

THE FACE OF DISPARITIES IN HEART FAILURE

Presented at the Conference on
“The Faces of Heart Failure”
BORGESS HOSPITAL
Kalamazoo, Michigan
November 13, 2017



RICHARD ALLEN WILLIAMS, M.D., FACC, FAHA, FACP

**117th and Immediate Past President,
National Medical Association**

CLINICAL PROFESSOR OF MEDICINE, UCLA

**FOUNDER, PRESIDENT/CEO,
THE MINORITY HEALTH INSTITUTE, INC.**

FOUNDER, ASSOCIATION OF BLACK CARDIOLOGISTS

AUTHOR, TEXTBOOK OF BLACK-RELATED DISEASES

**AUTHOR, ELIMINATING HEALTHCARE DISPARITIES IN
AMERICA**

**AUTHOR, HEALTHCARE DISPARITIES AT THE
CROSSROADS WITH HEALTHCARE REFORM**

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**



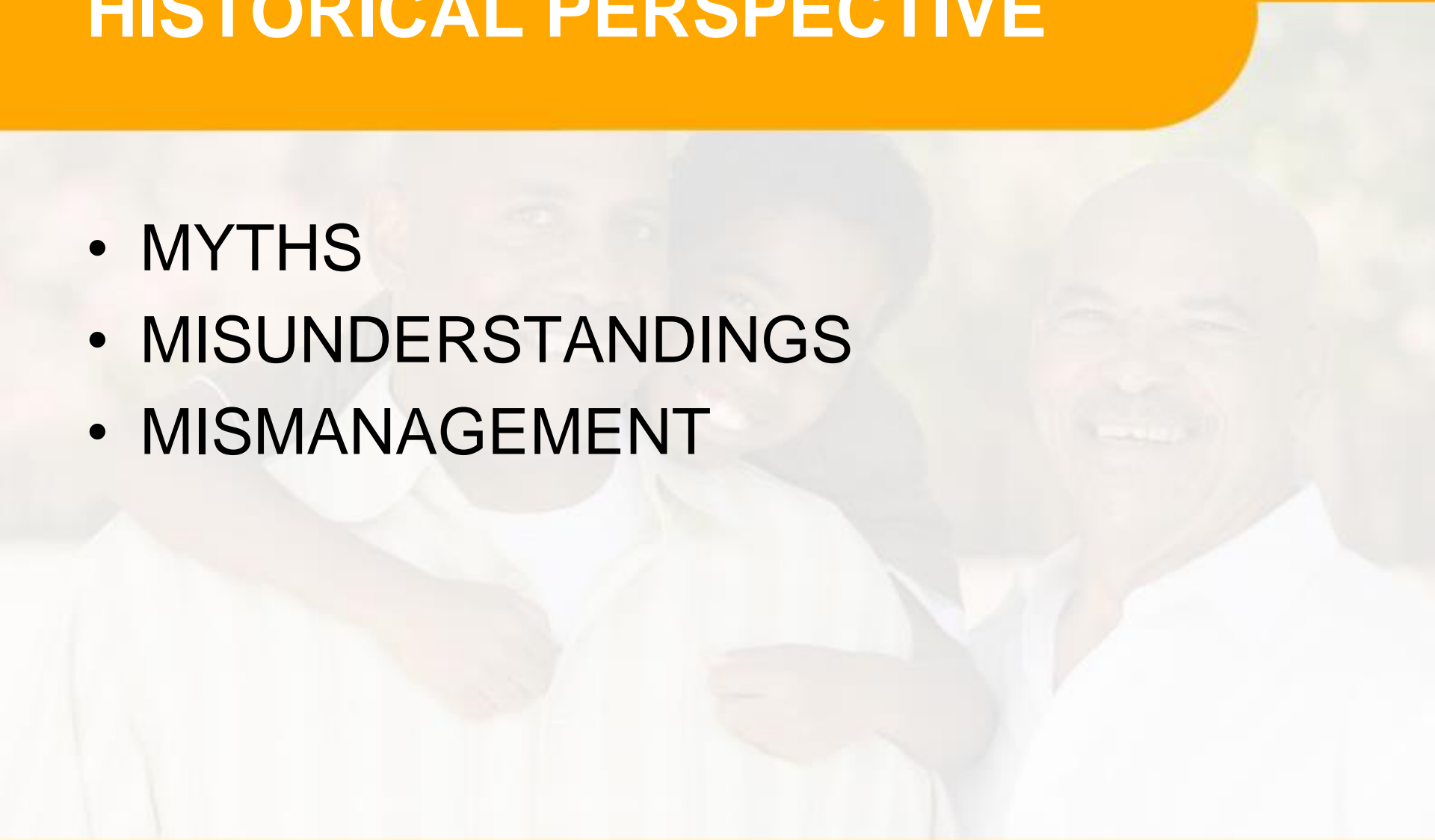
Subscribe



HISTORY, BACKGROUND AND IMPACT OF HEALTHCARE DISPARITIES

HISTORICAL PERSPECTIVE

- MYTHS
- MISUNDERSTANDINGS
- MISMANAGEMENT



A group of Black men, likely students, are smiling and looking towards the camera. They are wearing white shirts. The image is faded and serves as a background for the title text. The title is centered and reads:

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.

