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Ohio Cardiovascular and Diabetes Health Collaborative

SCHOOL OF MEDICINE
CASE WESTERN RESERVE UNIVERSITY

In partnership with:

THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER

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 Department of Medicaid

Project ECHO®

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Cardi-OH ECHO

Your Patient with Diabetes at Risk for Heart Disease: A Series of Case Discussions

December 2, 2021

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Disclosure Statements

- The following planners, speakers, and/or content experts of the CME activity have financial relationships with commercial interests to disclose:
  - Marilee Clemons reports receiving consulting fees from Novo Nordisk.
  - Kathleen Dungan, MD, MPH reports receiving consulting fees from Eli Lilly, Novo Nordisk and Boehringer, research support from Sanofi, , Viacyte, and Abbott and presentation honoraria from UpToDate, Elsevier, ACHL, and CMHC.
  - Adam T. Perzynski, PhD reports being co-owner of Global Health Metrics LLC, a Cleveland-based software company and royalty agreements for book authorship with Springer Nature publishing and Taylor Francis publishing.
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  - Jackson T. Wright, Jr., MD, PhD reports receiving fees for serving as an advisor to Medtronic.
  - These financial relationships are outside the presented work.
- All other planners, speakers, and/or content experts of the CME activity have no financial relationships with commercial interests to disclose.

Person-Centered Language Recommendations

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The ADA and the APA recommend language that emphasizes inclusivity and respect:

- **Gender**: Gender is a social construct and social identity; use term “gender” when referring to people as a social group. Sex refers to biological sex assignment; use term “sex” when referring to the biological distinction.
- **Race**: Race is a social construct that is broadly used to categorize people based on physical characteristics, behavioral patterns, and geographic location. Race is not a proxy for biology or genetics. Examining health access, quality, and outcome data by race and ethnicity allows the healthcare system to assist in addressing the factors contributing to inequity and ensure that the health system serves the needs of all individuals.
- **Sexual Orientation**: Use the term “sexual orientation” rather than “sexual preference” or “sexual identity.” People choose partners regardless of their sexual orientation; however, sexual orientation is not a choice.
- **Disability**: The nature of a disability should be indicated when it is relevant. Disability language should maintain the integrity of the individual. Language should convey the expressed preference of the person with the disability.
- **Socioeconomic Status**: When reporting SES, provide detailed information about a person’s income, education, and occupation/employment. Avoid using pejorative and generalizing terms, such as “the homeless” or “inner-city.”

Flanagin A et al., 2021, JAMA; Dickinson JK et al., Diabetes Care, 2017; American Psychological Association, 2021; ODM, 2021.

Cardiovascular Health in Rural Settings

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Objectives

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1) Describe the epidemiology of cardiovascular risk factors in rural America.

2) List and describe a minimum of 3 challenges to optimal cardiovascular health among rural residents.

3) List and describe a minimum of 3 strategies to engage rural residents in healthier nutrition and physical activity.

Rural America

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- Approximately 60 million people, or one in five Americans, live in rural America.
- 97% of America's land mass is rural but houses only 19% of the population.
- Conversely, 3% of America's land is urban but houses 81% of the population.

Ratcliffe M et al. 2016,; James CV et al., 2015; Matthews KA et al., 2017; O'Connor a & Wellenius G, 2012; Keppel KG et al., 2004; U.S. census.gov.

Cardiovascular Risk in Rural Areas

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- Unhealthy diet, lack of physical activity, increased body size, and tobacco use are risk factors of cardiovascular disease (CVD).
  - Rural areas have ↑ BMIs, ↓ rates of physical activity, and ↑ rates of smoking.
- Rural areas have less access to healthy and fresh food, higher food costs, and fewer places to buy food.
  - ↑ rates of food insecurity, which is associated with ↑ BMI, ↑ CVD, and ↑ type 2 diabetes.

Lloyd-Jones DM et al., Circulation, 2010; Befort CA et al., 2012, J Rural Health; Smith, L.H. et al., J Phys Health, 2018; Nemeth JM et al., Rural Remote Health, 2018; Eisenhauer CM, Public Health Nurs, 2017; Smith LH et al., J Phys Health, 2018.

Rural America

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- 20% of America's population yet employ only 10% of practicing physicians.
- Fewer specialists, dentists, mental health professionals, and pharmacists practice in rural regions.
- Less likely to have timely access to emergency medical services, hospitals, clinics.

Burrows E, Suh R, Hamann D. Health Care Workforce Distribution and Shortage Issues in Rural America. National Rural Health Association; 2012.

