# HEALTHCARE DISPARITIES AND QUALITY IMPROVEMENT

Alicia Fernandez, MD
University of California San Francisco
Zuckerberg San Francisco General

ZUCKERBERG
SAN FRANCISCO GENERAL
Hospital and Trauma Center

UCSF

# Outline

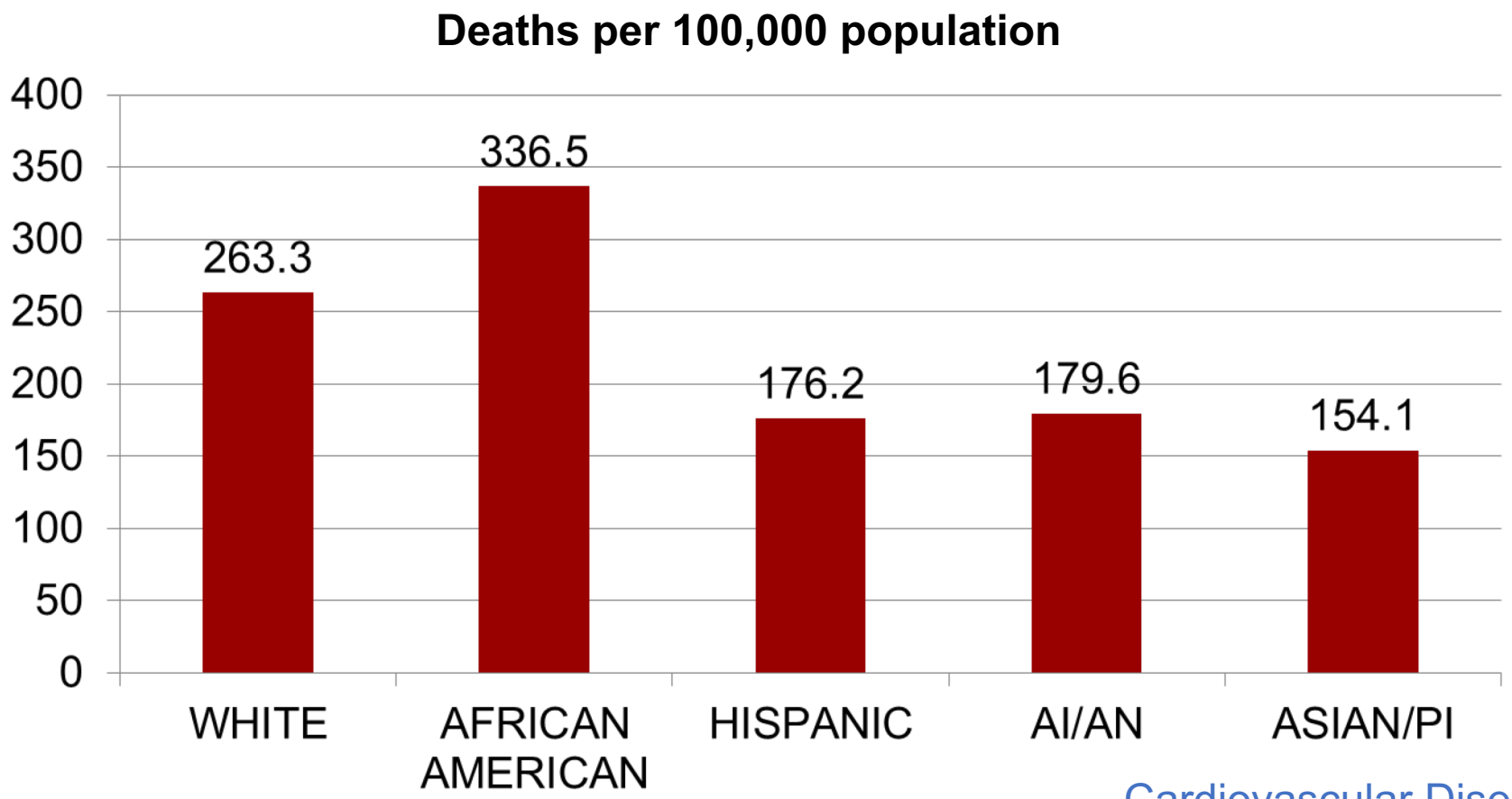
- Key definitions and conceptual model
- Current national evidence from AHRQ
- Relationship between QI and addressing healthcare disparities
- Best practices in addressing healthcare disparities

# Key Definitions

- Health Disparities: Potentially avoidable differences in health between populations that are related to social advantage/disadvantage.

- Healthcare Disparities: Differences in access, process and quality and of care that disadvantage a population and are not attributable to clinical needs, patient preferences, or appropriateness of an intervention.

# Health Disparity *or* Healthcare Disparity?




Cardiovascular Disease Death Rate

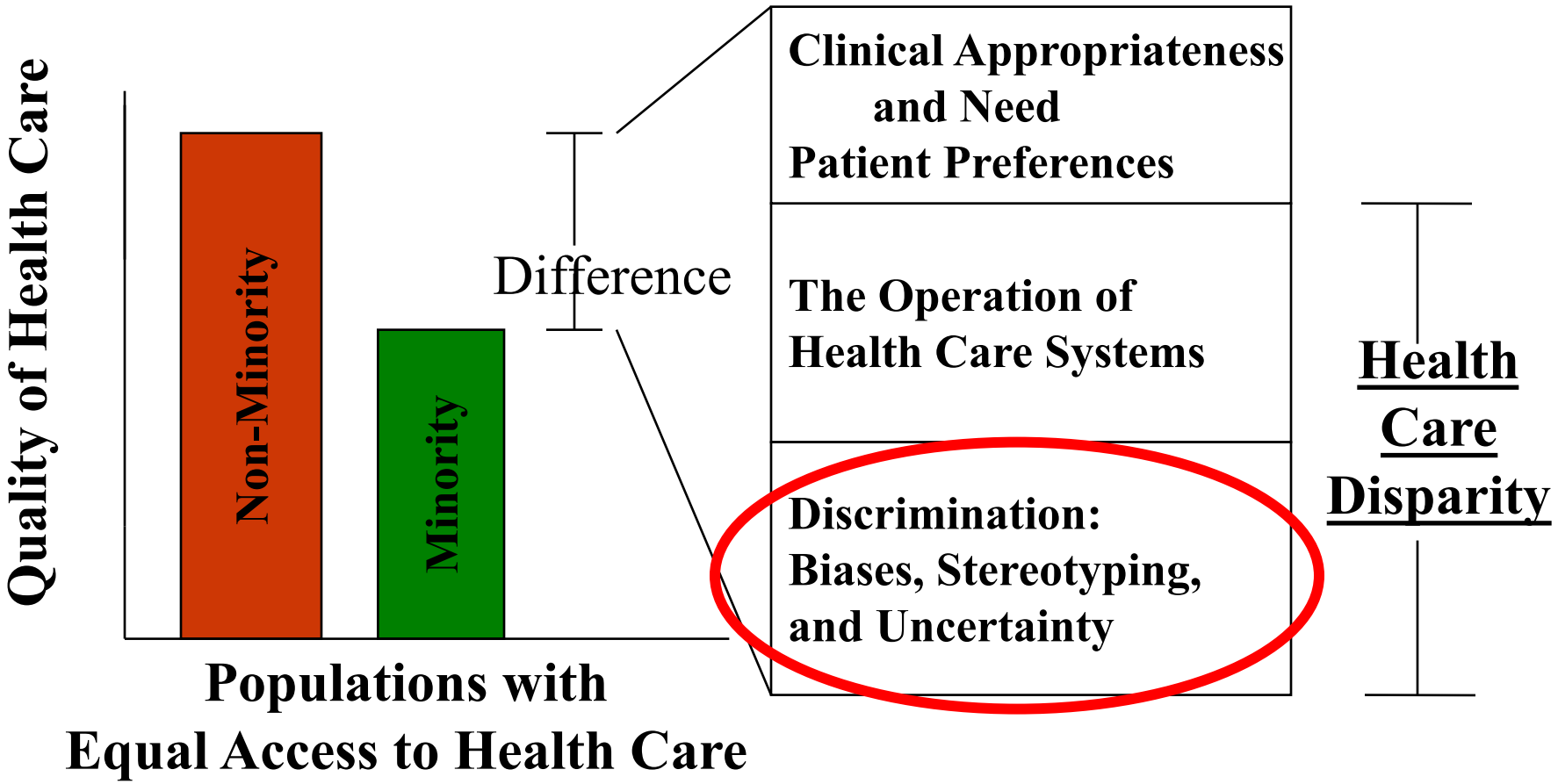
CDC, 2000

# Institute of Medicine Report, *Unequal Treatment,* 2003

- The evidence is “overwhelming”
- Disparities exist even when insurance status, income, age, and severity of conditions are comparable
- Minorities are less likely than whites to receive needed services
- Disparities contribute to worse outcomes in many cases
- Differences in treating heart disease, cancer, and HIV infection partly contribute to higher death rates for minorities

Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare, March 2003.

