Behavioral and Social Science Advances in Health Disparities Research

Eliseo J. Pérez-Stable, M.D.

Director, National Institute on Minority Health and Health Disparities

eliseo.perez-stable@nih.gov

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National Institute on Minority Health and Health Disparities

Minority Health and Health Disparities

- **Minority Health Research focuses on all aspects within a minority group and in comparison to others**
- **Race and ethnic minorities share the experience of discrimination as a common theme**
- **Health disparities: adverse outcome in a group with social disadvantage: race/ethnic minorities, less privileged SES, rural residents, SGM**

Health Disparity Populations: Race/Ethnicity, Low SES, Rural, Sexual/Gender Minority
Other Fundamental Characteristics: Sex/Gender, Disability, Geographic Region

Domains of Influence	Levels of Influence			
	Individual	**Interpersonal**	**Community**	**Societal**
Biological	Biological Vulnerability and Mechanisms	Caregiver-Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen exposure
Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws
Physical/ Built Environment	Personal Environment	Household Environment School/ Work Environment	Community Environment Community Resources	Societal Structure
Sociocultural Environment	Sociodemographics Limited English Cultural Identity Response to Discrimination	Social Networks Family/Peer Norms Interpersonal Discrimination	Community Norms Local Structural Discrimination	Societal Norms Societal Structural Discrimination
Healthcare System	Insurance Coverage Health Literacy Treatment Preferences	Patient-Clinician Relationship Medical Decision-Making	Availability of Health Services Safety Net Services	Quality of Care Healthcare Policies
Health Outcomes	Individual Health	Family/ Organizational Health	Community Health	Population Health

Lifecourse

Main Points of Presentation

- **Race or ethnicity and social class are fundamental factors influencing health**
- **Life expectancy and mortality trends point to significant reduction of disparities**
- **Patient-clinician communication is a rich underutilized research laboratory**
- **Discrimination/racism and health**
- **Cognitive Impairment/Dementias**
- **NIMHD Programs**

All-Cause Mortality: Whites and Blacks

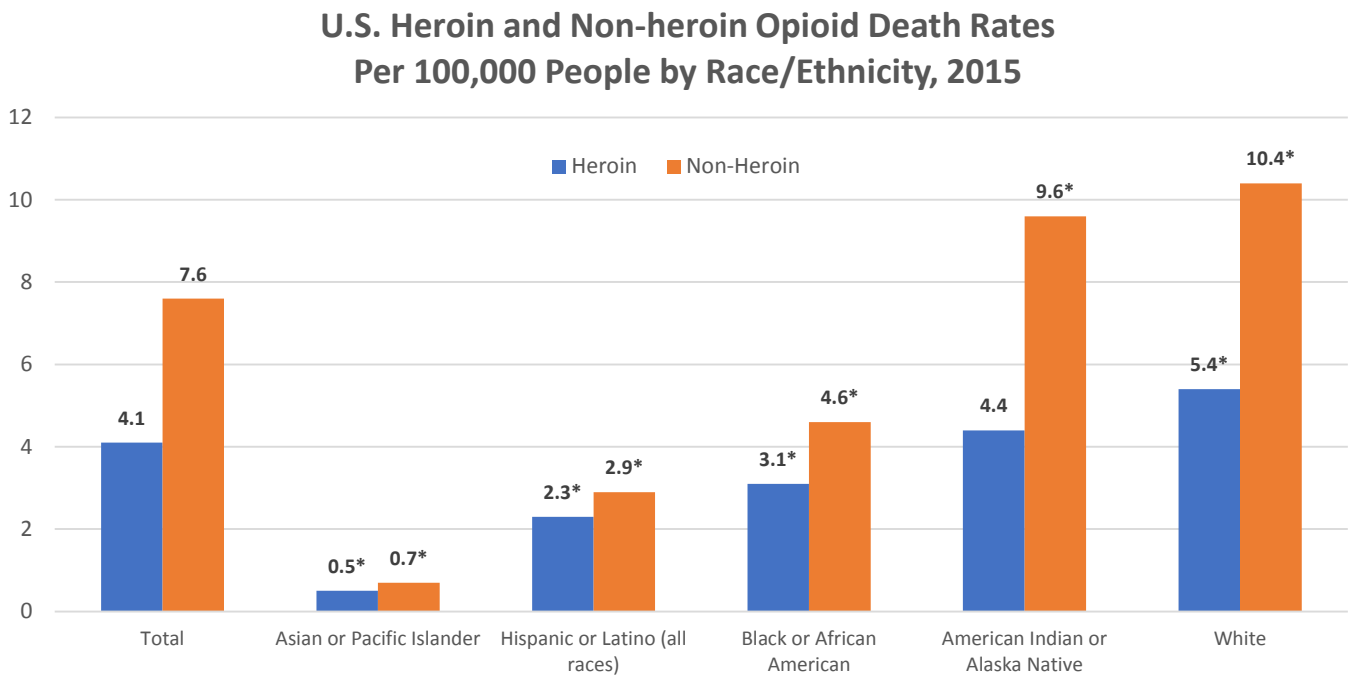
Cunningham TJ, et al MMWR 2017; 66:444-456

