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MICHIGAN SOCIAL HEALTH INTERVENTIONS to ELIMINATE DISPARITIES

Non-Medical Drivers of Health

Implications for Quality Improvement

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October 3, 2025

Agenda

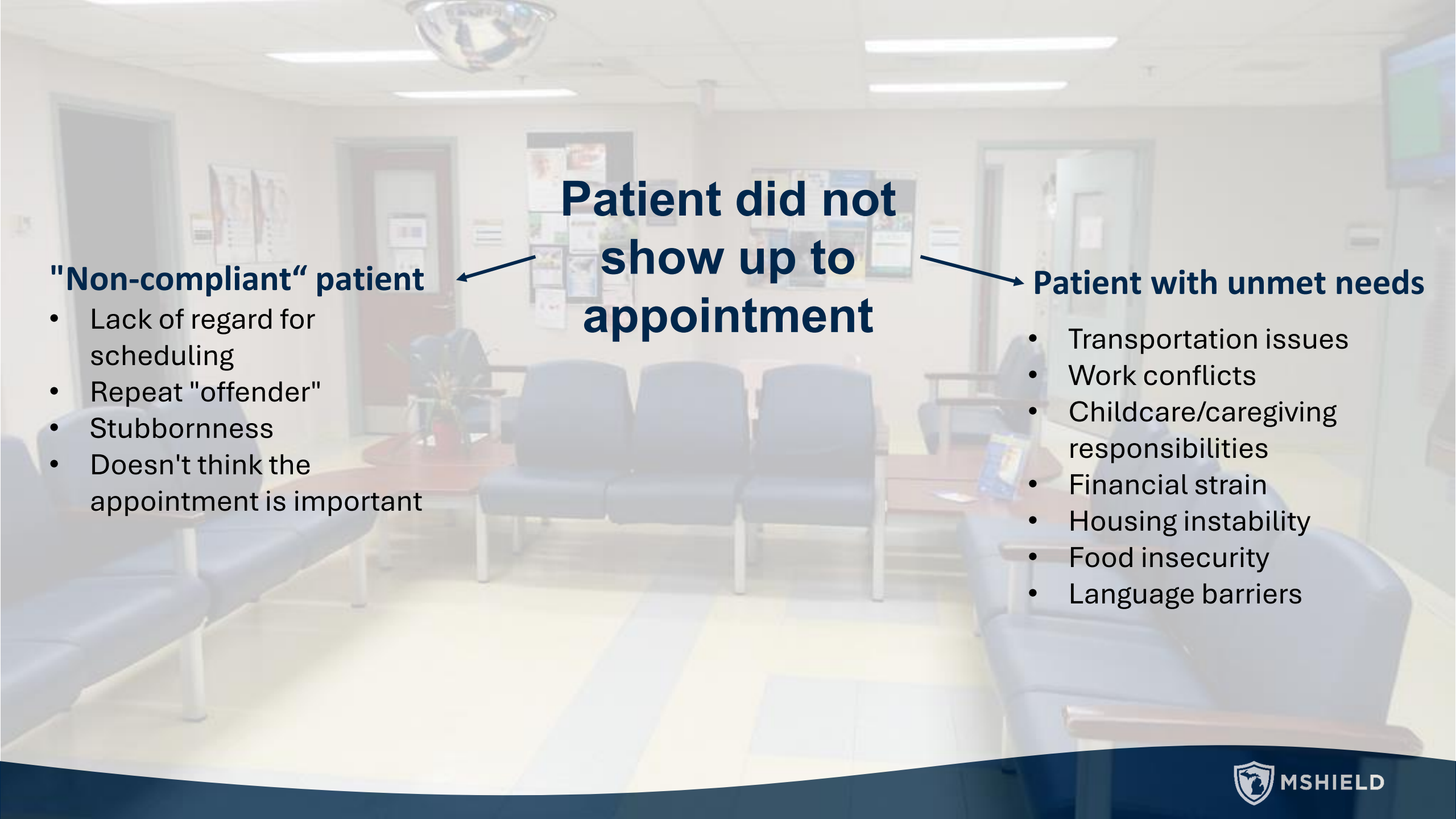
- The Why
- Critical Reflection Question
- How Non-Medical Drivers Impact our Health
- Examples
- Small Group Engagement
- Larger Group Reflection
- Q&A

The Why

Legacy of CQIs in Quality Improvement

Easy Wins

2026?