Talmud Statement

*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

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

Not if 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 fact is, Egyptians and Ethiopians had advanced civilizations more than 4,000 years ago.

Hippocrates, the legendary "father of medicine," was influenced greatly by the works of Imhotep, an Egyptian who established his reputation and was deified for his medical contributions thousands of years before.

Hippocrates, Greek sailors also were distinguishing themselves in the sciences.

For hundreds of years, more than 40,000 years ago, the world's oldest civilization, the Egyptians, had been around.

Indeed, the African countries of Egypt, Ethiopia, Ghana, Mali and Tanzania were the sources of knowledge that Greeks and Romans used to improve European society. And the notable achievements of ancient Africa were the forerunners of modern medicine, says Dr. Charles Finch, 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. "Just because you have the first surgery 6,000 years ago [in Egypt] shows there's no question about it. They [Africans] were pioneers."

Africa made three major contributions to world medicine:

(1) the first physicians.

(2) the first medical literature—the Edwin Smith Papyrus, the Ebers

Papyrus and the Kahun Papyrus.

(3) the first medical knowledge—Egyptian medicine and Greek medicine. Greek medicine, however, acknowledged its African roots.

Names of gods and the principles of astrology, geometry and astronomy were imported from Egypt to Greece. Thousands of years later, Greek philosophers 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 Imhotep to Dr. Mae Jemison, these black achievers have changed the face of science and medicine—and, indeed, of history.

