

Diversity, Equity and Inclusion, and Intersectionality in Genomics Research



January 12, 2021

Karriem S. Watson, DHS, MS,
MPH

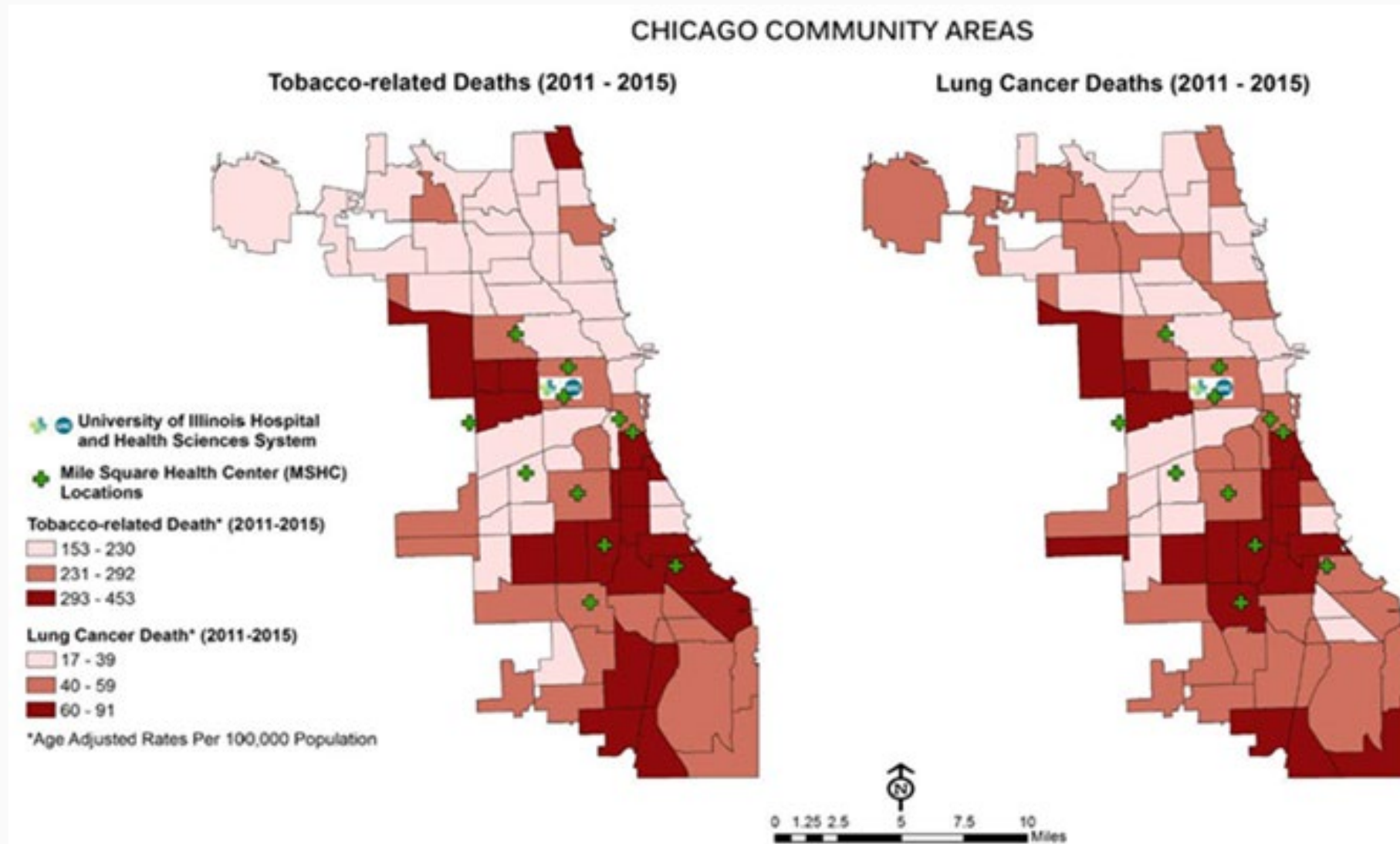
(he/him/his)