Patient did not show up to appointment

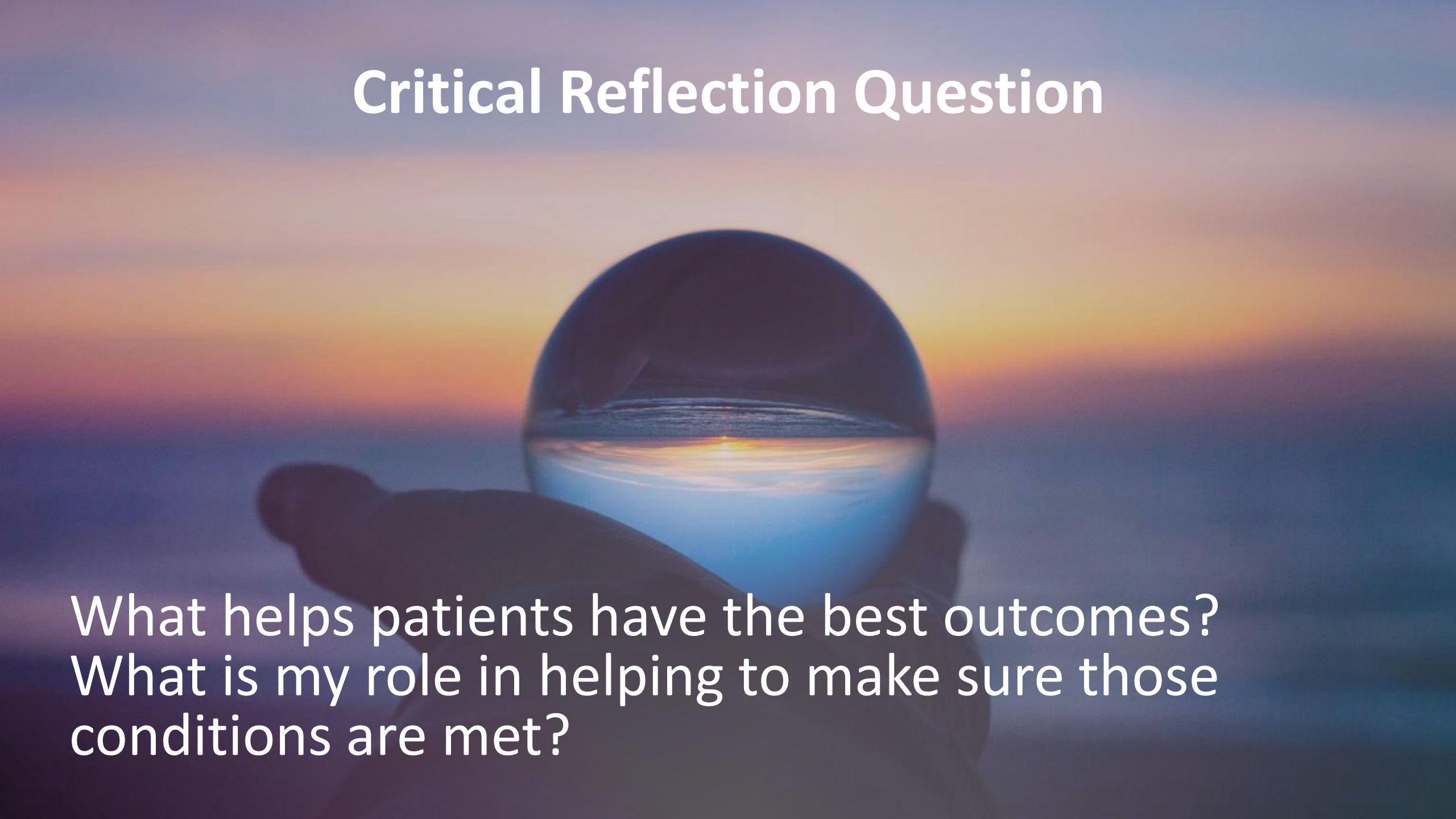
"Non-compliant“ patient

- Lack of regard for scheduling
- Repeat "offender"
- Stubbornness
- Doesn't think the appointment is important

Patient with unmet needs

- Transportation issues
- Work conflicts
- Childcare/caregiving responsibilities
- Financial strain
- Housing instability
- Food insecurity
- Language barriers

Critical Reflection Question



What helps patients have the best outcomes? What is my role in helping to make sure those conditions are met?


The world is changing rapidly…
…which means we must evolve

The conditions in which we live, grow, work, and play impact our health

Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved 6/5/23, from https://health.gov/healthypeople/objectives-and-data/social-determinants-health

80% of health is determined by non-clinical factors

Examples

- Housing availability/safety and neighborhood
- Reliable transportation
- Education, job opportunities, and income
- Access to nutritious foods and physical activity opportunities
- Exposure to polluted air and water
- Language and literacy skills
- Exposure to discrimination and violence

Non- Medical Needs vs. Non-Medical Drivers of Health

			
Non-Medical Drivers of Health	Availability of Food	Housing & Quality	Transportation Environment
Non-Medical Needs	Food Insecurity	Housing Instability	Lack of access to Transportation

What does the research say?

Impact of Unmet Non-Medical Needs

Guo J, F. Bard J, J. Morrice D, Jaén CR, Poursani R. Offering transportation services to economically disadvantaged patients at a family health center: a case study. Health Systems. 2022 Oct 2;11(4):251-75.