Life Expectancy in the U.S., 2014

	Men	Women
Whites	**76.5**	**81.1**
Blacks	**72.0**	**78.1**
Latinos	**79.2**	**84.0**
AI/AN and NH (2007-09)	**68.0**	**74.3**

Arias E, NCHS, CDC, 2016

Opioid Death Rates by Race/Ethnicity, US



Statistically significant difference from total rate at 95% level

Shared Decision Making

- **Dominant paradigm in health care –– "gold standard" in communication**
- **Active SDM leads to improvements in satisfaction with care, treatment, reduced anxiety, more favorable quality of life, and better health outcomes in chronic diseases**
- **Survey of 2765 English speaking adults: 96% want choices/information, 52% want the MD to make final decision**
- **22% minority; >45 y prefer MD**

Levinson W, et al, JGIM 2005; 20: 531-535

Race Concordant Visits and Patient-Centered Communication

- **252 patients (142 AA and 110 W) and 31 MDs (18 AA and 13 W)**
- **Audiotaped measures of patient-centeredness and patient ratings of MD participatory decision-making style**
- **Race-concordant visits were 2.15 minutes longer and had higher patient positive affect**
- **Patients more satisfied and rated MDs higher on scale as more participatory**

Cooper LA, et al, Annals Intern Med 2003, 139: 907-15

Related Factors that Influence SDM Communication

- **Health literacy**
- **Numeracy**
- **Limited English Proficiency: concordance**
- **Trust in clinician –– discrimination**
- **Participation in decision making**
- **Individual autonomy vs. collectivism**
- **Value of functional status**

Numeracy and Shared Decision-Making

- **Ability to understand graphic data and proportions vary by race/ethnicity**
- **Very small risks of disease or events are hard to communicate**
- **Perception of risk may also be a qualitative construct in part**
- **Limited research on effect of patient numeracy in treatment decisions**

LEP Status and Communication

- **Less health information given to patient, harder access to care, longer waits**
- **Concordant clinician leads to lower A1C in patients with diabetes**
- **More patient-centered, patients have better health outlook, less symptoms, more satisfaction, more important than health literacy**
- **Language discordance is common**
- **Interpreters: availability, use, training, errors**

Perception of Unfair Treatment: 2015

In past 30 days were you treated unfairly because of racial or ethnic background in store, work, entertainment place, dealing with police, or getting healthcare?	Percent agree All / Health
Latinos	36% / 14%
African Americans	53% / 12%
Whites	15% / 5%

Trust in clinician/institution? Role of Unconscious Bias?

Kaiser Family Foundation Survey of Americans on Race, November 2015.