Chief Engagement Officer
NIH's *All of Us* Research
Program

Goals of Today's Presentation and Discussion

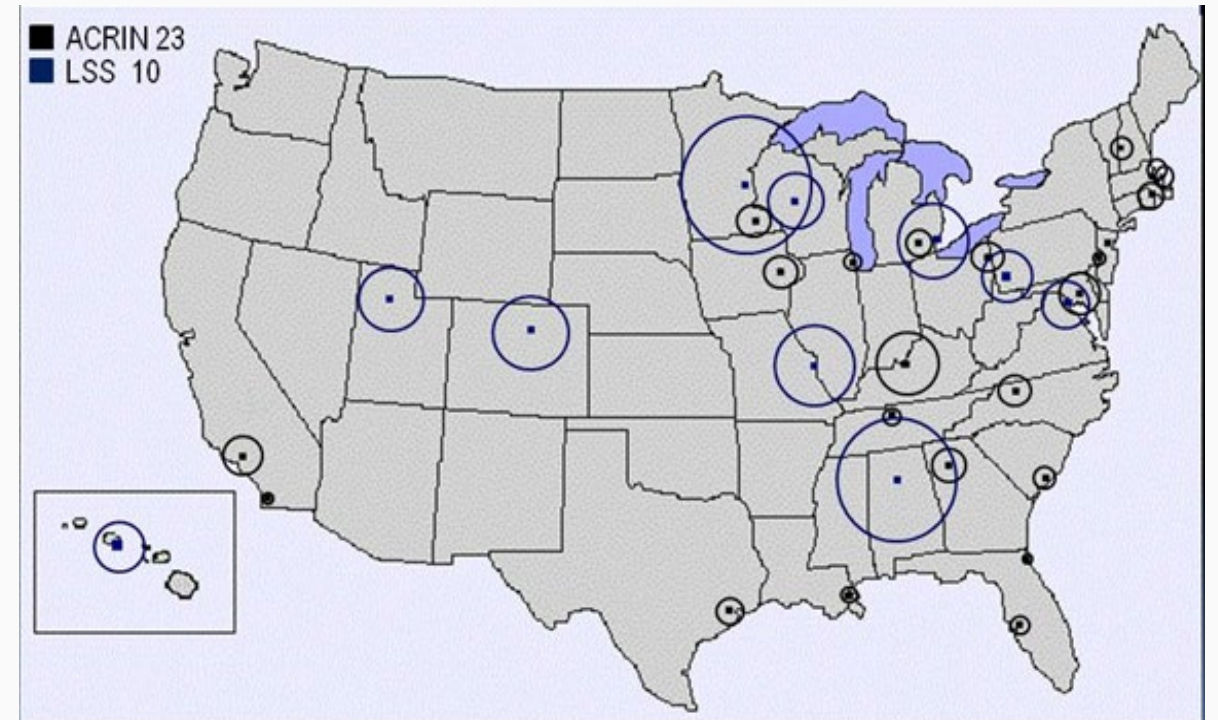
- Highlight a research framework designed to address *structural violence* as a possible tool to address health inequities
- Describe *models of community engagement and community engaged research* that can address the ethical issue of lack of diversity, equity and inclusion in clinical trials that can impact GxE research
- Discuss how issues of *lack of diversity in research workforce* can widen inequities in GxE research

