



# CARDI•OH

Ohio Cardiovascular and Diabetes Health Collaborative



*In partnership with:*



## Cardi-OH ECHO

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

October 28, 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.
  - Christopher A. Taylor, PhD, RDN, LD, FAND reports grant funding for his role as a researcher and presenter for Abbott Nutrition and grant funding for research studies with both the National Cattleman's Beef Association and the American Dairy Association Mideast.
  - Jackson T. Wright, Jr., MD, PhD reports receiving fees for serving as an advisor to Medtronic.
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# 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.”

# Impact on Minority Populations



Adam Perzynski, PhD

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# Learning Objectives



- Describe the impact of hypertension and type 2 diabetes upon minority populations in the U.S.
- List and describe key factors driving cardiovascular risk and heart disease in minority populations.
- Describe what is known about culturally sensitive approaches to heart disease prevention in minority populations.

Disparities  
Span the  
Continuum of  
Diabetes

Clinical  
Management

Self  
Management

Severity

Hypo/hyper-  
glycemic  
events

Glycemic  
Control

Severe  
Complications

Cardiovascular  
events

Mortality

# 1. Promoting Health and Reducing Disparities in Populations

*Diabetes Care 2017;40(Suppl. 1):S6-S10 | DOI: 10.2337/dc17-S004*

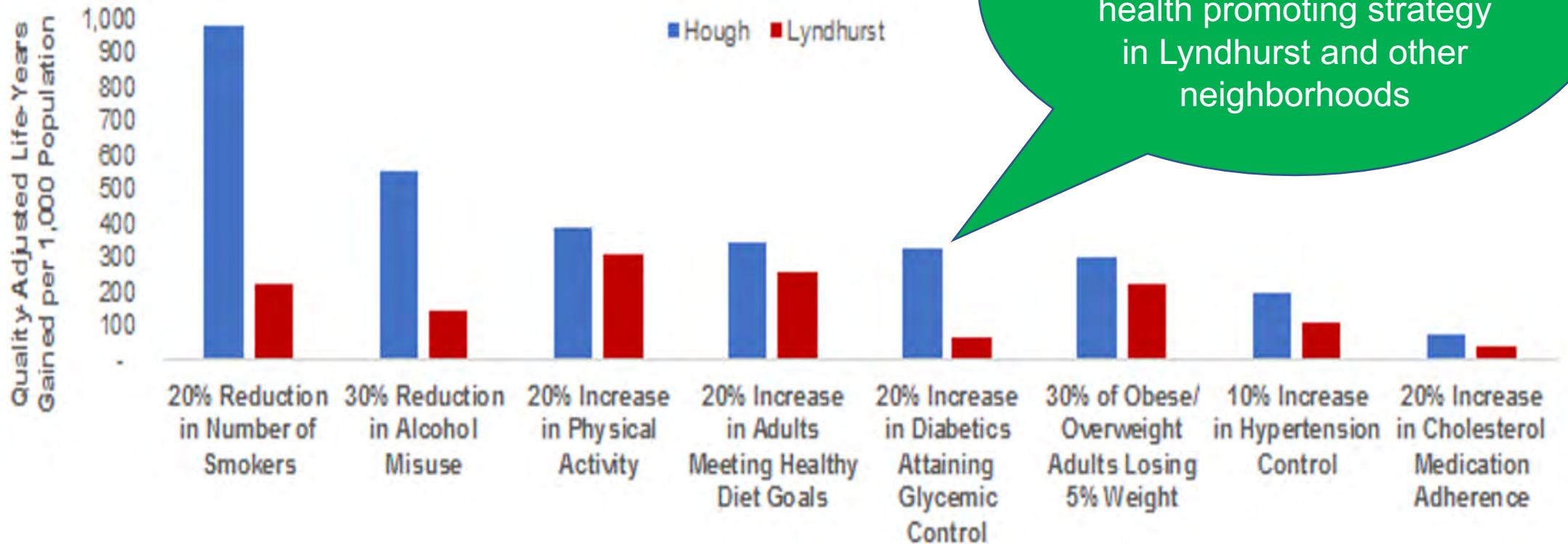
## TAILORING TREATMENT TO REDUCE DISPARITIES

### Recommendations

- Providers should assess social context, including potential food insecurity, housing stability, and financial barriers, and apply that information to treatment decisions. **A**
- Patients should be referred to local community resources when available. **B**
- Patients should be provided with self-management support from lay health coaches, navigators, or community health workers when available. **A**

# Improvements in Glycemic Control and Self-Management Behaviors can have Massive Consequences for Population Health

*Unpublished simulation analysis from Taksler, Dalton and Perzynski using data on 3 million outpatients in Northeast Ohio.*



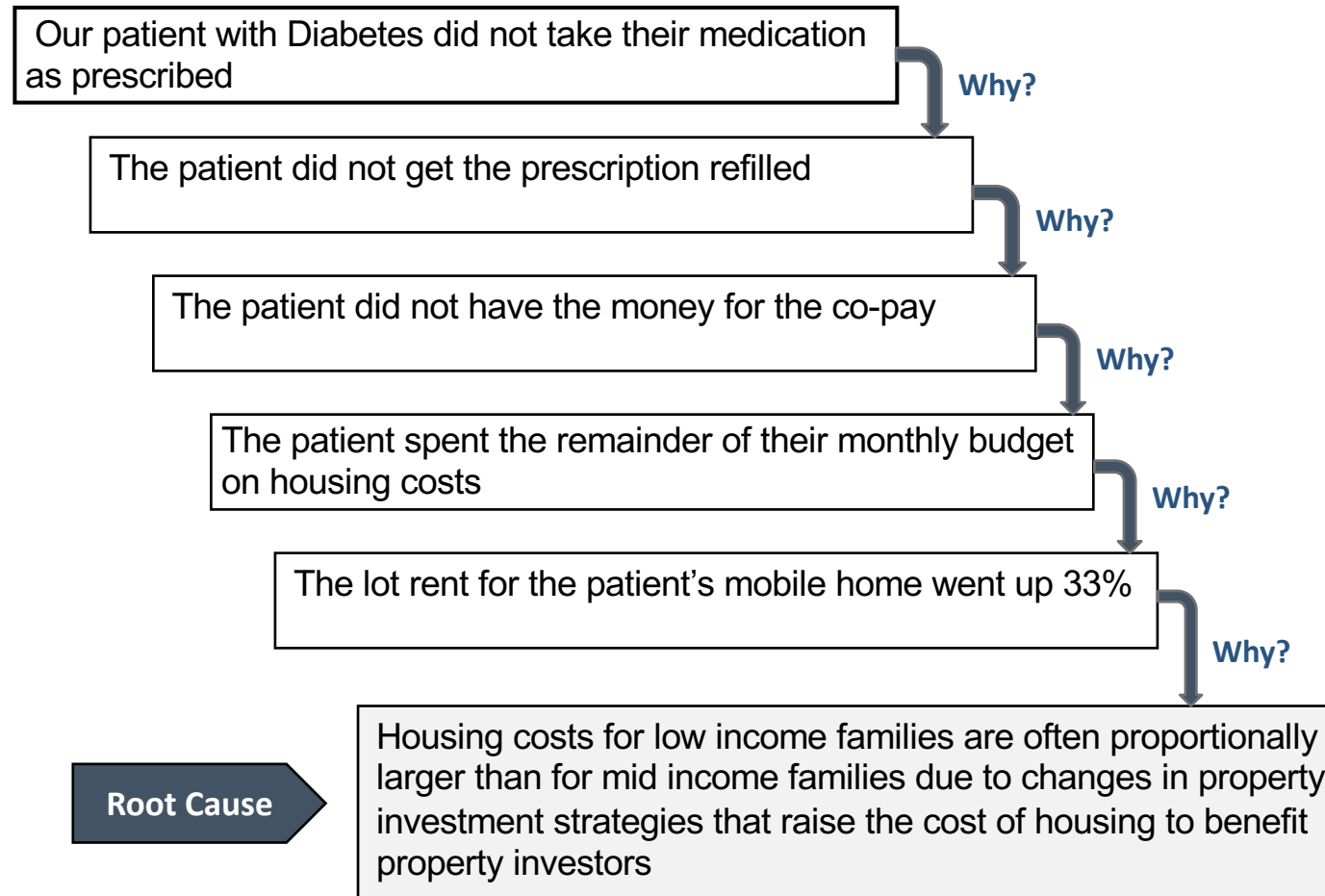
More life years are saved with glycemic control in Hough than any other health promoting strategy in Lyndhurst and other neighborhoods