# What Explains Health Care Disparities?



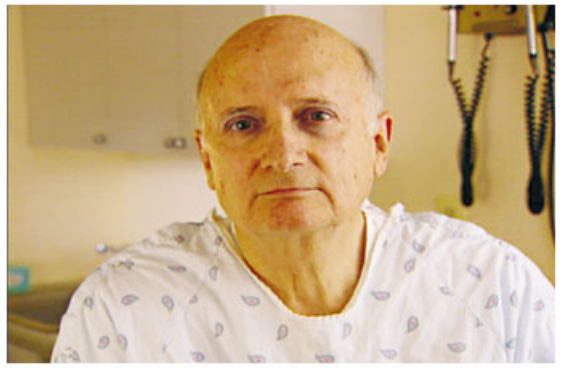

Gomes and McGuire, 2001

# Disparities in the Clinical Encounter: The Core Paradox

How could well-meaning and highly educated health professionals, working in their usual circumstances with diverse populations of patients, create a pattern of care that appears to be discriminatory?

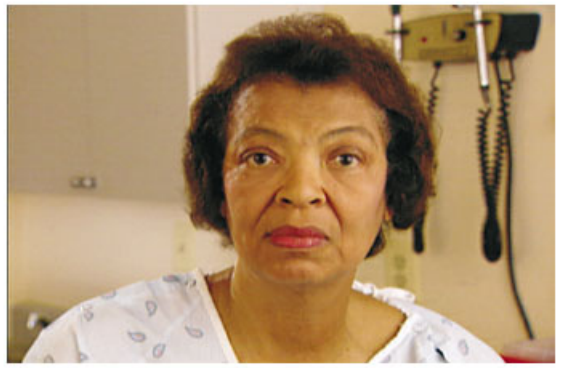
Unequal Treatment, 2003

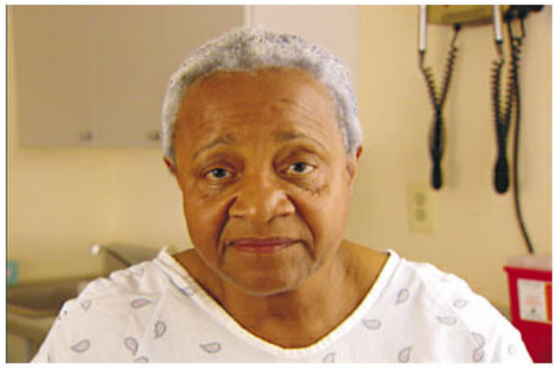
# “Patients” Experiencing Symptoms of Heart Disease, from Schulman et al. (1999)

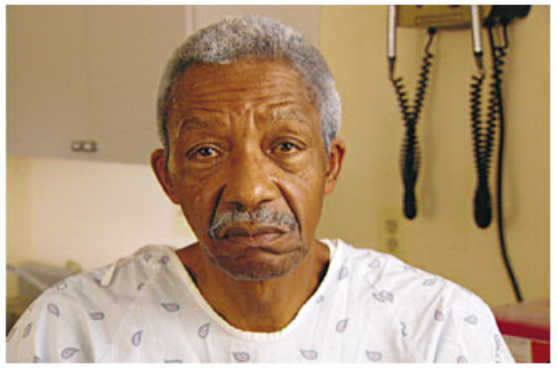


Shulman K, NEJM 1999

# “Patients” Experiencing Symptoms of Heart Disease, from Schulman et al. (1999)







Shulman K, NEJM 1999

# Schulman Summary

- Videotaped vignettes with 8 actors representing men/women, AA/whites, 55y/70y
- Convenience sample of physicians at ACP and ACC meetings
- All “patients” had identical script describing chest pain – outcome was decision to refer for angiography

| | Black | White |
|---|---|---|
| **Men** | | |
| Age 55 | 91% | 91% |
| Age 70 | 90% | 90% |
| **Women** | | |
| Age 55 | 84% | 92% |
| Age 70 | 73% ** | 89% |

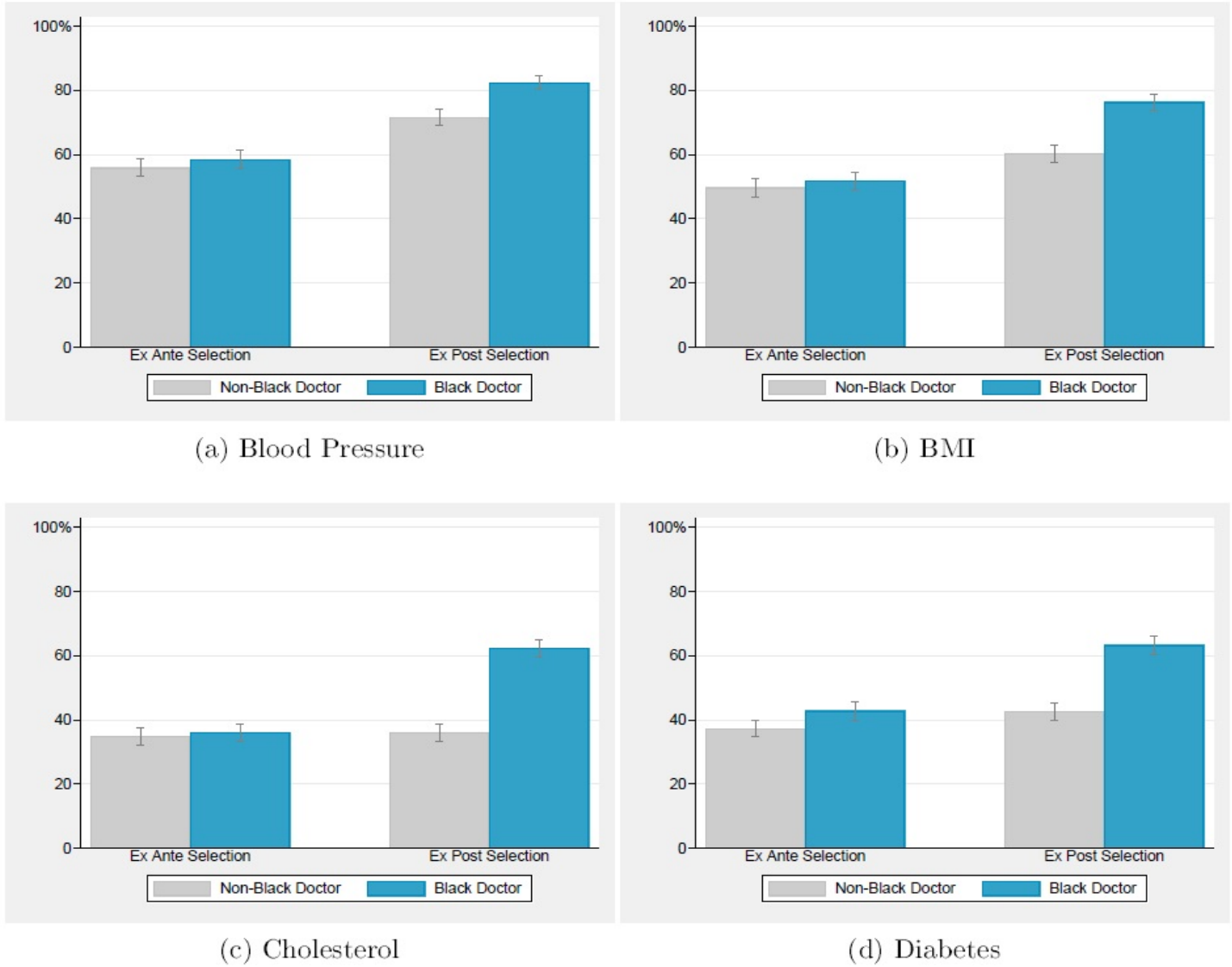
** p<0.01

Shulman, et al. NEJM 1999

# Physician race may make a difference

- Oakland study
- Black men surveyed before and after seeing physician
- More services selected after seeing Black MD
- Differences greater for invasive tests i.e. blood tests, flu shots