P4P Health Outcome Variation Measures

MEDICARE

By Charles N. Kahn III, Kimberly Rhodes, Sarmistha Pal, Tilithia J. McBride, Donald May, Joan E. DaVanzo, and Allen Dobson

CMS Hospital Value-Based Programs: Refinements Are Needed To Reduce Health Disparities And Improve Outcomes

JAMA | Original Investigation | HEALTH AND THE 2024 US ELECTION

Health Equity Adjustment and Hospital Performance in the Medicare Value-Based Purchasing Program

Michael Liu, MPhil; Sahil Sandhu, MSc; Karen E. Joynt Maddox, MD, MPH; Rishi K. Wadhera, MD, MPP, MPhil

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Multiple systematic reviews show beneficial effects of interventions to address social needs

PLOS ONE

RESEARCH ARTICLE

Leveraging the Social Determinants of Health: What Works?

Lauren A. Taylor[1], Annabel Xulin Tan[2], Caitlin E. Coyle[2], Chima Ndumele[2], Erika Rogan[2], Maureen Canavan[2], Leslie A. Curry[2], Elizabeth H. Bradley[2]*

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Abstract

We summarized the recently published, peer-reviewed literature that examined the impact of investments in social services or investments in integrated models of health care and social services on health outcomes and health care spending. Of 39 articles that met criteria for inclusion in the review, 32 (82%) reported some significant positive effects on either health outcomes (N = 20), health care costs (N = 5), or both (N = 7). Of the remaining 7 (18%) studies, 3 had non-significant results, 2 had mixed results, and 2 had negative results in which the interventions were associated with poorer health outcomes. Our analysis of the literature indicates that several interventions in the areas of housing, income support, nutrition support, and care coordination and community outreach have had positive impact in terms of health improvements or health care spending reductions. These interventions may be of interest to health care policymakers and practitioners seeking to leverage social services to improve health or reduce costs. Further testing of models that achieve better outcomes at less cost is needed.

OPEN ACCESS

Citation: Taylor LA, Tan AX, Coyle CE, Ndumele C, Rogan E, Canavan M, et al. (2016) Leveraging the Social Determinants of Health: What Works? PLoS ONE 11(8): e0160217. doi:10.1371/journal.pone.0160217

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Competing Interests: The authors received funding from the Blue Cross Blue Shield of Massachusetts Foundation Inc (BCBS), a commercial company, for this study. There are no patents, products in development or marketed products to declare. This

Introduction

Social determinants of health have taken center stage in recent health policy discussions, particularly with the growing emphasis on global payment, accountable care organizations (ACO) [1], and other initiatives focused on improving population health. Health care providers are increasingly being asked to measure impact in terms of the health outcomes of the population they serve. Given that medical care influences a relatively small portion of overall health [2, 3], ACO and value-based financing models face substantial challenges in equipping health care providers to achieve improvements in the population's health.

Many researchers have examined the relative contributions of health care services, genetics, behaviors, environment and social factors in promoting health and reducing premature mortality [3–6]. Overwhelmingly, studies find that non-medical factors including social, behavioral and environmental determinants of health consistently play a substantially larger role than medical factors. Similar patterns hold for specific health outcomes, including burdensome,

PREVENTING CHRONIC DISEASE

PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

Volume 18, E78 AUGUST 2021

SYSTEMATIC REVIEW

Screening and Referral Care Delivery Services and Unmet Health-Related Social Needs: A Systematic Review

Emily Ruiz Escobar, BS[1]; Shweta Pathak, PhD, MPH[1]; Carrie M. Blanchard, PharmD, MPH[1]

Accessible Version: www.cdc.gov/pcd/issues/2021/20_0569.htm

Suggested citation for this article: Ruiz Escobar E, Pathak S, Blanchard CM. Screening and Referral Care Delivery Services and Unmet Health-Related Social Needs: A Systematic Review. Prev Chronic Dis 2021;18:200569. DOI: https://doi.org/10.5888/pcd18.200569.

PEER REVIEWED

Summary

What is already known on this topic?

Little is known about the overall impact of screening and referral programs that address unmet health-related social needs on outcomes related to experience of care, population health, and cost.

What is added by this report?

Although screening and referral programs positively affected outcomes related to experience of care and population health, definitive conclusions about their overall impact could not be determined.

What are the implications for public health practice?

This study synthesizes evidence to inform health care administrators and policy makers considering the expansion of screening and referral programs to address unmet health-related social needs.

Abstract

Introduction

Unmet health-related social needs contribute to high patient morbidity and poor population health. A potential solution to improve population health includes the adoption of care delivery models that alleviate unmet needs through screening, referral, and tracking of patients in health care settings, yet the overall impact of such models has remained unexplored. This review addresses an existing gap in the literature regarding the effectiveness of these models and assesses their overall impact on outcomes related to experience of care, population health, and costs.

