

# Aligning Medical, Social & Public Health Systems to Achieve Health Equity: An AJPH Supplement

Glen Mays, PhD, MPH

Professor and Chair

Department of Health Systems, Management & Policy  
Colorado School of Public Health | University of Colorado

[www.systemsforaction.org](http://www.systemsforaction.org)

<https://ajph.aphapublications.org/toc/ajph/116/S3>

**Systems for Action**

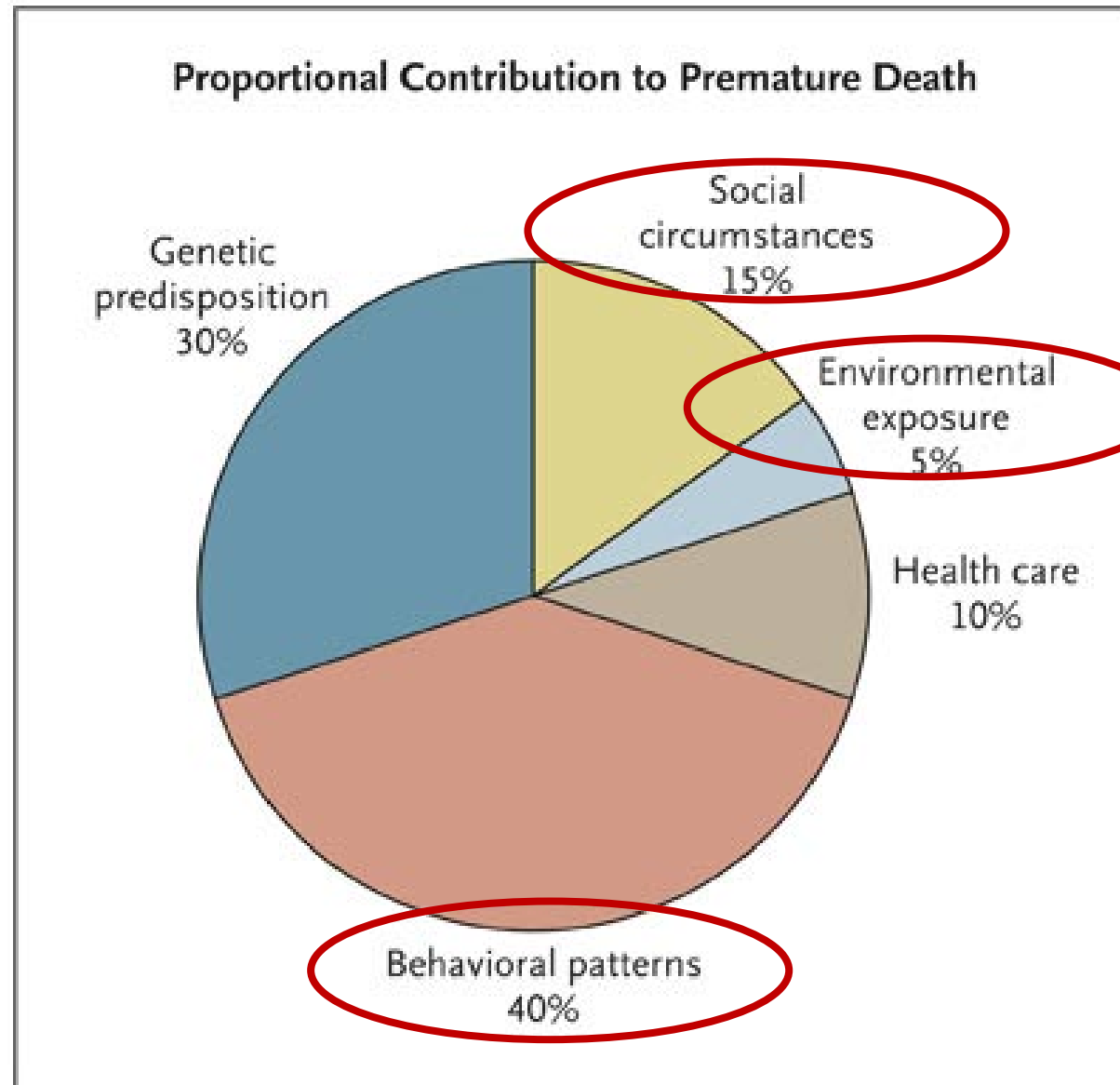
**National Program Office**

*Systems and Services Research to Build a Culture of Health*

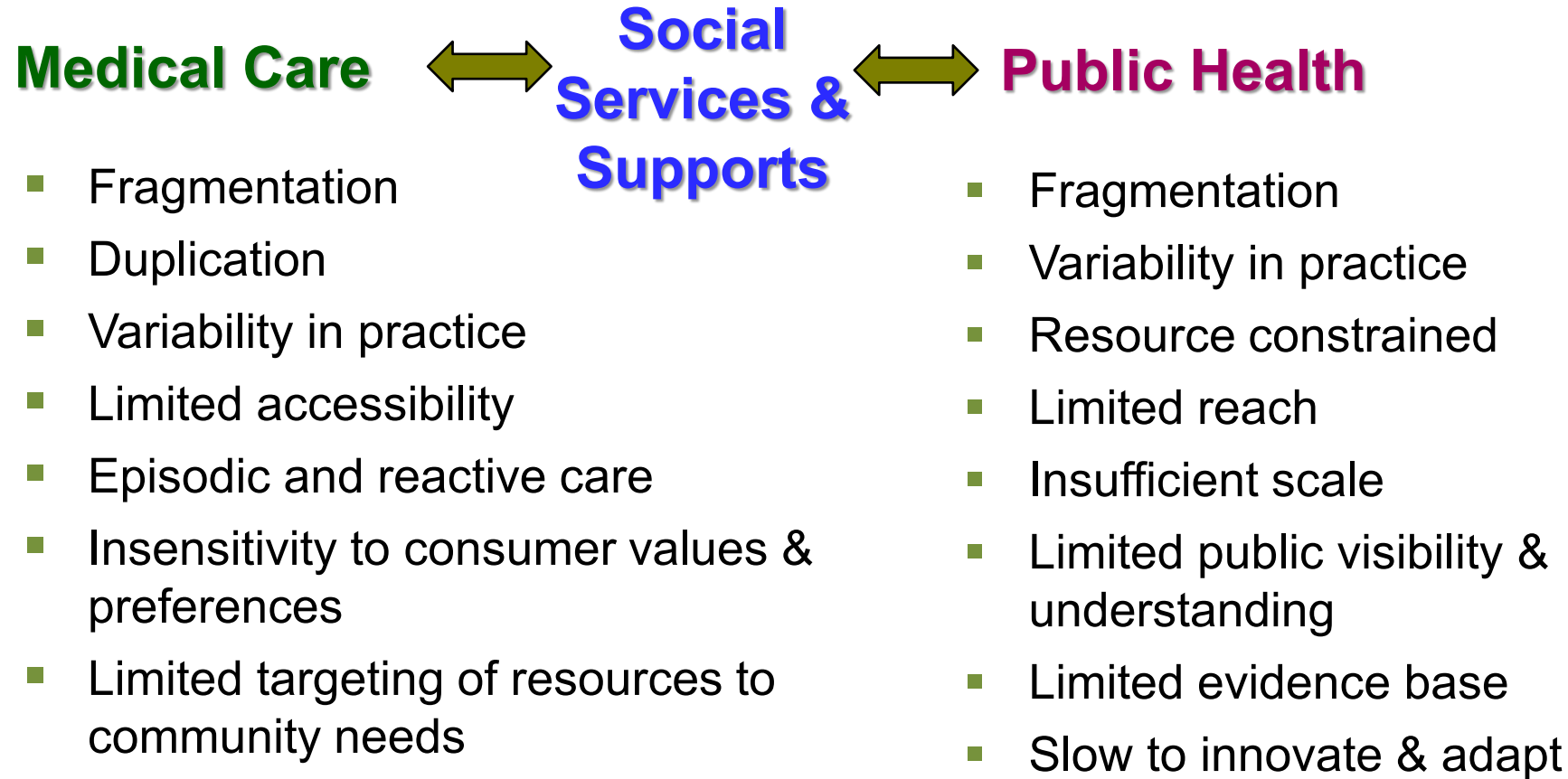
colorado school of  
**public health**

UNIVERSITY OF COLORADO  
COLORADO STATE UNIVERSITY  
UNIVERSITY OF NORTHERN COLORADO

# Why Focus on Aligning Medical, Social & Public Health Systems?



# Existing systems often fail to connect



# Core Components of Systems Alignment



# Examples: Impact of Well-Aligned Multi-sector Systems



- **23%** increase in implementing evidence-based interventions recommended by National Academy of Sciences.
- **9%** reduction in preventable mortality over 10 years
- **14%** reduction in COVID-19 mortality rate during pandemic
- **3-year** gain in life expectancy for low/moderate income households over 18 years
- **18%** reduction in avoidable medical care utilization
- **8%** reduction in medical care spending over 10 years