Figure 2: Demand for Preventives



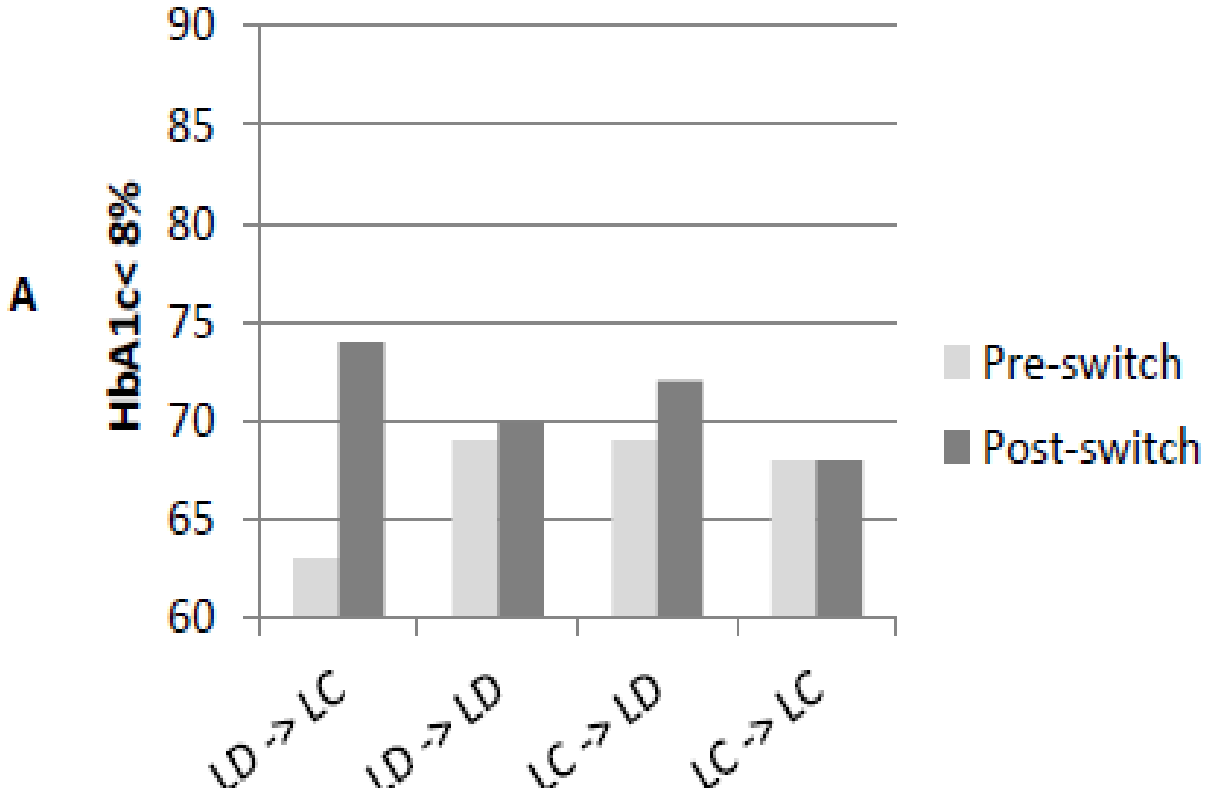

(a) Blood Pressure (b) BMI

(c) Cholesterol (d) Diabetes

Aslan M, Garrick O, Graziani G
NBER 24787 06/2018

# Physician language skills definitely matter for complex conditions

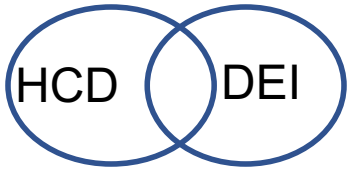
14% increase in glycemic control among Spanish speaking patients with diabetes who switched from a physician who did not speak Spanish (LD) to one who did



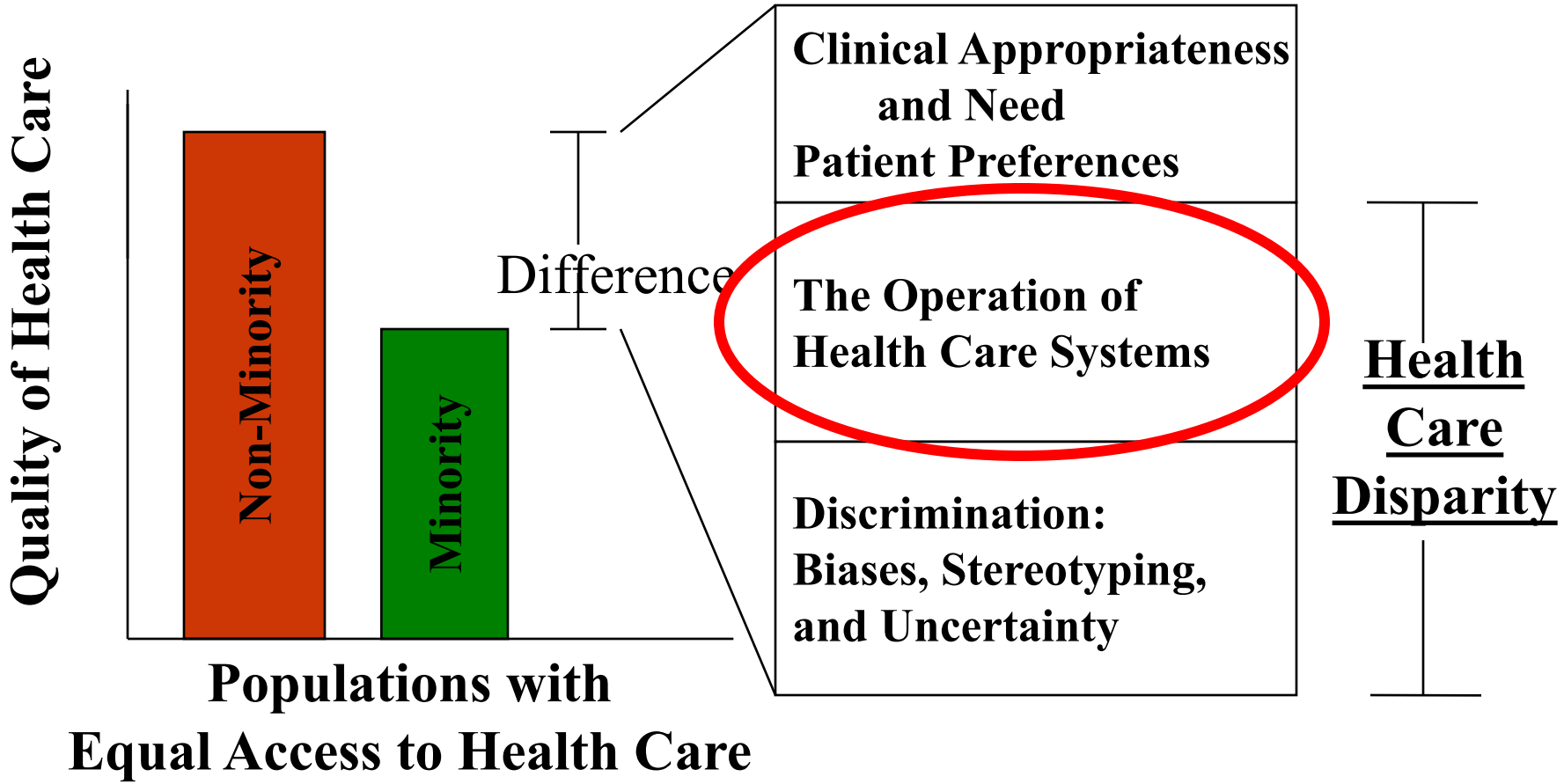

Parker, Fernandez, and Karter. *JAMA Intern Med*. 2017;177(3):380-387. doi:10.1001/jamainternmed.2016.8648

# Summary: Contribution of Clinicians

- Stereotypes and bias contribute to health disparities
- Bias is the norm and is not indicative of personal shortcomings
  >>> focus on “implicit bias” and diversity training
- Educational strategies can raise awareness, impart knowledge, and teach skills to address bias and disparities
- Increasing diversity of workforce is important
- Addressing health care disparities linked to diversity and inclusion initiatives