Methods

In March 2020, we searched for peer-reviewed articles published in PubMed over the past 10 years. Studies were included if they 1) used a screening tool for identifying unmet health-related social needs in a health care setting, 2) referred patients with positive screens to appropriate resources for addressing identified unmet health-related social needs, and 3) reported any outcomes related to patient experience of care, population health, or cost.

Results

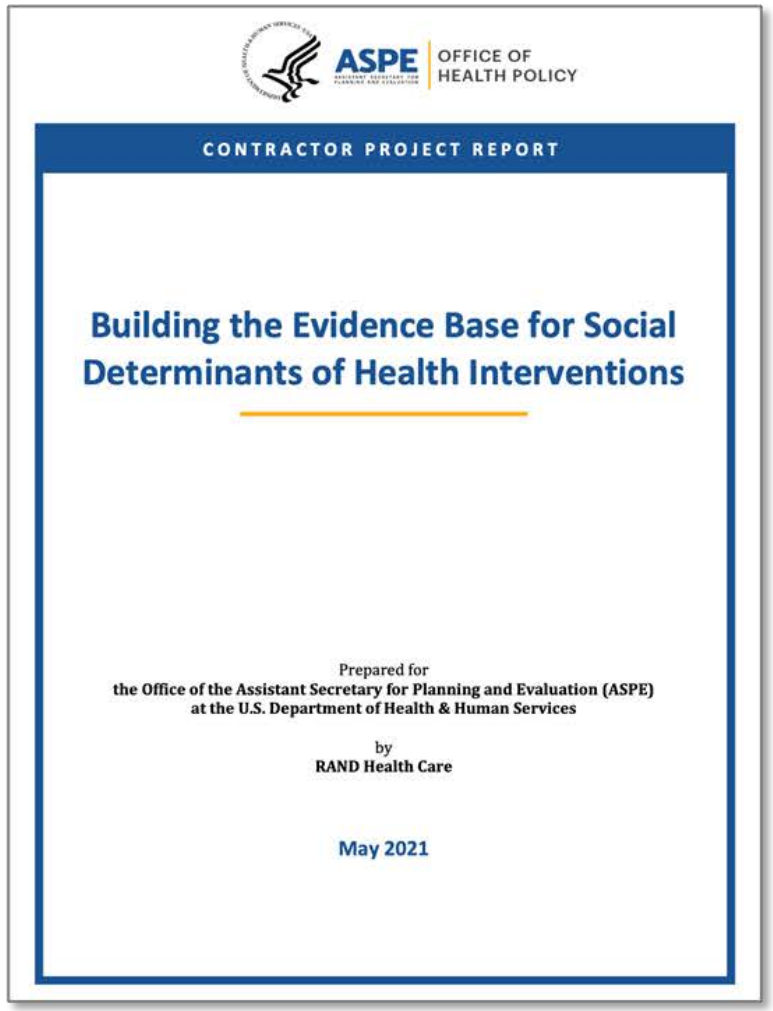
Of 1,821 articles identified, 35 met the inclusion criteria. All but 1 study demonstrated a tendency toward high risk of bias. Improved outcomes related to experience of care (eg, change in social needs, patient satisfaction, n = 34), population health (eg, diet quality, blood cholesterol levels, n = 7), and cost (eg, program costs, cost-effectiveness, n = 3) were reported. In some studies (n = 5), improved outcomes were found among participants who received direct referrals or additional assistance with indirect referrals compared with those who received indirect referrals only.

Conclusion

Effective collaborations between health care organizations and community-based organizations are essential to facilitate necessary patient connection to resources for addressing their unmet needs. Although evidence indicated a positive influence of screening and referral programs on outcomes related to experience of care and population health, no definitive conclusions can be made on overall impact because of the potentially high risk of bias in the included studies.

Introduction

Up to 80% of health outcomes can be attributed to social determinants of health (SDOH), the conditions in which we grow, live, and work (1,2). Adverse SDOH include food insecurity, housing instability, unemployment, and other unmet health-related social needs (3), which often contribute to negative health outcomes, in-



ASPE OFFICE OF HEALTH POLICY

CONTRACTOR PROJECT REPORT

Building the Evidence Base for Social Determinants of Health Interventions

Prepared for
the Office of the Assistant Secretary for Planning and Evaluation (ASPE) at the U.S. Department of Health & Human Services

