

Racing Toward Equity: Measuring Racism

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Resources for today's session

- APHA Webinar: *Implementation and Measurement Challenges*, presented by Nancy Krieger of Harvard T.H. Chan School of Public Health
- [Methods for the Scientific Study of Discrimination and Health: An Ecosocial Approach](#) (Krieger 2012)
- [Structural racism and myocardial infarction in the United States](#) (Lukachko, Hatzenbuehler, Keyes 2014)

Ecosocial theory

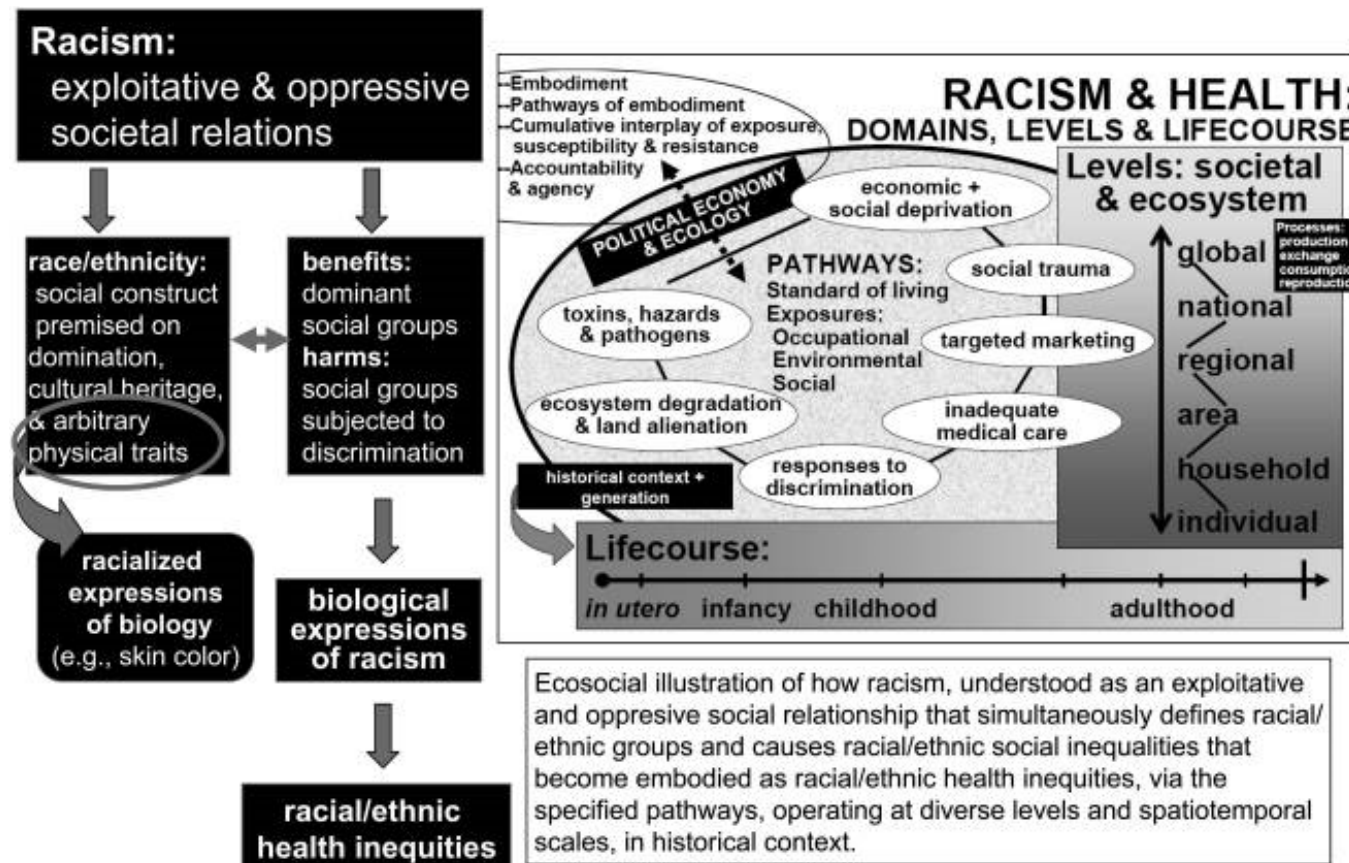
Posits that inequitable race relations →