<https://systemsforaction.org/national-longitudinal-survey>

## S4A Examples - Successes

- **Chicago:** Comprehensive care, community & culture initiative reduced hospitalizations for vulnerable seniors by 22%
- **Indianapolis:** Safety-net clinic linkage to wrap-around public health & social services lowered hospitalizations by 7% and ED visits by 5%
- **Los Angeles:** Provision of coordinated housing, social and public health services persons at risk of homelessness reduced health care use by 24%
- **Michigan:** Complex care response teams for vulnerable seniors lowered mortality by 12%
- **Delaware:** Coordinators placed in probation offices increased access to care for justice-involved adults by 22%
- **Philadelphia:** TANF financial empowerment network reduced food insecurity by 11%, increased household savings by 3%, reduced depression symptoms 13%
- **Rochester:** Screening & referral program for high-risk high-use seniors reduced hospitalizations 29% and ED use 28% in the 90 days following intervention
- **National – public health networks:** Multi-sector public health networks reduced preventable mortality by 9%, medical spending by 1.2%/year, life expectancy disparity by 3 years
- **National - Humana:** Health plan supported councils increased multi-sector network engagement by 12-24%, with projected mortality improvements of 8-17%

## S4A Examples - Instructive Failures

- **Phoenix:** Multi-sector data integration, visualization & deliberation did not result in practice or policy changes for people with serious mental illness (ex: possible changes at 911 center)
- **Chicago/NCQA:** Social service providers did not use the electronic interface to facilitate referrals from Medicaid health plan
- **Texas:** Criminal justice diversion program used only for small numbers of low-risk offenders
- **Atlanta:** Subsidized transportation and hospital-based food bank program reached low numbers of vulnerable diabetics during the pandemic
- **Michigan:** Complex care response teams were largely unsuccessful in linking to law enforcement

[www.systemsforaction.org](http://www.systemsforaction.org)

# Today's S4A Panel

- **Strategies Used by Community-Based Organizations to Expand Access to Seasonal Vaccinations for Native American, Asian American, Black, and Latinx Populations.** Amanda L. Brewster PhD, MSc. University of California Berkeley
- **Building a Tribally-Operated Data System to Align Services for Youth.** Elva "Cookie" Allan Coeur d'Alene Tribe
- **The Effects of Financial Structures to Increase Social Drivers of Health Investments in Medicaid: A Simulation Approach.** Richard T. Thakor PhD, MSc, MS. University of Chicago

<https://ajph.aphapublications.org/toc/ajph/116/S3>

## S4A by the numbers

- **60+** studies funded over time 2016-2026
- **>400** health and social organizations engaged in S4A studies
- **>100** peer-reviewed manuscripts published or in press
- **>120** S4A Research-in-Progress webinars held – twice per month
- **>200** presentations and panels at national and regional scientific and professional meetings
- **>13,000** unique users on the S4A website per year, accessing **>40,000** pages of content.
- Diverse and influential users of S4A findings: CMS, CDC, ASPE, DOJ, SAMHSA, HRSA, Surgeon General, NASEM, AHA, Humana, Kaiser, state officials...



# Tribal Care Coordination Dashboard: Coeur Adolescent Support Team (CAST) Intake & Referrals

*Elva “Cookie” Allan, PhD, Coeur d’Alene Tribe*



*S4A Aligning Systems/Advancing Health Webinar  
September 29, 2026*

colorado school of  
**public health**

# ABSTRACT

## PROJECT GOAL

The project studied how one tribal program created and implemented an Tribal Care Coordination Dashboard aimed at improving access to health and wellness services for youth, using a tribally aligned (public health & safety, social, & education services) intake and referrals system with visible dashboards. The study was grounded in Tribal values to support community leaders and service staff in accessing data and information to optimize decision making.

## PROJECT CONTEXT

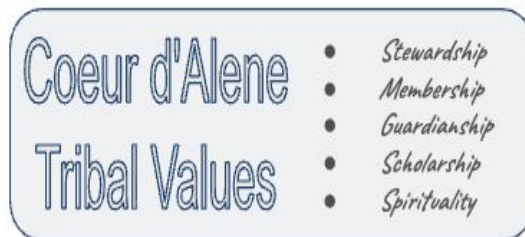
The Coeur d'Alene Tribe's Youth Advocacy Services (YAS) & Coeur Adolescent Support Team (CAST) piloted a referral and dashboard system designed to provide real-time snapshots and data to monitor services for tribal youth in crisis.

## METHODOLOGY

Qualitative study: semi-structured interviews conducted with CAST representatives at two data points and triangulated with observational data.