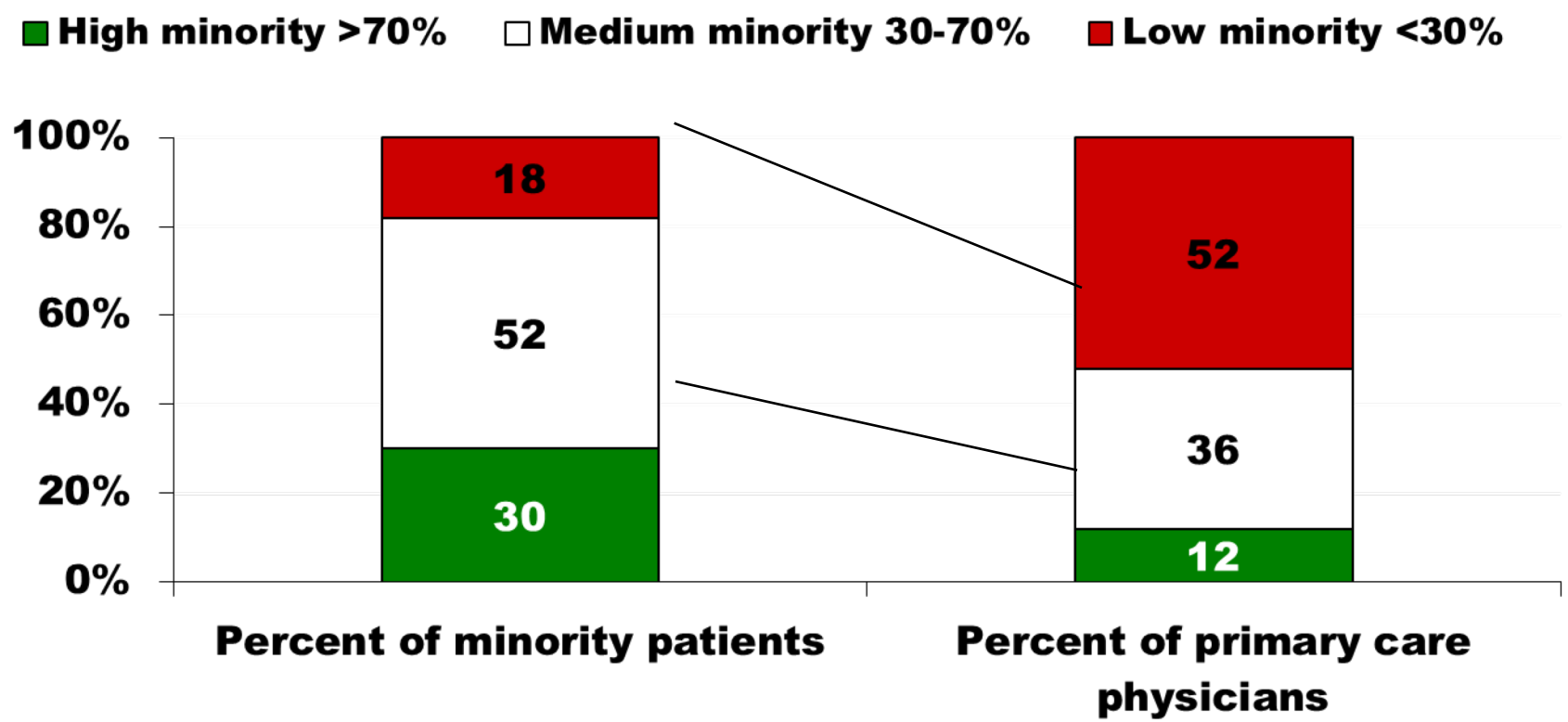
# What Explains Health Care Disparities?




Gomes and McGuire, 2001

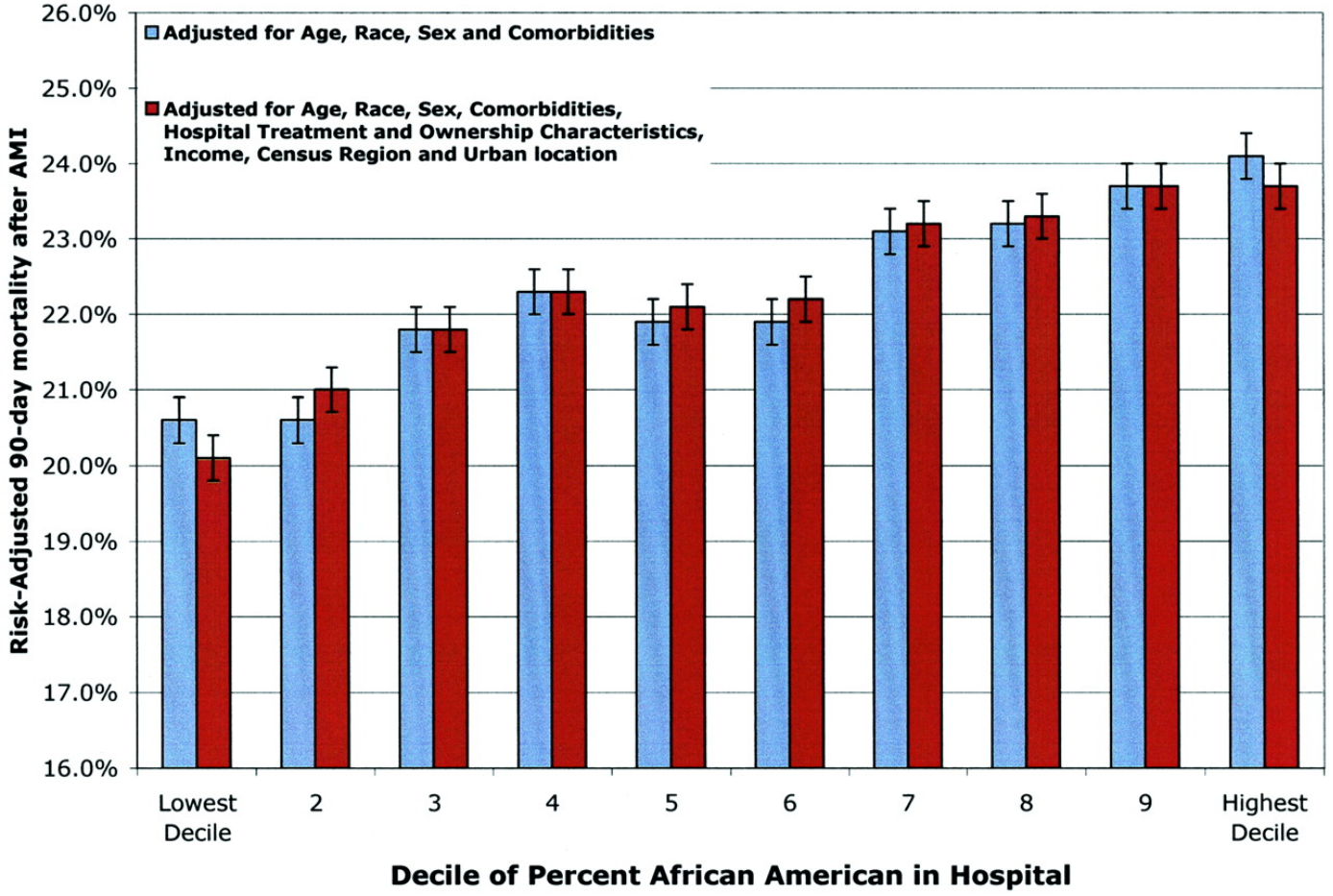
# Health Care is Highly Segregated

## 48% of Physicians Treat 82% Minority Patients




Source HSC Community Tracking Study Physician Survey, 2004-05.

# Hospitals that Disproportionately Treat Blacks with AMI Have Higher Mortality Rates




Skinner, J. et al. Circulation 2005;112:2634-2641

Circulation

# How Do Fragmented Systems of Care Contribute to Disparities?

- System deficits affect all segments of society, but **especially vulnerable patients**
- Disadvantaged patients **“fall through the cracks”** in complex system of care
- Small disparities in **multi-step processes** create moderate to large disparities overall
- Disparities arise even when **providers well intentioned**