Common Barriers in Rural America

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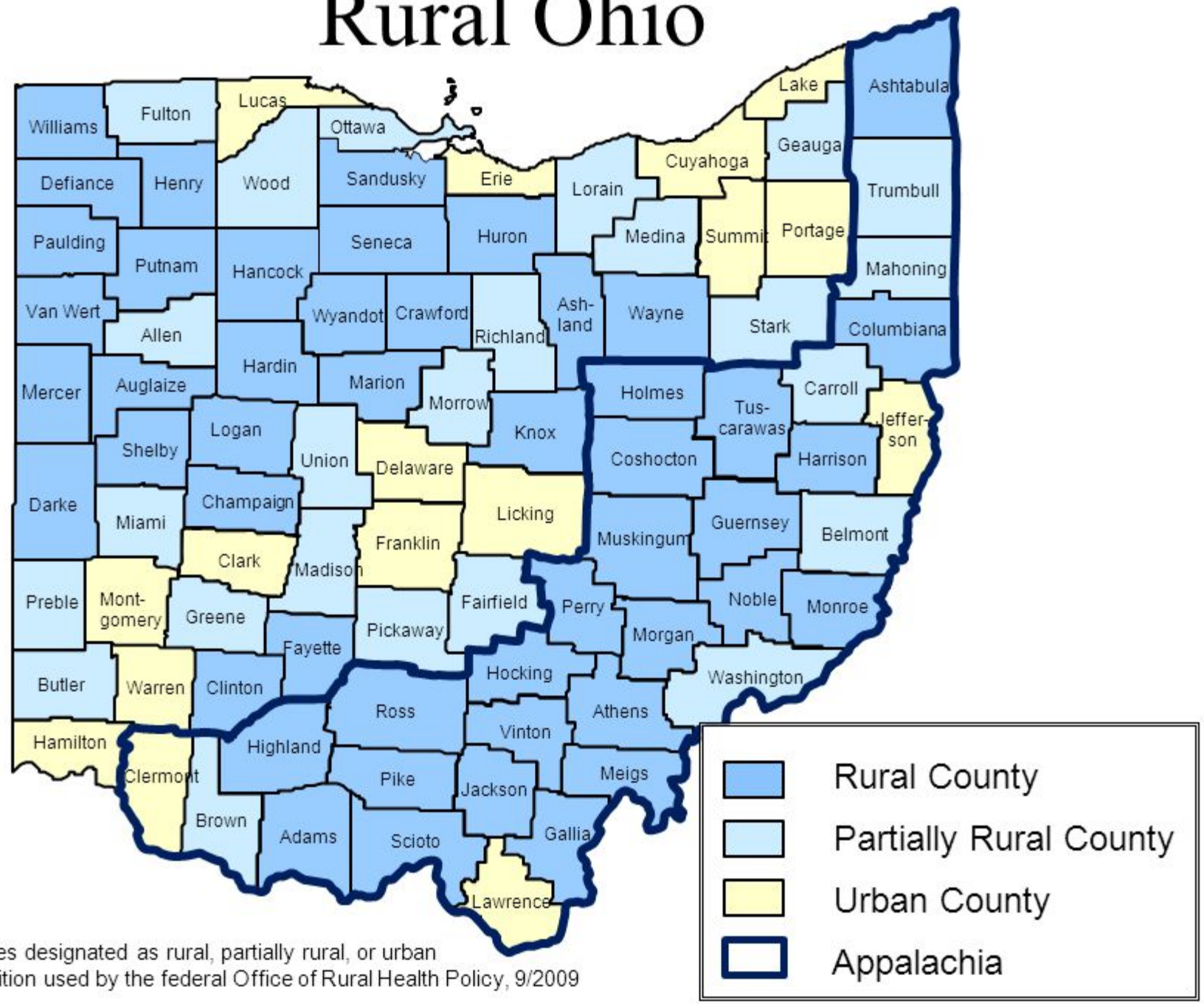
- Transportation difficulties
  - Lack of public transportation, unpaved roads, extreme weather conditions
- Lack of access to health care
- Lack of quality health care
- Lack of CVD specialists in the region
- Fewer hospitals, emergency departments, and clinics
- Financial constraints
- Less comprehensive insurance coverage
- Food insecurity
- Housing issues and homelessness
- Social isolation

Douthit N, Kiv S, Dwolatzky T, Biswas S. Exposing some important barriers to health care access in the rural USA. Public health. 2015;129(6):611-20.

