

# Racism, Risk, & Resilience: Evidence and implications for dementia research and care

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## Disclosure Statement

I have no relevant financial relationships to disclose that exist now or in the past 12 months.

# Overview

## Risk in a Vacuum

- Finding on lifetime stressors and racial disparities in cognition

## Defining Racism

- Interpersonal Racism
- Systemic Racism

## Racism and Cognitive Aging

- Direct Relationships
- Indirect Mechanisms

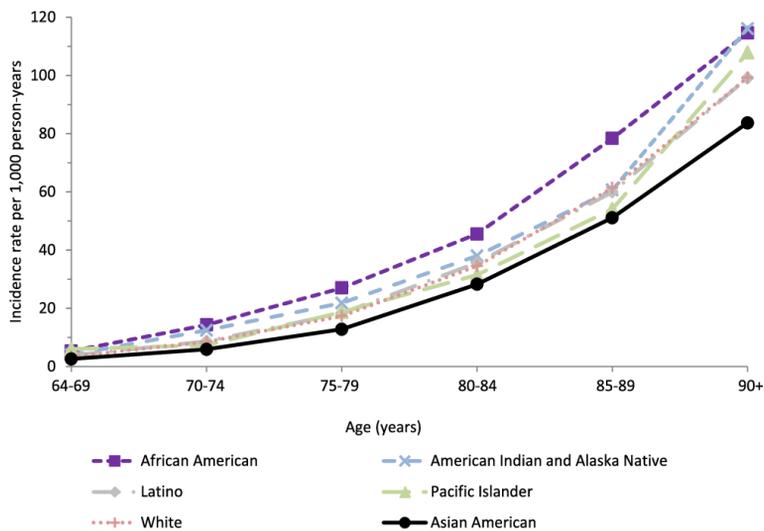
## Racism and Resilience

- Exploring reserve and resilience in a context of racism
- Anti-racism and intervention work

## Examples from UW Teams

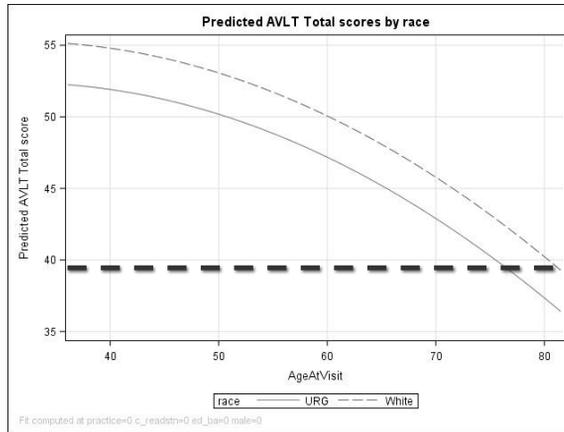
- WAI Milwaukee
- Pisando Fuerte
- Oneida Helping Oneida

# Racial and Ethnic Disparities in ADRD



Mayeda et al, *Alzheimer's and Dementia*, 2016

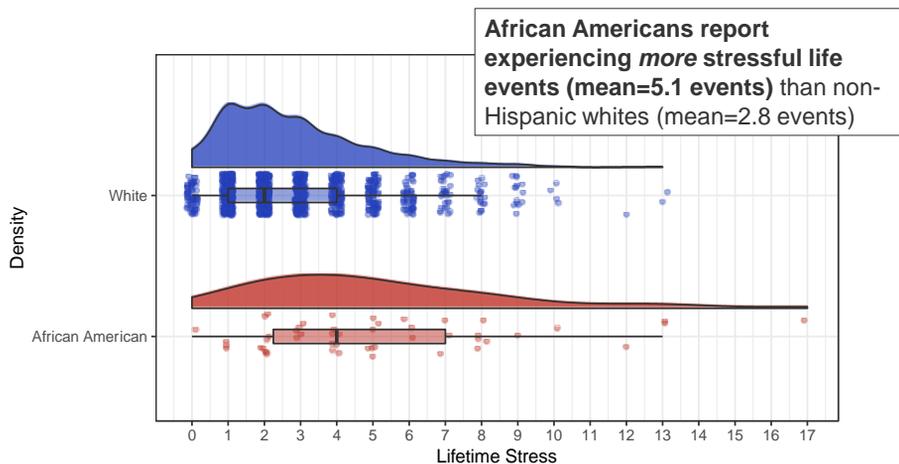
## Racial disparities in a Wisconsin cohort



How do stressful events across the life course contribute to racial disparities in cognitive health in midlife and older age?