AFRICAN-AMERICAN

CONTRIBUTIONS TO

MEDICAL HISTORY



IMHOTEP, GOD OF MEDICINE

CARDIOLOGY

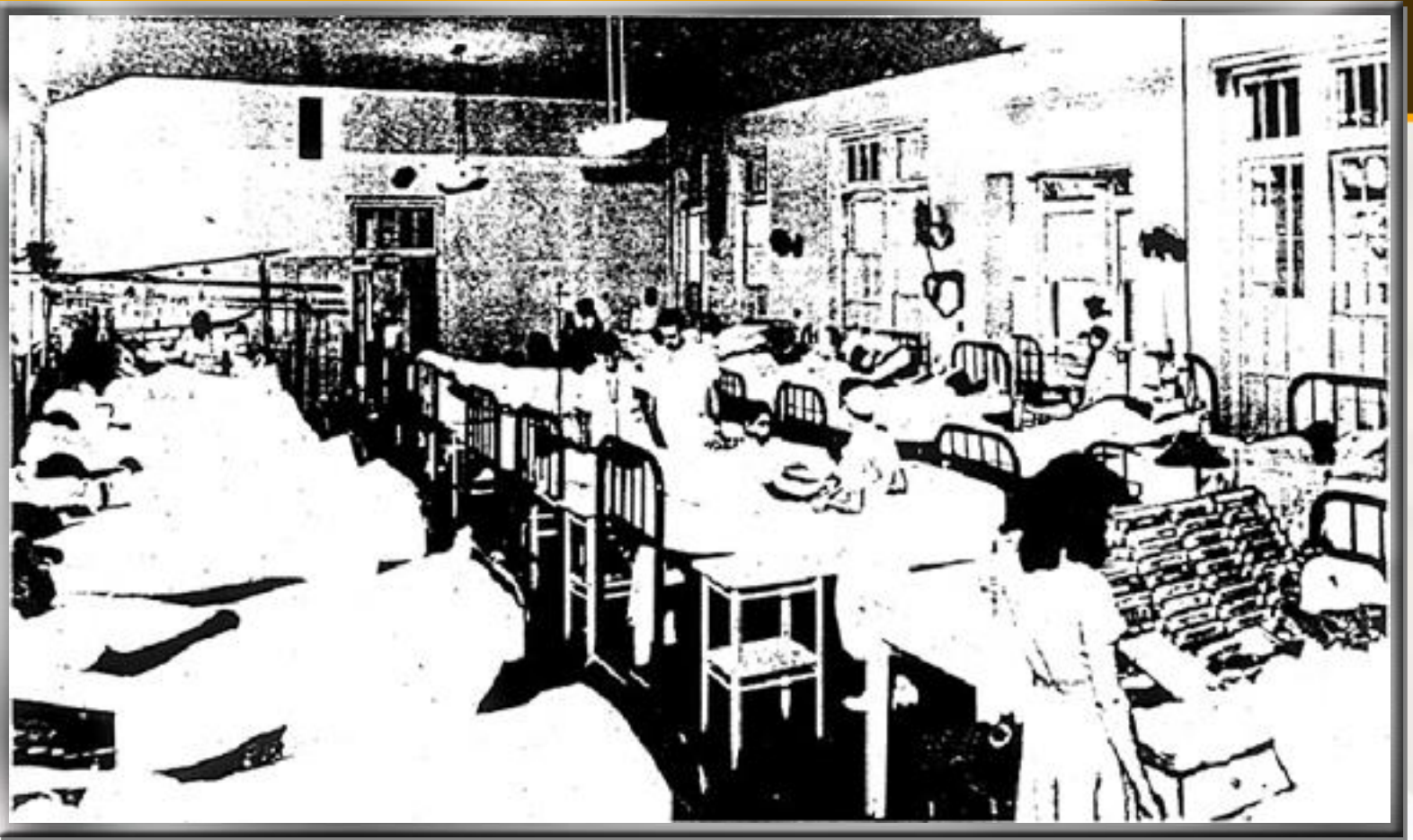
Richard Allen Williams



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, Cooleys and Barnards of our day. Schomburg Collection



J. MARION SIMS: GYNECOLOGIC SURGEON



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.

Words Of Wisdom

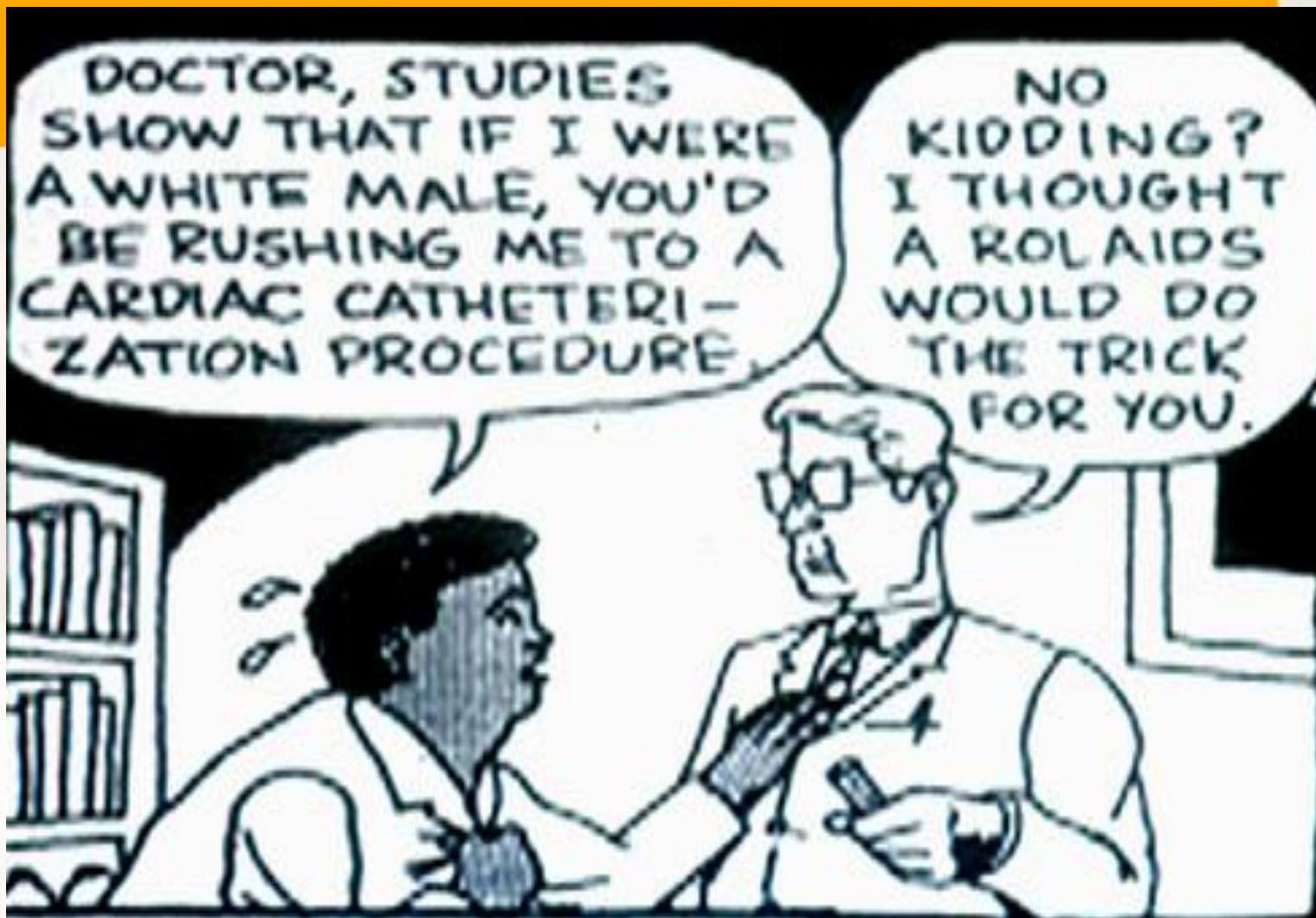
*Those Who Fail To Heed
The Lessons Of History
Are Destined To Repeat Them.*