by
RAND Health Care

May 2021

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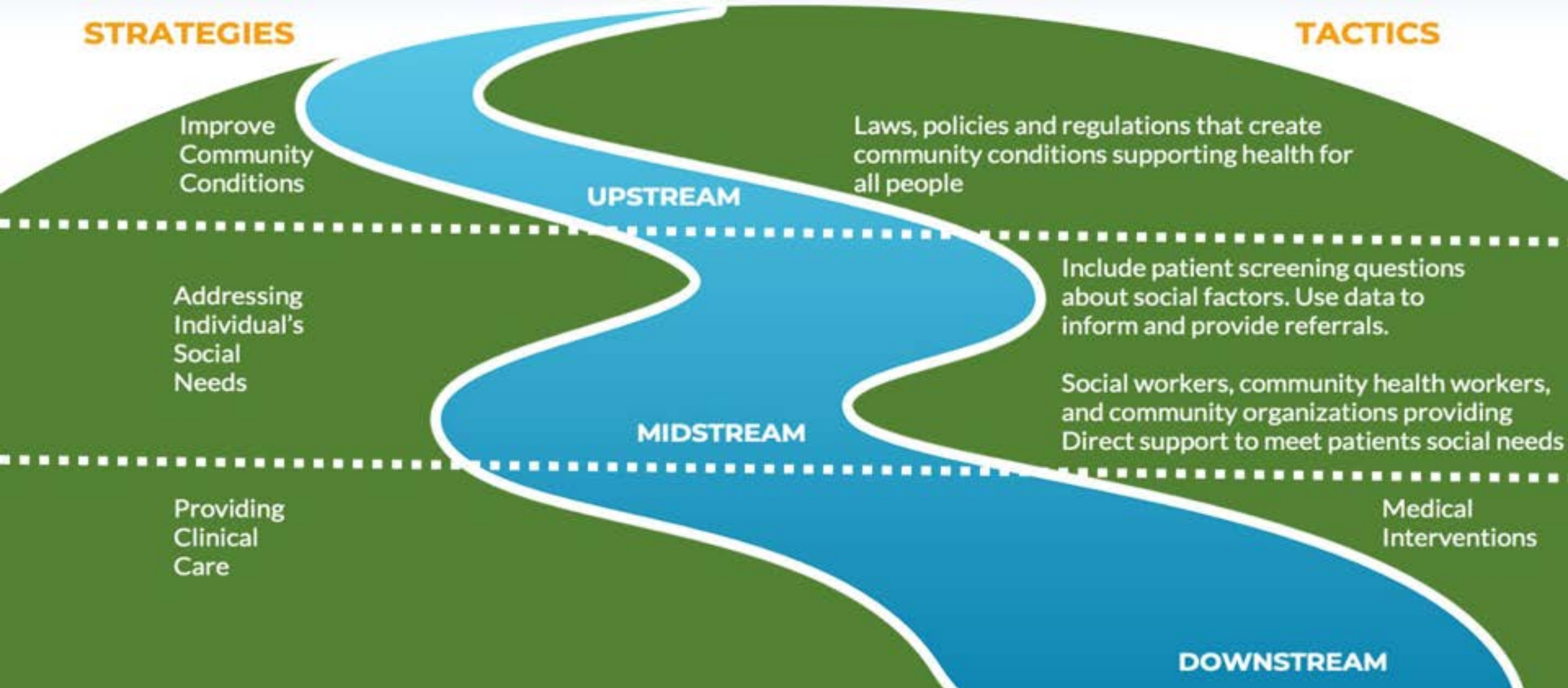
Moving upstream from clinical care



