLY MORE EFFECTIVE IN BLACKS THAN IN WHITES AND IS A CLASS IA RECOMMENDATION OF THE ACC/AHA GUIDELINES FOR TREATMENT OF HF IN AFRICAN AMERICANS
THE BIDIL CONTROVERSY

• A FIXED DOSE COMBINATION OF HYD 37.5 MGS AND ISDN 20 MGS WITH NYHA STAGE III OR IV HF ON STANDARD RX WAS VASTLY SUPERIOR TO PLACEBO IN A RCT OF A BLACK COHORT (AFRICAN AMERICAN HEART FAILURE TRIAL OR AHEFT, TAYLOR AL ET AL, NEJM, 2004)

• A 43% SURVIVAL ADVANTAGE IN THE ACTIVE DRUG GROUP LED TO EARLY TERMINATION OF THE STUDY

• RATE OF FIRST HOSPITALIZATION WAS -39%

• IMPROVEMENT OF QOL SCORES WAS +52%

• DESPITE THESE EVIDENCE-BASED BENEFITS, USE OF THE FIXED DOSE COMBINATION TO TREAT HF IN BLACKS HAS BEEN LIMITED. THIS IS CONSIDERED A HEALTHCARE DISPARITY
Risk Factors for Disparate Healthcare

- Poverty
- Racism
- Discrimination
- Bias
- Language barriers
- Geographical barriers
- Socioeconomic status
- Immigrant status
- TRUST (or lack thereof)

Racial and ethnic disparities in health care exist and, because they are associated with worse outcomes in many cases, are unacceptable.

Racial and ethnic disparities in health care occur in the context of broader historic and contemporary social and economic inequality, and evidence of persistent racial and ethnic discrimination in many sectors of American life.

Many sources – including health systems, health care providers, patients, and utilization managers – contribute to racial and ethnic disparities in health care.
SUMMARY OF FINDINGS
From IOM Report (Continued))

Bias, stereotyping, prejudice, and clinical uncertainty on the part of healthcare providers may contribute to racial and ethnic disparities in healthcare.

Racial and ethnic minority patients are more likely than white patients to refuse treatment, but differences in refusal rates are generally small, and minority patient refusal does not fully explain healthcare disparities.
Does Race Impact Care Decisions?


Cardiologists responding "Very/Somewhat Likely"

Healthcare in general 30%
Cardiovascular care 40%
Your hospital/clinic 30%
Patients you treat 10%

CDC Eliminate CVD disparities by 2010

- Reduce deaths from heart disease among AA by 30%
- Reduce deaths from stroke among AA by 47%
Kaiser Family Foundation Ad Campaign

Ad appeared in leading medical publications:

- Journal of the American Medical Association
- Today in Cardiology
- Journal of the American College of Cardiology
- Circulation – The Journal of the American Heart Association

These patients have the same condition, but their treatment may be different

Help Understand Why

Practicing clinicians are concerned about studies that show racial and ethnic differences in the types of treatments different racial groups receive for lung cancer, renal disease, and coronary artery disease. These differences persist even when comparing "apples to apples"—patients of the same gender, with the same condition, and similar age, income and insurance.

While there are many possible factors that could account for racial disparities in health care, physicians and the health care systems in which they operate are key to making sure that all patients get the very best care.

We are asking you, the experts who work daily with patients or are involved in clinical research, to be a part of the solution.

Visit www.A1F.org/whythatmatters to:
- Order a free copy of a review of the evidence on racial/ethnic differences in cardiac care
- Submit your thoughts on how to eliminate disparities
- Learn about existing guidelines that could improve cardiac care outcomes
- Sign up to obtain information about upcoming seminars, publications, and events on this issue
Lessons Learned

- Takes time
- Takes resources
- Takes commitment
- Gather evidence
- It is everyone’s work
Summary

• Biologic & Genetic factors
• Environmental factors
• Socio economic factors
• Access & Cost
• Practice Bias
• Lack of Diversity in Providers
• Need for Leadership and commitment
SUGGESTED STRATEGIES FOR MANAGING CVD IN BLACKS

- RECOGNITION OF CULTURAL DIFFERENCES
- INDIVIDUALIZED TREATMENT
- APPRECIATION OF RACIAL PECULIARITIES
- IMPORTANCE OF OPEN ACCESS TO CARE
- SELECTION OF THE MOST APPROPRIATE DRUGS
- DEVELOPMENT OF IMPROVED COMMUNICATIONS SKILLS
- INCREASED EFFORTS TO SCREEN AND EDUCATE PATIENTS
Where There Is No Vision, The People Perish.

Proverbs 29:18
If we cannot end our differences, at least we can make the world safe for diversity, for in the final analysis, our most basic link is that we all inhabit this small planet. We all breathe the same air, we all cherish our children’s future, and we are all mortal.

John F. Kennedy
“WE MAY HAVE COME HERE ON DIFFERENT SHIPS, BUT WE’RE IN THE SAME BOAT NOW.”