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Ohio Cardiovascular and Diabetes Health Collaborative

CASE WESTERN RESERVE UNIVERSITY
School of Medicine

In partnership with:

The Ohio State University College of Medicine

College of Medicine and Life Sciences, The University of Toledo

Ohio University Heritage College of Osteopathic Medicine

Northeast Ohio Medical University

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Ohio Colleges of Medicine Government Resource Center

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Project ECHO®

Cardi-OH ECHO

Health Equity and Cardiovascular Risk

September 14, 2023

Cardi-OH ECHO Team

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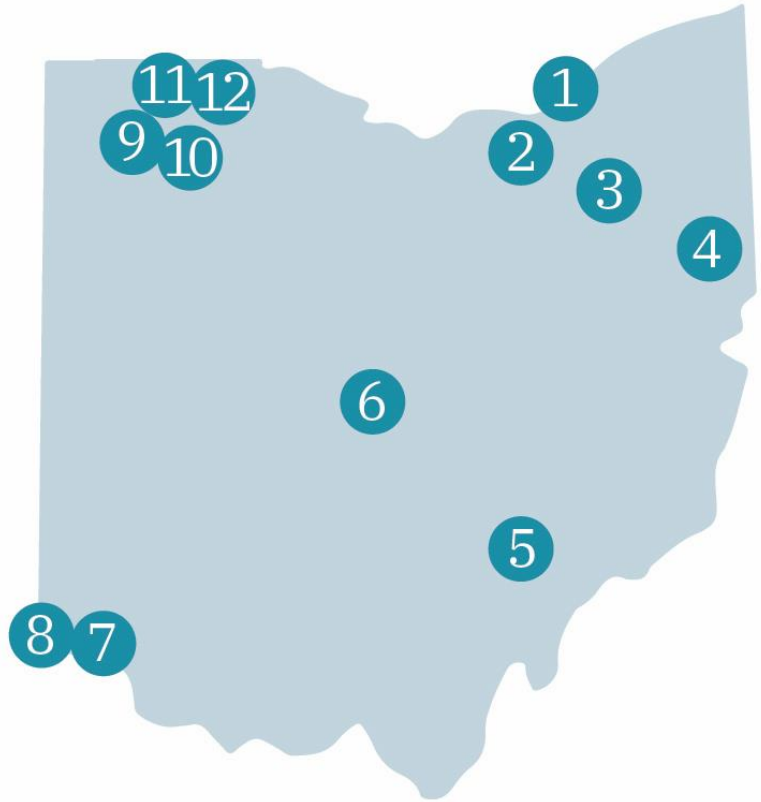
Fall 2023 Cardi-OH ECHO Participant Sites



1 **University Hospitals Cinema/ Achieve GreatER**
Cleveland

2 **MetroHealth Bedford Medical Offices**
Bedford

3 **Summa Family Medicine**
Akron

4 **SRMC Internal Medicine Center**
Salem

5 **Ohio University Diabetes Institute**
Athens

6 **Southeast Healthcare Inc**
Columbus

7 **UC Health**
Cincinnati

8 **Crossroad Health Center**
Cincinnati

9 **UTMC Comprehensive Care Center, Internal Medicine**
Toledo

10 **UTMC Practice**
Toledo

11 **UTMC Family Medicine**
Toledo

12 **Paramount Health Care Inc**
Toledo

Fall 2023 ECHO Participating Sites

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UH Cinema/Achieve GreatER
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UTMC Comprehensive Care Center, Internal Medicine
Margaret Sullivan, RN, BS, CDCES
Kara Douglass, PharmD
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Summa Family Medicine
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UTMC Family Medicine
Megan Sizemore, PharmD
UC Health
Tina Murphy, CNP
Southeast Healthcare
Paul Schmidt, RPh, MS
Tiffany Colquitt, BS, CDCA
Andrew Schneider, RN
Emily Boyd, NP
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Today's Presenters

FACILITATOR

Goutham Rao, MD, FAHA
Case Western Reserve University

LEAD DISCUSSANTS

All Subject Matter Experts

DIDACTIC PRESENTER

Adam Perzynski, PhD
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CASE PRESENTER

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Disclosure Statements

- The following speakers and subject matter experts have a relevant financial interest or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of their presentation*:
  - Danette Conklin, PhD; Kathleen Dungan, MD, MPH; Adam T. Perzynski, PhD; Christopher A. Taylor, PhD, RDN, LD, FAND; Jackson Wright, MD, PhD
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An Overview of Health Equity

Adam Perzynski, PhD
Professor of Medicine and Sociology
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The MetroHealth System
Case Western Reserve University

Special thanks to Joshua Joseph, MD and Bode Adebambo, MD who contributed to a prior version of this presentation

Learning Objectives

1) Define health equity as it pertains to delivery of healthcare in the United States.

2) Give three examples of how specific subpopulations are disadvantaged in terms of health care delivery to mitigate cardiovascular risk.

3) Describe a strategy to identify important social determinants of health in the clinical setting.

What is Health Equity?