CASE STUDY IN GXE: TOBACCO RELATED DEATHS IN CHICAGO

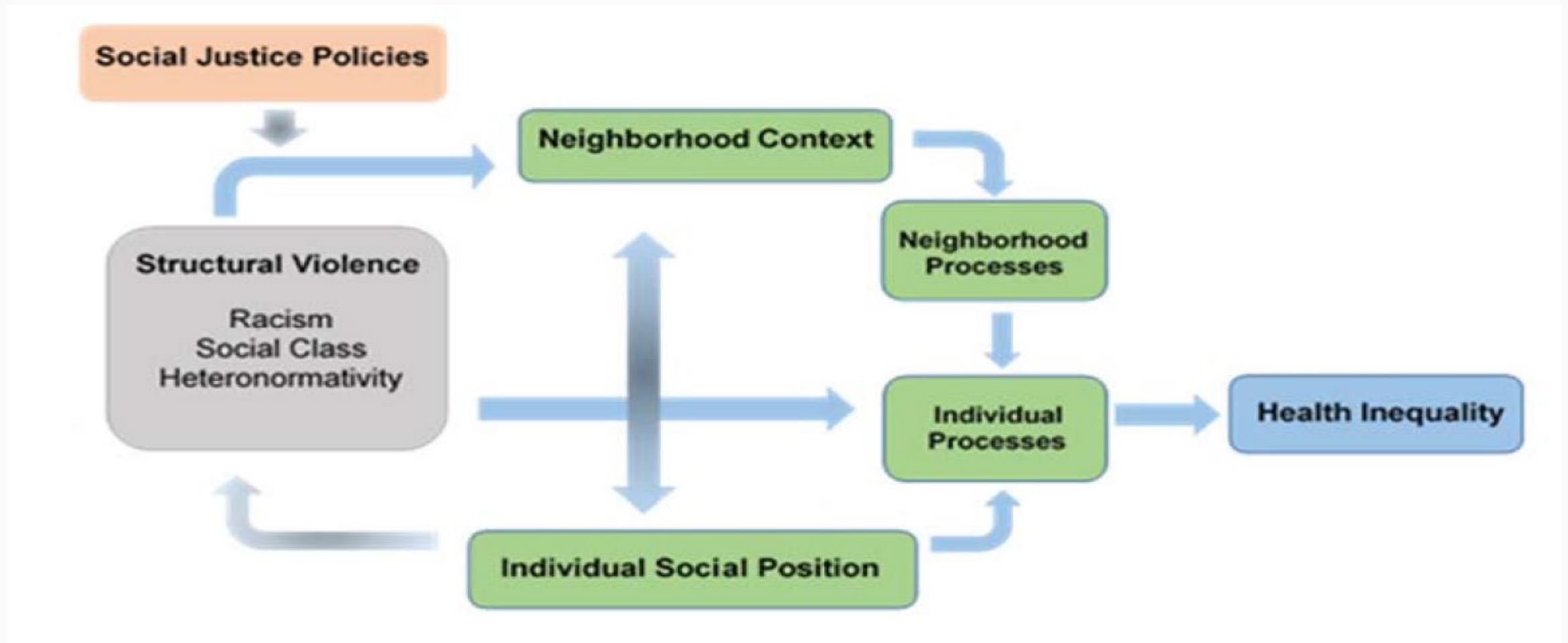


Lack of Diversity in Clinical trials: Lack of Improved Outcomes in High risk Populations

- Pivotal study that resulted in 20% reduction in lung cancer mortality
- Approximately 53,000 participants across 33 sites
- *Despite racial/ethnic disparities in lung cancer, 91% of the NLST participants were white compared to 4.5% African American*
- While the study was groundbreaking and advanced the USPSTF guidelines on Lung Cancer Screening, lack of engagement/participation of diverse populations may impact generalizability of study findings



Center for Health Equity Research: NIMHD



ADVANCING GXE RESEARCH THROUGH MULTI-DISCIPLINARY TEAM SCIENCE



Sage Kim, PhD (Contact-PI)
*Associate Professor, UIC School of Public Health
Division of Health Administration
Area of Focus: Epidemiology, Neighborhood Context and
Health Systems Research*



Robert A. Winn, MD (Multi-PI)
*Director VCU NCI Designated Massey Cancer Center
Senior Associate Dean for Cancer Innovation, VCU
School of Medicine
Professor, Division of Pulmonary Disease and Critical
Care Medicine
Area of Focus: Pulmonary Medicine/Lung Cancer,
Epigenetics and Basic Science (Protein Methylation, etc)*