## KEY FINDINGS

- Importance of collaboration (services & data)
- Systems alignment
- Accountability
- Effective, culturally responsive care



# STUDY OBJECTIVES

- **Launched in 2023** by the Coeur d'Alene Tribe with RWJF S4A funding.
- Examined collaboration across multiple sectors: **education, social services, health, law enforcement, and Tribal leadership.**
- Studied data needed for YAS/CAST to monitor youth cases, help reduce silos, and improve services for Tribal youth in crisis, by capturing data to better examine key youth risk factors:

- **44% dropout rate**
- **42% poverty rate**
- **Rising juvenile arrests**
- **Early average age of substance-use onset**



- Long-term goal: improve Tribal youth health outcomes and community well-being through better data sharing and access to services.

- The study highlighted major barriers in youth service coordination. Study participants identified major themes to inform the piloted system, including:
  - **Fragmented databases, limited data sharing, and reliance on outdated referral methods**
  - Need for improved collaboration, data integration, and visibility across programs and services.
  - Stronger integration of Tribal leadership and community connectedness.
- Dashboards provided real-time “**snapshots**” of youth needs, helping CAST, providers, and Tribal leaders make faster, more informed decision to support crisis response, targeted interventions, and more coordinated care for vulnerable youth.
- Full system implementation is expected to reduce duplicative paperwork, improve documentation consistency, and build trust with youth, families, and community partners.

- The Tribal Care Coordination Dashboard (TCCD) study informed the development of a piloted, **tribally** designed, culturally tailored model for referral systems, dashboards, and youth service coordination.
- The research supports **Indigenous data governance, tribal sovereignty, and customized data collection**.
- Findings also highlighted the need for an **Indigenous systems alignment framework** that includes cultural indicators, leadership involvement, and community knowledge.
- The pilot has potential to scale beyond youth services across Coeur d'Alene Tribal programs and systems, and to **other Tribes or Indigenous populations, and rural communities**.
- By improving intake, referrals, monitoring, and cross-sector alignment, TCCD **strengthens the safety net for youth and families and supports long-term community well-being**.



# Strategies Used by Community-Based Organizations to Expand Access to Seasonal Vaccinations for Native American, Asian American, Black, and Latinx Populations

**Amanda L. Brewster**

Associate Professor, Health Policy & Management

Co-Director, Center for Health Management & Policy Research (CHAMP)



# Co-Authors & Partners

## UC Berkeley

- Amanda Brewster
- Jenny Guadamuz
- Becky Staiger
- Christine Lo
- Ishika Sachdeva
- Salma Bibi



