

Getting A Handle on Heart Disease & Disparities in Nebraska

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Racial, ethnic, and other health disparity populations have not been benefited equally from our nation's progress in scientific discovery.

- American Indians and Alaska Natives
- Asian Americans
- Blacks/African Americans
- Native Hawaiians and other Pacific Islanders
- Medically underserved including the Rural and urban poor

Many disparate health outcomes may be attributed to a complex interaction among multiple factors, such as:

- Gender Predisposition
- Gender
- Race/Ethnicity
- Lack of Culturally or Linguistically Appropriate Medical Care
- Environment
- Socioeconomic Status
- Bias, Stereotyping, and Uncertainty in the Clinical Encounter

**RISK FACTORS FOR
CARDIOVASCULAR DISEASE**

- Age
- Sex
- Family History
- Smoking
- Type A Personality
(Controversial)
- Hypertension
- Hyperlipidemia
- Obesity
- Diabetes
- Sedentary Lifestyle

**Risk Factors for Coronary
Artery Disease**

- Age, years
 Male > 45
 Female > 55
- Family history of premature CAD (<55 years of age in father or first-degree male relative, < 65 years of age in mother or first-degree female relative)

**Risk Factors for Coronary
Artery Disease**

- Cigarette smoking (current or quit < 12 years ago)
- Hypertension (BP 140/90 mm Hg) or on treatment for hypertension
- Increased LDL cholesterol (LDL cholesterol > 130 mg/dL)
- Low HDL cholesterol (HDL cholesterol < 35 mg/dL)

Risk Factors for Coronary Artery Disease

- Diabetes mellitus (treated or not)
- Negative risk factors-High HDL cholesterol (HDL cholesterol > 60 mg/dL)*

* Subtract one from the number of positive risk factors if high HDL cholesterol is present

Risk Factors for Coronary Artery Disease In African American Population

- Left Ventricle Hypertrophy
- Microalbuminuria

Novelty Risk Factors

- Fibrinogen
- C-Reactive Protein
- Hyperhomocysteinemia
- Chlamydia pneumonia (IgG antibodies)

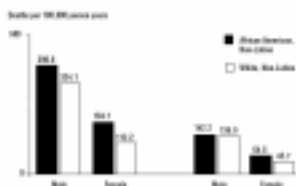
Prevalence of Coronary Artery Disease

- More than half a million patients are hospitalized in the United States annually with unstable angina.
- Currently, a typical North American has at least a 20% likelihood that clinical coronary artery disease will develop before age 60.

Prevalence of Coronary Artery Disease

- Each year, 350,000 patients develop class II heart failure, principally as a consequence of coronary atherosclerosis.
- The cost of treating heart disease in the U.S. exceeds 50 billion dollars annually.

Figure 1
Heart Disease Death Rates for Adults 25-64,
by Income, Race and Gender, 1979-1999



Heart disease is a leading cause of death in the U.S. Heart disease mortality rates for adults 25-64 are almost twice as high among African Americans as among whites. When heart disease mortality is examined by a measure of socioeconomic conditions, differences between African Americans and whites are reduced but not eliminated. Moreover, the disparity by income is larger than by race. African American men with family incomes less than \$10,000 have a heart disease mortality rate that is nearly three times that of their counterparts with incomes greater than \$15,000.

Healthy People 2010

African American Population's Risk of Morbidity/Mortality Higher Out-of-Hospital Mortality Rate

- Higher incidence of sudden cardiac death
- African-American women have higher post infarct mortality rate than the other three gender/race groups
- Higher in-hospital mortality rate after first infarct
- Prevalence of three vessel CAD in African American females is approximately 19.4%

The Paradox of Coronary Heart Disease in African American Women

- Coronary heart disease is the leading cause of death in African American and women groups
- Women between the ages of 25 and 44 relative to similarly matched white women, the CHD mortality risk ratio is approximately 2.5

J Natl Med Ass 2000. 92: 327-333

The Paradox of Coronary Heart Disease in African American Women

- First infarct event occurs at an earlier age in the African-American population
- Least likely to be referred for cardiac catheterization
- Physician referral bias is one of the most difficult hurdles to overcome