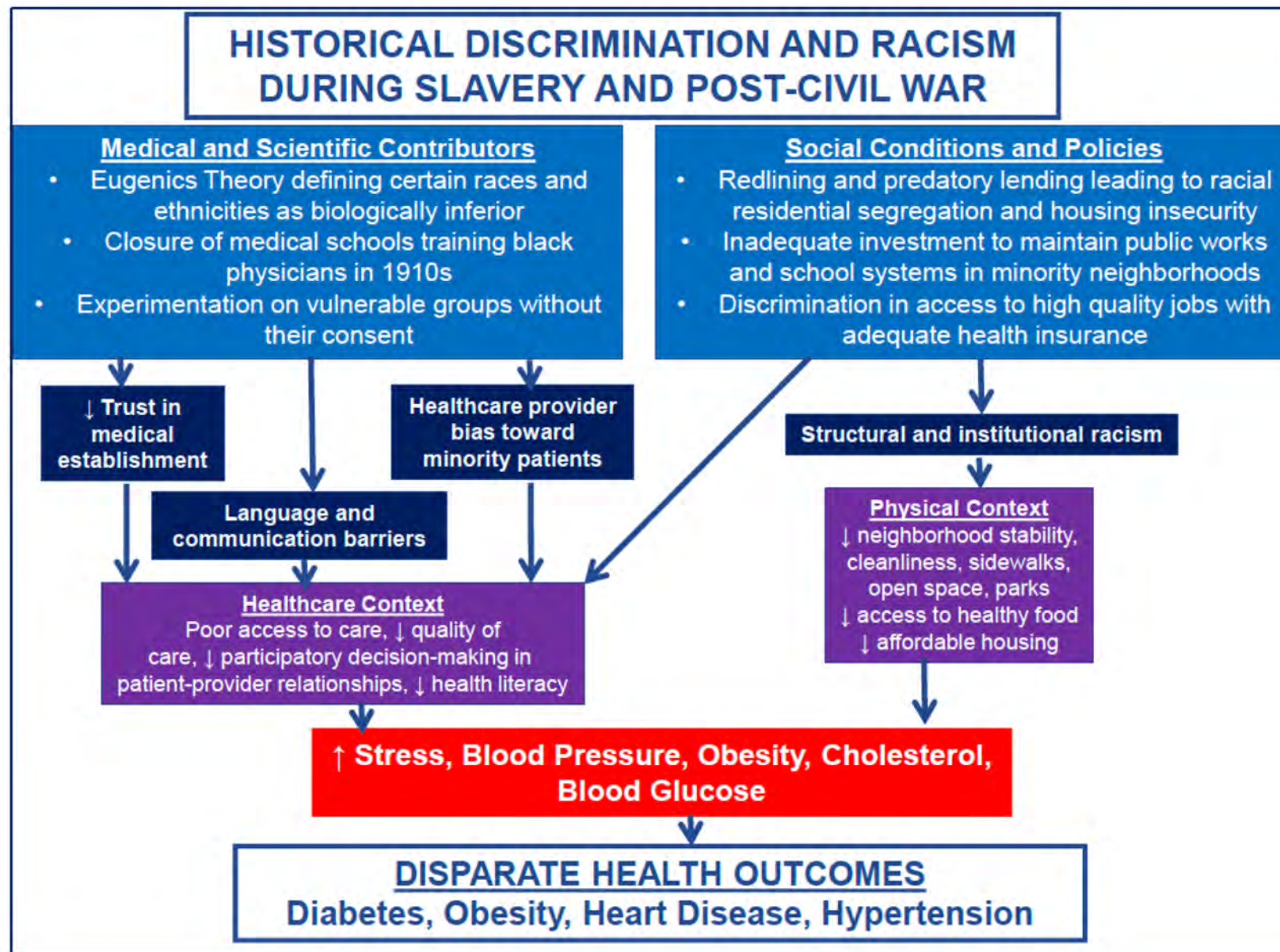
# Root Causes



# 5 Whys (example)

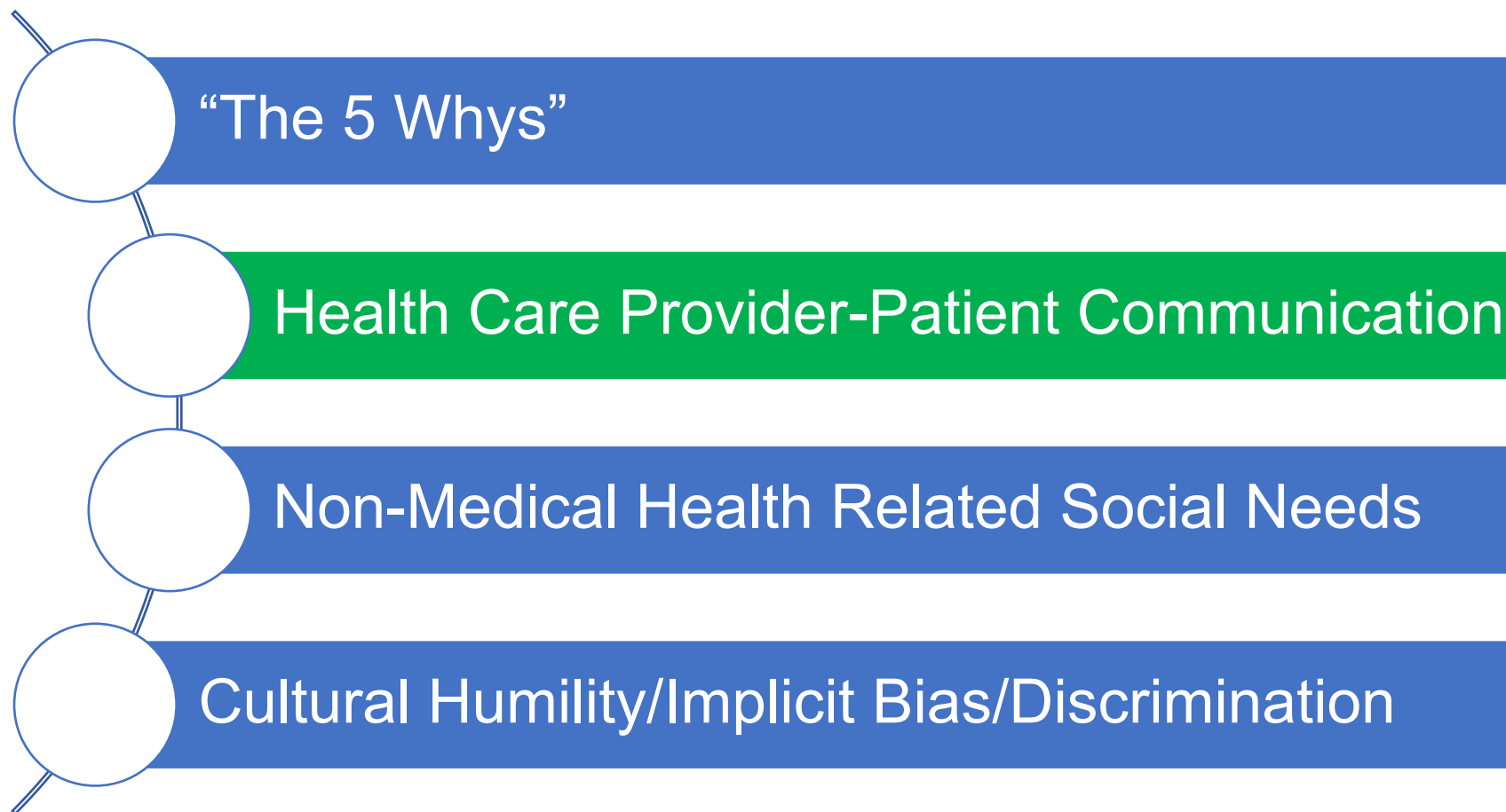


**Caution:** If your last answer is something you cannot control, go back up to previous answer