1. benefit the groups who claim racial superiority at the expense of those whom they deem intrinsically inferior,
2. racialize biology to produce and justify the very categories used to demarcate racial/ethnic groups, and
3. generate inequitable living and working conditions that, via embodiment, result in the biological expression of racism
→ racial/ethnic health inequities

Embodiment

How we incorporate, biologically,
in societal and ecological context,
the material and social world in which we live

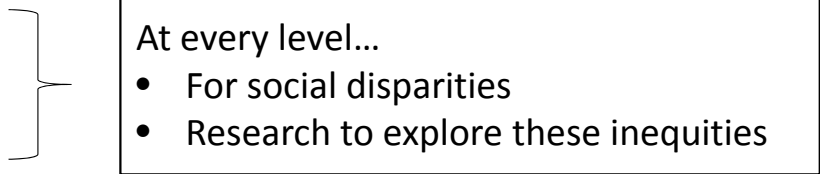
Pathways of embodiment of racial inequality



Racism: a systemic determinant

- Pathways are diverse, concurrent and interacting
 - E.g., exposure to social and economic deprivation, exogenous hazards, social trauma, targeted marketing, inadequate health care
- Not a confounder
- Not explained away by mediators
- Can be an effect modifier

Other core constructs of ecosocial theory

- Cumulative interplay of exposure, susceptibility, and resistance across the life course
 - Accountability
 - Agency
- 
- At every level...
- For social disparities
 - Research to explore these inequities

Rigorous methods for scientific study of discrimination and health require:

- Conceptual clarity about oppressive realities
- Careful attention to domains, pathways, level, and spatiotemporal scale, in historical context
- Structural-level measures
- Individual-level measures (without reducing discrimination to a solely a psychosocial exposure)
- An embodied analytic approach

Complexities and gaps

- The demographics of participants in most health studies means that the resulting research findings likely underestimate the contribution of racial discrimination to racial/ethnic health disparities
- An individual is simultaneously
 - A unique individual
 - A member of a population, where group-level context becomes important

Methodological Challenges

Individual measures

- Domains matter
- Nativity matters
- Direct questions about racial discrimination matter

At what level should we be measuring?

- Individual
- Time
- Structural

Individual-level scales

Experiences of Discrimination (EOD)

1. At school
2. Getting hired or getting a job
3. At work
4. Getting housing
5. Getting medical care
6. Getting service in a store or restaurant
7. Getting credit, bank loans or a mortgage
8. On the street or in a public setting
9. From the police or in the courts

Everyday Discrimination Scale (EDS)

- Work
- Police
- Education
- Housing
- Bank
- Receipt of services

- Unfair treatment

Implicit Association Test (IAT)

- Initially developed to measure prejudice, but is also now being used to minimize issues related to self-report, like scales on the previous slide:
 - People typically report more discrimination for their group, on average, than for themselves personally
 - Self-reports of racial discrimination may underestimate, especially among those with the least resources, even while this exposure adversely affects their health
- Can be used to strengthen research of individual-level discrimination

Another Individual Measure – Racial Microaggressions

- Nadel et al., Racial and Ethnic Microaggressions Scale (REMS), 2011
- 6 domains:
 1. Assumptions of inferiority
 2. Second class citizens and assumptions of criminality
 3. Microinvalidations
 4. Exoticization / assumptions of similarity
 5. Environmental microaggressions
 6. Workplace and school microaggressions

Table 1
Principal Component Analysis Loadings and Commonalities for Study 1 (N = 443)