-Santayana

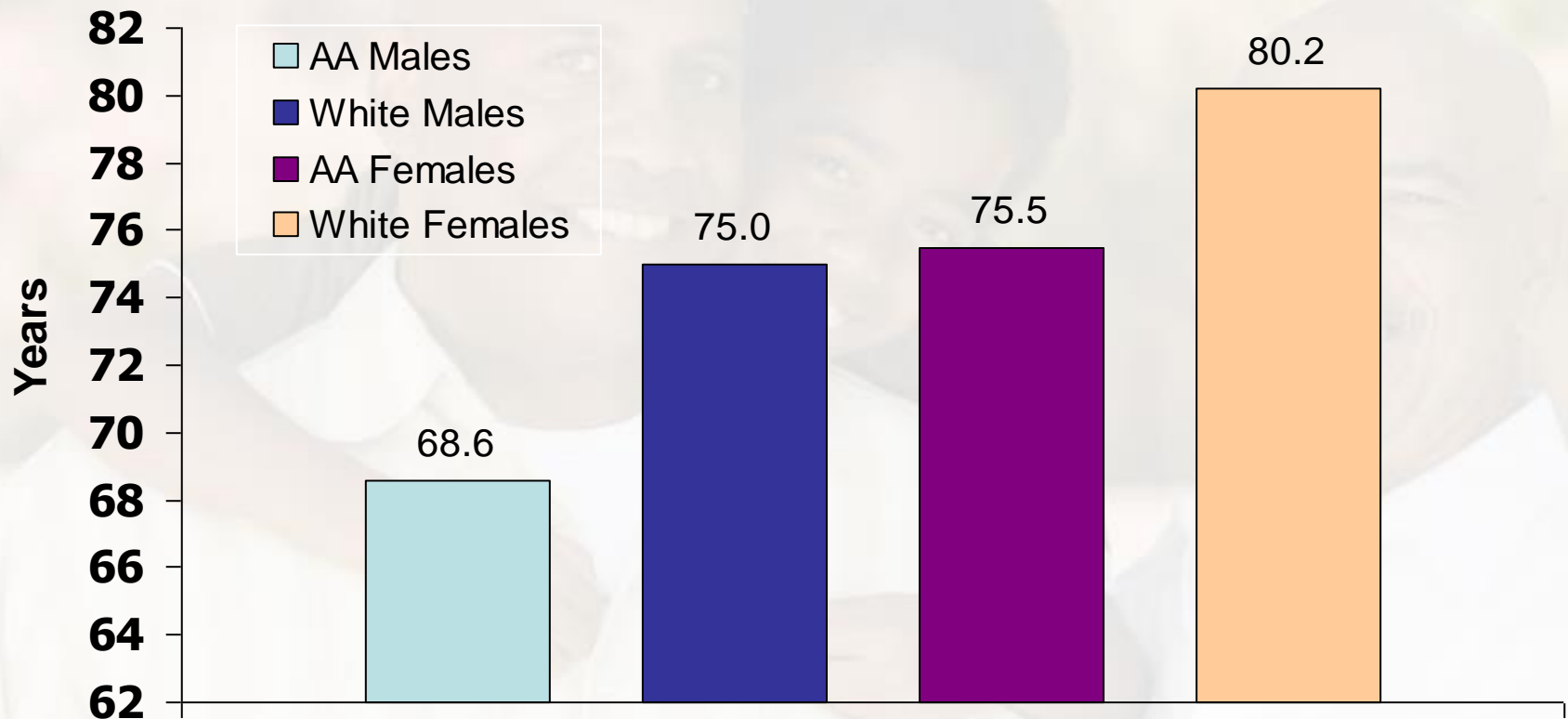
Evidence of Racial and Gender Bias in Medical Procedures and Treatment