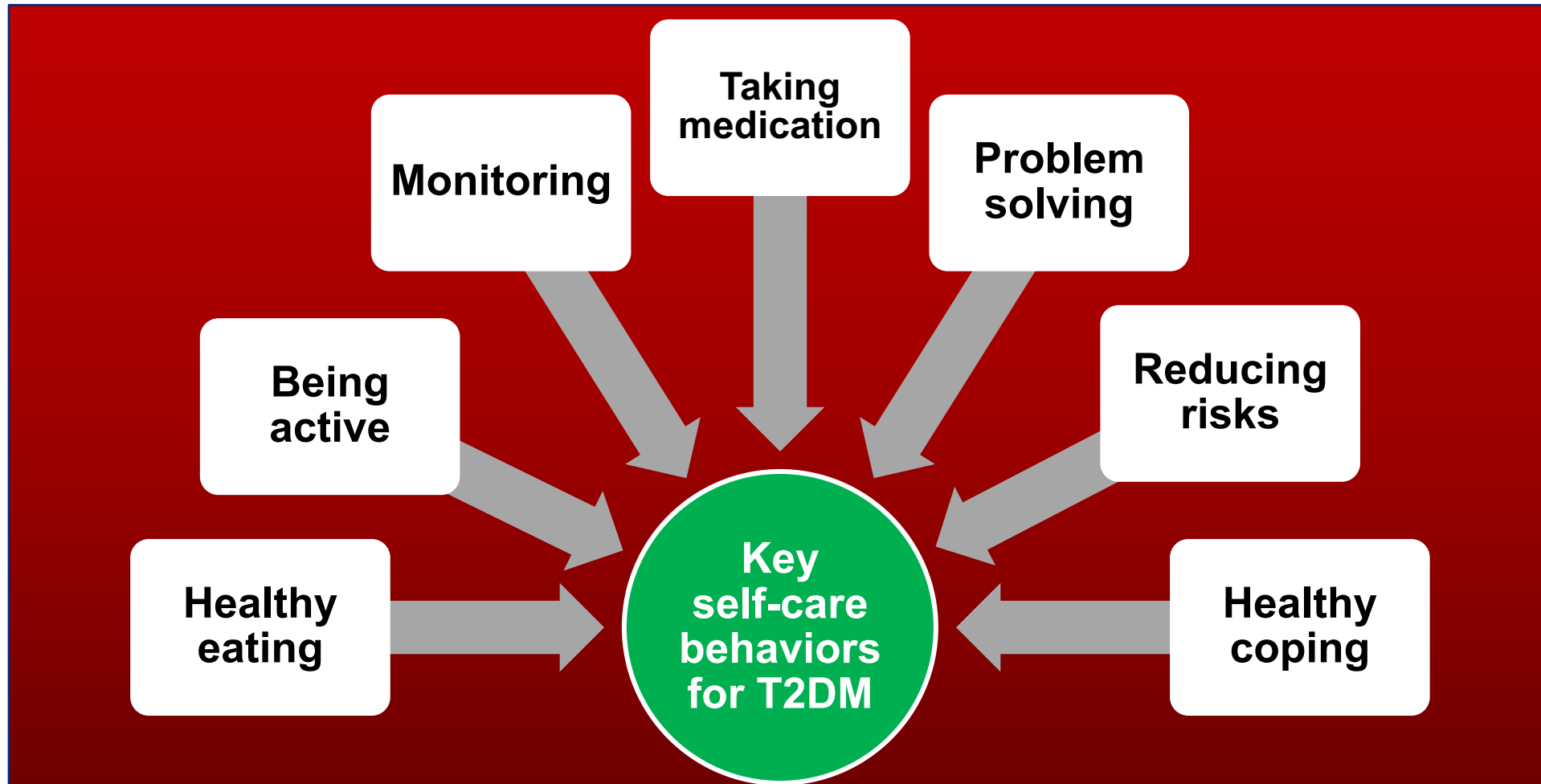


Golden SH, Joseph JJ, Hill-Briggs F. Casting a health equity lens on endocrinology and diabetes. The Journal of Clinical Endocrinology & Metabolism. 2021 Apr;106(4):e1909-16.