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- **Health equity** is the state in which everyone has a fair and just opportunity to attain their highest level of health.
- Achieving this requires ongoing societal efforts to:
  - Address historical and contemporary injustices;
  - Overcome economic, social, and other obstacles to health and health care; and
  - *Eliminate preventable health disparities.* [1,2]

Health Disparity

"A particular type of health difference that is linked with social, economic or environmental disadvantage……"

Healthy People 2030

Health Disparity

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- Adversely affects groups of people who have experienced obstacles to health

Health Disparity vs Health Care Disparity

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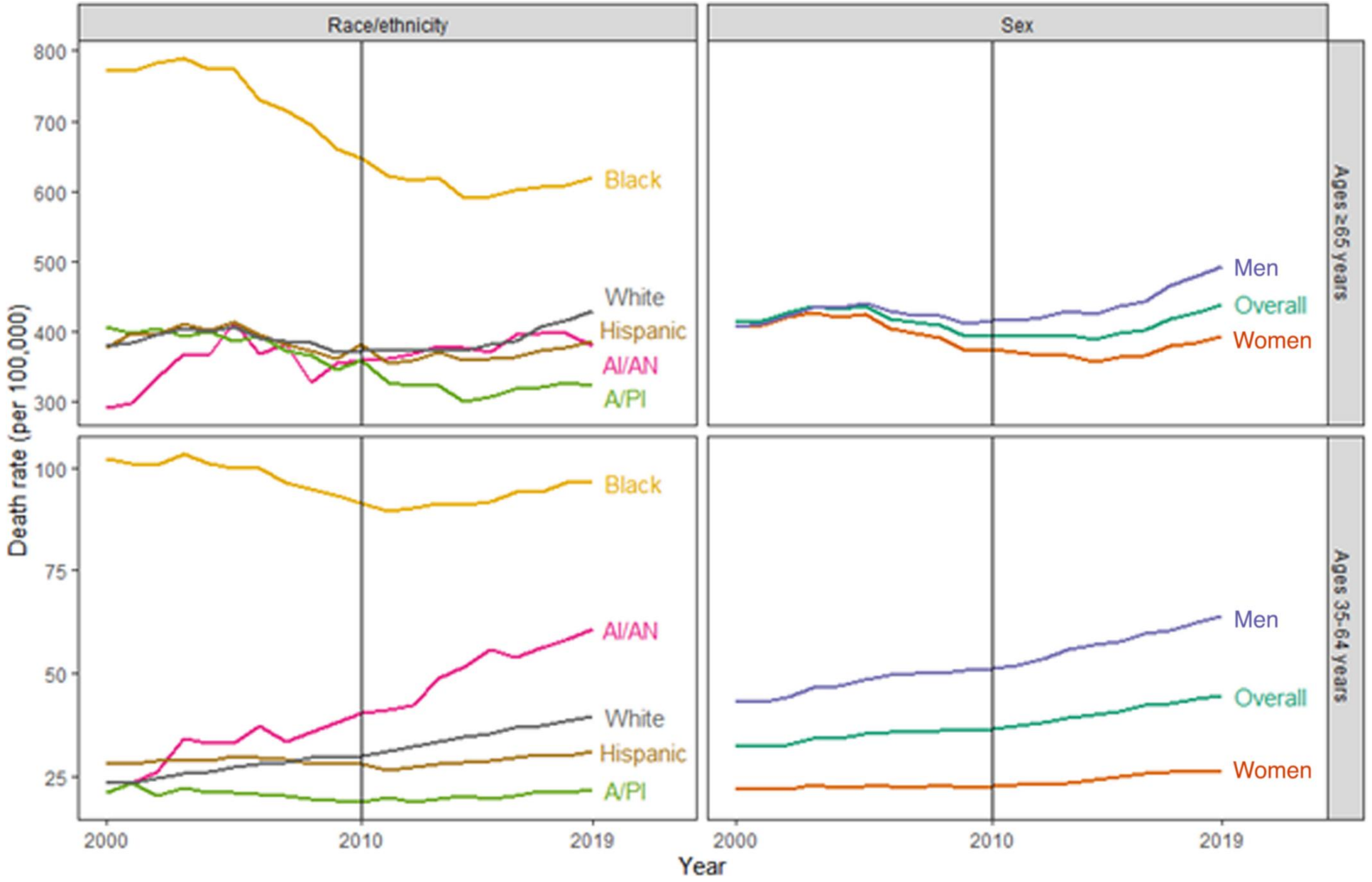
- "**Health disparity**" refers to a higher burden of illness, injury, disability, or mortality experienced by one population group relative to another.

- A "**health care disparity**" typically refers to differences between groups in **health** insurance coverage, access to and use of **care**, and quality of care.



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Adam S. Vaughan. Journal of the American Heart Association. County-Level Trends in Hypertension-Related Cardiovascular Disease Mortality—United States, 2000 to 2019, Volume: 11, Issue: 7, DOI: (10.1161/JAHA.121.024785)

Paths and Obstacles to Health Equity

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- Health care disparities occur in the context of broader inequality.
- Disparities are *AVOIDABLE.*
- Social determinants of health are a key driver of disparities.
- Community and neighborhood factors are critically important.
- There are many sources across health systems, providers, patients, and managers that contribute to disparities.
- Bias, stereotyping, prejudice, and clinical uncertainty contribute to disparities.