Nadel 2011, REMS Scale

Item	Component						h ²	
	1	2	3	4	5	6		
Component 1: Assumptions of Inferiority; PoV = 11.23								
32	Someone assumed that I would have a lower education because of my race.	0.82	0.23	0.11	0.17	0.04	0.13	0.8
38	Someone assumed that I was poor because of my race.	0.75	0.25	0.12	0.24	-0.02	0.02	0.69
21	Someone assumed that I would not be educated because of my race.	0.74	0.29	0.17	0.12	0.01	0.23	0.72
17	Someone acted surprised at my scholastic or professional success because of my race.	0.72	0.19	0.19	0.2	-0.01	0.22	0.68
9	Someone assumed that I would not be intelligent because of my race.	0.69	0.18	0.06	0.09	0.07	0.33	0.66
36	Someone assumed that I held a lower paying job because of my race.	0.61	0.24	0.08	0.23	0.04	0.29	0.57
5	Someone assumed that I grew up in a particular neighborhood because of my race.	0.51	0.13	0.01	0.45	0.13	-0.03	0.57
22	Someone told me that I was "articulate" after she/he assumed I wouldn't be.	0.49	0.28	0.25	0.26	0.12	0.12	0.52
Component 2: Second-Class Citizen and Assumptions of Criminality; PoV = 10.93								
6	Someone avoided walking near me on the street because of my race.	0.19	0.81	0.12	0.09	0.08	0.19	0.77
31	Someone clenched her/his purse or wallet upon seeing me because of my race.	0.2	0.81	0.02	0.14	0.05	0.03	0.72
8	Someone avoided sitting next to me in a public space (e.g., restaurants, movie theaters, subways, buses) because of my race.	0.12	0.74	0.12	0.14	0.07	0.31	0.69
40	Someone avoided eye contact with me because of my race.	0.3	0.74	0.17	0.01	0.02	0.16	0.68
2	Someone's body language showed they were scared of me, because of my race.	0.36	0.72	0.07	0.02	0.08	0.13	0.71
34	Someone assumed that I would physically hurt them because of my race.	0.35	0.65	-0.03	0.24	0.13	0.08	0.67
11	I received substandard service in stores compared to customers of other racial groups.	0.08	0.55	0.15	0.09	0.02	0.29	0.5
Component 3: Microinvalidations; PoV = 10.32								
27	Someone told me that they "don't see color."	0.07	0.17	0.84	0.1	0.11	-0.02	0.79
30	Someone told me that they do not see race.	0.05	0.18	0.84	0	0.08	0.03	0.77
39	Someone told me that people should not think about race anymore.	0.16	0.06	0.8	0.08	0.11	0.1	0.7
7	Someone told me that she or he was color-blind.	0.03	0.02	0.72	-0.04	0.07	0.16	0.57
26	I was told that people of color do not experience racism anymore.	0.17	0.03	0.62	0.05	0.03	0.14	0.57
33	Someone of a different racial group has stated that there is no difference between the two of us.	0.16	-0	0.61	0.29	0.08	0.18	0.51
4	I was told that I should not complain about race.	0.11	0.18	0.53	0.14	-0.01	0.2	0.79
14	I was told that people of all racial groups experience the same obstacles.	0.31	-0.09	0.47	0.27	-0.03	0.25	0.53
10	I was told that I complain about race too much.	0.16	0.18	0.47	0.03	-0.06	0.25	0.7
Component 4: Exoticization/Assumptions of Similarity; PoV = 9.51								
3	Someone assumed that I spoke a language other than English.	0.1	0.1	0.04	0.74	-0.15	0.02	0.67
29	Someone asked me to teach them words in my "native language."	0.12	0.05	0.03	0.74	-0.07	0.05	0.59
45	Someone assumed that I speak similar languages to other people in my race.	0.17	0.05	0.01	0.71	0.01	0.11	0.58
35	Someone assumed that I ate foods associated with my race/culture every day.	0.26	0.05	0.12	0.69	-0.12	-0.09	0.58
42	Someone told me that all people in my racial group look alike.	0.13	0.19	0.16	0.6	0.07	0.08	0.62
23	Someone told me that all people in my racial group are all the same.	0.21	0.1	0.22	0.59	0.13	0.15	0.62
13	Someone wanted to date me only because of my race.	-0.06	0.01	0.11	0.51	0.2	0.46	0.55
20	Someone did not believe me when I told them I was born in the U.S.	0.24	0.23	-0.05	0.51	0.1	0	0.47
43	Someone objectified one of my physical features because of my race.	0.08	0.22	0.25	0.49	0.12	0.14	0.62
Component 5: Environmental Microaggressions; PoV = 8.50								
37	I observed people of my race portrayed positively in movies.	-0.01	0.07	0.05	0.02	0.84	-0.08	0.72
24	I observed people of my race portrayed positively in magazines.	0.06	0.02	0.07	-0.02	0.85	0.01	0.75
19	I observed people of my race portrayed positively on television.	0.02	-0.09	0.06	-0.12	0.78	0.03	0.66
28	I read popular books or magazines in which a majority of contributions featured people from my racial group.	0.14	0.12	0.12	-0.02	0.7	0.01	0.58
18	I observed that people of my race were the CEOs of major corporations.	-0.12	0.07	-0.04	0.04	0.69	0.08	0.62
41	I observed that someone of my race is a government official in my state.	0.09	0.17	0.18	0.12	0.55	-0.04	0.56
12	I observed people of my race in prominent positions at my workplace or school.	0.08	0.09	0.06	0.05	0.55	-0.09	0.6
Component 6: Workplace and School Microaggressions; PoV = 7.34								
25	An employer or co-worker was unfriendly or unwelcoming toward me because of my race.	0.35	0.27	0.06	0.02	0.01	0.76	0.77
15	My opinion was overlooked in a group discussion because of my race.	0.18	0.16	0.3	0.13	-0.09	0.67	0.66
1	I was ignored at school or at work because of my race.	0.09	0.34	0.18	0.05	-0.09	0.65	0.61
16	Someone assumed that my work would be inferior to people of other racial groups.	0.41	0.15	0.16	0.06	0.11	0.64	0.64
44	An employer or co-worker treated me differently than White co-workers.	0.38	0.29	0.12	0.03	-0.09	0.62	0.63