# Root Causes

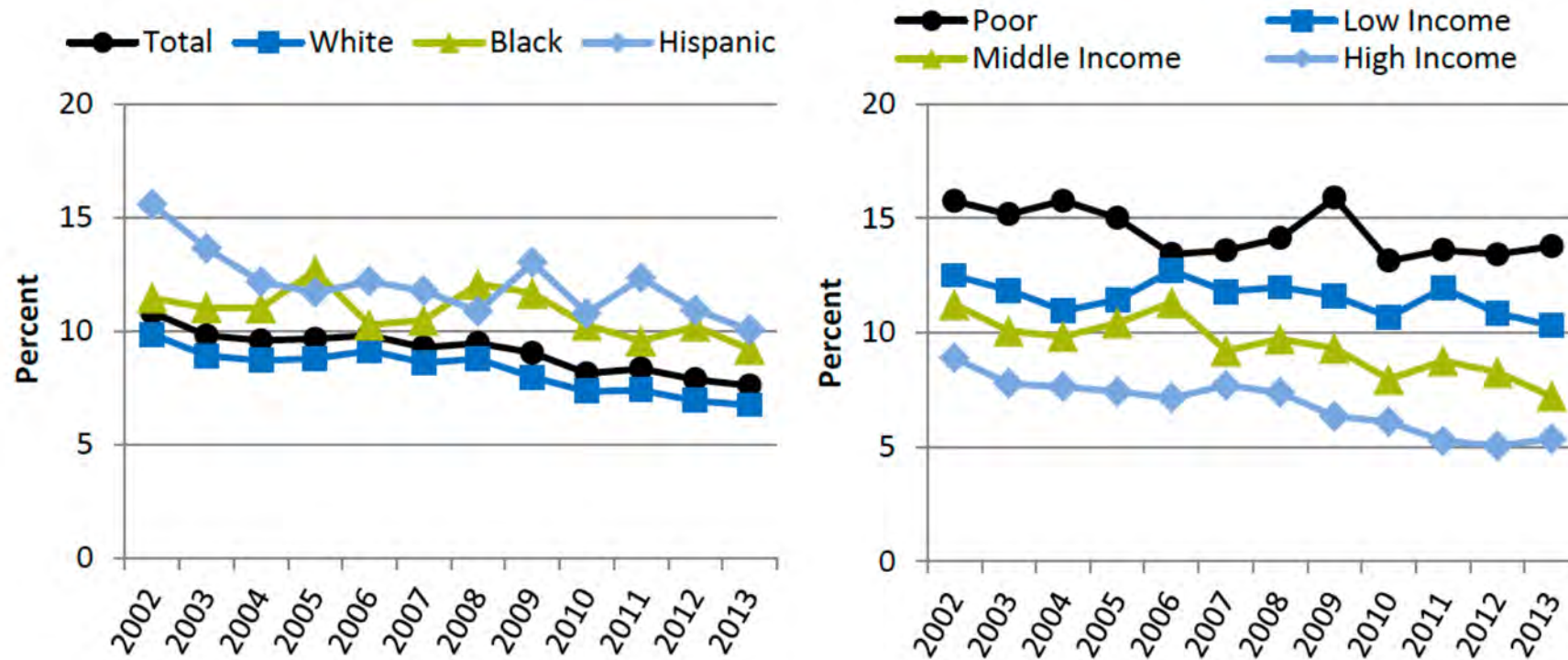


# Self-Management Is Essential to Optimizing Health for Individuals With Chronic Conditions





### Person-Centered Care: Adults who had a doctor's office or clinic visit in the last 12 months who reported poor communication with health providers, by race/ethnicity and income, 2002-2013



**Source:** Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, 2002-2013.

**Note:** Adults who reported that their health providers *sometimes or never* listened carefully, explained things clearly, showed respect for what they had to say, or spent enough time with them are considered to have poor communication.

# The Evidence on Concordance is Nuanced



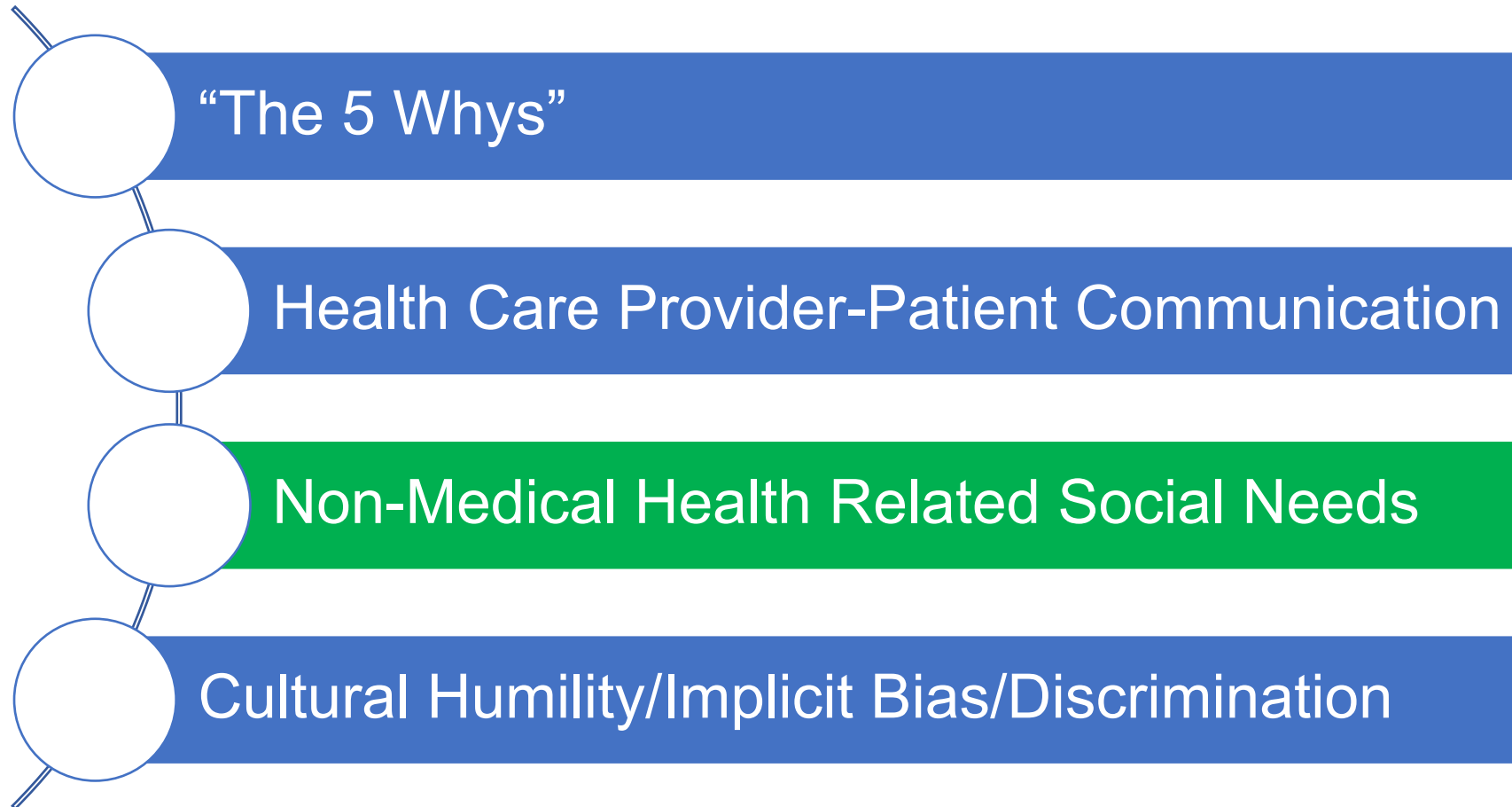
- “There is inconclusive evidence to support that patient–provider race-concordance is associated with positive health outcomes for minorities.”
- “Communication rated as more collaborative in race-discordant relationships was associated with better adherence, while communication rated as less collaborative was associated with poor adherence. There was no significant association between adherence and communication in race-concordant relationships ( $p = 0.24$ ).”
- Experimental studies suggest that race/sex *discordant* providers practicing empathy, collaborative communication and self-disclosure can build similar levels of trust as *concordant* providers

