

Translating Research into Health Equity

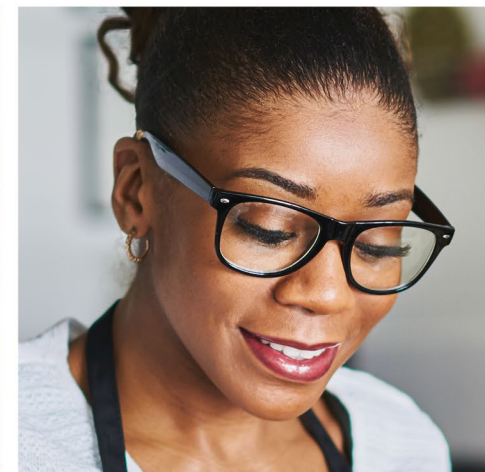
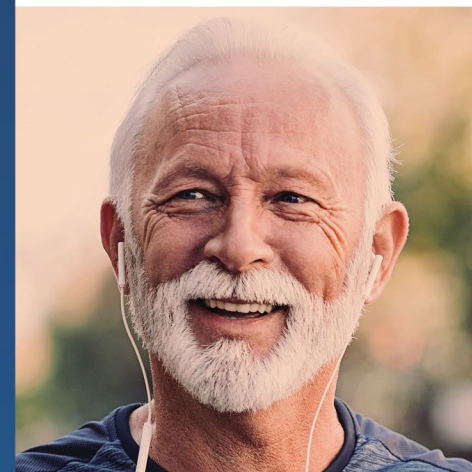
George A. Mensah, MD, FACC, FAHA

Presented at the 20th Anniversary of UAB Minority
Health & Health Disparities Research Center

September 8, 2021



National Institutes of Health
Community Engagement Alliance



Translating Research into Health Equity

The Strategic Vision, Goals, and Objectives at NHLBI



The NHLBI Strategic Vision



1

Understand normal biological function and resilience

2

Investigate newly discovered pathobiological mechanisms important to the onset and progression of HLBS diseases

3

Investigate factors that account for differences in health among populations

4

Identify factors that account for individual differences in pathobiology and in responses to treatments

5

Develop and optimize novel diagnostic and therapeutic strategies to prevent, treat, and cure HLBS diseases

6

Optimize clinical and implementation research to improve health and reduce disease

7

Leverage emerging opportunities in data science to open new frontiers in HLBS research

8

Further develop, diversify, and sustain a scientific workforce capable of accomplishing the NHLBI's mission

Translating Research into Health Equity

The Bottom Line Up Front (BLUF)

1. Know your local-level data and use it to inform action and monitor progress.
2. Go beyond individual-level factors; embrace the socioecological model.
3. Address social determinants of health (SDOH).
4. Identify and address root causes.
5. Address structural racism and other institutionalized practices that lead to inequities.
6. Engage with and learn from underserved communities.
7. Address misinformation & mistrust.
8. Empower communities to address disproportionate risk exposures.
9. Form strategic multi-disciplinary & multi-sectoral partnerships.
10. Prioritize dissemination and implementation research.

Important National Resources on Healthcare Quality & Disparities

2021



National Healthcare Quality and Disparities Report



Health, United States

- 2019 -



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

Health, United States Spotlight Racial and Ethnic Disparities in Heart Disease April 2019



Heart disease is the leading cause of death in the United States, and risk of heart disease death differs by race and ethnicity.

This Spotlight explores racial and ethnic disparities in three heart disease topic areas: deaths, reported prevalence, and risk factors. Even though four clinical risk factors—hypertension, obesity, diabetes, and high total cholesterol—are explored here, behavioral risk factors, such as smoking and physical inactivity, also differ by race and ethnicity^{1,2,3}.

Heart disease topic areas



Racial and ethnic groups

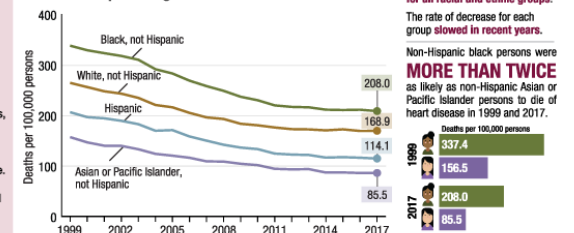


DEATHS

SOURCE
National Center for Health Statistics (NCHS), National Vital Statistics System (NVSS).