Racial Residential Segregation and Blood Pressure, CARDIA, 1985-2010

- **2280 Black participants at age 18-30, 4 sites**
- **Getis-Ord G* statistic, a measure of SD between neighborhood's % black residents c/w surrounding area; High, medium and low segregation exposure and change in BP**
- **81.6% lived in High-RS; SBP increased by 0.16 mm with 1-SD increase in RS score**
- **Reduction in exposure to RS led to decrease in SBP of –1.33 and –1.19 mm Hg**

Kershaw KN, et al JAMA Internal Medicine, May 15, 2017

Disparities Among Non-poor African Americans and Latinos: Role of Discrimination

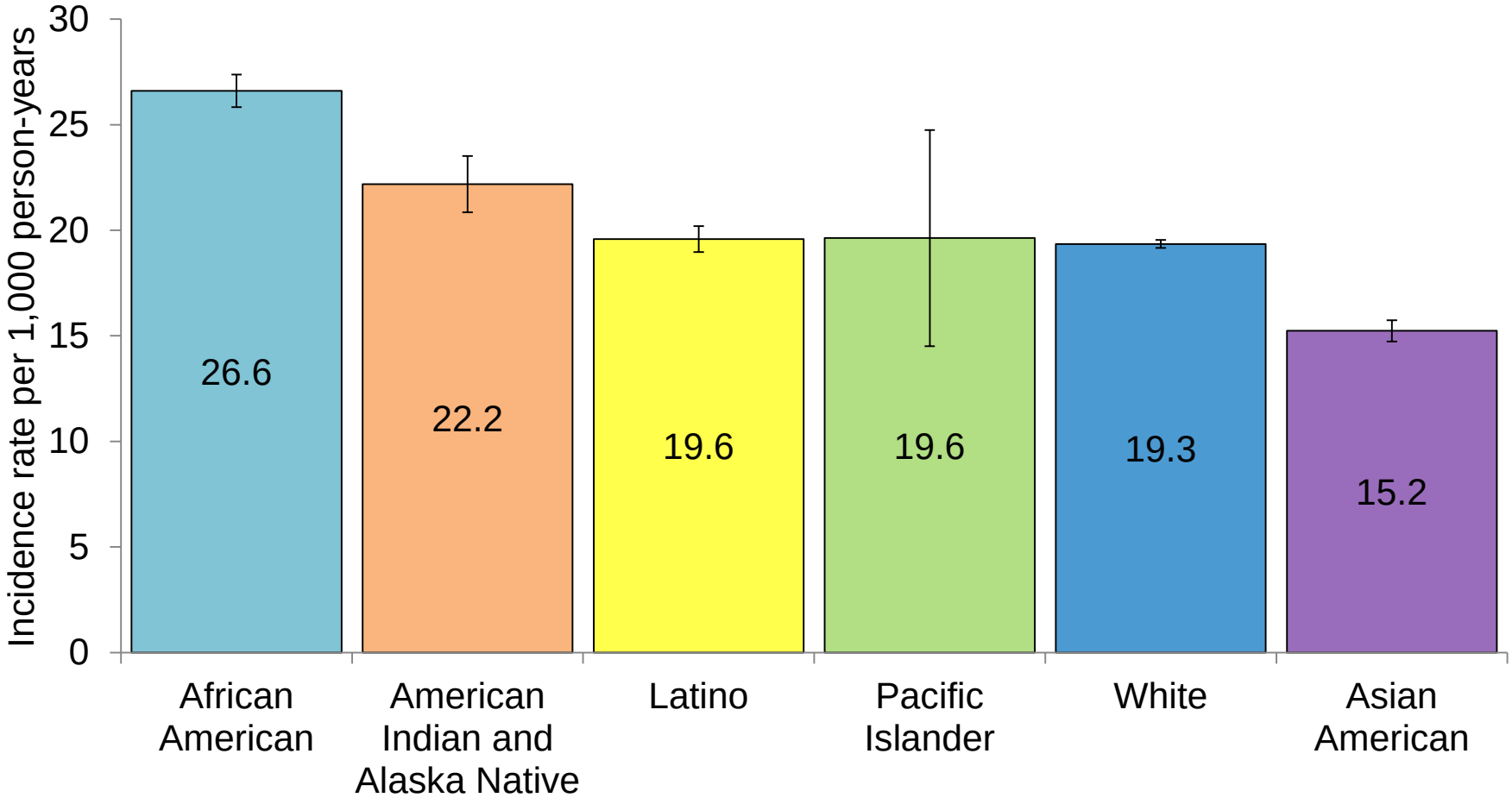
- **National Longitudinal Survey of Youth parents and children, 1979-2012**
- **45% White, 34% Black, 21% Latino**
- **Acute and chronic discrimination**
- **Increased SES for Whites, less discrimination**
- **Upwardly mobile, Blacks and Latinos, experienced more discrimination**
- **Explain Black-White gap in self-rated health**