Diamond L, Izquierdo K, Canfield D, Matsoukas K, Gany F. A systematic review of the impact of Patient–Physician non-English language concordance on quality of care and outcomes. *Journal of general internal medicine*. 2019 Aug 1:1-6.

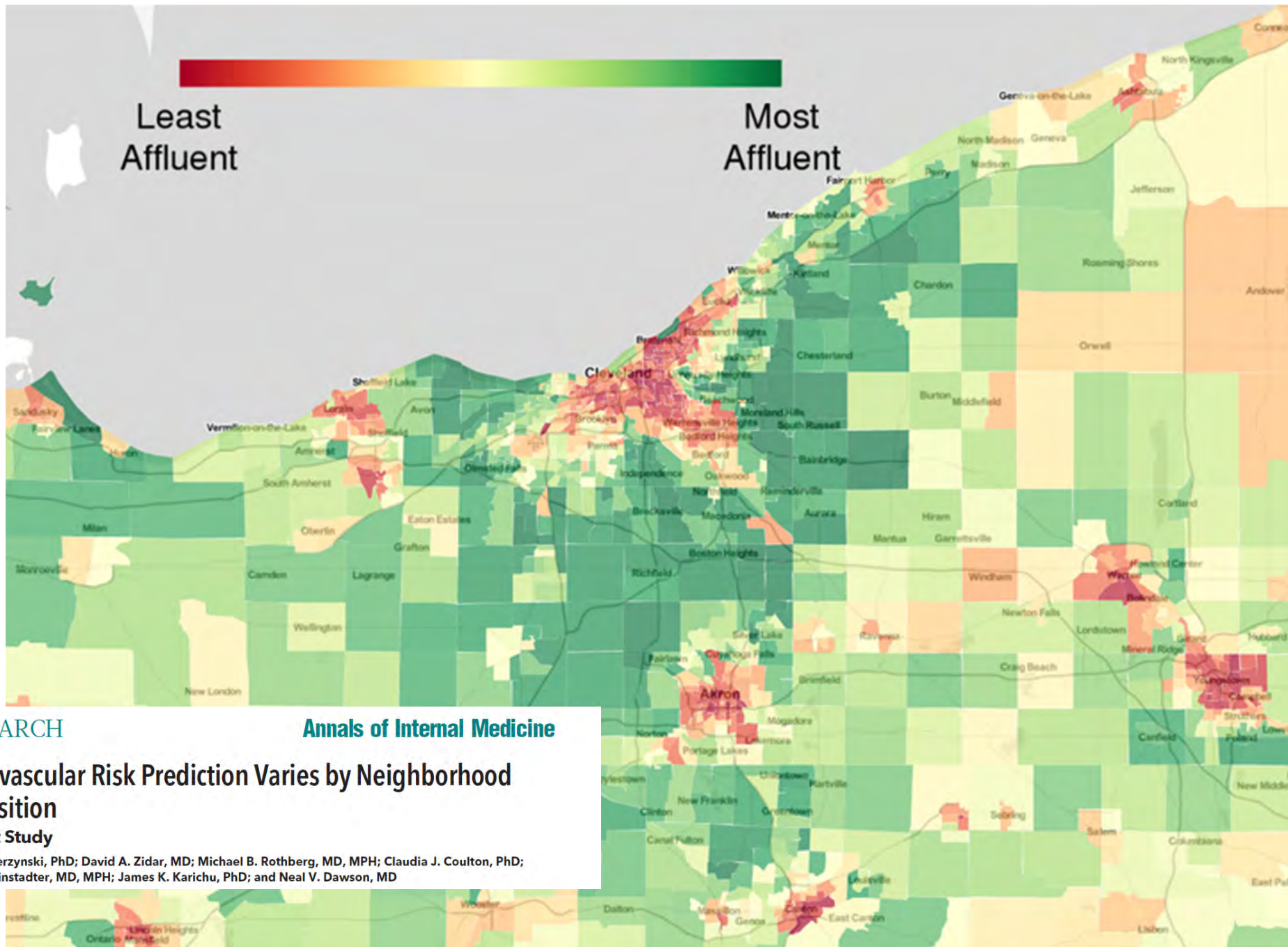
Schoenthaler A, Allegrante JP, Chaplin W, Ogedegbe G. The effect of patient–provider communication on medication adherence in hypertensive black patients: does race concordance matter?. *Annals of Behavioral Medicine*. 2012 Jun 1;43(3):372-82.

Nazione S, Perrault EK, Keating DM. Finding Common Ground: Can Provider-Patient Race Concordance and Self-disclosure Bolster Patient Trust, Perceptions, and Intentions?. *Journal of racial and ethnic health disparities*. 2019 Oct 1;6(5):962-72.