Note. PoV = Percentage of Variance accounted for (after rotation).

Value of individual-level scales

Knowing where discrimination is occurring
...not just treating it as a free-floating psychosocial stressor...
is relevant to ending it

Time: Jim Crow and racial injustice

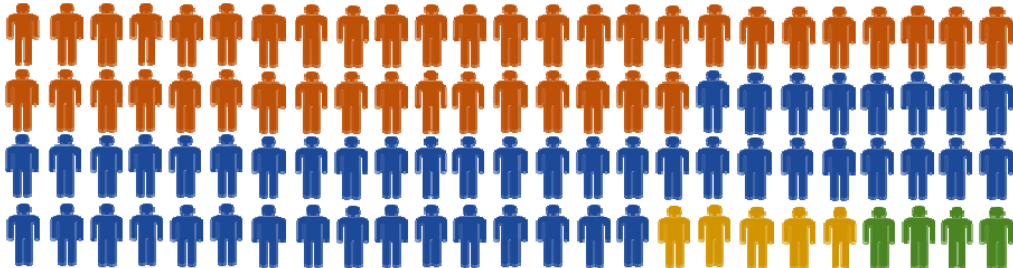
- Access to swimming pools and current day risks for drowning
- Infant mortality

What are other examples in which we see the “history” of Jim Crow play out in present day?

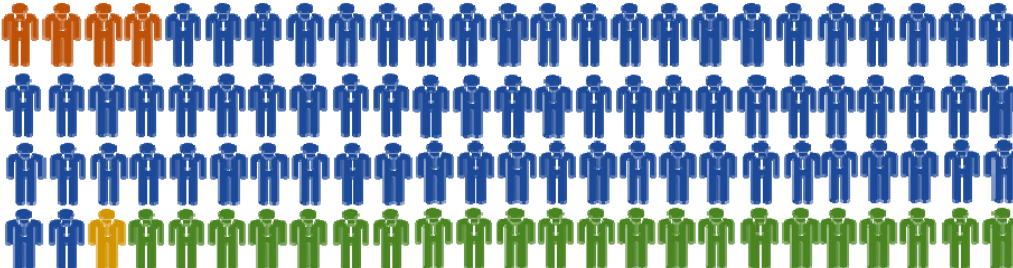
% of the population of LA overall and population enrolled in medical school in LA by race, 2014