NOTES
Data for racial and ethnic groups, other than non-Hispanic white and non-Hispanic black, are subject to inconsistencies in reporting on the death certificate. However, misclassification is generally minor for Hispanic and non-Hispanic Asian or Pacific Islander groups.

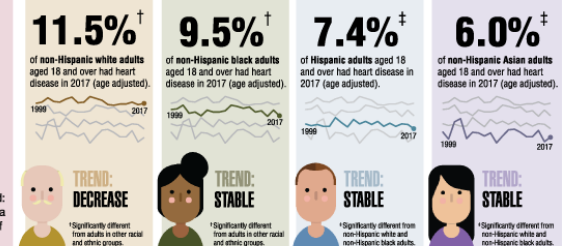
Age-adjusted death rates for heart disease, by race and Hispanic origin: 1999–2017



PREVALENCE

SOURCE
NCHS, National Health Interview Survey (NHIS).

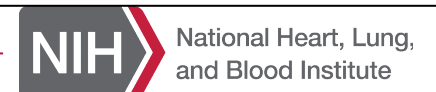
NOTES
Prevalence was reported by respondents. In separate questions, they were asked whether a health professional had ever told them that they had: coronary heart disease, angina, a heart attack, or any other kind of heart condition or disease.



1. Centers for Disease Control and Prevention. Heart disease risk factors. Atlanta, GA. Available from: https://www.cdc.gov/heartdisease/risk_factors.htm.
2. Mura R, Siegel C, Rabeck M, et al. CDC Grand Rounds: A public health approach to detect and control hypertension. *MMWR Morbidity and Mortality Weekly Report* 65(45): 2016.
3. Wall HK, Wilkey MD, Gillette C, Omsw JD, Jamil A, George MD. Vital signs: Prevalence of key cardiovascular disease risk factors for Million Hearts 2022—United States, 2011–2016. *MMWR Morbidity and Mortality Weekly Report* 67(25): 2018.

<https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqdr/2021qdr.pdf>

https://www.cdc.gov/nchs/hs/hs_infographic.htm; <https://www.cdc.gov/nchs/hs/index.htm>