# Root Causes







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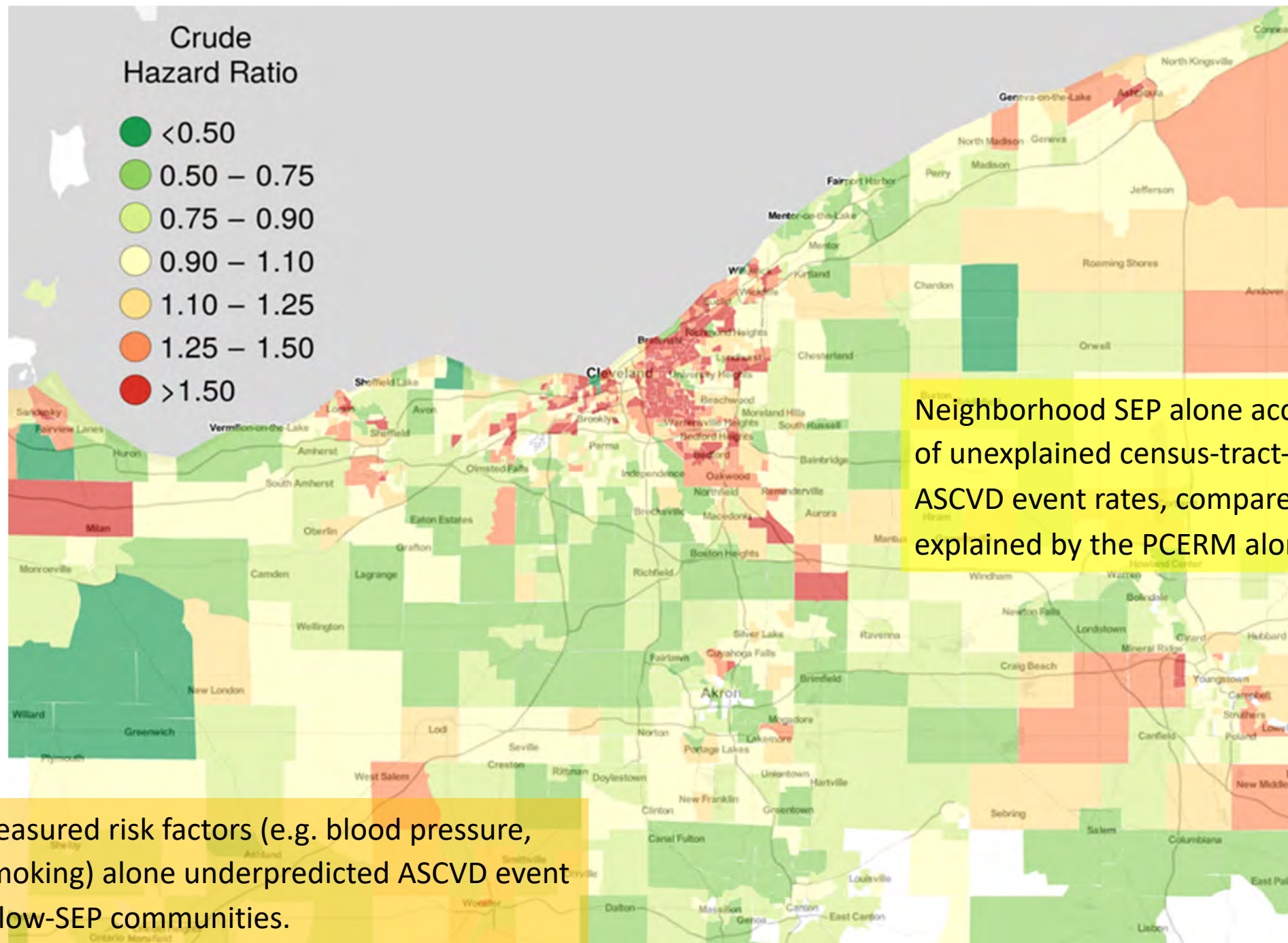
ORIGINAL RESEARCH

Annals of Internal Medicine

## Accuracy of Cardiovascular Risk Prediction Varies by Neighborhood Socioeconomic Position

A Retrospective Cohort Study

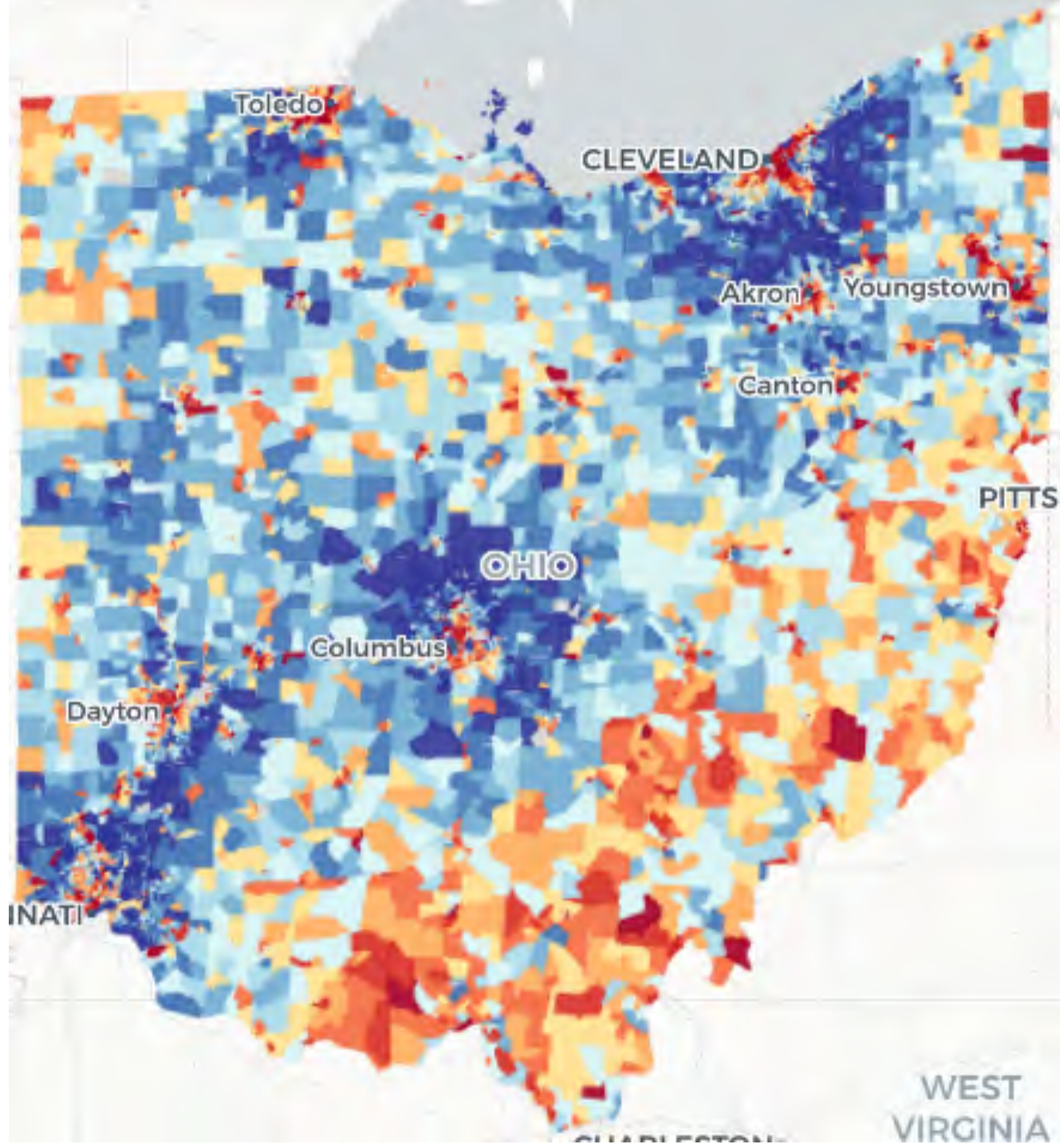
Jarrod E. Dalton, PhD; Adam T. Perzynski, PhD; David A. Zidar, MD; Michael B. Rothberg, MD, MPH; Claudia J. Coulton, PhD; Alex T. Milinovich, BA; Douglas Einstadter, MD, MPH; James K. Karichu, PhD; and Neal V. Dawson, MD