## Differential Exposure....

Figure 1. Distribution of exposure to lifetime stressors, by race



Zuelsdorff et al, J Alzheimer Dis, 2020

# Differential Vulnerability?

**Table 2. Regression coefficients (95% confidence intervals) for lifetime stressors and change in cognitive function by domain, race, and covariate model**

Speed & Flexibility	White (N=1191)	African American (N=50)
	Model 3	Model 3
Age	-0.06 (-0.07, -0.05) <sup>b</sup>	-0.09 (-0.14, -0.04) <sup>b</sup>
<b>Stress</b>	-0.03 (-0.05, -0.01) <sup>a</sup>	-0.13 (-0.24, -0.03) <sup>a</sup>
Stress*Age	-0.000 (-0.002, 0.002)	0.001 (-0.009, 0.010)
Literacy	0.03 (0.02, 0.05) <sup>b</sup>	0.07 (0.03, 0.11) <sup>b</sup>
BMI	-0.01 (-0.007, 0.005)	0.01 (-0.02, 0.04)
Past smoking	-0.03 (-0.12, 0.07)	0.10 (-0.49, 0.69)
Current smoking	-0.13 (-0.26, 0.01)	-0.14 (-0.77, 0.50)

Additionally adjust for centered age, gender, centered yrs of education, APOE ε4 status, and practice effects

<sup>a</sup> Significant at the p<0.05 level

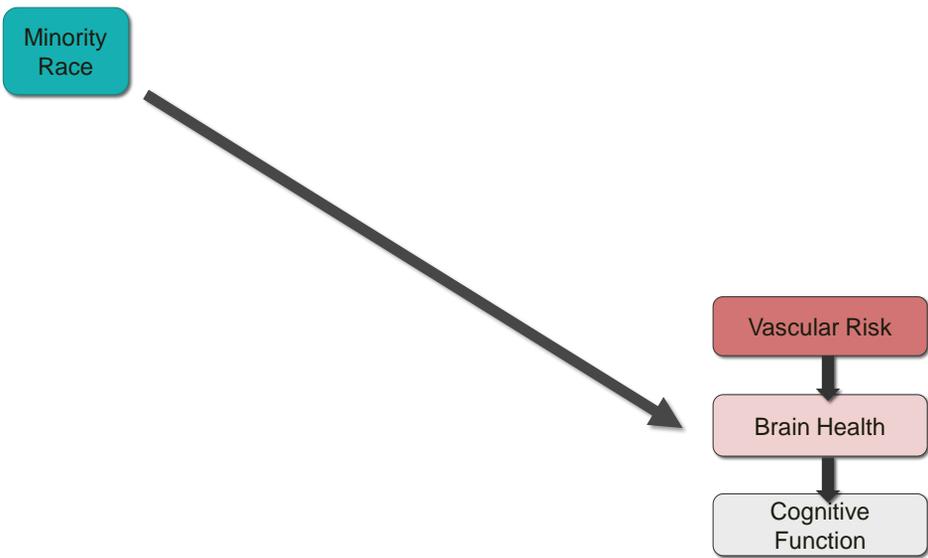
<sup>b</sup> Significant at the p<0.001 level

Stressful life events associate with poorer processing speed and flexibility regardless of race, but detriment appears stronger in African American participants

In African Americans only, stressful life events predict accelerated decline in episodic memory