 Black  White  Hispanic  Other

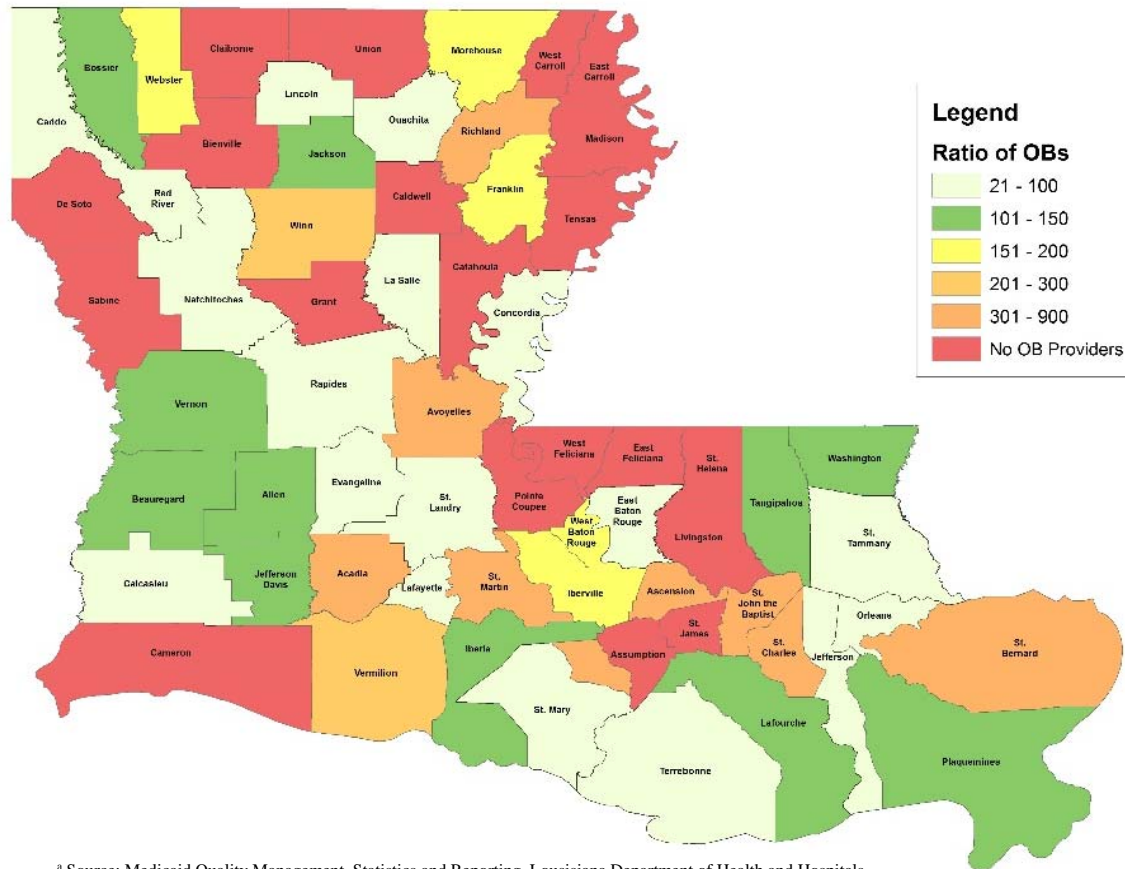
Population of Louisiana



Population of Medical School Enrollment in Louisiana



Ratio of Women Enrolled in LaMOMS to OB Providers who gave Birth in 2013



^a Source: Medicaid Quality Management, Statistics and Reporting, Louisiana Department of Health and Hospitals.

*LaMOMS is Medicaid coverage for pregnancy women.

Importance of Structural Measures

- What does segregation capture?
- Index of concentration at the extremes
- Police violence
- Others?

- A need for more and better data collection!
 - “Absence of data demonstrating harm nevertheless is itself harmful”

Structural racism as described in Lukachko paper

- Systematic exclusion of non-White racial groups from resources and mobility in society as a means to secure or maintain power
- In this study: examined at state level
- Variation in how opportunities and resources are structured

Structural racism and heart attacks

- Does state level variation in measures of structural racism differentially predict the prevalence of heart attacks among Blacks and Whites in the United States?
- Looked at structural racism in four domains:
 1. Political participation
 - Relative % of Blacks to Whites registered to vote
 2. Employment
 - Relative % of Blacks to Whites in the civilian labor force, employed, in executive or managerial positions, and who were in professional specialties
 3. Educational attainment
 - Relative % of Whites vs. Blacks who attained high-level education achievement (e.g., bachelor's level or higher)
 4. Incarceration
 - Ratio measures of incarceration (jails and prisons), disenfranchisement and death sentencing