Who Benefits from Health Equity?

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- Health equity benefits everyone.
- Every person who dies young, is avoidably disabled, or is unable to function at their optimal level represents not only a personal and family tragedy but also impoverishes our communities and our country. We are all deprived of the creativity, contributions, and participation that result from disparities in health status.

- *CDC 2013 health disparities/inequality report*

Structural Determinants

- **Structural racism - racial bias among institutions & across society**
    - This involves the cumulative and compounding effects of an array of societal factors, including the history, culture, ideology, and interactions of institutions and policies that systematically privilege White populations and disadvantage non-White populations.

Race Forward, David R. Williams, PhD

Poverty | Racism | Discrimination

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Upstream determinants

Midstream determinants

Food insecurity

Unsafe and overcrowded housing

Poor access to high-quality healthcare

Exposure to toxins

Income inequality

Unemployment

Education

Downstream health outcomes

Type 2 Diabetes

Asthma

Poor mental health

Heart disease

Obesity

Cancer

Biology • Behavior • Environment

@DMGrayMD

OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER

HISTORICAL DISCRIMINATION AND RACISM DURING SLAVERY AND POST-CIVIL WAR

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Medical and Scientific Contributors
- Eugenics Theory defining certain races and ethnicities as biologically inferior
- Closure of medical schools training black physicians in 1910s
- Experimentation on vulnerable groups without their consent

Social Conditions and Policies
- Redlining and predatory lending leading to racial residential segregation and housing insecurity
- Inadequate investment to maintain public works and school systems in minority neighborhoods
- Discrimination in access to high quality jobs with adequate health insurance

↓ Trust in medical establishment

Healthcare provider bias toward minority patients

Language and communication barriers

Structural and institutional racism

Physical Context
↓ neighborhood stability, cleanliness, sidewalks, open space, parks
↓ access to healthy food
↓ affordable housing

Healthcare Context
Poor access to care, ↓ quality of care, ↓ participatory decision-making in patient-provider relationships, ↓ health literacy

↑ Stress, Blood Pressure, Obesity, Cholesterol, Blood Glucose

DISPARATE HEALTH OUTCOMES
Obesity and Obesity Related Conditions


Perspective

Casting a Health Equity Lens on Endocrinology and Diabetes

Sherita Hill Golden, Joshua J. Joseph, and Felicia Hill-Briggs

Casting a Health Equity Lens on Endocrinology and Diabetes. Golden, Joseph, Briggs, JCEM, 2021

Sometimes the Avoiding Cardiovascular Risks is Not Simple.

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Informing Policy for Reducing Stroke Health Disparities from the Experience of African-American Male Stroke Survivors

Adam Perzynski, Carol Blixen, Jamie Cage, Kari Colón-Zimmermann & Martha Sajatovic

Journal of Racial and Ethnic Health Disparities

ISSN 2197-3792
Volume 3
Number 3

J. Racial and Ethnic Health Disparities
(2016) 3:527-536
DOI 10.1007/s40615-015-0171-2

Table 1 Psychological and social constraints on risk factor reduction

Recommendation and odds of continued risk[a] (INTERSTROKE)	Psychological and social constraints (TEAM study)	Example
A. Control hypertension with medication (OR = 2.6) and B. Control lipids with medication (OR = 1.9)	• Poor access to care prevents effective use of medication and health services • Non-adherence due to mistrust or negative attitudes • Tailoring of medication (skipping doses, bargaining) • Racial discrimination and a lifetime of distress can make hypertension more difficult to treat • Expensive medication	"Man their scheduling… I'm almost at the end of my medication. I'm like oh God I need a refill." (participant P1) "Sometimes I think of the doctors as just using us as a paycheck. If you get sick who you gonna go see, your doctor, who gets paid, your doctor. If they write a prescription for you they get kickbacks." (participant P2)
C. Salt restriction and consumption of a diet rich in fruits, vegetables, and low-fat dairy products (OR = 1.4)	• Cultural traditions including high salt/high fat foods • Difficulty/costs in obtaining low-salt/low-fat foods • Pressure from family and friends to eat "traditional" foods • Knowledge and literacy barriers to reading labels and selecting healthy foods	"I grew up on soul food all my life and it's kind of hard for me to change." (participant P5)
D. Regular aerobic physical activity (OR = 1.4)	• Inadequate access to safe and affordable exercise programs/facilities • Competing demands (stroke survivors are often themselves caregivers for spouses, children, older parents, or siblings)	"I have a hard time walking… Because a house is not big enough to just get up and walk around any damn place you want. I mean you can do that, but where are you going to go?" (participant P3)
E. Limit alcohol consumption (OR = 1.5) and F. Quit smoking (OR = 2.1)	• Family, peer, and social network pressures to continue past behaviors • Poor mood, negative affect, and psychosocial stress may contribute to increased smoking and/or alcohol use	"The things that get in the way of staying healthy and preventing another stroke? Okay. We put drinking alcohol." (participant P9)
G. Weight loss (OR = 1.7)	• Inadequate access to safe and affordable exercise programs/facilities • Depression and psychosocial stress can make weight loss difficult • Mobility limitations make exercise difficult • Lack of access to healthy foods	"My left side is pretty much paralyzed, so I have a hard time getting around or using the whole left side of my body." (participant P4)
H. Control depression (OR = 1.4) and I. Psychosocial stress (OR = 1.3)	• Current and historical discrimination against African-American men • Stigma of mental illness • Depression symptoms may be "normalized" or go unrecognized or unreported • Changes in social roles after stroke may increase depression and distress • Persistent financial difficulties for low socioeconomic status African-Americans contribute to distress and depression. • Constrained ability to reduce risks (through blood pressure, exercise, eating right, etc.) can create even more distress	"I was in a lot of stress the day before I had the stroke." (participant P1) "The top concern is handling stress level, and I heard it mentioned here over and over. When you're down on yourself, and you just can't get up and go." (participant P2) "I would uhm come home some nights and he would be so depressed." (participant CP3)