Zuelsdorff et al, *J Alzheimer Dis*, 2020

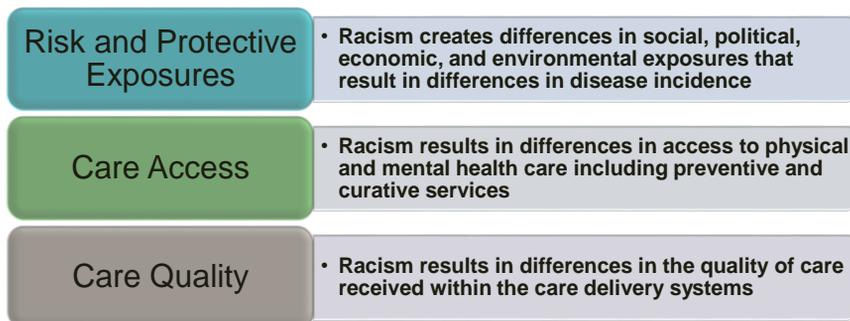
# Race as a risk factor?



# Race as a Risk Marker

## Race is not a biological construct that reflects innate differences

Race is a social construct that captures the effects of historical and contemporary racism



American Public Health Association, 2020

# Racism as a Risk Factor - Definitions

Racism can be understood as operating on at least two broad levels:

### Interpersonal Racism:

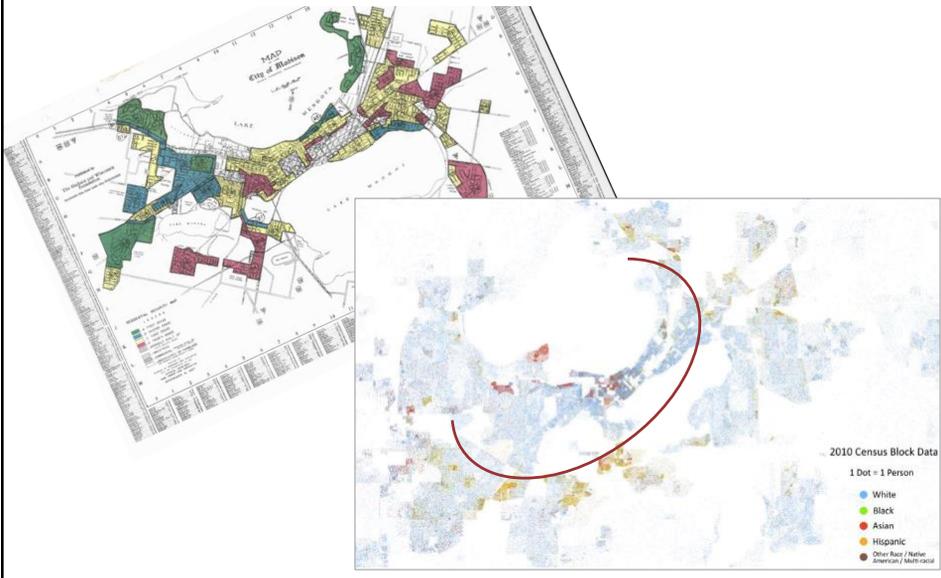
- Also referred to as **individual** or **person-mediated** racism
- Prejudiced assumptions, beliefs, and behaviors → discriminatory actions stemming from conscious and/or unconscious personal prejudices
- Supported and reinforced by systemic racism

### Systemic Racism:

- Encompasses **structural** and **institutionalized** racism
- Perpetuated by policies and practices entrenched in social and governing institutions – resulting in differential access to social goods, services, and opportunities
- No individual intent is required for perpetuation of systemic inequality: **often evidenced as inaction in the face of need**