Explore Health, United States, 2020-2021

Births



Deaths



Health risk factors



Chronic conditions



Infectious diseases



Health care use



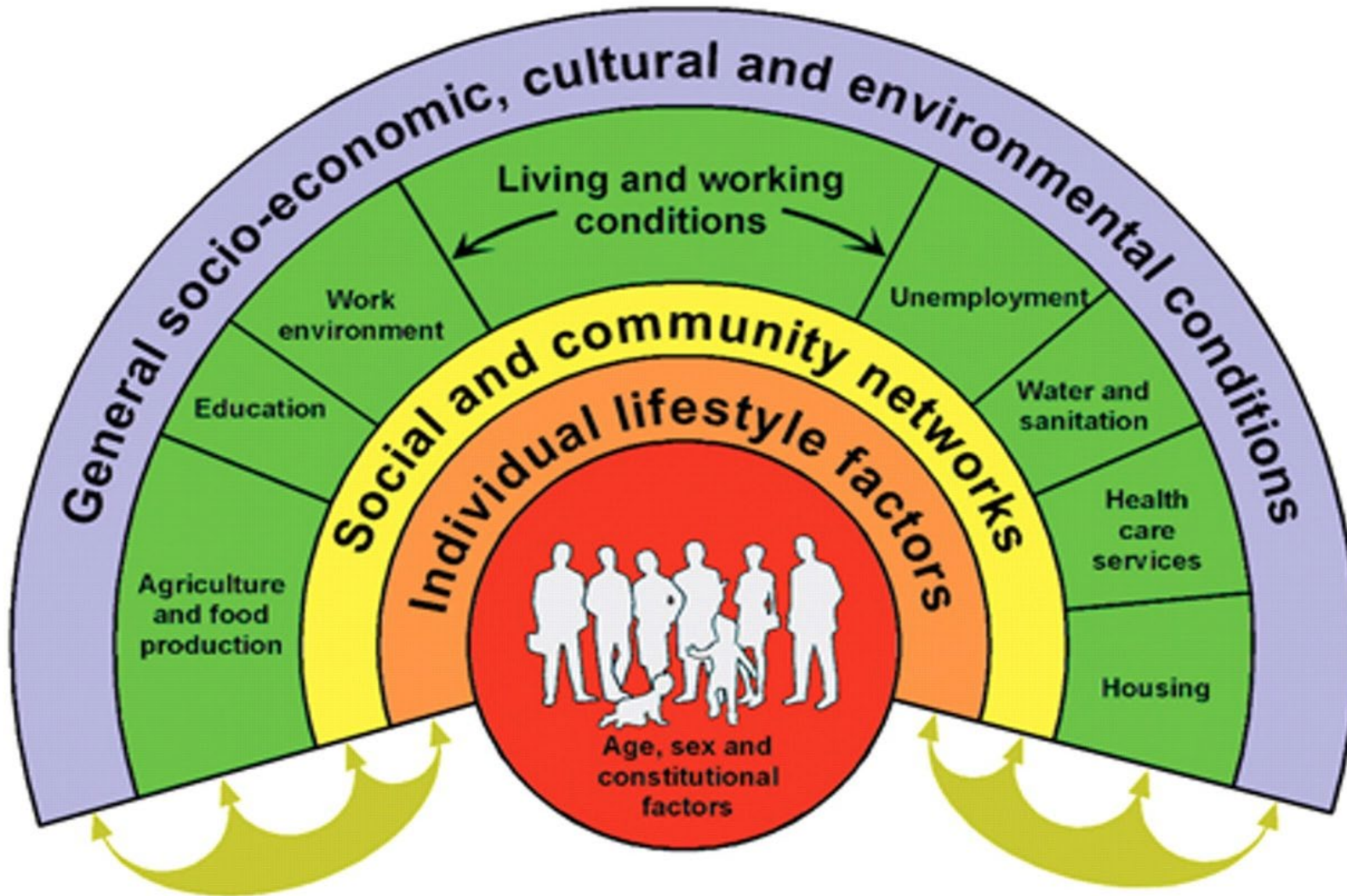
Health care access