Total potential increase in risk, OR = 15.3

[a] Odds of continued risk represent 90 % of the risk of stroke [22]

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Participants in the focus group sessions emphasized the overriding influence of psychosocial stress, both daily and cumulative, on their ability to engage in effective self-management practices.

I focus on what's going on with African American men, and one of the reasons why we are having so, so much stress I think a lot of stuff is deal, dealing with stress and social issues…When you start talking about it towards African American men you got to be, the stress got to be at least 75 to 80 percent of why we even had a stroke. (participant 6)

The Power of Neighborhood Factors on Health

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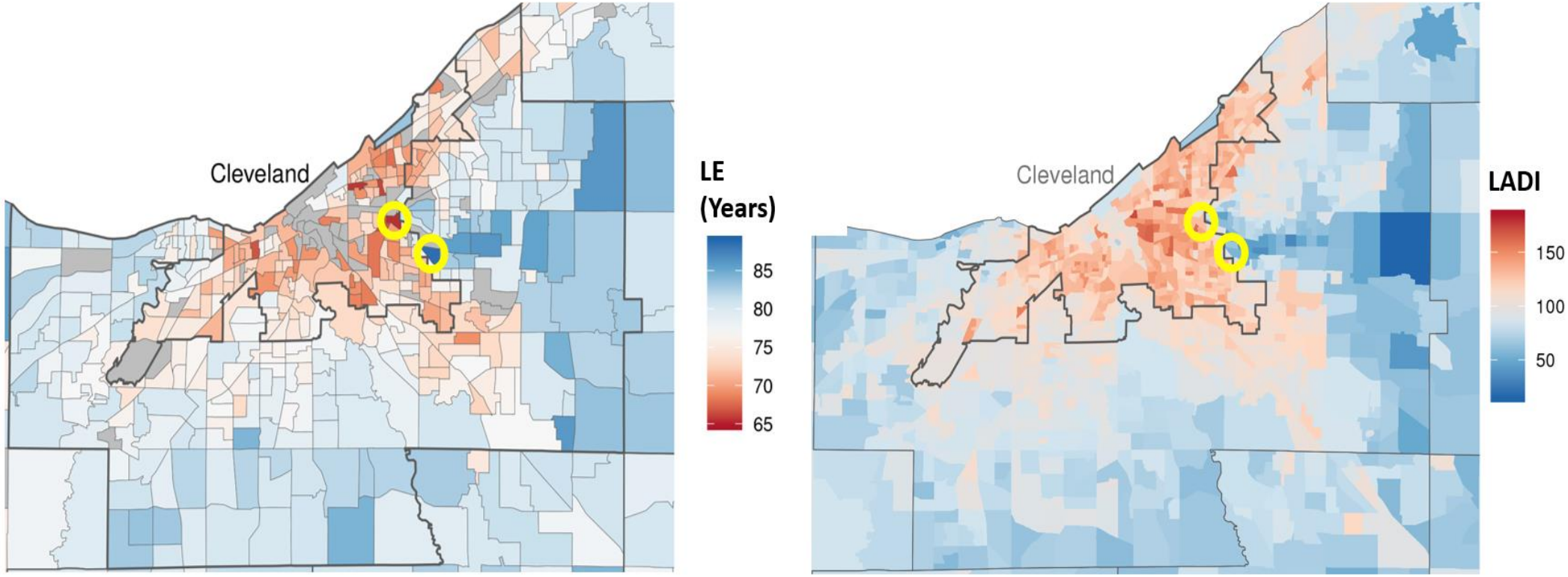