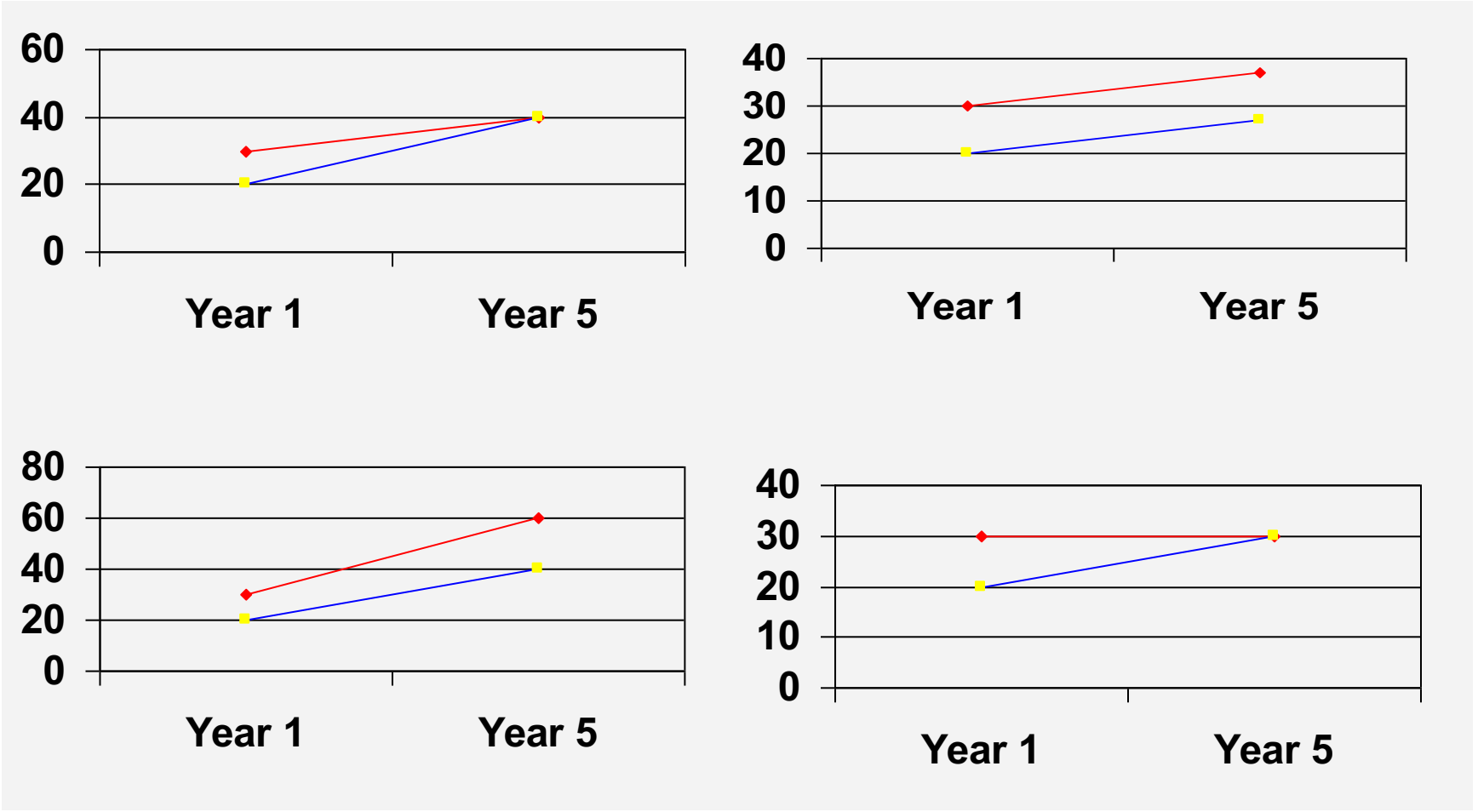
Are minority patients treated at different institutions/physicians OR are treated differently within the same institutions?

---

Both

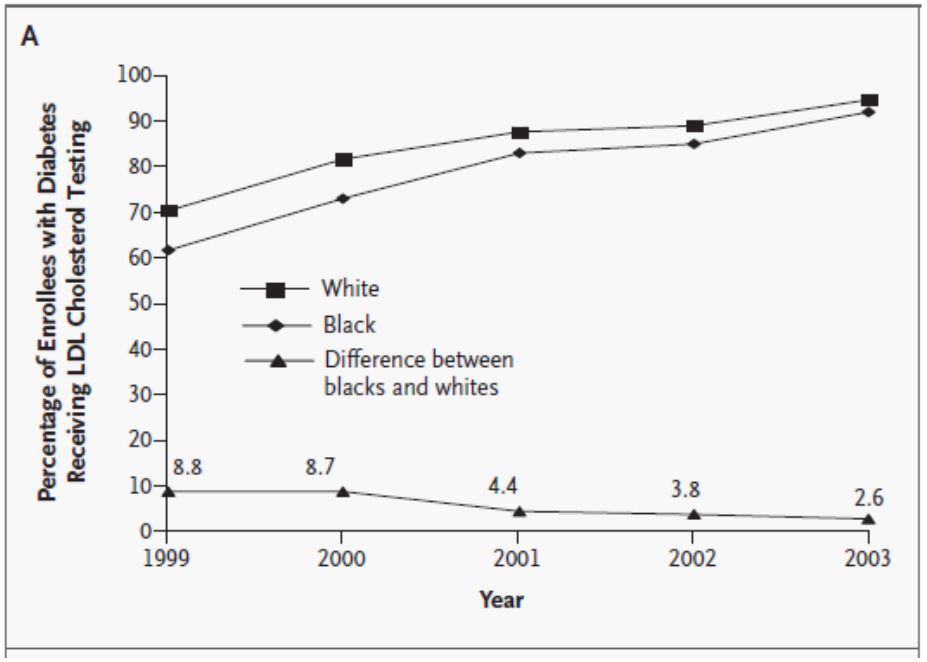
Can interventions at the hospital, health plan, or state level help eliminate health care disparities?