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





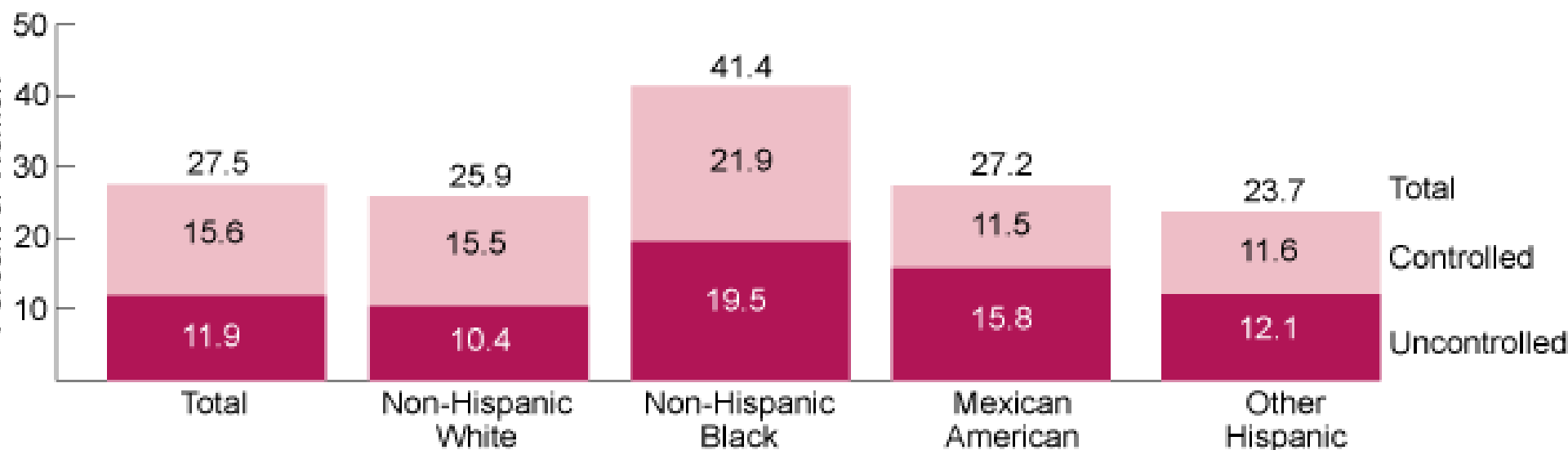
Estimated Life Expectancy: 2001



THE PROBLEM

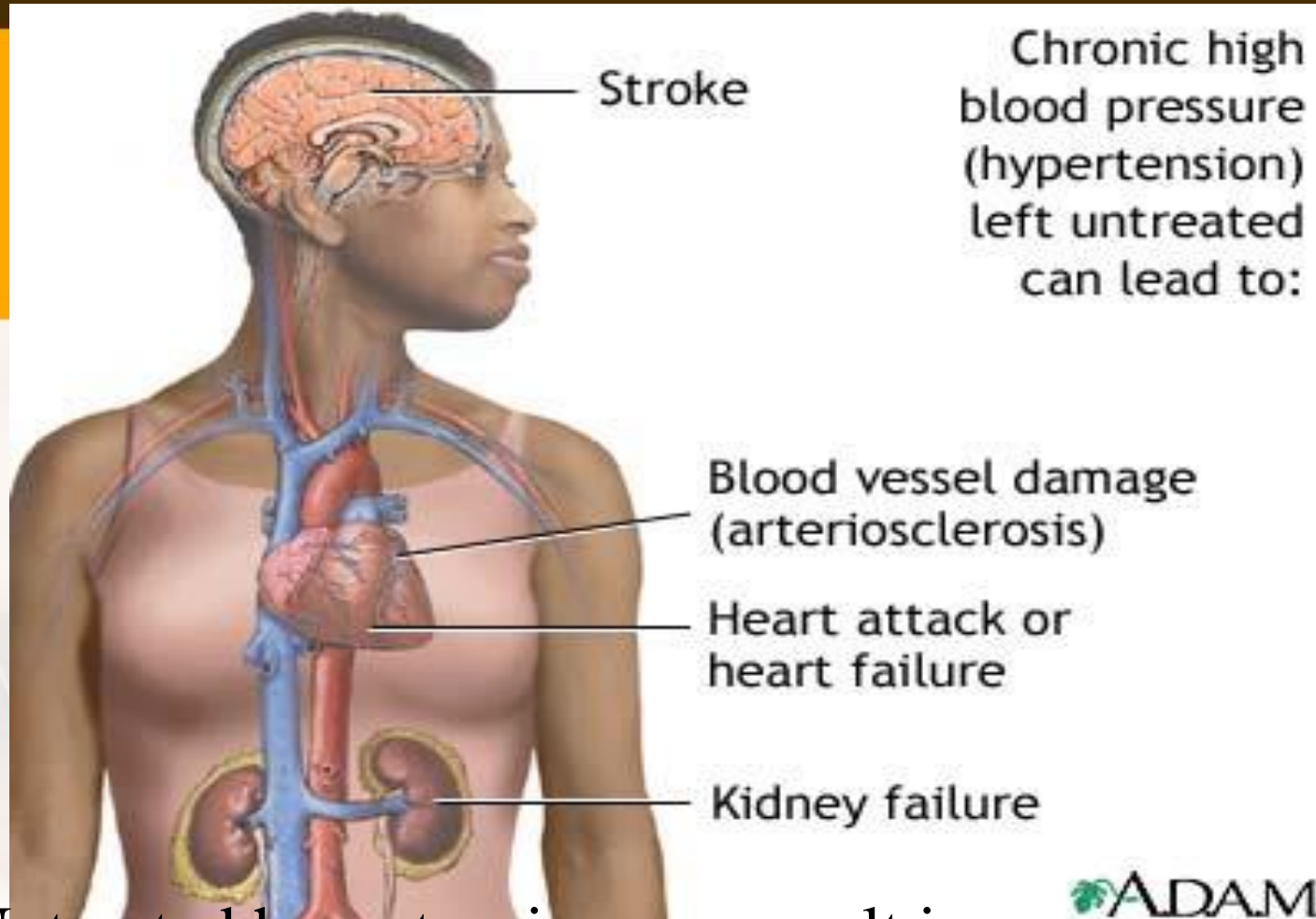
- HYPERTENSION
- STROKE
- HEART FAILURE
- MYOCARDIAL INFARCTION
- END-STAGE RENAL DISEASE
- ALL ARE MORE COMMON IN BLACKS