Jones et al, *American Journal of Public Health*, 2000

## Systemic Racism: Historical Perspective



## Racism and Cognition: Direct Effects

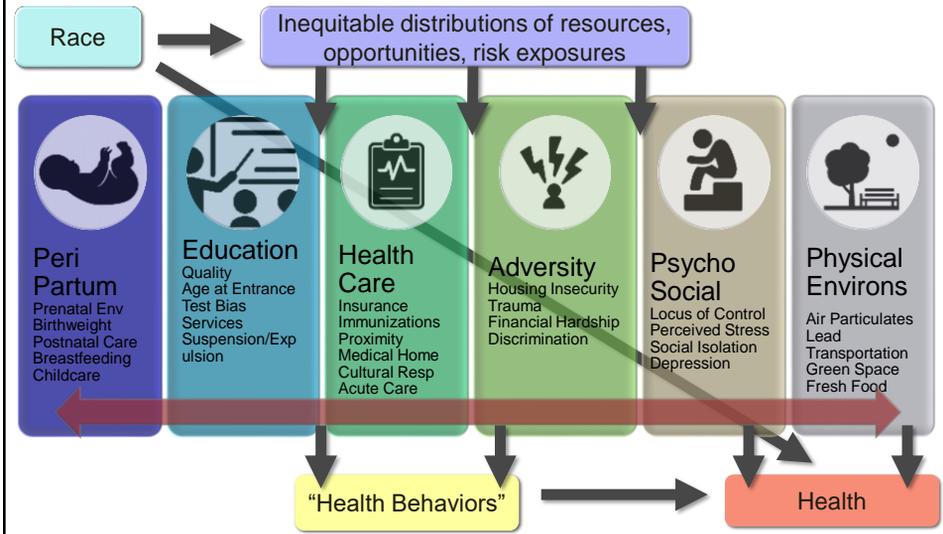
Perceived discrimination is associated with poorer performance on tests of processing speed and episodic memory in African American older adults (Barnes et al, 2012; MARS; Zahodne et al 2019; HRS)

Birth in a Southern state is associated with poorer memory test performance among Black older adults, and worst performance is seen among those who attended a legally desegregated school (Lamar et al, 2020; MARS)

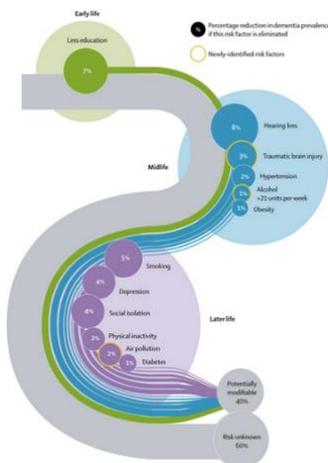
Experiences of daily and institutional racism are associated with greater odds of subjective cognitive decline in older Black women (Coogan et al, 2020; BWHS)

# Racism and Cognition: Indirect Effects

Racism as a social determinant of (in)equity:



# Racism and "Modifiable" ADRD Risk



## Education:

Black, Hispanic, and Native K-12 students, compared to White<sup>1</sup>:

- Graduation rates are 10-20% lower
- Suspension rates are 2-7 times higher
- Majority-minority schools receive ~19% less funding per student than majority-white<sup>2</sup>

## Hearing loss:

Black older adults more likely to report recent hearing test, but are less than half as likely to secure a hearing aid<sup>3</sup>

- Mexican Americans 78% less likely to have secured a hearing aid

## Traumatic brain injury:

Highest rates of TBI hospitalization, and poorest post-TBI functional trajectories among Native and Black pops<sup>4</sup>

- Same groups less likely to access in-hospital and post-hospital TBI care (insurance coverage strong determinant of access)

## Smoking:

- Prevalence highest among Native and Black men<sup>5</sup>
- Members of racial/ethnic minorities least likely to receive smoking cessation guidance or aids during medical appointments<sup>6</sup>

## Depression:

Lifetime risk of depression lower in Black and Native populations, but<sup>7</sup>:

- Depression more likely to be persistent over time, and self-reported as severe and disabling, among Black adults
- Black adults half as likely to access mental health care as whites

1. NCS/Dept of Ed Report, 2017  
 2. EdBuild Report, 2019  
 3. Nieman et al, 2016  
 4. Gao et al, 2018 (S rev)  
 5. Drope et al, 2018 (NHIS)  
 6. Cokkinides et al, 2008 (NHIS)  
 7. McGuire & Miranda, 2008