Screening, Referral & Data Collection

Screening

1. Use a standard screening form for all patients and caregivers

Referral

2. Screen for needs that your organization can respond to—and have a way to refer patients and caregivers to help

Linkage

3. Setting up a formal linkage with a community organization is one possible solution

Feedback

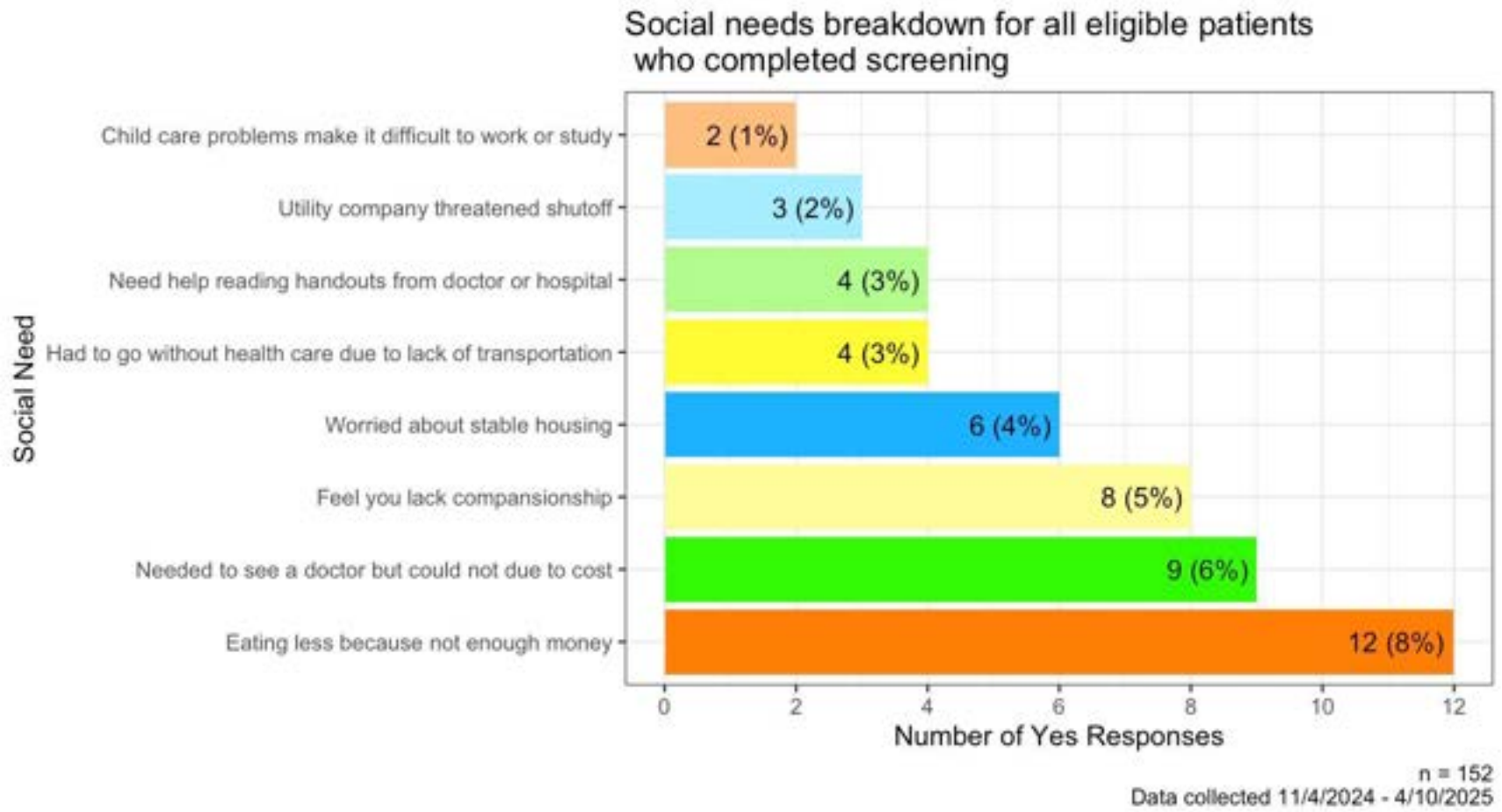
4. Get feedback from patients and caregivers about whether their needs are met

Reporting

5. Collect data to assess whether clinical outcomes vary by unmet social health needs

Best practices

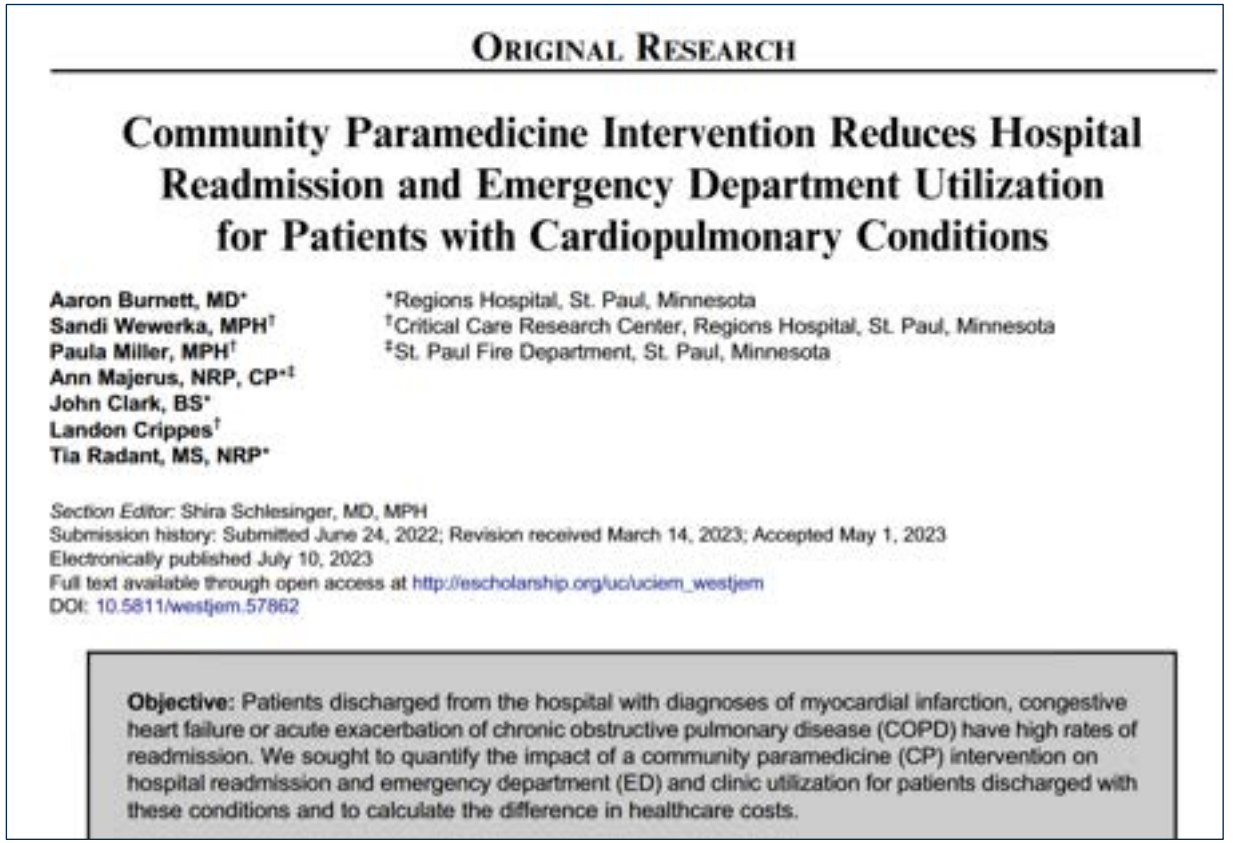
Example of Screening-Referral-Linkage-Feedback Cycle