Colen CG, Ramey DM, Cooksey EC, Williams DR, Soc Sci Med, 2017

Functional Assessment and Cognitive Impairment

- **Risk for functional limitation is higher among Blacks and Mexican Americans, lower for Chinese, Japanese and Asians, higher for Native Hawaiians**
- **Cognitive impairment is more prevalent in African Americans and Caribbean Latinos: education gradient and vascular etiology**
- **Minorities report less participation and control over medical treatment decision-making and prefer more passive roles**

Age-standardized dementia incidence rates by race/ethnicity, 2000-2013



Survival after Diagnosis by Race/Ethnicity

Mayeda ER, et al.. Alzheimer's and Dementia 2017 Jul; 13(7): 761-769

Race/ethnicity	N	Person-years	Median (Q1, Q3) survival years
Asian American	3,847	5,704	4.4 (1.4, 8.6)
Latino	4,942	6,898	4.1 (1.3, 8.2)
African American	4,371	7,780	3.7 (1.1, 7.6)
American Indian/Alaska Native	1,224	2,113	3.4 (1.2, 6.7)
White	45,110	75,138	3.1 (0.9, 6.3)

Future Research Directions

- **Social/behavioral interventions need to consider disparities at baseline and outcomes**
- **Adaptation vs. fidelity**
- **Efficacy, implementation, sustainability**
- **Health IT influence preferences for involvement in medical decision making**
- **Assess specific communication strategies between patients––clinicians to maximize trust**
- **Implement structural change to modify behavior**

NIMHD Research Funding Opportunities

- Immigrants: etiology/interventions
- Disparities in Surgical Care and Outcomes
- Social Epigenomics
- Caribbean Initiative on chronic disease
- Sleep Disparities
- Liver Cancer and Chronic Liver Disease
- Opioid Use Disorders
- Serious Adverse Drug Reaction Research
- Health services research
- *Lung Cancer Etiology, Screening and Care*

R01 Applicant Award Rates by FY 2016/2017

	Early Stage		New (not ESI)		Established	
	FY16	FY17	FY16	FY17	FY16	FY17
Total	**25**	**63**	**74**	**147**	**65**	**171**
Awarded	**6**	**25**	**13**	**41**	**19**	**46**
Rate	**24%**	**39.7%**	**17.6%**	**27.9%**	**29.2%**	**26.9%**
% Change		***15.7%***		***10.3%***		***(–2.3%)***

2018 NIMHD Health Disparities Research Institute Target Audience and How to Apply

Early stage investigators, senior postdoctoral fellows or junior faculty.

Applicants must already have basic research training and be engaged in minority health and health disparities research.

Researchers from diverse backgrounds are encouraged to apply.

The online application is **now open** on the NIMHD website:

https://www.nimhd.nih.gov/programs/edu-training/hd-research-institute/hdri_logon.asp

The due date for submitting is **April 27, 2018, 5:00 pm EST**

HDRI will be July 23-27, 2018 on the NIH Campus in Bethesda

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