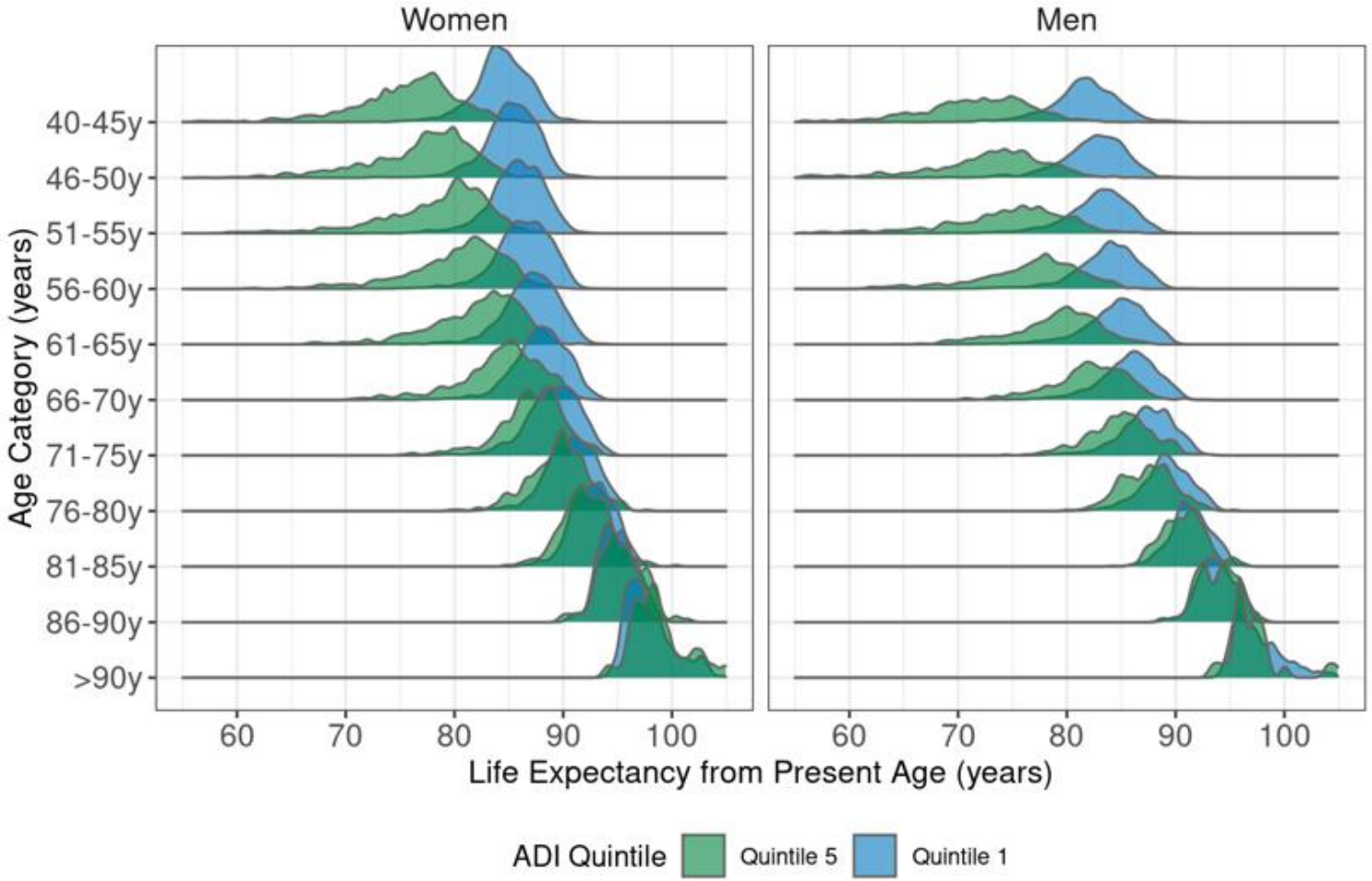


Figure 2. Census tract-level life expectancy (LE, 2010-2015) and localized area deprivation index (LADI, 2017) estimates for Cuyahoga County, Ohio. The tracts with the shortest and longest LE are circled in both panels.

>500,000 Ohio primary care patients who seen between 2007 and 2021



Dalton, Mourany, Perzynski, Gunsalus, Pfoh, Blazel, Taksler (In preparation)

Effects of Life-Course Socioeconomic Differences in Chronic Disease Incidence on Life Expectancy in Middle-Aged Adults

The Power of Neighborhood Factors on Health

- Populations made vulnerable live in inferior neighborhoods with respect to food stores, places to exercise, aesthetic challenges (vacant houses), and traffic or crime-related safety.