Health expenditures



Embrace the socioecological model



LEVELS

1. Individual
2. Relationship
3. Community
4. Societal

Social Determinants of Health are Important



Education



Social support



Our communities



Access to health services



Childhood experiences



Housing

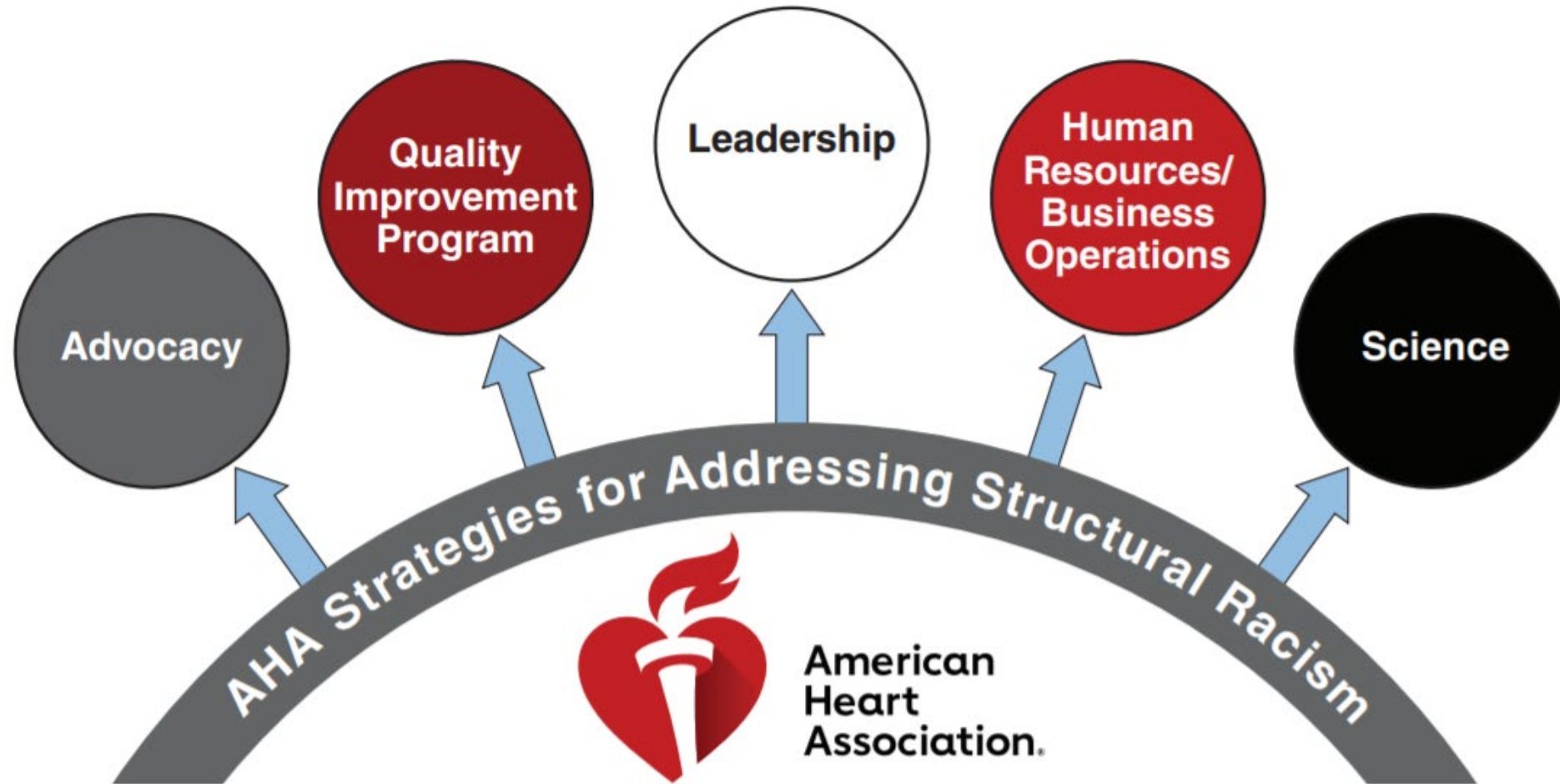


Family income

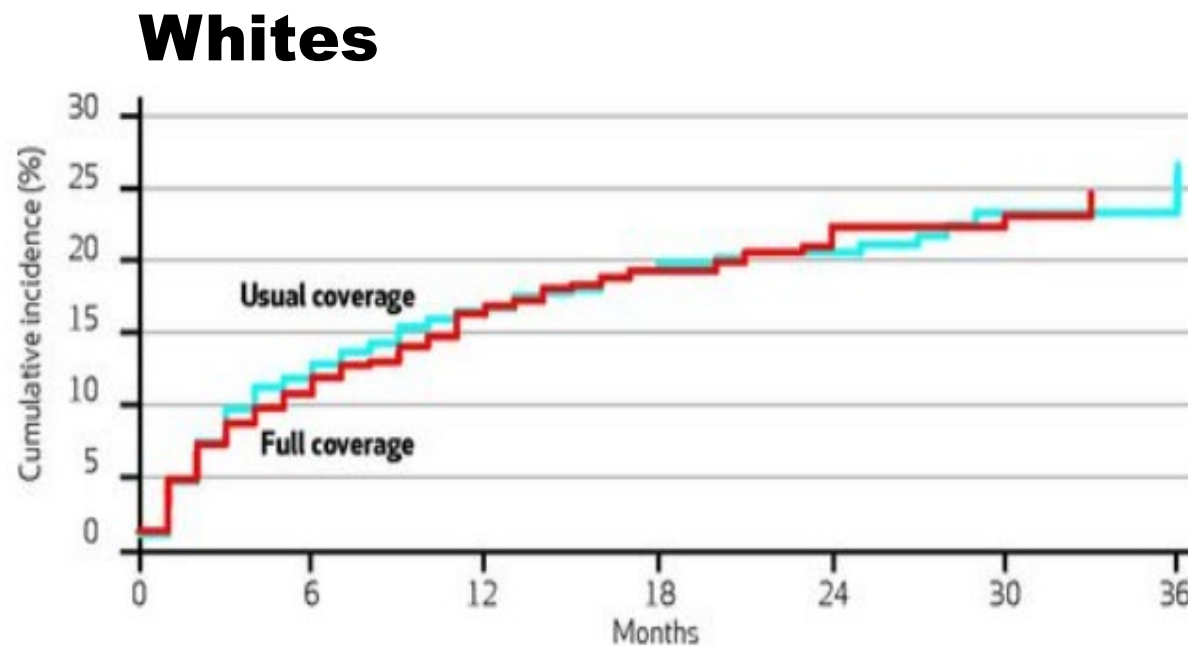
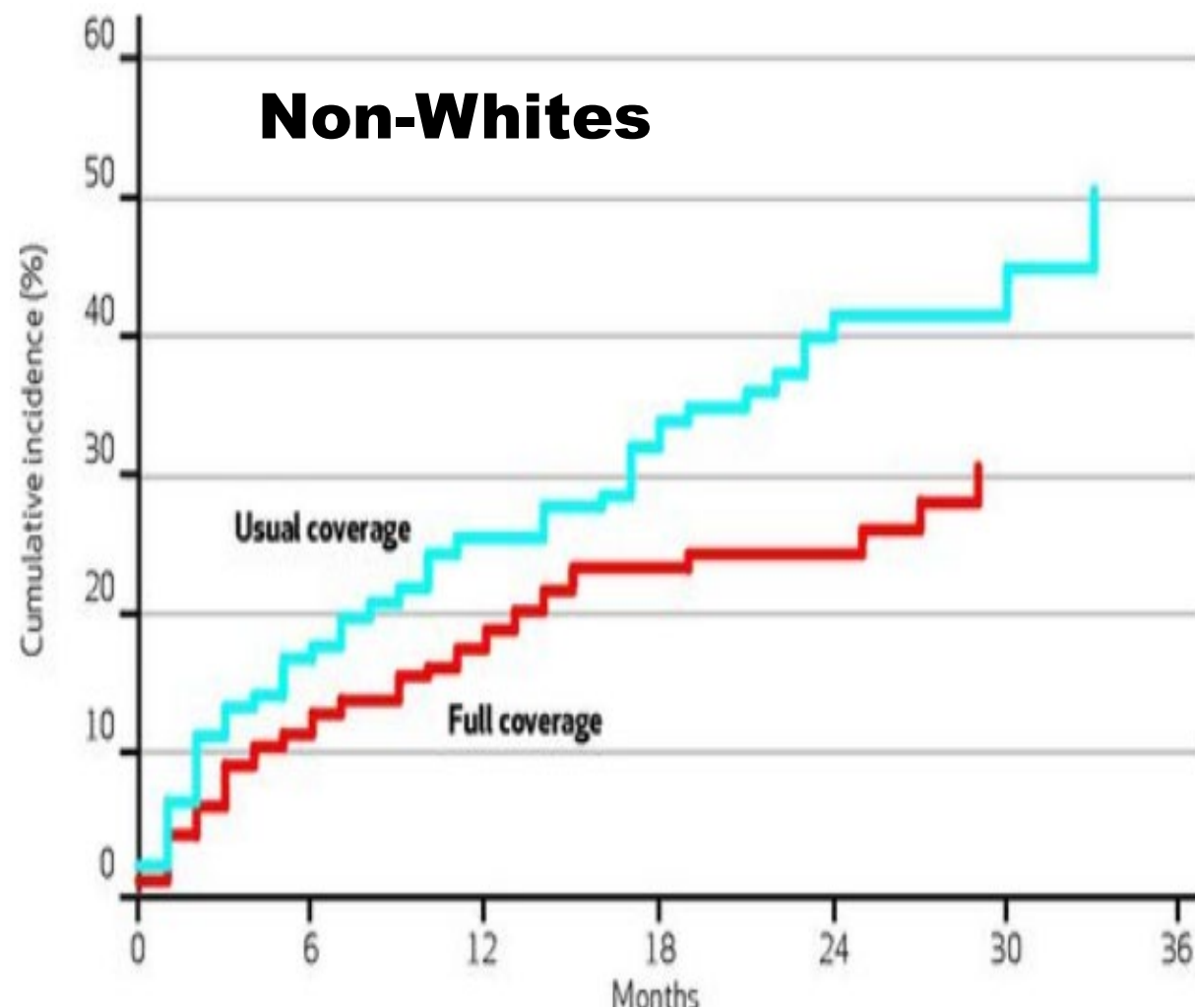