**UC Berkeley**

Center for Health Management  
& Policy Research

## USAging

- Traci Wilson
- Sara Maloney
- Deborah Stone-Walls
- Jennifer Hammer



**UC Berkeley**  
Public Health

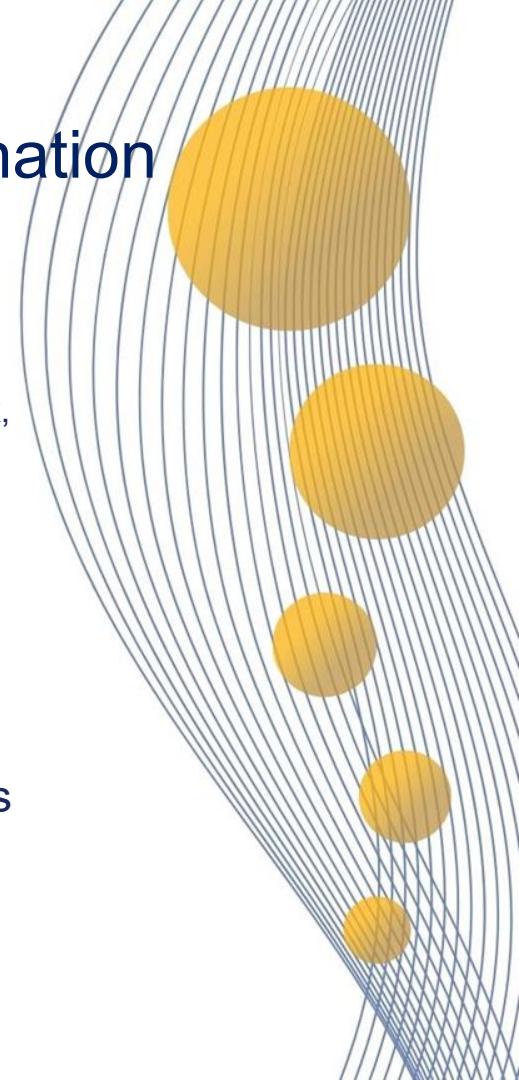
**Systems for Action**

*Systems and Services Research to Build a Culture of Health*

**rwjf** robert wood johnson  
foundation

# Disparities in COVID-19 and influenza vaccination

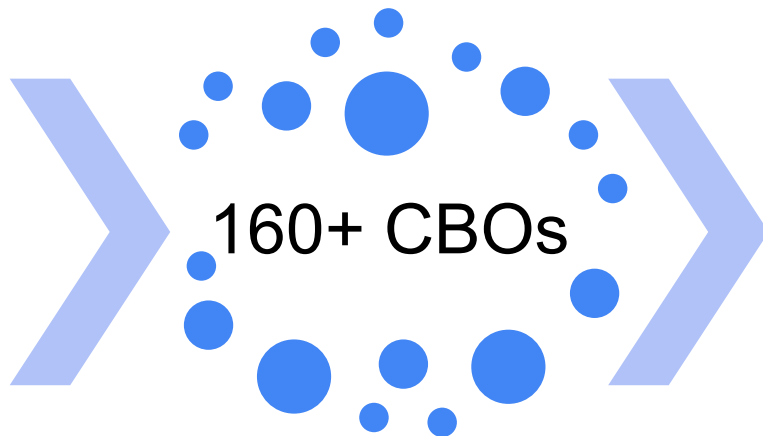
- Seasonal vaccination for **influenza and COVID-19** reduces severe illness and mortality, especially for older adults.
  - Evidence of **disparities in vaccination** for Asian American, Black, Latinx, and Native American populations.
- Evidence that partnerships involving **community-based organizations** can promote equitable vaccination access.
  - Trust, convenience
- **Research gap:** How to manage and scale up such strategies for seasonal influenza & COVID vaccination.



# Our study: examine strategies & partnerships across many different local initiatives



\$75M federal  
initiative  
(began 2023)



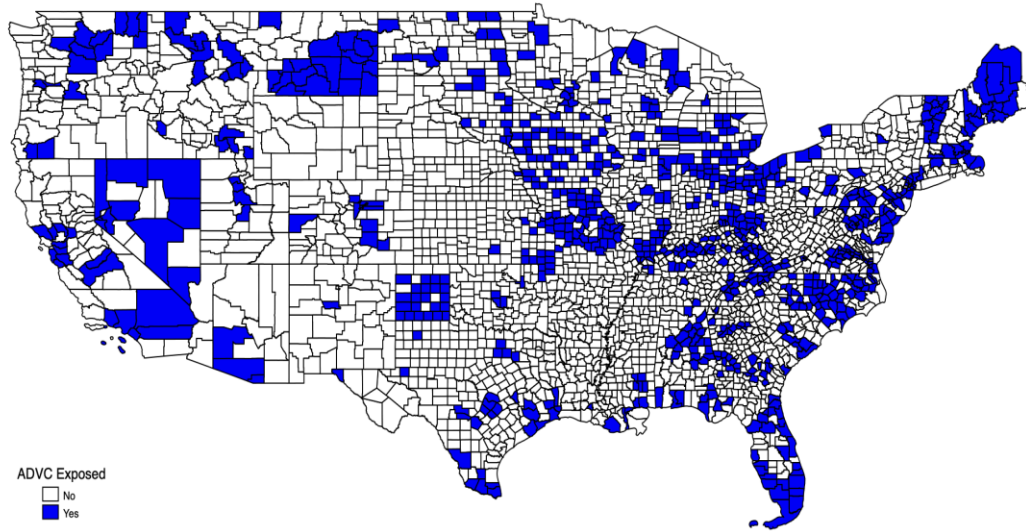
Area Agencies on  
Aging, Centers for  
Independent Living,  
other nonprofits



Vaccination events,  
support & education  
(2023-25)

# ADVC vaccination events widespread nationally

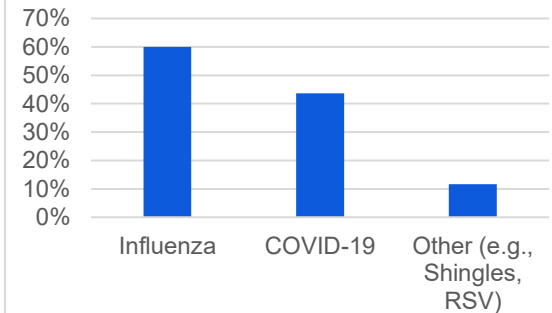
Counties Exposed to ADVC (Locations of Grantees or Vaccination Events)