<u>Factors associated with cardiovascular risk:</u>

- Poor access to supermarkets
- Less neighborhood walkability
- Less access to recreational facilities
- Toxic physical environmental stressors

Golden et al, *JCEM*, 2012

Redlining and Historical Discrimination

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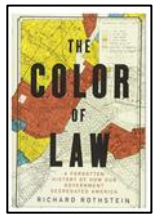
- 1936 Residential Security Maps developed and utilized by federal agencies (Home Owners Loan Corp. and then the Federal Housing Administration and then adopted by the Veterans Administration).
- Color to designate the **"suitability of neighborhoods for lending".**
  - *Best – green*, *still desirable – blue*, *yellow – declining*, *red – hazardous*
- The FHA subsidized builders mass-produced subdivisions for White Americans — with the requirement that none of the homes be sold to African Americans.
- Areas where African-Americans lived were colored red to indicate to appraisers that these neighborhoods were too risky to insure mortgages, "AKA" Redlining.
- Analysis of Ohio data found that **neighborhoods with any black residents had 45 times higher odds of being redlined.**



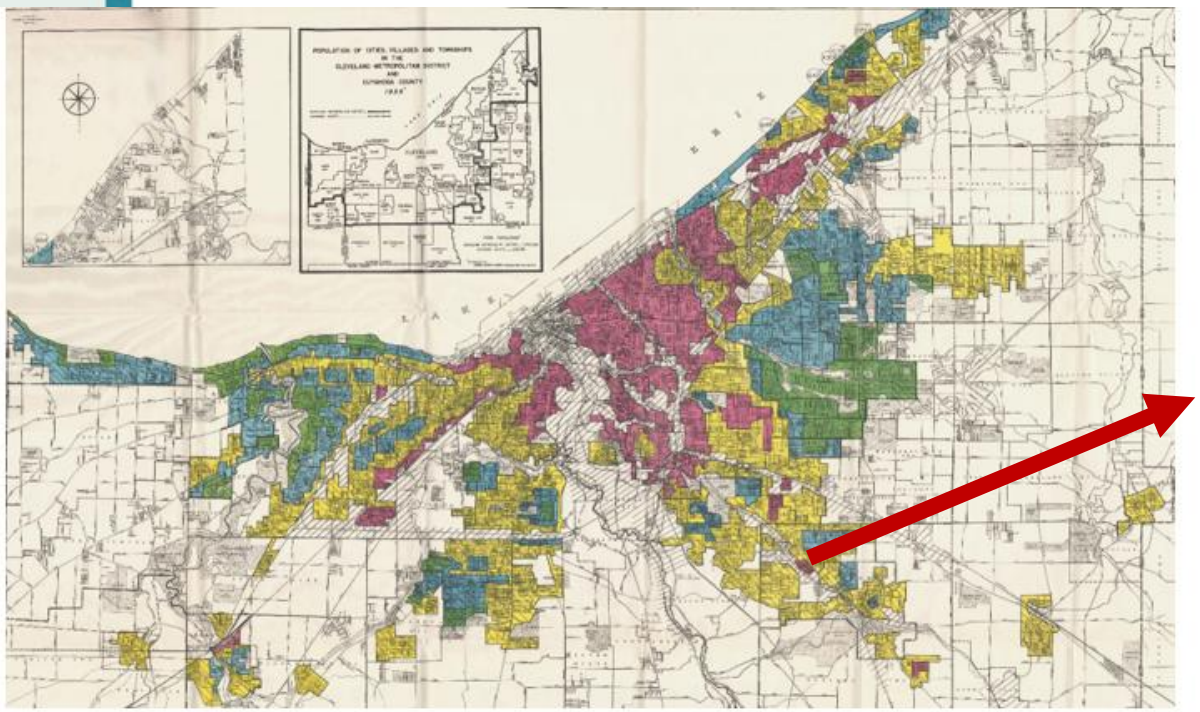
- **Richard Rothstein – The Color of Law**
- https://www.segregatedbydesign.com (17 min)
- NPR Link (35 min)

Berg KA, Coulton CJ & Perzynski AT. (Accepted). Racism and the Racialization of U.S. Neighborhoods: Impacts on Child Maltreatment and Child Maltreatment Reporting. Chapter in *It Takes a Village: The Evolution of Neighborhoods and Implications for Child Maltreatment*, Katz C & Maguire-Jack K Eds. Springer, NY.

Maguire-Jack K, Korbin JE, Perzynski A, Coulton C, Font SA & Spilsbury JC. (2021). How Place Matters in Child Maltreatment Disparities: Geographical Context as an Explanatory Factor for Racial Disproportionality and Disparities. Chapter in Racial Disproportionality and Disparities in the Child Welfare System Detlaff AJ Editor. Springer Nature, NY.

Perzynski AT, Berg KA, Thomas C, Cemballi A, Smith T, Shick S, Gunzler D & Sehgal AR. (2023). Racial Discrimination and Redlining of Neighborhoods. *Dubois Review*.

Redlining and Historical Discrimination



"About two years ago strong effort began to decrease the colored occupancy of this area and has resulted in the moving of 33 families (only 50 remaining) some of whom were moved at the city's expense. In each case the removal of a colored family caused the occupancy of a white family in this neighborhood. There is also a tendency towards improvement in the physical appearance of the community during this same period." 1939, Area D8, Maple Heights

Figure 1A. Home Owners Loan Corporation Map of Redlined Areas in Greater Cleveland from 1940 Map reprinted from a National Archives collection whose access and use is "Unrestricted," according to the Archival Research Catalog for ARC Identifiers 720357 and 3620183 (NARA website: http://www.archives.gov/research/catalog/)

Health inequity is linked to historical inequalities.