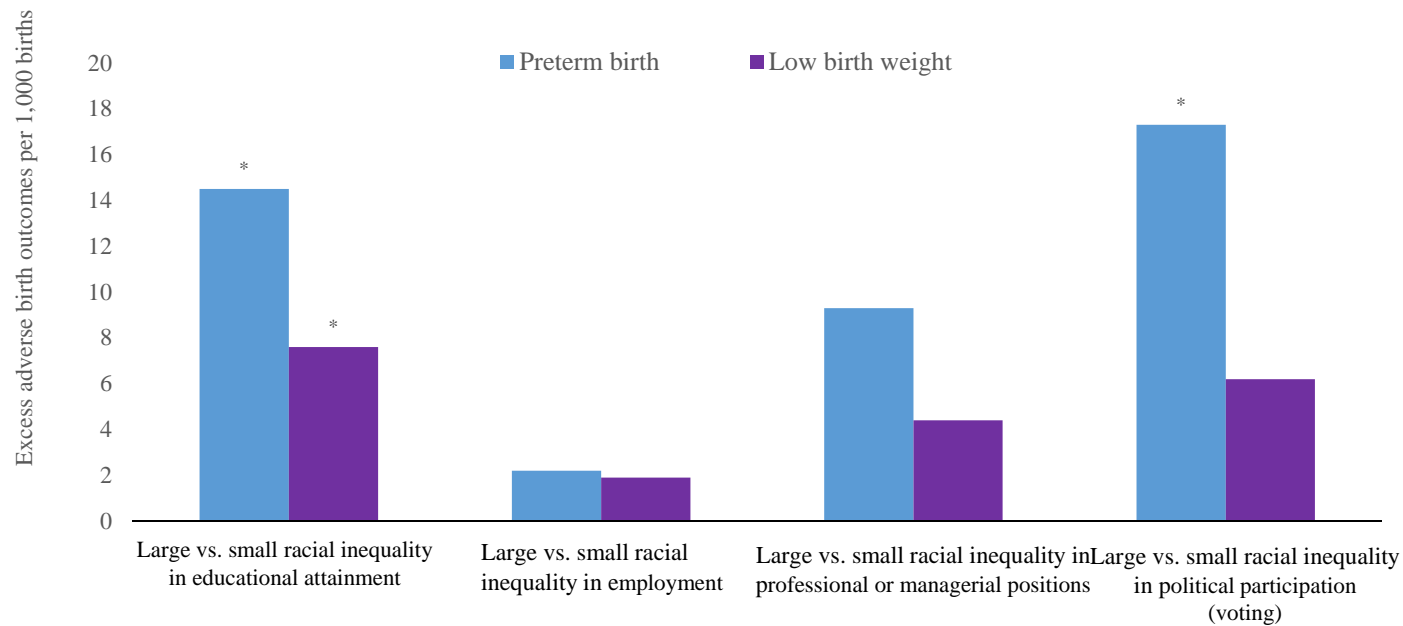
Hypotheses:

- Structural racism associated with...
 - *higher* prevalence of MI among *Blacks*
 - *lower* prevalence of MI among *Whites*
- Data needed:
 1. Large sample of Blacks and Whites who report MI
 2. Representation across all 50 states to capture variation and comparisons
 3. Measures of multiple risk factors that may confound relationship between structural racism and MI

Lukachko findings

- Blacks living in states with higher levels of structural racism were more likely to report a heart attack in the past year than Blacks living in states with lower levels of structural racism
- Whites living in states with higher levels of structural racism were as likely or even less likely to report a heart attack in the past year than Whites living in states with lower levels of structural racism
- Aligns with Ecosocial theory described by Krieger

Structural Racism and Birth Outcomes



^a Source: Employment, poverty, and educational attainment data are from American Community Survey 5-year estimates 2009-2013. Professional/managerial employment data are from the LA Workforce Commission 2013 Report. Political participation data are from the LA Secretary of State Post Election Statistics for November 2012 election. Birth outcomes are from LA birth records 2011-2012.

* Denotes statistical significance.

- Other examples of examining effects of racism, using data from multiple levels?

Resources

- Spirit of 1848 listserv - <http://www.spiritof1848.org/>
- Implicit Association Test - <https://implicit.harvard.edu/>
- David Williams, Discrimination resource - <http://scholar.harvard.edu/davidrwilliams/node/32777>