The IMPaCT Model at Penn relies on CHWs and improves health outcomes

- Community Health Workers
- Focus on addressing unmet needs for patients with chronic diseases residing in high-poverty ZIPs
- 3 Randomized Controlled Trials
  - Better chronic disease management
  - Better quality of care
  - Fewer hospital days
  - $1.00 spent → $2.47 annual ROI

Community-Level Interventions that Mitigate Non-Medical Barriers



ORIGINAL RESEARCH

Community Paramedicine Intervention Reduces Hospital Readmission and Emergency Department Utilization for Patients with Cardiopulmonary Conditions

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DOI: 10.5811/westjem.57862

Objective: Patients discharged from the hospital with diagnoses of myocardial infarction, congestive heart failure or acute exacerbation of chronic obstructive pulmonary disease (COPD) have high rates of readmission. We sought to quantify the impact of a community paramedicine (CP) intervention on hospital readmission and emergency department (ED) and clinic utilization for patients discharged with these conditions and to calculate the difference in healthcare costs.

Conclusion: Patients who received a post-hospital community paramedic intervention had fewer hospital readmissions and ED visits, which resulted in saving 218 bed days and decreasing healthcare costs by $410,428. Incorporation of a home CP intervention of 30 days in this patient population has the potential to benefit payors, hospitals, and patients. [West J Emerg Med. 2023;24(4)786–792.]

Area Level Indicators

What is the Michigan Area Level Data Repository?

Compilation of publicly available data

- Area-level disadvantage indexes

Includes Michigan-only geographies

- Block Group
- Census Tract
- County
- ZIP Code (5-digit)

Streamlined, user-friendly

NaNDA

Standardized Area Deprivation Index (sADI)

ROBERT GRAHAM CENTER

Social Deprivation Index (SDI)

CDC ATSDR

Social Vulnerability Index (SVI)

Domain	sADI Indicators	SDI Indicators	SVI Indicators
Age	❌ Not included	❌ Not included	▪ Aged 17 and younger ▪ Aged 65 and older
Disability	❌ Not included	❌ Not included	▪ Civilian with a Disability
Education	▪ Under 9 years of education ▪ ≥ High school diploma	▪ Under 12 years of education	▪ No high school diploma
Employment	▪ Unemployment ▪ White-collar occupation	▪ Non-employment	▪ Unemployed
Health insurance status	❌ Not included	❌ Not included	▪ No health insurance
Household characteristics	▪ Crowding ▪ Single parent household ▪ No plumbing ▪ No telephone	▪ Crowding ▪ Single parent household	▪ Crowding ▪ Single parent household
Housing finances	▪ Median gross rent ▪ Median monthly mortgage ▪ Median home value	❌ Not included	▪ Housing cost burden
Housing type	▪ Homeownership	▪ Renter-occupied	▪ Mobile homes ▪ Multi-unit structures ▪ Group quarters
Income	▪ Median household income ▪ Income disparity	❌ Not included	❌ Not included
Language	❌ Not included	❌ Not included	▪ English Language Proficiency
Poverty	▪ Below 150% Poverty ▪ Families below poverty level	▪ Population living in poverty	▪ Below 150% Poverty
Race and Ethnicity	❌ Not included	❌ Not included	▪ Race & Ethnicity
Transportation	▪ No vehicle	▪ No vehicle	▪ No vehicle

What data are included?

Data Source	Geography Level			
	Block Group	Census Tract	County	ZIP Code (5-digit)
Standardized Area Deprivation Index (sADI)	Publicly Available, Included	MSHIELD provided	N/A	MSHIELD provided
Social Deprivation Index (SDI)	N/A	Publicly Available, Included	Publicly Available, Included	MSHIELD provided
Social Vulnerability Index (SVI)	N/A	Publicly Available, Included	Publicly Available, Included	MSHIELD provided

What can you use the repository for?