# Quality Improvement and Health Disparities

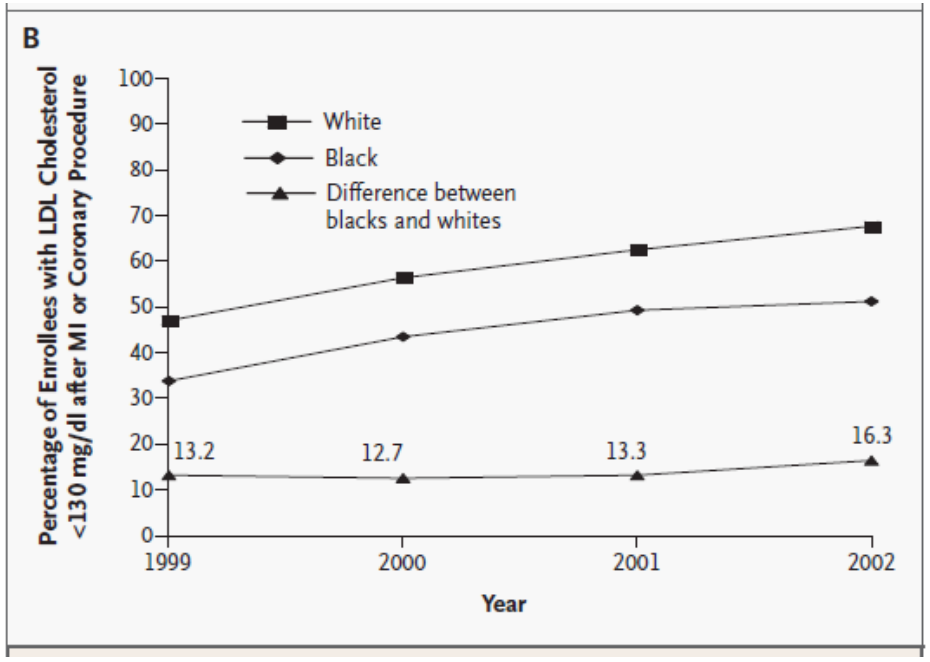


# Trends in Receipt of Two HEDIS Measures for Enrollees in Medicare Managed-Care Plans, by Race

**LDL TESTING**




**LDL CONTROL**

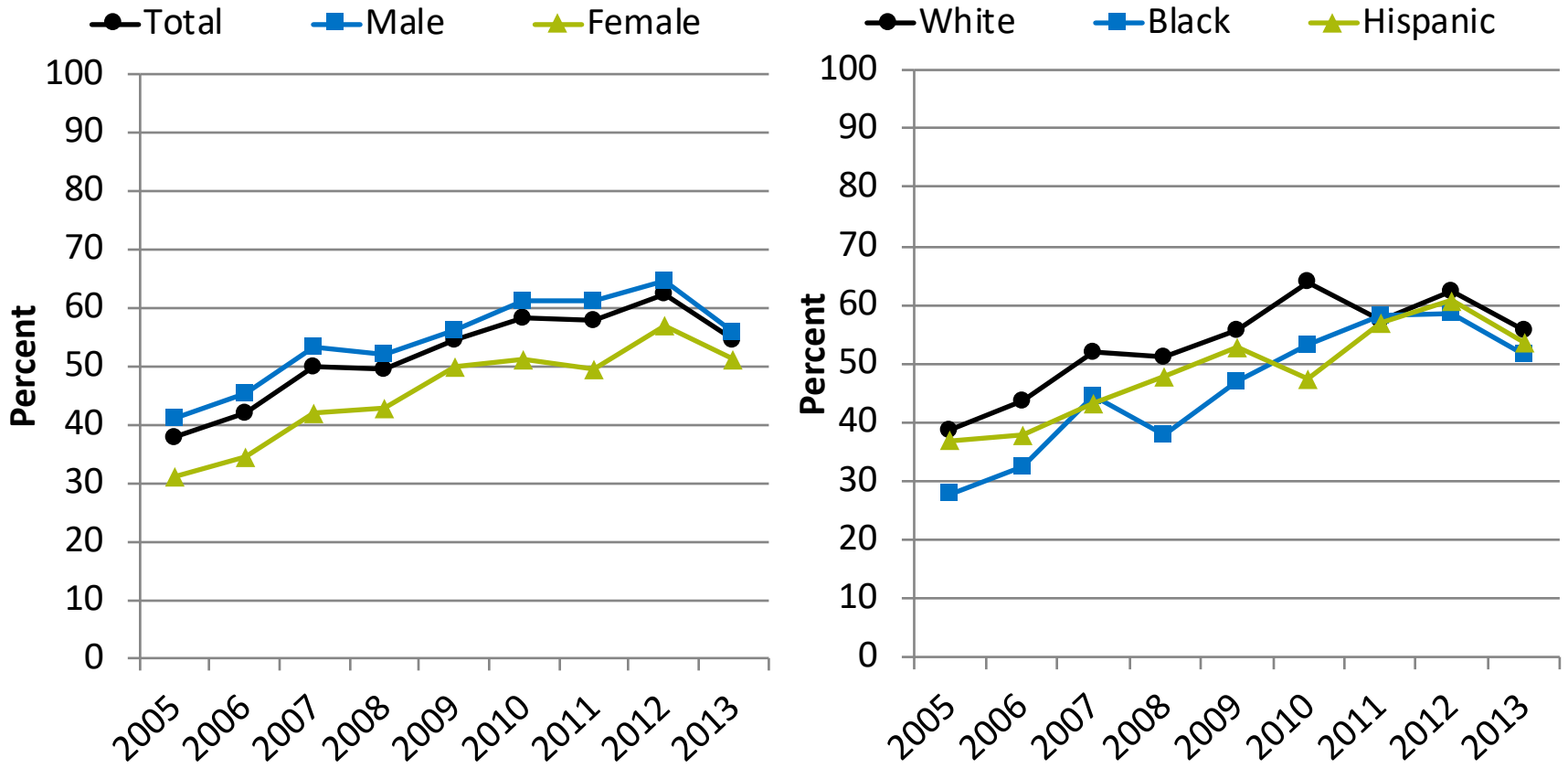



Trivedi, A. N.; NEJM, 2005

# Quality Improvement and Disparities

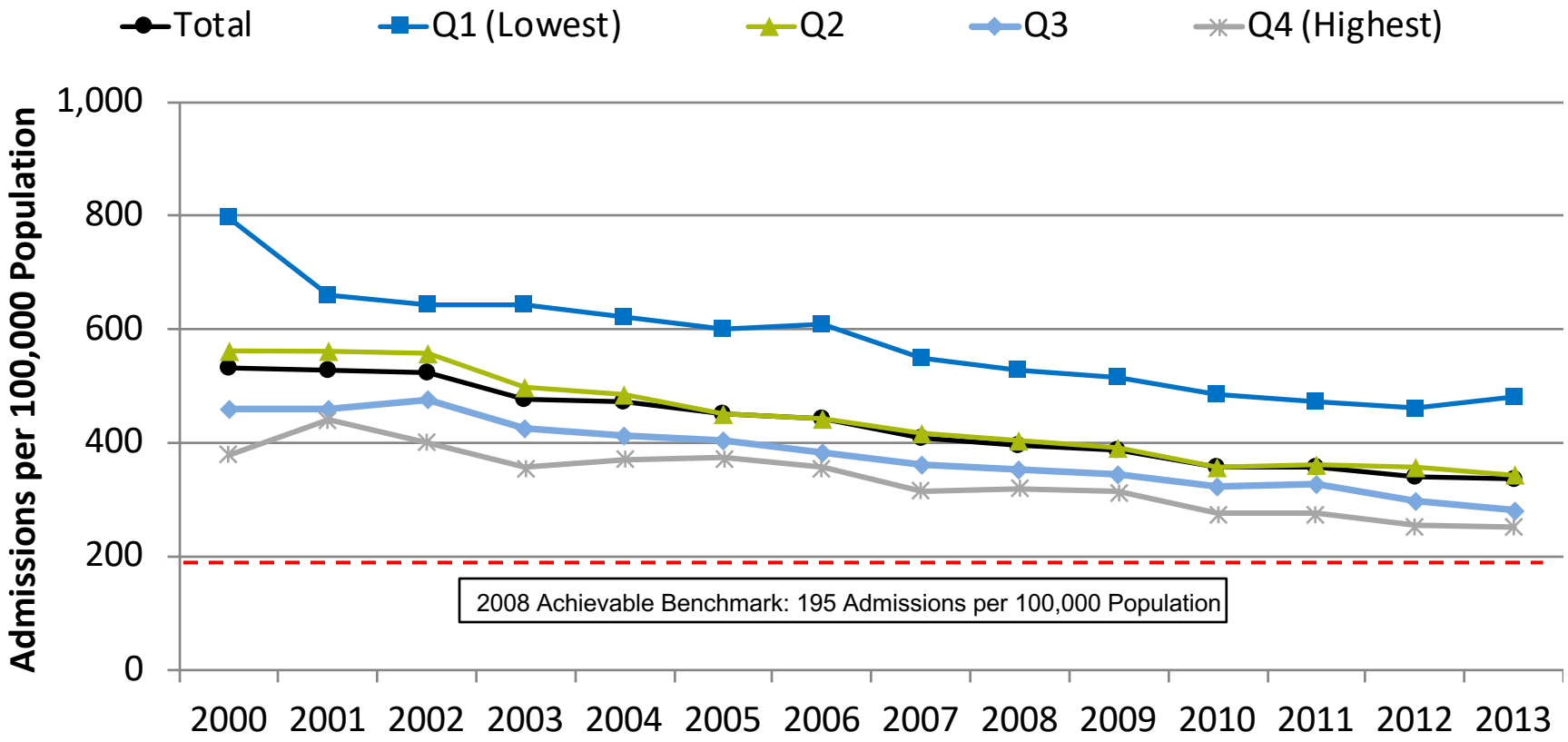
- QI  generally works
- Effect on disparities highly variable
- Generic programs probably less useful for addressing disparities
- Weak correlation between overall quality of care and size of disparities for a given system of care

# Hospital patients with heart attack given fibrinolytic medication within 30 minutes of arrival, by sex and race/ethnicity, 2005-2013