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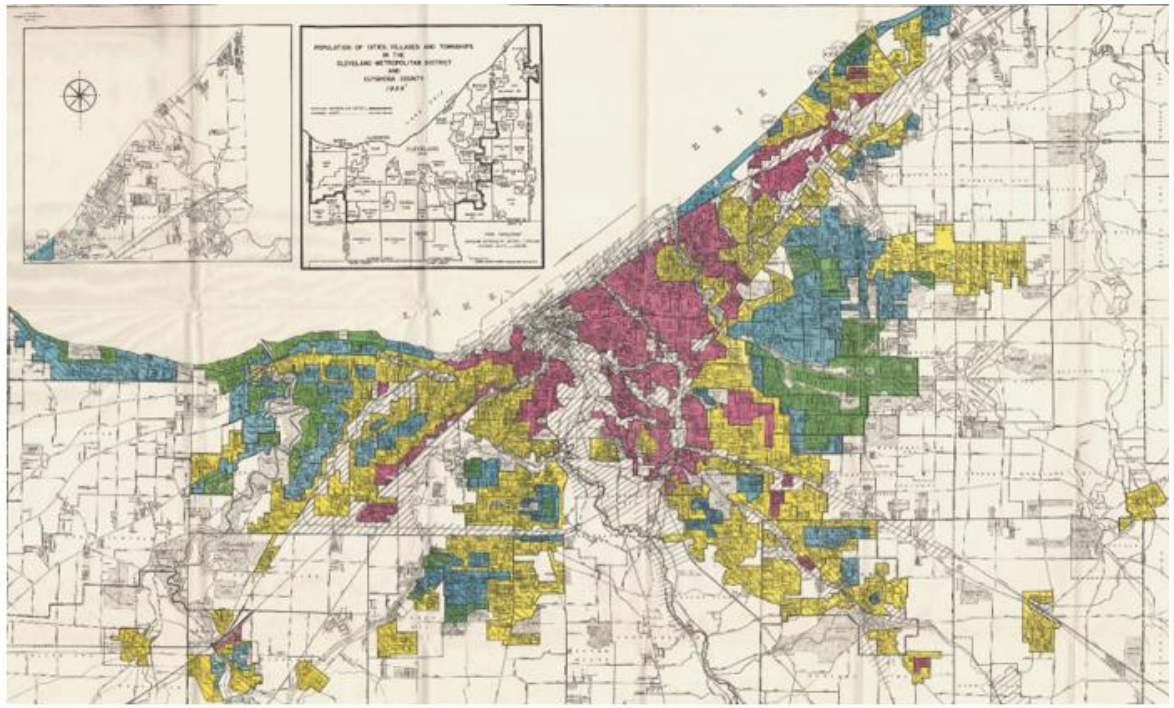