# Recognizing Resilience

## Cognitive Reserve

- Adaptability of cognitive processes → compensate for brain aging or insult
- Traditional proxies: educational attainment, occupational complexity, mentally stimulating leisure activity
- These variables may represent different underlying experiences and constructs in the context of systemic racism
  - Eg, Seminal work on education quality vs quantity
  - Eg, Government boarding schools for Native children

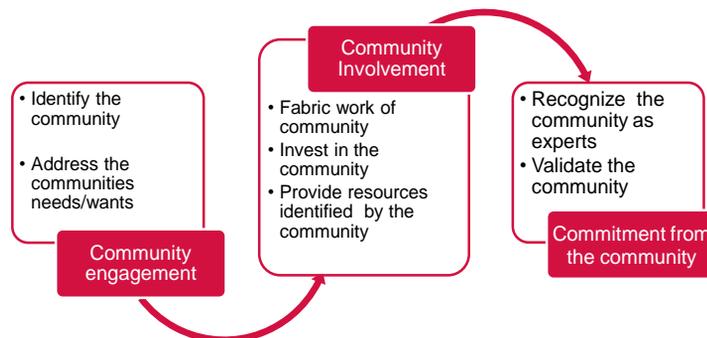
## Assets and Strengths

- Protective sources of resilience and strength may be community-specific
  - Eg, Black caregiver experiences (Fabius et al, 2020)
- Importance of the "Us/We": Community ties, interdependence (Croff 2020)
- Existing resources may be not be known, recognized, or documented by dominant societies

Watch Croff 2020, "Black Joy Matters in Aging Research": <https://knightadrc.wustl.edu/Education/Videos/Seay2020.htm>

# Anti-Racism and Intervention Work

## Asset Based Community Development(ABCD) Outreach Model



McKnight & Kretzmann (1993). *Building Communities From the Inside Out: A Path Toward Finding and Mobilizing a Community's Assets*  
See: Green-Harris et al (2019). *Addressing disparities in Alzheimer's Disease and African-American participation in research: An asset-based community development approach*

# Milwaukee WAI

## Our Five Integrated Mission Areas



### Outreach

*Fostering partnerships to develop and deliver culturally appropriate programming*



### Community and Professional Education

*Collaborating with community organizations to help navigate available programming; advising on best care practices*



### Service

*Reducing barriers that impede access to information and services through building trust, credibility, and partnerships*



### Advocacy

*Provide a voice for the community in research settings; advise researchers on barriers to research participation and support recruitment and retention best practices*



### Research

*Advancing dementia research through engagement and inclusion of underrepresented populations in cutting-edge science*



Gina



Nia



Stephanie



Celena



Gail



Ian



Naveena

# The Amazing Grace Chorus



"It's fun. And the love, you can feel the love around here. It's very nice." *Mr. Steve Mays*

"The people in the audience can hear what I can do." *Mr. Wallace Phillips*

"(Memory loss) is not something that should be hidden. It should be embraced." *Ms. Delois Johnson*

# Pisando Fuerte

Dr. Maria Mora Pinzon



Pisando Fuerte a linguistically and culturally adapted version for Spanish speakers of “Stepping On”, which is an evidence-based fall prevention program.



●●● Pisando Fuerte | WIHA

# Oneida Helping Oneida

**Aim 1:** Describe associations between demographic characteristics and resource utilization by ADRD caregivers in the Oneida Nation.

**Aim 2:** Identify cultural and community-related barriers and facilitators impacting utilization of caregiver resources through qualitative interviews with ADRD caregivers



# Thank you!

## Funding

AARF-18-562958 (Zuelsdorff)  
NIH R03 AG063303 (Zuelsdorff); NIH R03 AG063304 (Flowers Benton, Zuelsdorff)  
NIH R01 AG054059 (Gleason); NIH R01 AG027161 (Johnson); NIH P50 AG033514 (Asthana)

## WAI Leadership and Staff

Gina Green-Harris  
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## Wisconsin Alzheimer's Disease Research Center

*Thank you to our WAI Clinical staff and to all WRAP and ADRC participants for their dedication and contributions to the fight against Alzheimer's disease.*

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