High Blood Pressure Among Women Aged 18 and Older,* by Race/Ethnicity,** 2007–2010



includes a measured systolic pressure (during heartbeats) of ≥ 140 mmHg or a diastolic blood pressure (between heartbeats) ≥ 90 mmHg (uncontrolled hypertension, with or without blood pressure-lowering medication) and normal blood pressure ($\leq 140/90$ mmHg) 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.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health and Nutrition Examination Survey, 2007–2010. Analysis conducted by the Maternal and Child Health Epidemiology and Statistics Program.



■ Untreated hypertension can result in:

- Arteriosclerosis
- Heart Attack
- Enlarged heart
- Kidney damage
- Stroke
- 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: Ziaeeian 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)**
- **HYDRALAZINE 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)

SUMMARY OF FINDINGS

From IOM Report

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.

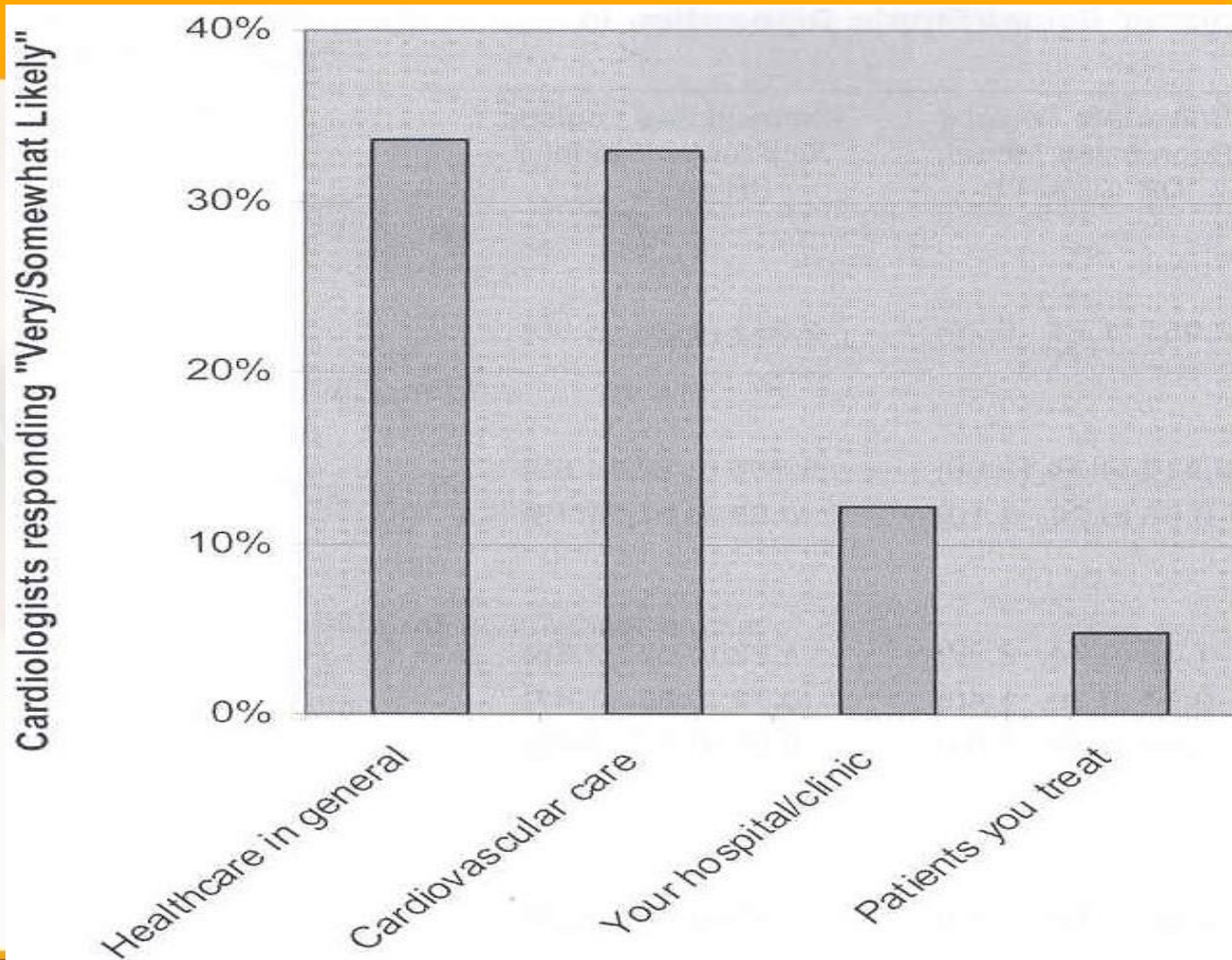
SUMMARY OF FINDINGS

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.

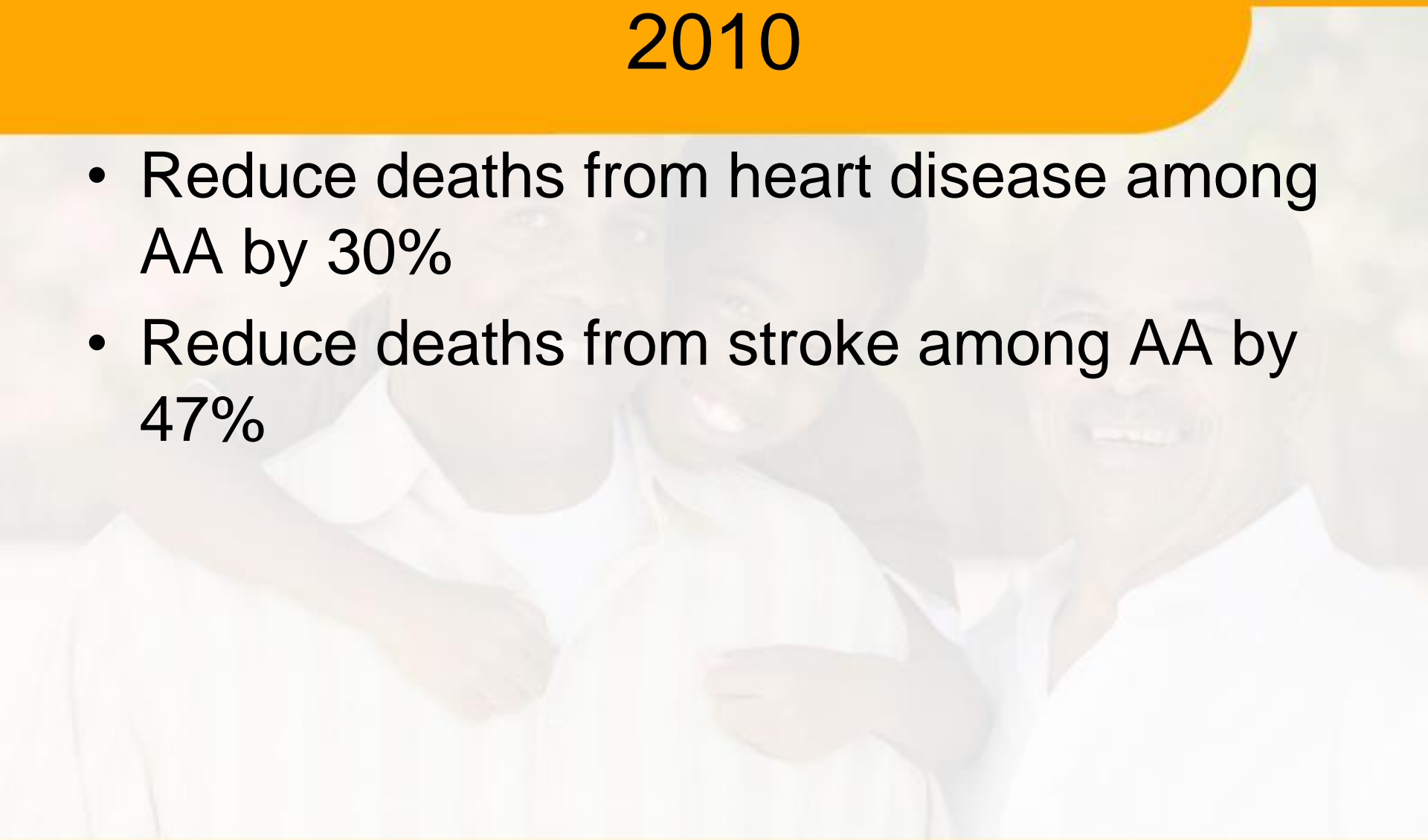
Does Race Impact Care Decisions?