Employment

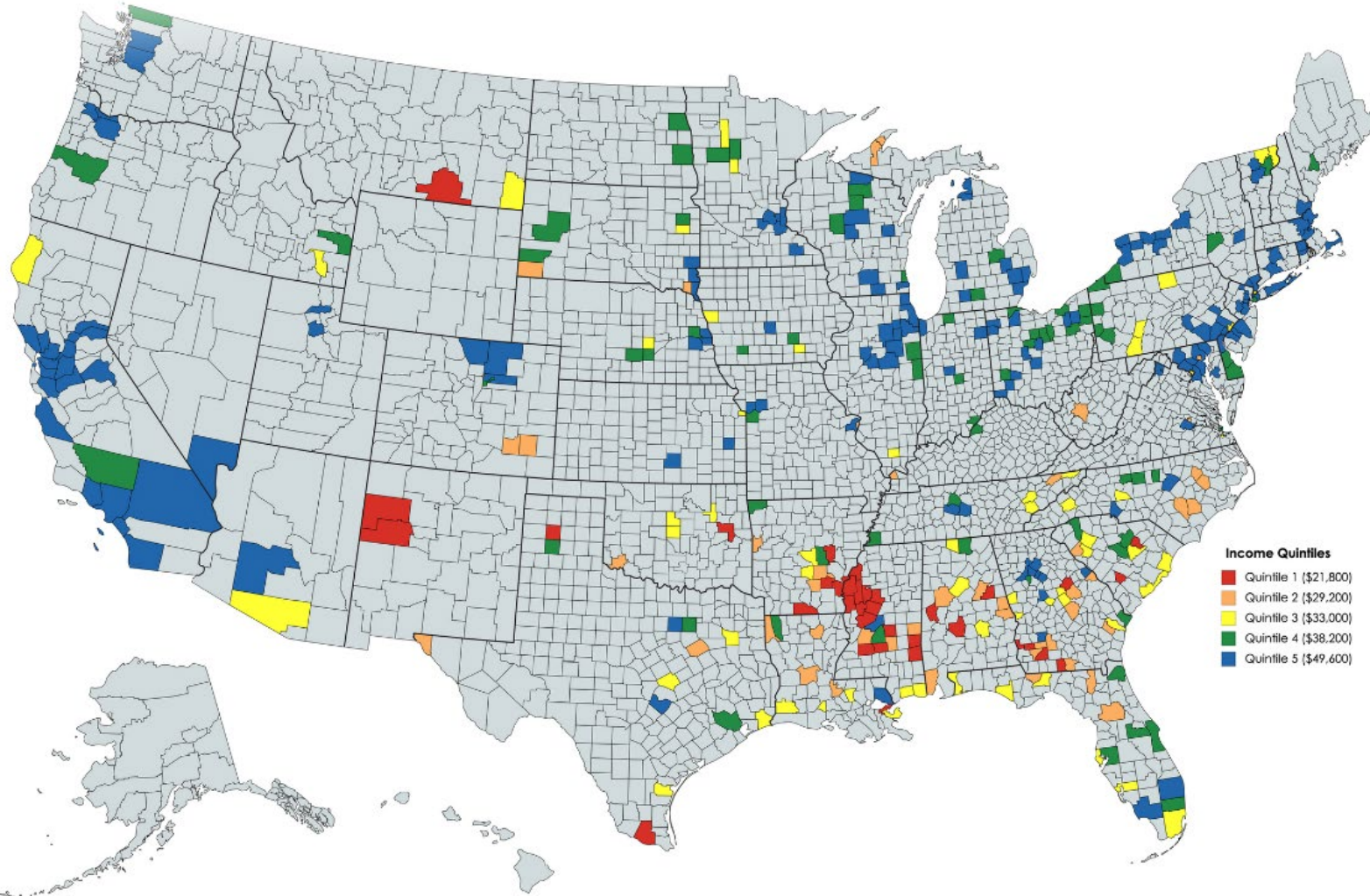
Important to Address Structural Racism



Eliminating medication copayments reduced disparities in cumulative incidence of first major vascular event or revascularization in Whites and Non-Whites



Socioeconomic context is important and impacts several cardiovascular outcomes despite equal treatment; US, ALLHAT



N = 27,862 qualifying participants

Quintile 1 (Red) N = 2169 (7.8%)

- More likely to be women, to be black, to be Hispanic, to have fewer years of education, to live in the South, and to have fewer CVD risk factors.

After adjusting for baseline demographic and clinical characteristics, Quintile 1:

- Less likely to achieve BP control (OR 0.48); greater all-cause mortality (HR: 1.25); heart failure hospitalizations/mortality (HR, 1.26); ESRD (HR:1.86); **but lower** angina hospitalizations (HR, 0.70) and coronary revascularization (HR, 0.71).