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Neighborhood SEP alone accounted for 32.0% of unexplained census-tract-level variation in ASCVD event rates, compared to 10.0% explained by the PCERM alone.

Clinically measured risk factors (e.g. blood pressure, diabetes, smoking) alone underpredicted ASCVD event risk among low-SEP communities.



State-Only Deciles  
 National Percentiles

ADI scores from within this state alone are ranked from lowest to highest, then divided into deciles (1-10).

least disadvantaged block groups — most disadvantaged block groups

1 2 3 4 5 6 7 8 9 10

All map data relies on US Census Bureau geographies (Census Block Groups).

**Area Deprivation Index**

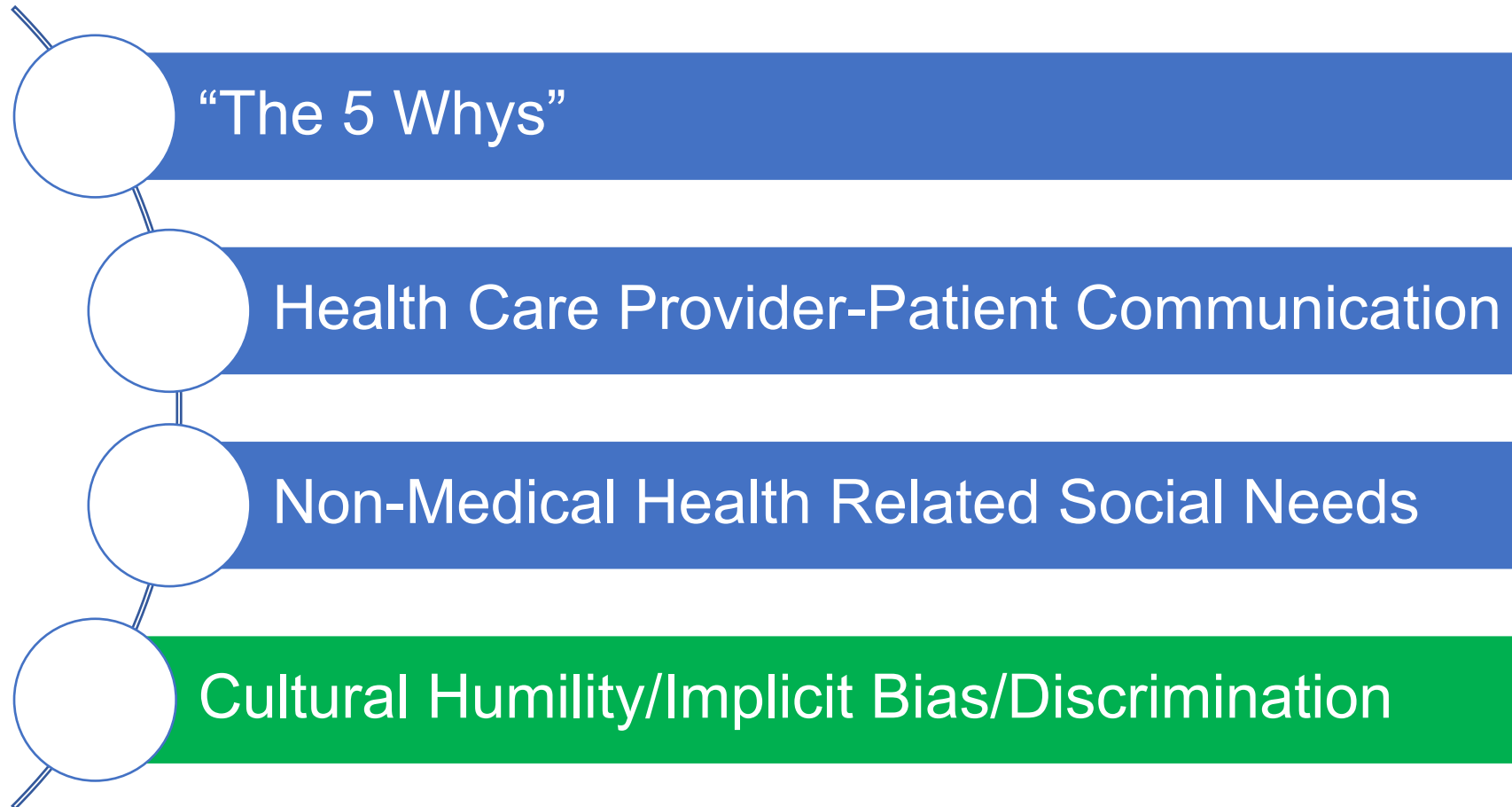
# The burden of social needs is severe in many Ohio Communities



**Figure 1. Percent with Social Needs by Age Cohort at the MetroHealth Study Site in 2020. N=16088**

Age	Social Isolation	Food Insecurity	High Daily Stress	No Internet Connectivity	Transportation Insecurity	Financial Strain	Housing Insecurity	Domestic Abuse
<b>Total</b>	44	33	21	20	17	12	8	4
<b>0-24</b>	52	42	23	12	20	12	8	9
<b>25-34</b>	51	30	21	4	15	10	10	7
<b>35-54</b>	47	39	28	9	19	16	11	6
<b>55-64</b>	41	37	22	22	19	14	7	3
<b>65+</b>	35	22	12	36	13	7	3	1

# Root Causes



## Pursue Cultural Humility

- “Cultural humility is the ability to maintain an interpersonal stance that is other-oriented (or open to the other) in relation to aspects of cultural identity that are most important to the person”
- Difficulty in following healthy recommendations can have complex origins outside the patient’s control.