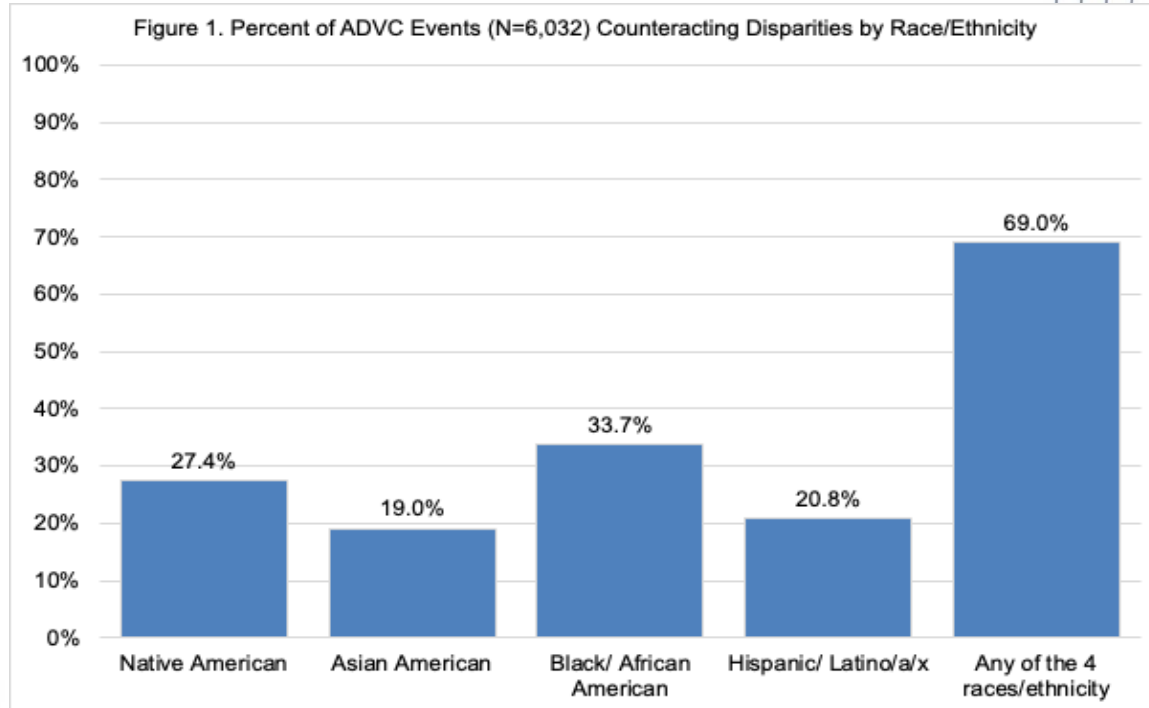
Total of:

- **781,209** vaccinations distributed
- **9,285** community vaccination events

% vaccinated for:



Of ADVC events (6,032), 69.0% counteracted disparities for one or more of the focus populations



# Findings

Examined if ADVC counteracted disparities

- 69% of ADVC events over-represented at least one race/ethnicity population that typically experienced lower vaccination rates nationally

Analyzed event strategies

- Offering resources for social needs and targeting events to focus populations corresponded with counteracting disparities

Used qualitative interviews to interpret

- Adding vaccination opportunities for existing events (“already a group of people meeting for a reason”) and community groups (e.g., a church congregation) broadened access

# The Effects of Financial Structures to Increase SDH Investments: A Simulation Approach

Francis Fang,<sup>1</sup> Pinar Karaca-Mandic,<sup>2,3</sup>  
and Richard T. Thakor<sup>2,4,5</sup>

<sup>1</sup> University of Washington, <sup>2</sup> University of Minnesota, <sup>3</sup> NBER,  
<sup>4</sup> University of Chicago, <sup>5</sup> MIT LFE