Source: Lurie N et al. *Circulation* 2005;111:1264-1269

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 Ca

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 type of treatments different racial groups receive for lung cancer¹, renal disease² and coronary artery disease³. 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.kfLong.com/whytheifference 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

[illegible]

Ad appeared in leading medical publications:

*Journal of the American
Medical Association*

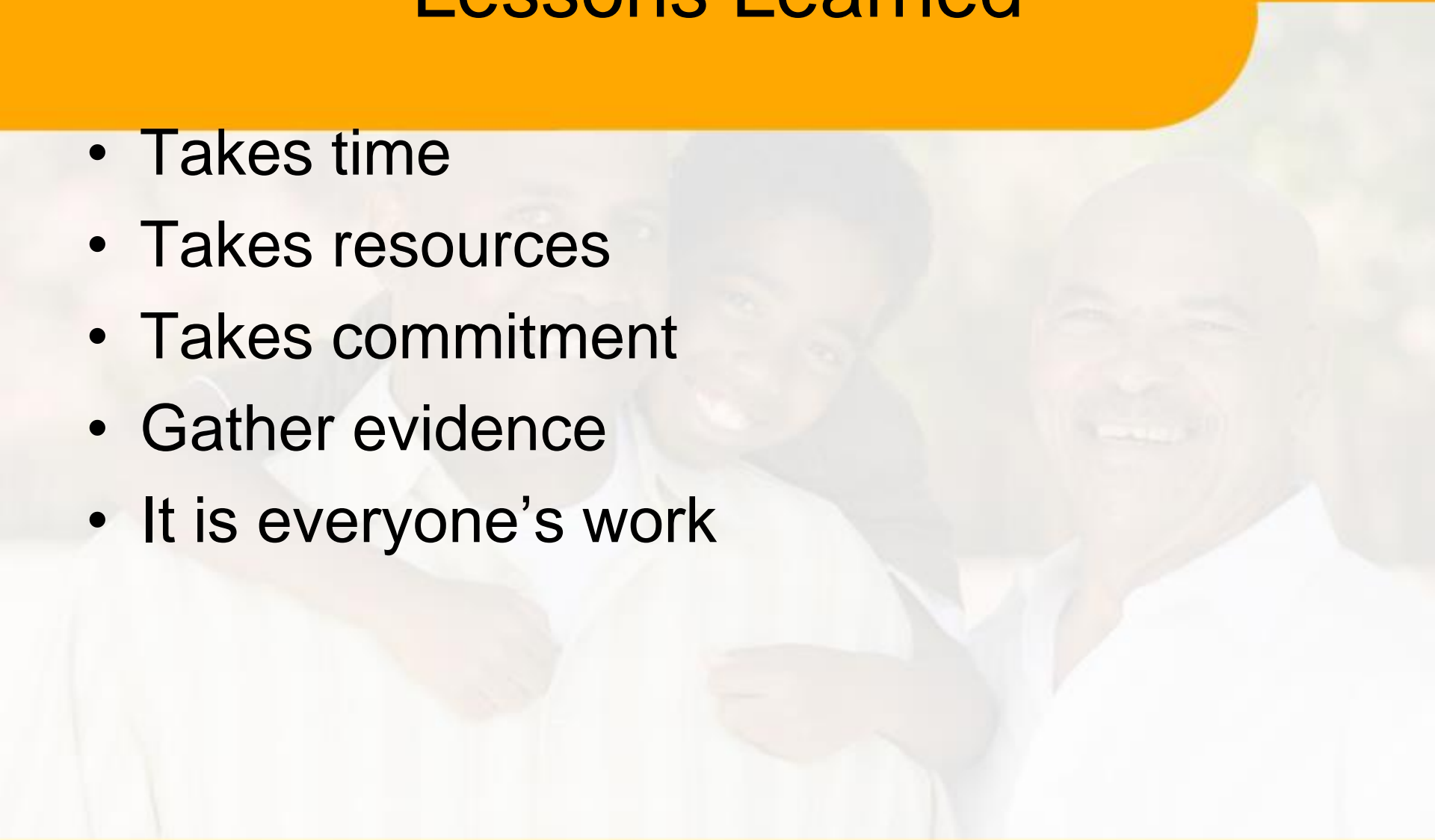
Today in Cardiology

*Journal of the American
College of Cardiology*

*Circulation – The Journal of
the American Heart
Association*

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

John F. Kennedy



*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.”