Identify area(s) that need additional health care resources

Prioritize identified area(s) for quality improvement efforts

Implement interventions to improve quality for areas of need

Small Group Engagement

Group Engagement Discussion Questions

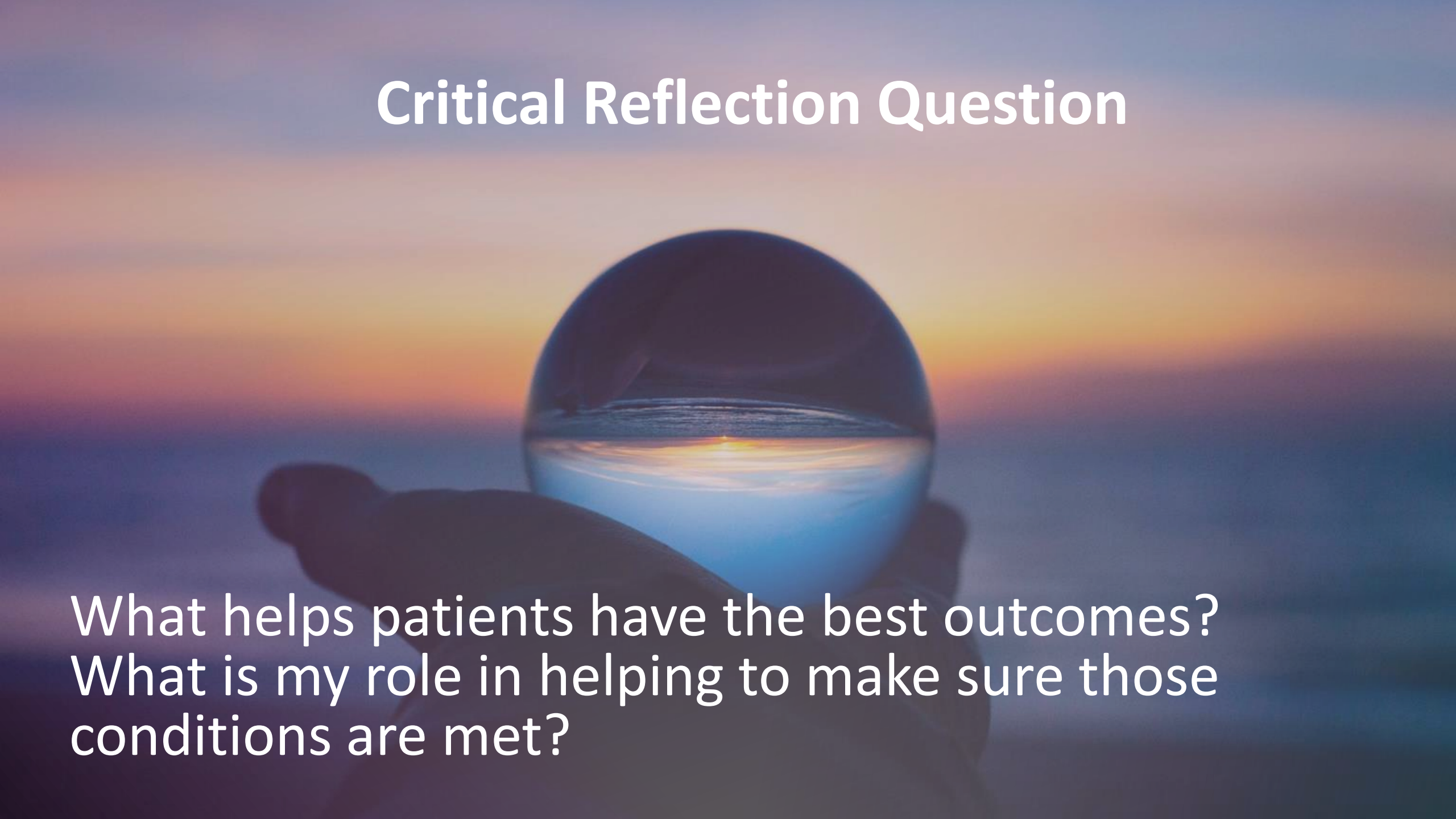
Please share with your table what you may already be doing at your practice or share what you think you could implement.

If you are successfully doing anything like this, what are 2-3 things that helped it to work and 2-3 barriers that had to be overcome?

How did you choose what equity projects to implement in your practice? If you haven’t yet done this in your practice, how will you prioritize what you do implement going forward?

Larger Group Debrief + Next Steps/Q&A

Critical Reflection Question



What helps patients have the best outcomes? What is my role in helping to make sure those conditions are met?

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MICHIGAN SOCIAL HEALTH INTERVENTIONS to ELIMINATE DISPARITIES

Thank you!

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Evaluation

https://umichumhs.qualtrics.com/jfe/form/SV_0NFY7g9CRoYSGai