Rural Ohio



Source: Counties designated as rural, partially rural, or urban under the definition used by the federal Office of Rural Health Policy, 9/2009

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Ohio Poverty Rate by County

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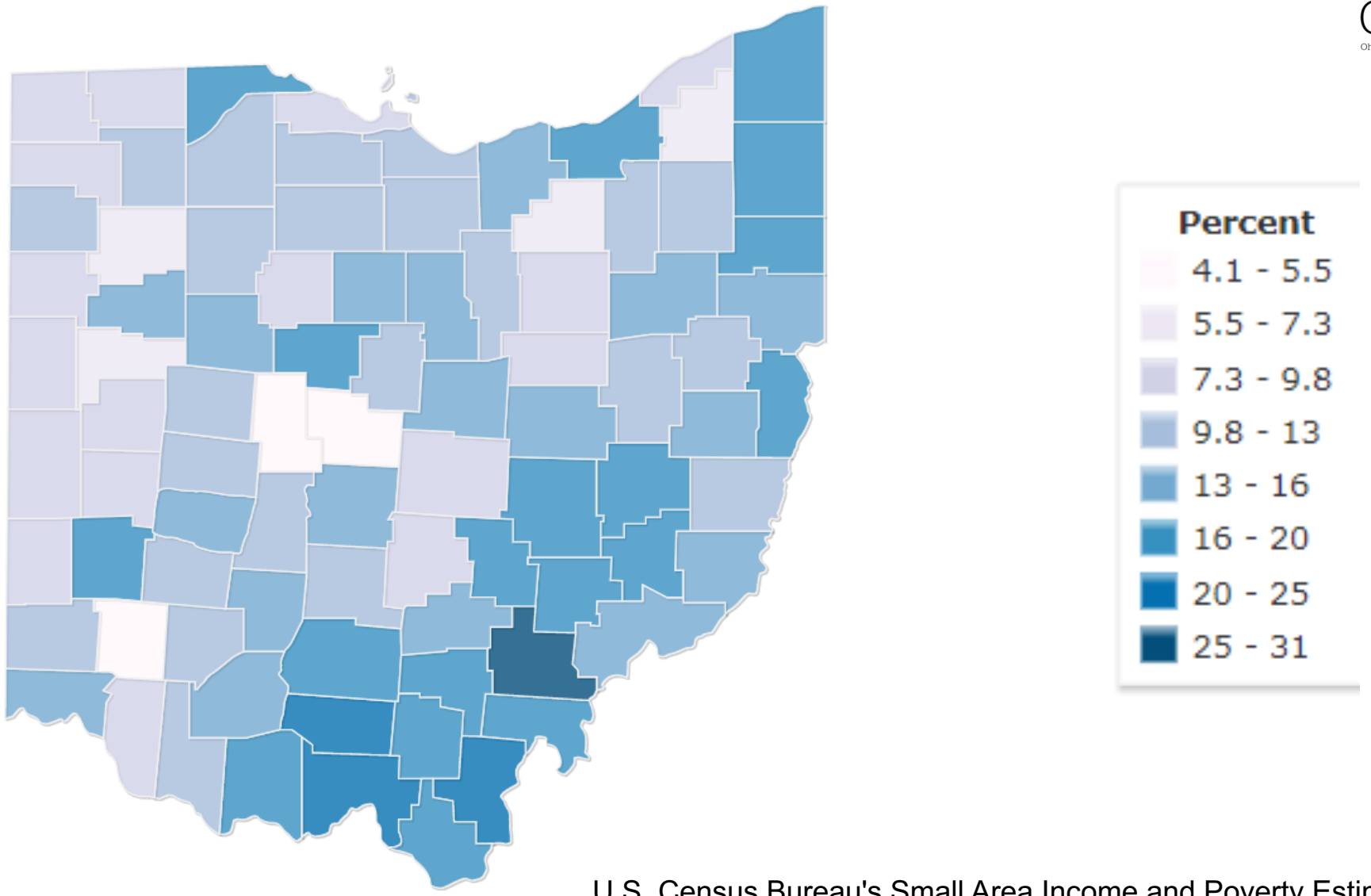

U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE)

Strategies for Rural Residents

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- Text messaging interventions to ↑ physical activity.
  - 94% of rural Americans have cell phones and 80% have smart phones.
- CHWs provide chronic disease care and often lower costs.
  - CHWs reduce CVD by influencing behavioral change (e.g., diet).
  - CHWs improve stroke recovery outcomes in rural areas.
- Telehealth is a promising model for CVD and stroke care.
  - Remote monitoring for heart failure, diabetes, hypertension, and stroke recovery can improve patient outcomes.

Beck AM et al., BMC Pub Health, 2019; Liao Y et al., Prev Med, 2016; Davidson PM & MacDonald PS, Circulation, 2011; Johnson P et al., J Rural Health, 2018; Kitzman P et al., J Com Health, 2017; Riley WT et al., Telemed J E Health, 2015; Shane-McWhorter L et al., Diabetes Technol Ther., 2014; Riley WT et al., Telemed J E Health, 2015; Young H et al., Telemed J E Health, 2014.

Thank you!

Questions/Discussion