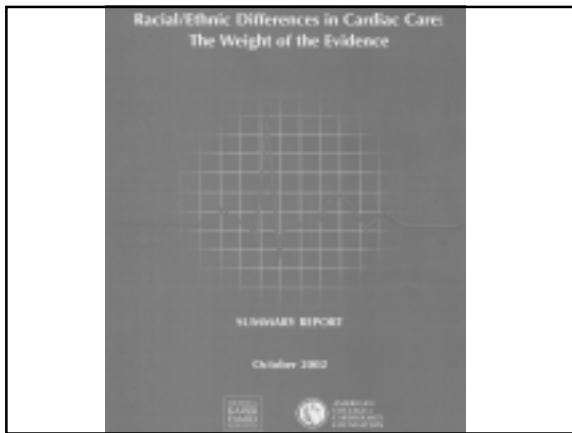
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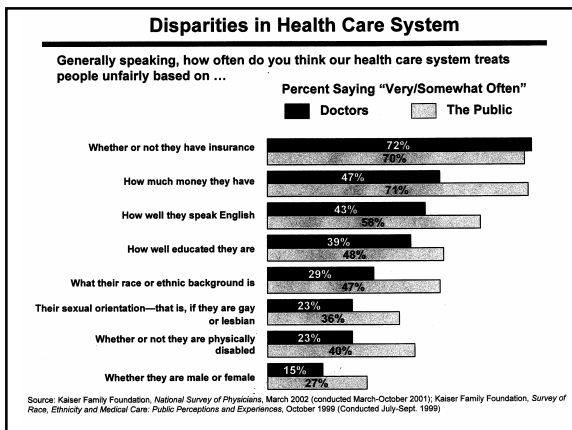
The Paradox of Coronary Heart Disease in African American Women

When disease is present it is significant and prognosis is poor

This is the African American women's Paradox

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Evidence Based Medicine

Objectives of Study

- To assess the extent to which there is credible evidence or racial/ethnic differences in cardiac care, after controlling for factors known to explain variations in medical care
- To summarize the research findings in a way that make the information easily accessible to a physician audience

Kaiser Family Foundation

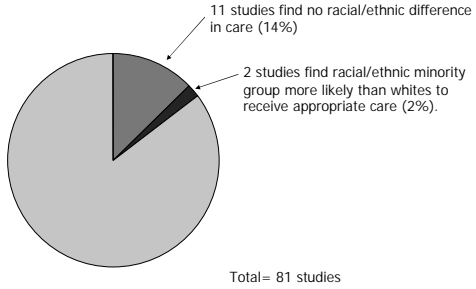
Inclusion Criteria

- Conducted in the U.S.
- Published in peer reviewed journals
- Primary purpose was to study racial/ethnic differences in cardiac care
- Reported original findings
- Presented quantitative and comparative data
- Identified specific racial/ethnic groups for comparison to whites

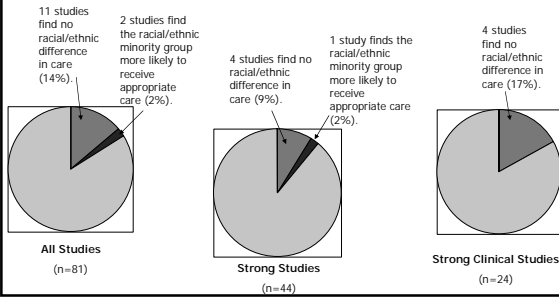
The Body of Evidence

- 81 of the 158 studies produced from search met the inclusion criteria and comprised the body of evidence
- Most of the studies investigate more than one cardiac procedure or treatment
- The majority of the studies are methodologically strong, include recent data, are based on clinical data, and compare African Americans to whites

Evidence of Racial/Ethnic Differences in Cardiac Care, 1984-2001

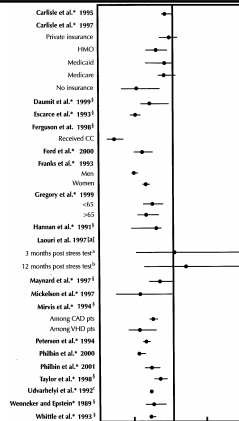


Evidence of Racial/Ethnic Differences in Cardiac Care, 1984-2001

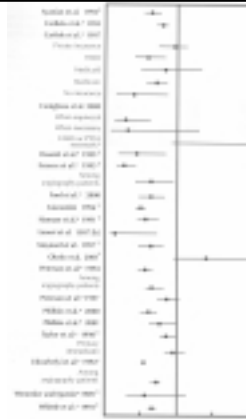


Odds Ratio for Selected Strong Studies:

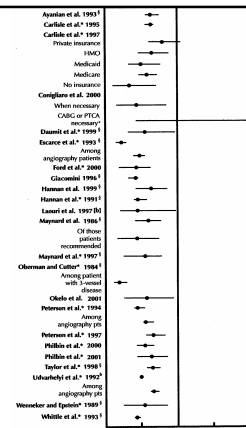
Diagnostic Procedures (African American / Whites)



Odds Ratio for Selected Strong Studies:
PTCA (African Americans / Whites)



Odd Ratios for Selected Strong Studies:
CABG (African Americans / Whites)



Weight of the Evidence

- African Americans are less likely than whites to receive catheterization, angioplasty, bypass surgery and thrombolytic therapy
- These racial/ethnic differences in care remain after adjustment for clinical and socioeconomic factors
- Evidence of disparities in other procedures and treatments is mixed
- Data on Latinos, Asians and Native Americans is limited

“Children Should Know Their
Grandparents and Become
GREAT Grandparents
Themselves”

ABC

ASSOCIATION OF BLACK CARDIOLOGISTS, INC.