S4A and AJPH Special Issue Webinar  
September 29<sup>th</sup>, 2026

# Overview

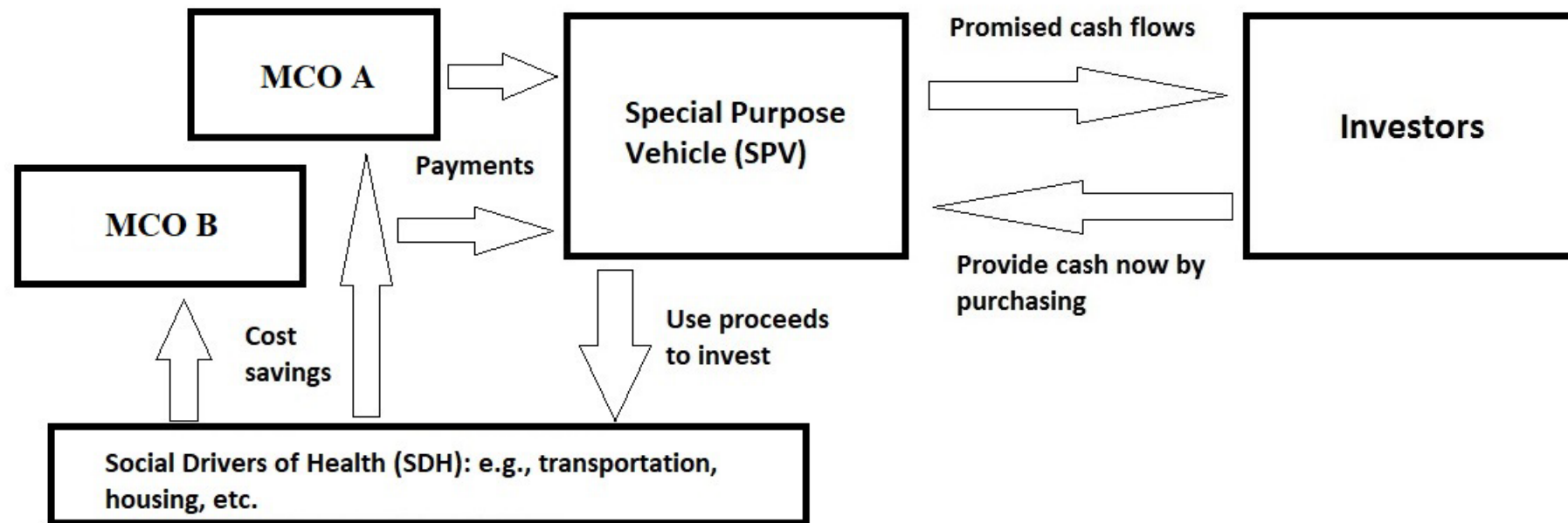
- **Social Determinants of Health (SDH)** are conditions in peoples' environments that affect their health and well-being
  - SDH has been recognized to drive many avoidable adverse health outcomes and healthcare costs
  - *Examples:* Food insecurity, housing instability, education, transportation, and other socioeconomic and environmental factors
- SDH interventions especially important for state Medicaid programs: Medicaid population has SDH complications that interfere with care
  - Medicaid covers over 70 million individuals in the U.S., and accounts for 20% of healthcare spending
- Managed Care Organizations (MCOs) compete to serve state Medicaid population, and are enthusiastic about implementing SDH interventions
  - Initiatives cost-effective with positive ROI

# Overview

- However, challenges in bringing such interventions to scale:
  - Benefits (cost savings) accrue over a long time, but interventions require substantial funding upfront
  - Volatile Medicaid enrollment patterns (coverage changes, eligibility, switching of plans, churn) make cost savings risky (“wrong-pocket problem”)
- Thus, *underinvestment* in SDH interventions