LEAVES

Symptoms and results we see every day



STORMS

Like COVID-19, these damage systems



ROOTS

Often unseen policies and investments



GROUNDWATER

Deep, unseen ideology that feeds the system

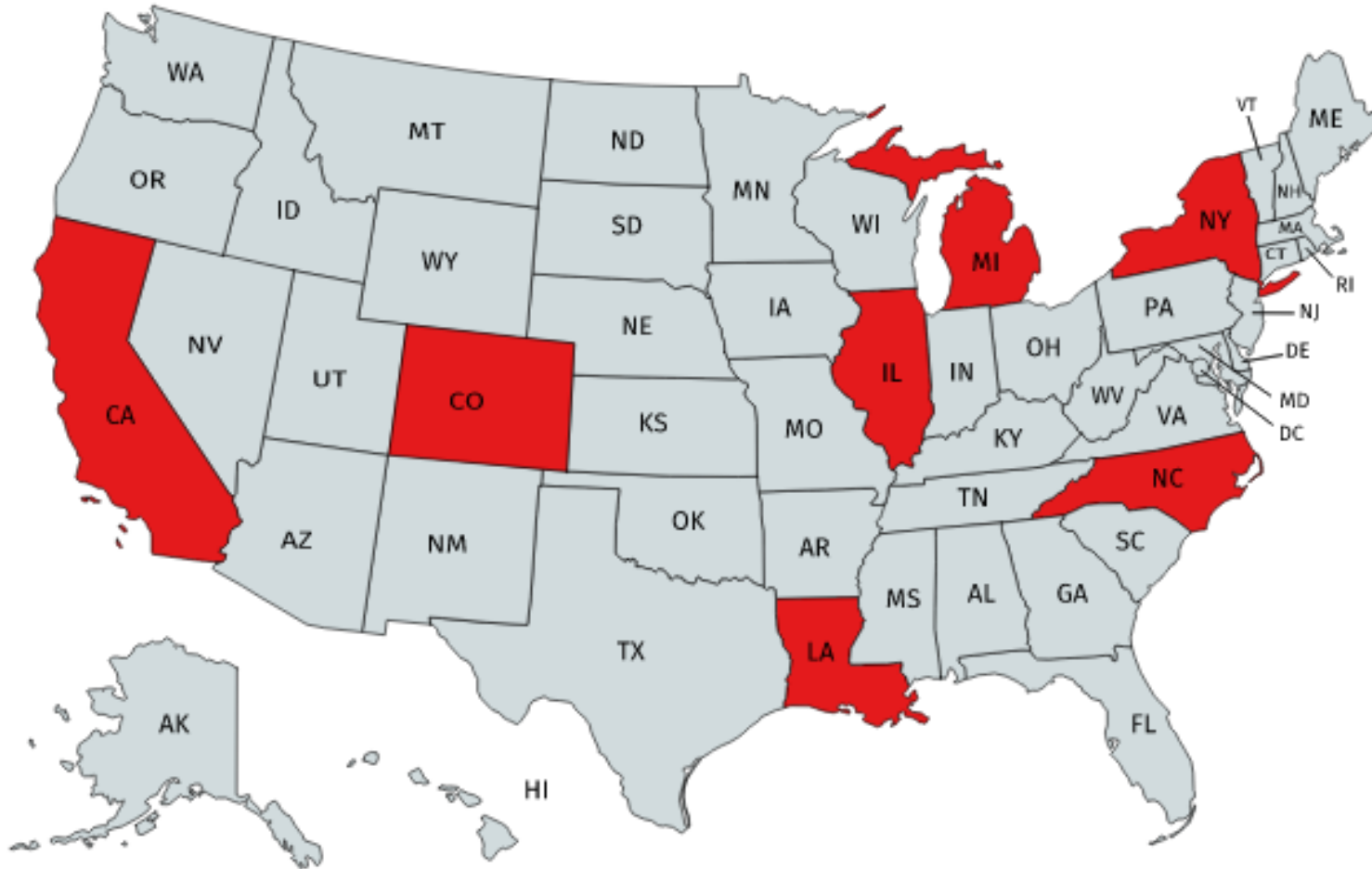


Reducing Cardiovascular Disparities Through Community-Engaged Implementation Research