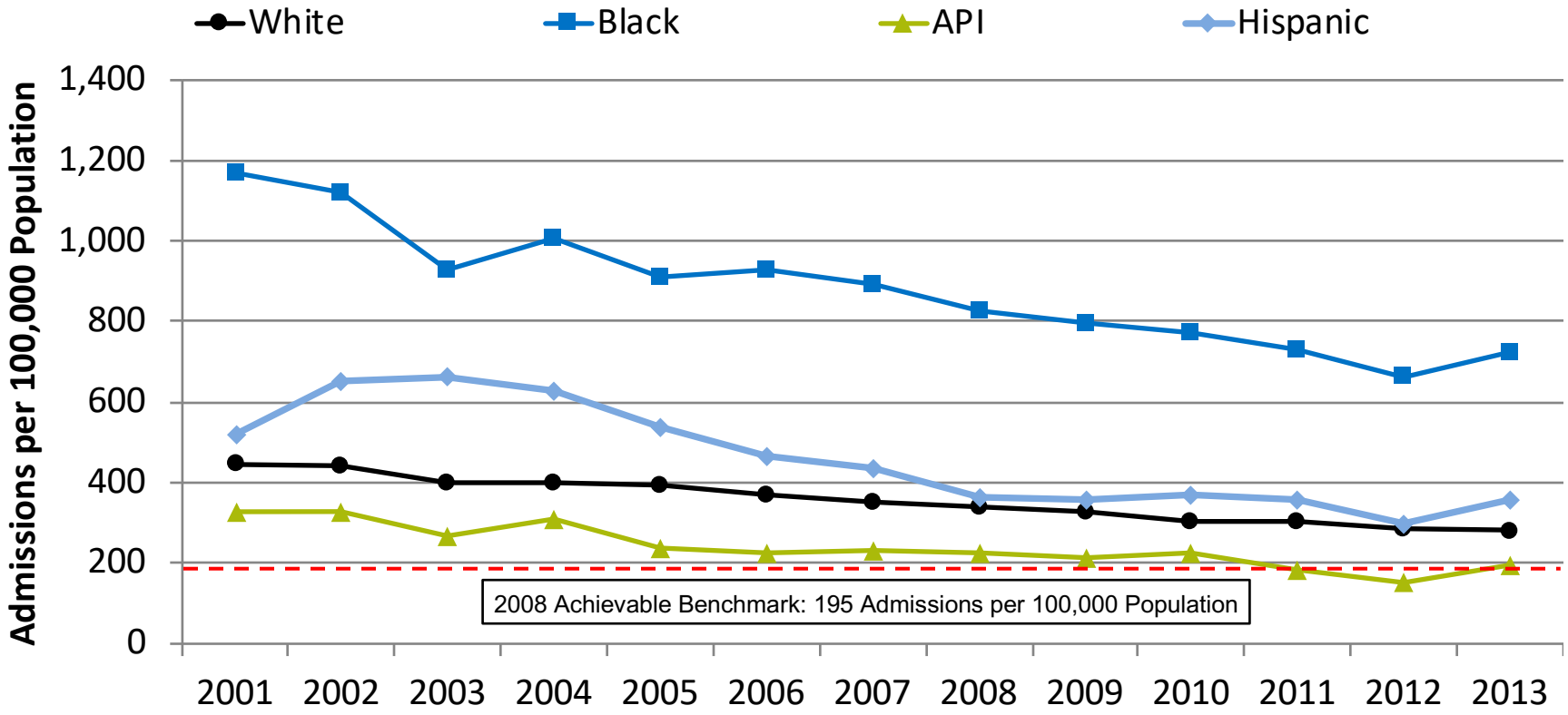

**Source:** Centers for Medicare & Medicaid Services, Medicare Quality Improvement Organization Program, 2005-2013.
**Denominator:** Discharged hospital patients with a principal diagnosis of acute myocardial infarction and documented receipt of thrombolytic therapy during the hospital stay.

# Adult admissions with congestive heart failure per 100,000 population, by area income, 2000-2013



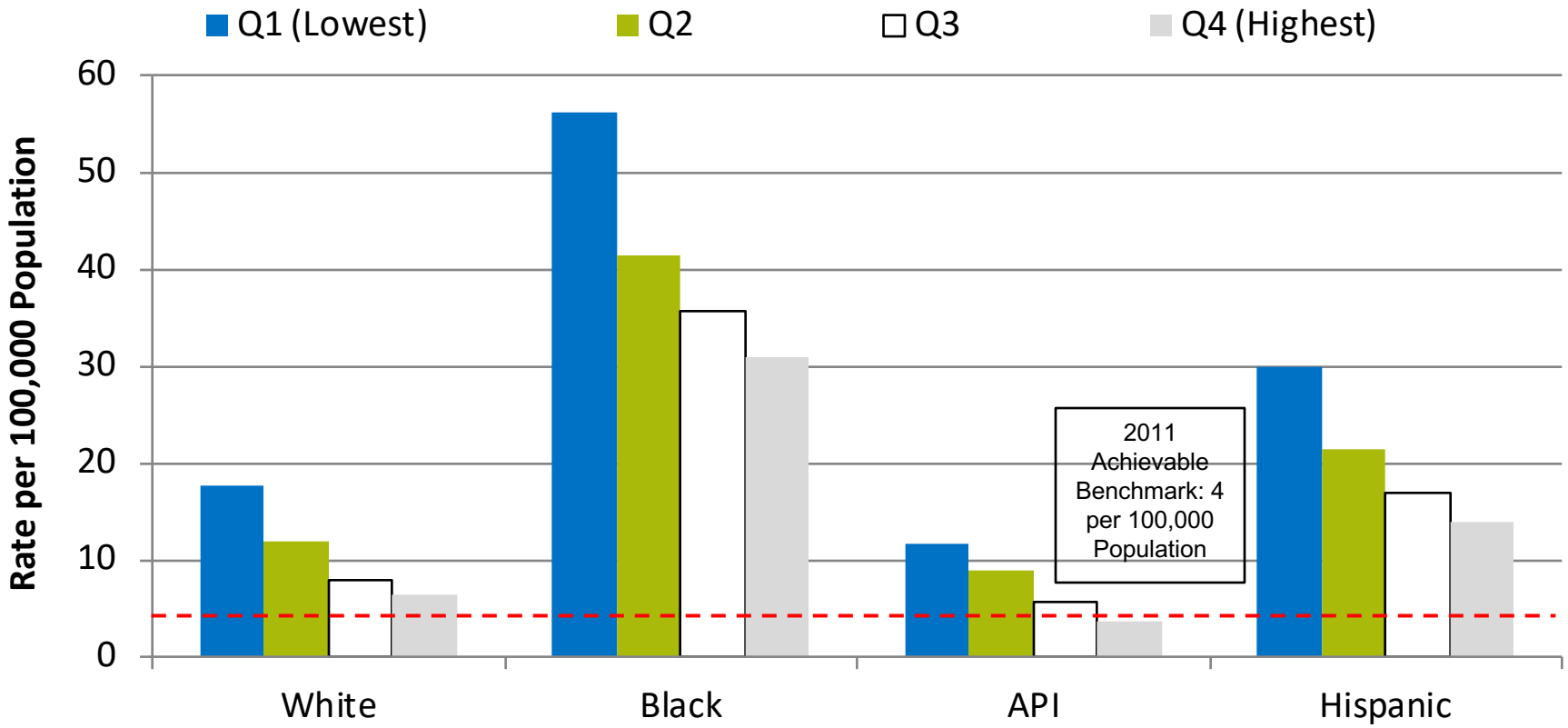

**Key:** Q = quartile.
**Source:** Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project, Nationwide (2000-2011) and National (2012-2013) Inpatient Sample and AHRQ Quality Indicators, version 4.4.
**Denominator:** U.S. resident population age 18 and over.
**Note:** For this measure, lower rates are better. Area income is based on the median income of a patient's ZIP Code of residence.

# Adult admissions with congestive heart failure per 100,000 population, by race/ethnicity, 2001-2013




**Key:** API = Asian or Pacific Islander.
**Source:** Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project, State Inpatient Databases, disparities analysis files and AHRQ Quality Indicators, version 4.4, 2001-2013.
**Denominator:** U.S. resident population age 18 and over.
**Note:** For this measure, lower rates are better. White and Black are non-Hispanic. Hispanic includes all races.

# Hospital admissions for uncontrolled diabetes without complications per 100,000 population, age 18 and over, by race/ethnicity, stratified by income, 2013




**Key:** API = Asian or Pacific Islander; Q = quartile of median household income of the patient's ZIP code of residence
**Source:** Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample and AHRQ Quality Indicators, version 4.4, 2013.
**Denominator:** U.S. resident population age 18 and over.
**Note:** For this measure, lower rates are better. Area income is based on the median income of a patient's ZIP Code of residence.

# Best Practices for Addressing Health Care Disparities

1. *Identify and prioritize reducing health disparities*

- Prevalence of condition
- Size of disparity (e.g. half of CV mortality disparity attributable to control of HTN)
- Strength of evidence for reduction strategies
- Feasibility of improvement

Anderson et al. Health Affairs, 2018. https://doi.org/10.1377/hlthaff.2017.1301

# Best Practices Recommendation 2

2. *Implement evidence-based interventions to reduce disparities*

- Can take place in clinical or non-clinical sites
- Usually involves reorganization of services or additional services
- Usually multimodal and multilevel

  i.e. clinicians, service reorganization, patients, community

Anderson et al. Health Affairs, 2018

# Best Practices Recommendation 3

3. *Invest in the development and use of health equity performance measures*

- Culture of equity including dashboards
- Routine stratification of key measures
- Build collaboration with community groups
- Structures that support equity, i.e. navigator programs
- Address “social” barriers, such as measuring missed appointments, food insecurity, etc.