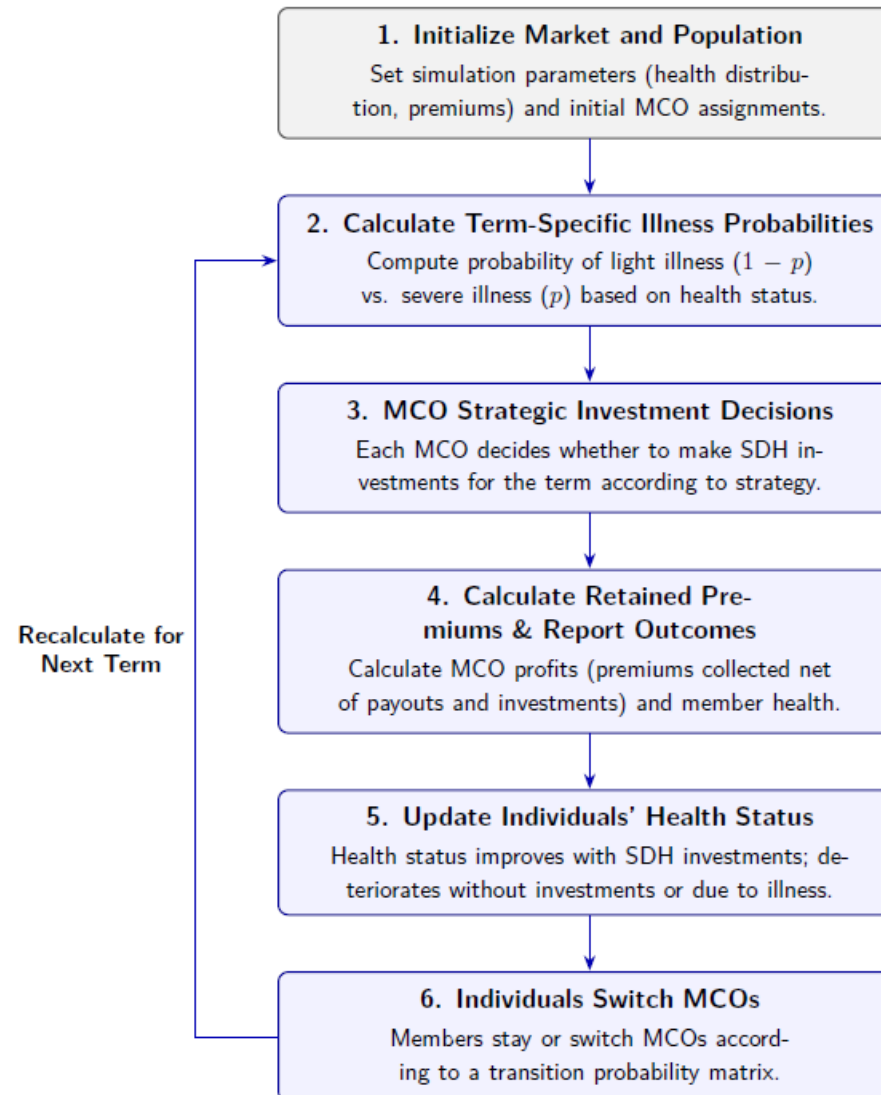
# Overview

- In prior work (Karaca-Mandic et al, *Health Affairs* 2023), we proposed a **social bond** that could be issued to investors in capital markets jointly by MCOs, thus providing capital for SDH investments



- In our paper, we provide evidence for the economic feasibility of such a financial structure using a **simulation** approach

# Setup of Simulation Model



# Results

- We construct a Monte Carlo simulation model of a market with MCOs and patient populations with evolving health conditions
- **Takeaways:**
  - ***Benefits of Investments***
    - With a single MCO, health improvements lead to cost savings over time
    - A number of time periods required to offset initial investments
  - ***Wrong-pocket Problem***
    - With multiple MCOs, patient switching makes investments risky: financial performance can be worse when investments are made
    - Non-investing MCOs benefit from the savings made from other MCO investments: free-rider problem
  - ***Introduction of SDH Bond***
    - Ensures continuous investments for all patients, and improves overall health of patients
    - Solves the wrong-pocket problem caused by patients switching MCOs
    - Long-term profits higher than no-investment case
- ***Key Message: Financial structures can be developed that can make SDH investments attractive to investors, bringing in capital to make them***

# References

1. McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. *Health Aff (Millwood)*. 21(2):78-93. doi:10.1377/hlthaff.21.2.78
2. Centers for Medicare & Medicaid Services, (CMS) H. Opportunities in Medicaid and CHIP to Address Social Determinants of Health (SDOH). Presented at: <https://www.medicaid.gov/federal-policy-guidance/downloads/sho21001.pdf>
3. Health Partners Plans, Food as medicine model: A framework for improving member health outcomes and lowering health costs. Published online 2019.
4. NORC at the University of Chicago. Supportive service expansion for individuals with serious mental illness: A case study of Mercy Maricopa integrated care. 2017;August 18.
5. Lee J, Majerol M, Burke J. Addressing the social determinants of health for Medicare and Medicaid enrollees: Leading strategies for health plans. *Deloitte Insights*. [https://www2.deloitte.com/content/dam/insights/us/articles/4985\\_Social-determinants-of-health/DI\\_Social-determinants-of-health.pdf](https://www2.deloitte.com/content/dam/insights/us/articles/4985_Social-determinants-of-health/DI_Social-determinants-of-health.pdf)
6. Sayeh Nikpay, Zhanji Zhang, Pinar Karaca-Mandic, Return on investments in social determinants of health interventions: what is the evidence?, *Health Affairs Scholar*, Volume 2, Issue 9, September 2024, qxae114, <https://doi.org/10.1093/haschl/qxae114>
7. Karaca-Mandic, Pinar, Sayeh Nikpay, Susanna Gibbons, David Haynes, Rahul Koranne, and Richard Thakor. "Proposing An Innovative Bond To Increase Investments In Social Drivers Of Health Interventions In Medicaid Managed Care: Study examines an innovative bond to improve investments in social drivers of health in Medicaid managed care." *Health Affairs* 42, no. 3 (2023): 383-391. Final Report on Social Taxonomy, EU Sustainable Finance [https://ec.europa.eu/info/sites/default/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/280222-sustainable-finance-platform-finance-report-social-taxonomy.pdf](https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/280222-sustainable-finance-platform-finance-report-social-taxonomy.pdf)