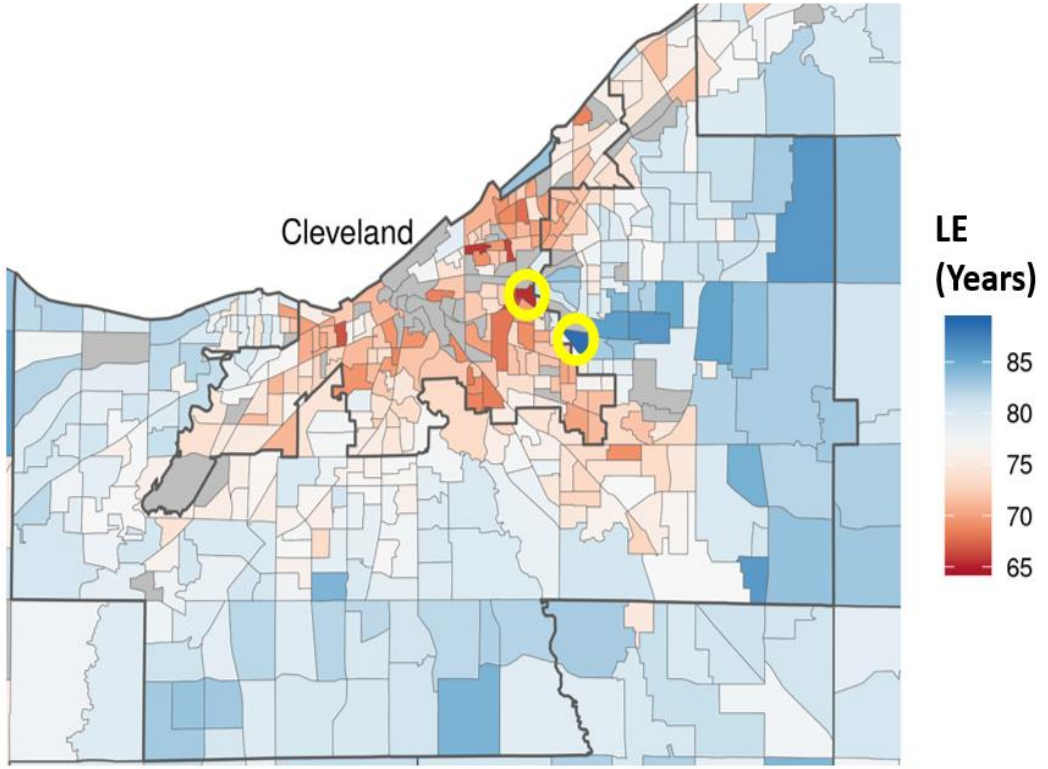
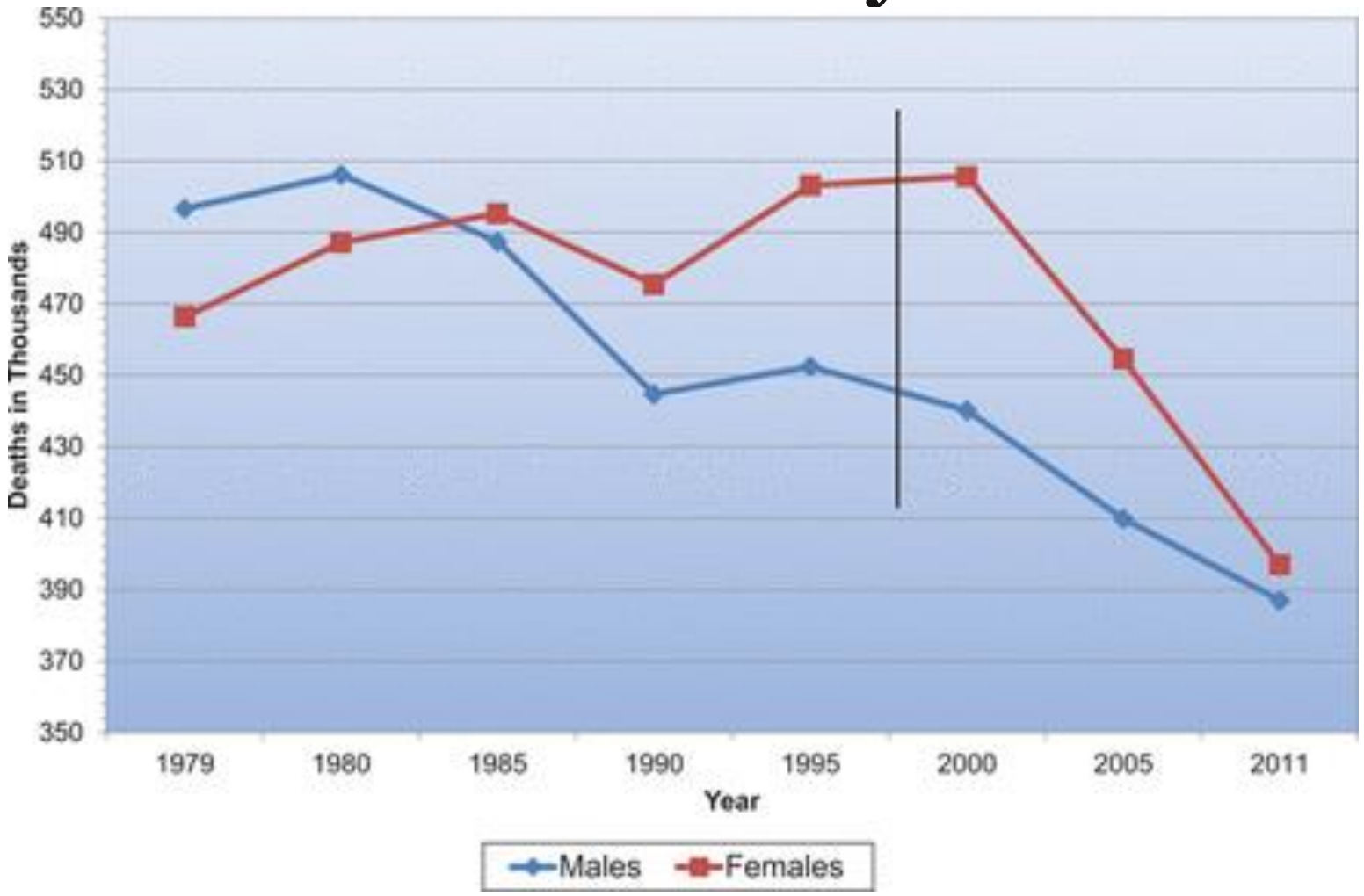


Figure 2. Census tract-level life expectancy (LE, 2010-2015) and localized area Ohio. The tracts with the shortest and longest LE are circled in both panels.

Health Equity Improvement is Possible: Mortality from CVD



Core WHO Recommendations for Improving Health Equity

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1. Improve Daily Living Conditions.

2. Tackle the unequal distribution of power, money & resources.

3. Measure and understand the problem and assess the impact of action.

Reflective Questions

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1. How can learning about health equity influence the way you will provide health care in the future?

2. In what ways are you already working to be sensitive to the needs of diverse, vulnerable patients?

Thank you!

Questions/Discussion