A National Heart, Lung, and Blood Institute Workshop Report

George A. Mensah, Richard S. Cooper, Anna Maria Siega-Riz, Lisa A. Cooper, Justin D. Smith, C. Hendricks Brown, John M. Westfall, Elizabeth O. Ofili, LeShawndra N. Price, Sonia Arteaga, Melissa C. Green Parker, Cheryl R. Nelson, Bradley J. Newsome, Nicole Redmond, Rebecca A. Roper, Bettina M. Beech, Jada L. Brooks, Debra Furr-Holden, Samson Y. Gebreab, Wayne H. Giles, Regina Smith James, Tené T. Lewis, Ali H. Mokdad, Kari D. Moore, Joseph E. Ravenell, Al Richmond, Nancy E. Schoenberg, Mario Sims, Gopal K. Singh, Anne E. Sumner, Roberto P. Treviño, Karriem S. Watson, M. Larissa Avilés-Santa, Jared P. Reis, Charlotte A. Pratt, Michael M. Engelgau, David C. Goff Jr, Eliseo J. Pérez-Stable

NHLBI DECIPHeR Alliance and Grantees



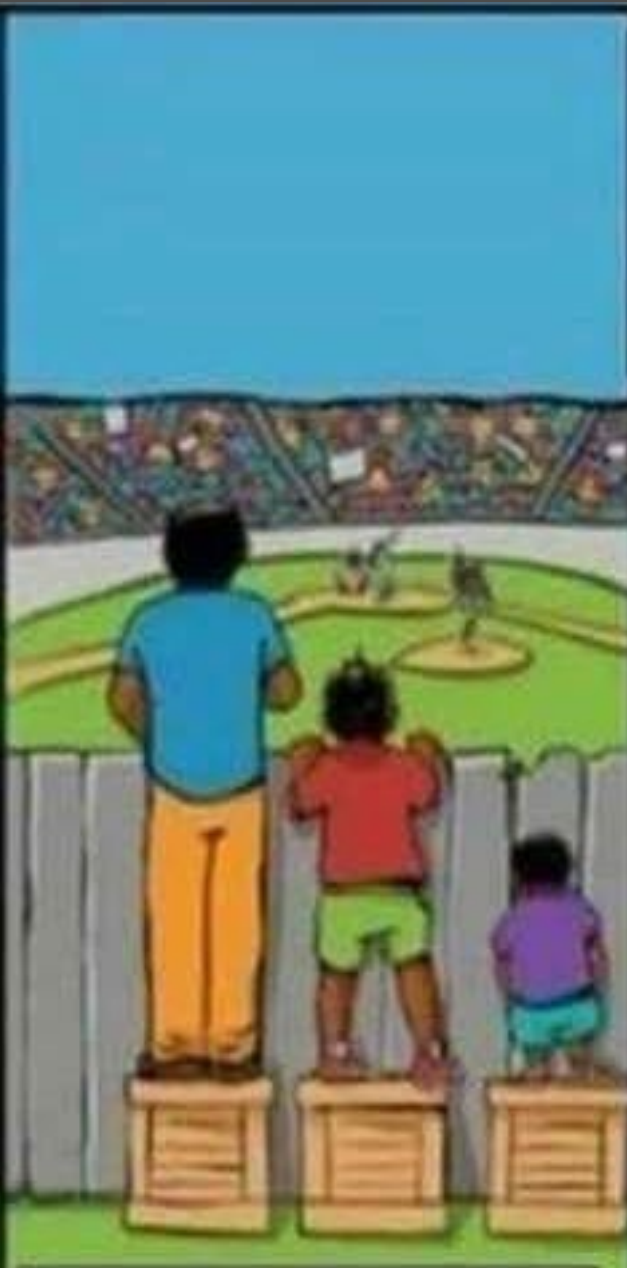
DECIPHeR Grantees

1. UCLA, CA
2. University of Colorado Denver, CO
3. University of Illinois at Chicago, IL
4. University of Michigan, MI
5. Northwestern Univ. at Chicago, IL
6. NYU School of Medicine, NY
7. Tulane University, LA
8. UNC, NC ([Coordinating Center](#))

POC: Dr. Paul Cotton



REALITY



EQUALITY



EQUITY



JUSTICE

Conclusions

1. Know your local-level data and use it to inform action and monitor progress
2. Go beyond individual-level factors; embrace the socioecological model
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and Blood Institute

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Improving health.**

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