Anderson et al. Health Affairs, 2018

# Best Practices Recommendation 4

*4. Incentivize the reduction of health disparities and health equity*

- Payment models
- Audits/bonuses
- Promotion criterion
- Teaching criterion

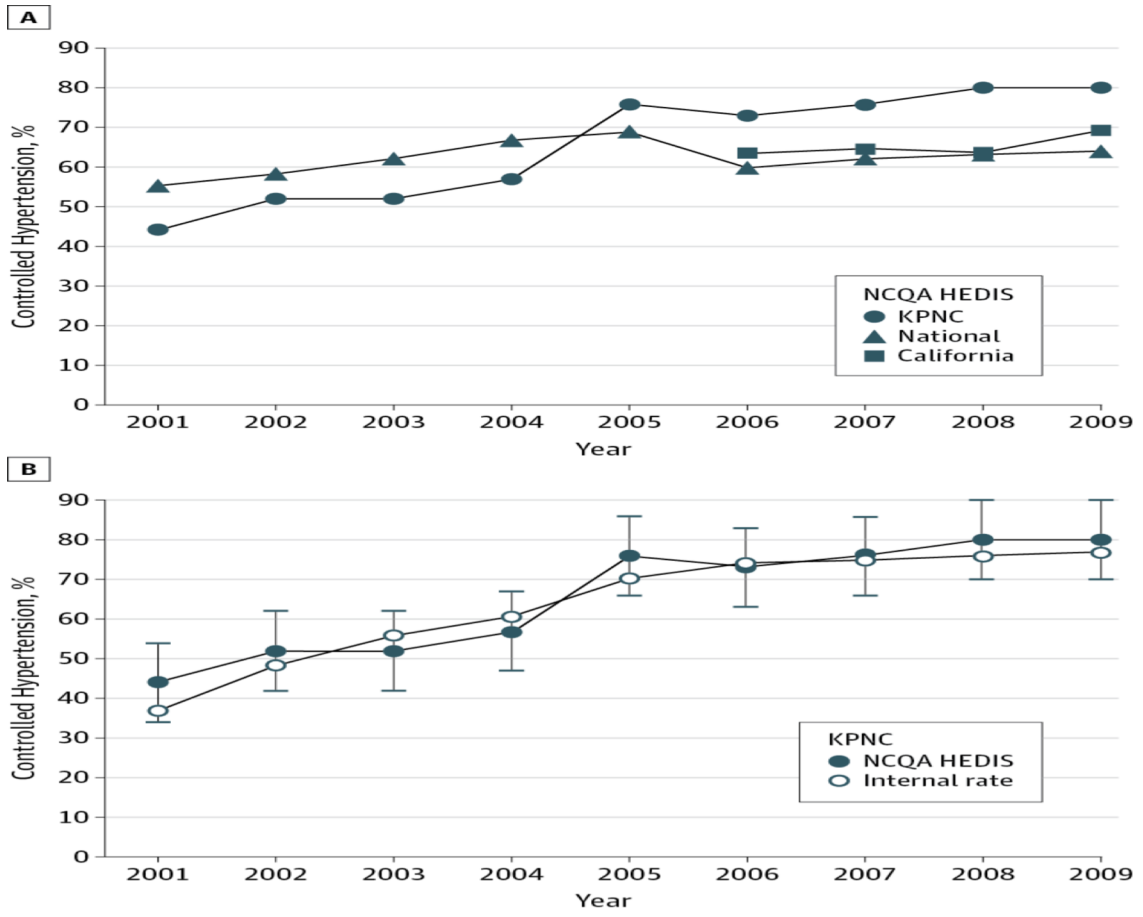
Anderson et al. Health Affairs, 2018

# Improved Blood Pressure Control Associated With a Large-Scale Hypertension Program at KPNC

Multimodal Approach

1. Physician led educational program on treatment intensification
2. Care team with defined roles
3. Redesigned care delivery to expand access
4. Culturally tailored tools for self management

- *Disparities reduction of 70%*
- *Improved control for all*




Jaffe et al JAMA. 2013;310(7):699-705. doi:10.1001/jama.2013.108769

# Improving BP Control in SF Safety Net

Fontil et al; Blood Pressure Control in Safety-Net Clinics

- HTN registry
- Treatment intensification protocol
- Standardized BP measurement
- BP visit by nurses and pharmacists

BP control improved in all

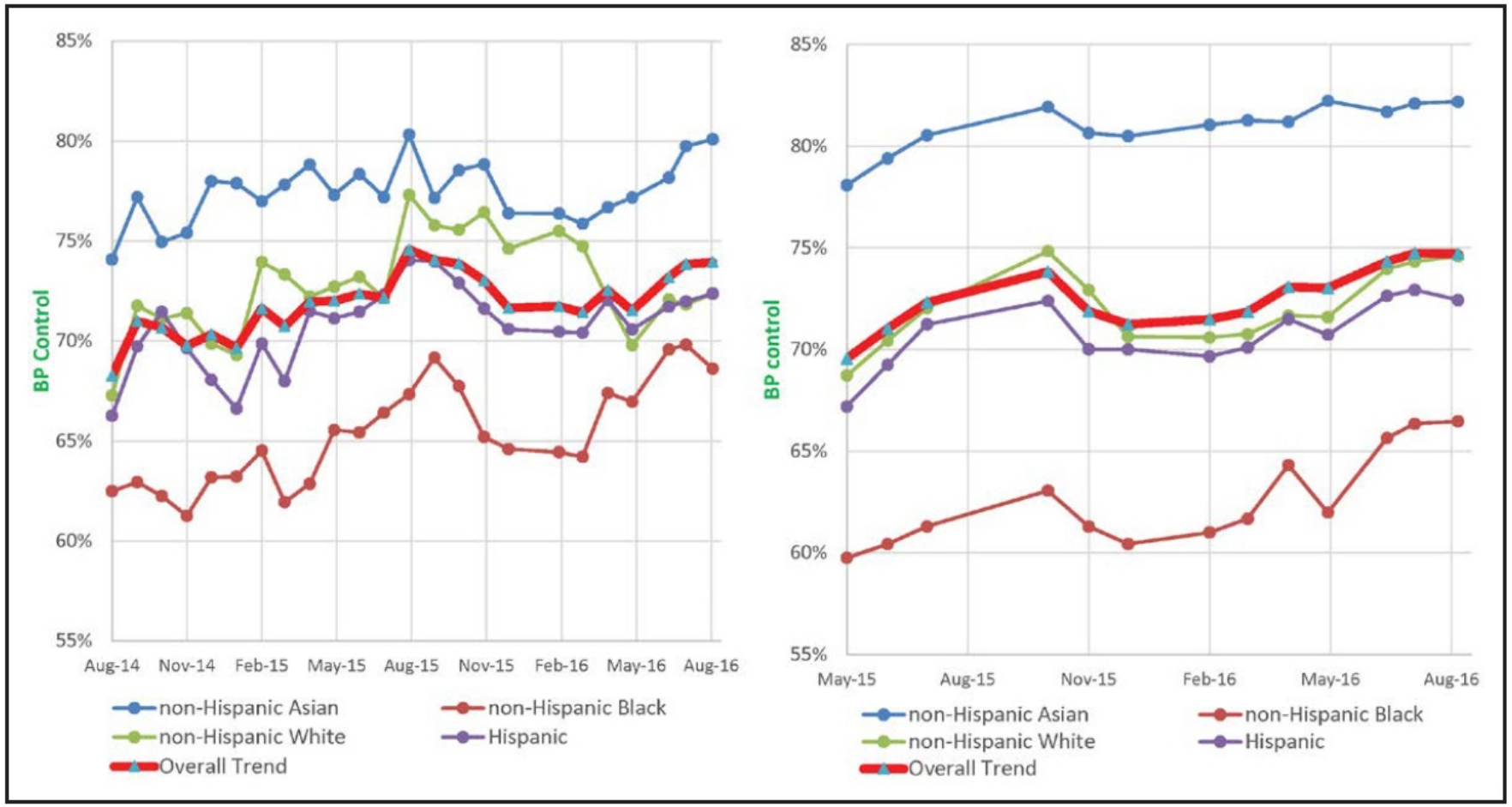



**Figure. Trend in blood pressure (BP) control by race over 24 mo at Richard Fine People's Clinic (RFPC) and 15 mo at the other 11 clinics in the San Francisco Health Network (SFHN).**

# Health Care Disparities – System Summary

- HCD still not routinely examined by health systems
- More knowledge of “disparities sensitive outcomes”
- National organizations still working on mandating examination of data
- Expansion of PRIME data collection to include Sexual Orientation/Gender Identification
- Few health systems require leadership to routinely address disparities

# Take Home Points

- Health care disparities are ubiquitous
- Not caused by “bad” people
- Can be intentionally identified and addressed
- Requires rethinking how we deliver care
- Equity is a key component of quality care