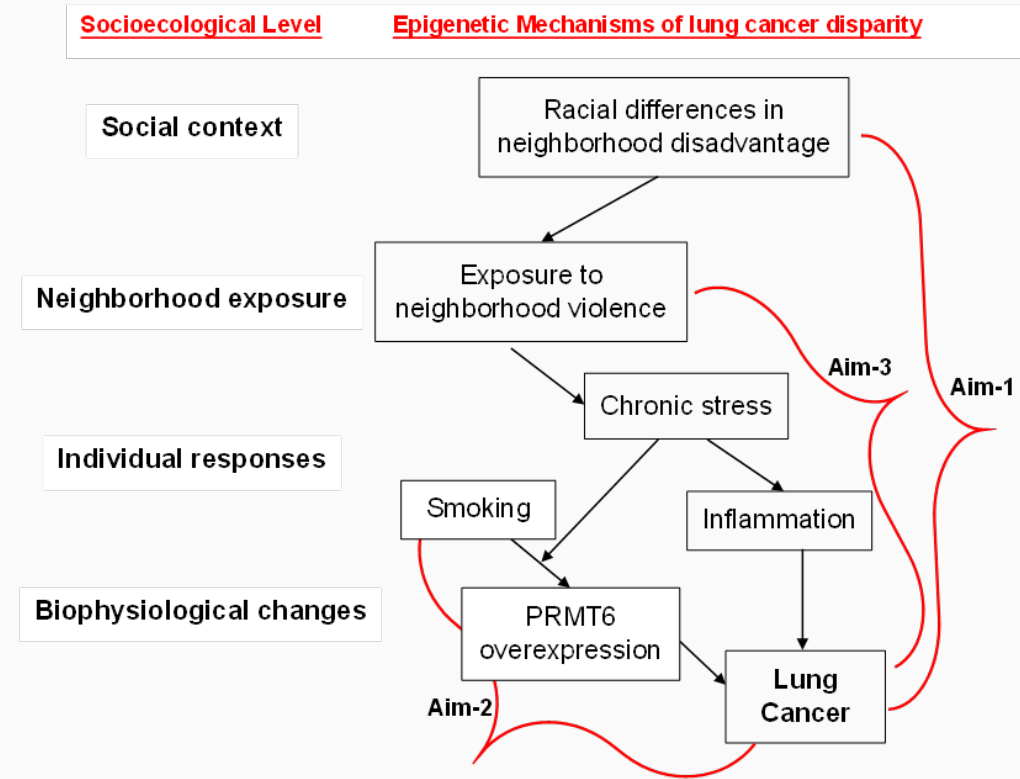
Karriem S. Watson, DHS, MS, MPH (Multi-PI)
*Former Assoc. Executive Director, Mile Square FQHC
Network
Assoc. Director, Community Outreach and Engagement
UI Cancer Center at UIC
Res. Assnt. Professor, UIC School of Public Health
Division of Community Health Sciences
Area of Focus: Community Engaged Research,
Implementation Science, and Health Systems Research*

Reducing Racial Disparities in Lung Cancer outcomes by decoding neighborhood contextual environment (RECODE)

Examine individual and neighborhood level risk factors for lung cancer to develop context-specific risk profiles of lung cancer for blacks vs. whites.

Examine the effects of exposure to neighborhood violence, smoking, and the interaction of the two risks on PRMT6 expression.

Assess the effect of exposure to violence on inflammatory responses (hair cortisol) and smoking (hair cotinine) among high-risk black men.



Diversity, Equity and Inclusion in Research Team and Theoretical Framework



Phoenix Matthews-UIC



Marcus Murray-Project Brotherhood



David O'Dell-NU



Karriem Watson-formerly UIC

Research developed
and guided by
community
stakeholders



Josef Ben Levi-NEIU



Curt Eskridge-Cut it Out Curt's Barber Shop

The *All of Us* Research Program: Advancing Diversity in Research Through Participant Engagement

UBR Category	Percentages
At least one UBR	80%
Non-white race or Hispanic/Latino ethnicity	50%
Age \geq 65	24%
Less than GED	11%
Annual Income \leq \$25k	29%
Sexual and Gender Minorities	9%



Thank You!

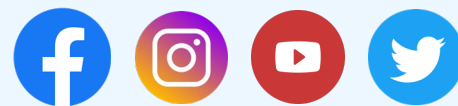


JoinAllofUs.org
ResearchAllofUs.org



National Institutes
of Health

AllofUs.nih.gov



@AllofUsResearch
#JoinAllofUs