### *Practicing Cultural Humility*

*A*sk questions in a humble, safe manner

*S*eek Self-Awareness

*S*uspend Judgment

*E*xpress kindness and compassion

*S*upport a safe and welcoming environment

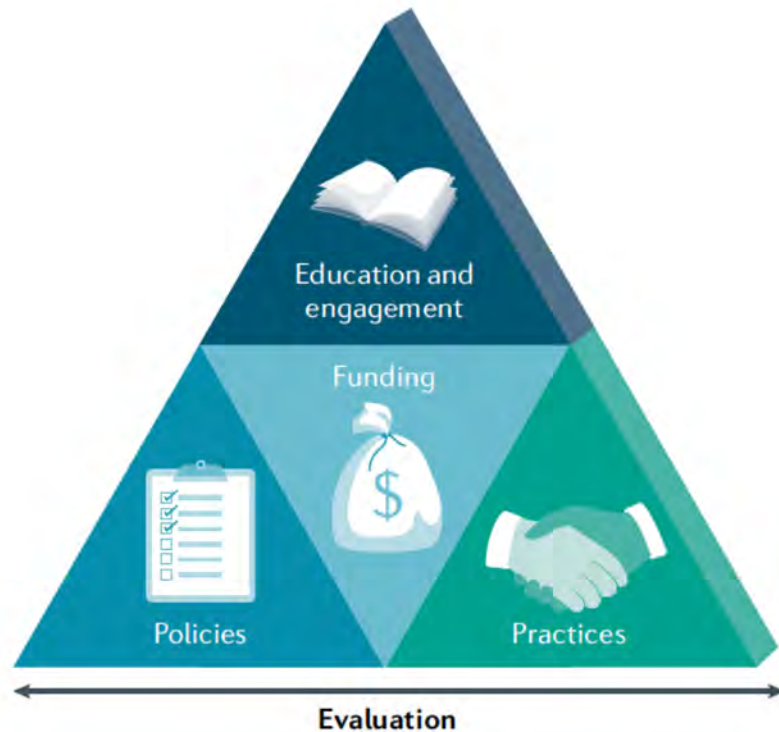
*S*tart where the patient is at

- Lisa Boesen

# Potential Solutions



# Making Anti-Racism A Core Value



- Elevate the cause
- Engage stakeholders
- Equip communities, employees, and learners
- Empower those who are marginalized or oppressed
- Evaluation and accountability are key

Gray II, D., **Joseph, J.**, Glover, A., Olayiwola, J. (2020.) How academia should respond to racism. *Nature Reviews Gastroenterology & Hepatology*. <https://doi.org/10.1038/s41575-020-0349-x>

J. Nwando Olayiwola, **Joshua J. Joseph**, Autumn R. Glover, Harold L. Paz, Darrell M. Gray, II "Making Anti-Racism A Core Value In Academic Medicine," *Health Affairs Blog*, August 25, 2020. DOI: 10.1377/hblog20200820.931674



- Establish a **collaborative relationship** and to assess and address self-management barriers **without blaming patients** for “noncompliance” or “nonadherence” when the outcomes of self-management are not optimal.
- **“noncompliance”** and **“nonadherence”** denote a passive, **obedient role** for a person with diabetes in “following doctor’s orders” that is at odds with the active role people with diabetes take in directing the day-to-day decision making, planning, monitoring, evaluation, and problem-solving involved in diabetes self-management.
- Using a **nonjudgmental approach** that normalizes periodic lapses in self-management may help minimize patients’ resistance to reporting problems with self-management.
- Use evidenced-based approaches like Motivational Interviewing

# Potential Solutions





- The National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (The National CLAS Standards) aim to improve health care quality and advance health equity by establishing a framework for organizations to serve the nation's increasingly diverse communities.
- Advancing Health Equity At Every Point of Contact

# Potential Solutions



# Screen and Refer models of caring for social needs show potential for improving outcomes



- Vendor-based systems (pathways community hub)
- Simple EHR-based screening protocols (EPIC, PRAPARE, Health Leads)
- **Think about existing processes (esp. forms) where you are already providing social care!**

# Potential Solutions



# Community Health Workers



- Frontline public health workers
  - Trusted community members
  - Possess a deep understanding of the communities they serve.
- 
- The American Association of Diabetes Educators defines CHWs, as complementary healthcare workers who interact with people with diabetes or those at risk of diabetes.<sup>1</sup>

# Community Health Worker – High Intensity Interventions Improve A1C



- *Spencer et al, 2011* - diabetes self-management education and regular home visits, and accompanied them to a clinic visit during the **6-month intervention period**
- *Rothschild et al, 2015* - delivering self-management training through **36 home visits over 2 years**
- *Perez-Escamilla et al, 2017* - The CHW intervention comprised **17 individual sessions delivered at home by CHWs over a 12-month period**. Sessions addressed T2D complications, healthy lifestyles, nutrition, healthy food choices and diet for diabetes, blood glucose self-monitoring, and medication adherence.

Pérez-Escamilla R, Damio G, Chhabra J, Fernandez ML, Segura-Pérez S, et al impact of a community health workers–led structured program on blood glucose control among Latinos with type 2 diabetes: the DIALBEST trial. *Diabetes Care* 2015;38(2):197-205. <https://pubmed.ncbi.nlm.nih.gov/25125508/>

Rothschild SK, Martin MA, Swider SM, Tumialán Lynas CM, Janssen I, et al. Mexican American trial of community health workers: a randomized controlled trial of a community health worker intervention for Mexican Americans with type 2 diabetes mellitus. *American Journal of Public Health* 2014;104(8):1540-8. <https://pubmed.ncbi.nlm.nih.gov/23947316/>

Spencer MS, Rosland AM, Kieffer EC, Sinco BR, Valerio M, et al. Effectiveness of a community health worker intervention among African American and Latino adults with type 2 diabetes: a randomized controlled trial. *American Journal of Public Health* 2011;101(12):2253-60. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3222418/>



# Potential Solutions

- There are many other possible solutions.
- Critical to think through those aspects of social needs, community factors and health disparities that are most relevant in the hyper-local circumstances of your clinic and the neighborhoods that it serves.



Thank you!

Questions/Discussion