

# Investments in SDOH: What works, what's happening, and how do we finance it?

Lauren A. Taylor, MDiv, MPH  
Doctoral Candidate, Harvard Business School  
San Diego CIE Summit  
April 26, 2019

@LaurenTaylorMPH, [ltaylor@hbs.edu](mailto:ltaylor@hbs.edu)

# Roadmap



# LEVERAGING THE SOCIAL DETERMINANTS OF HEALTH: WHAT WORKS?

JUNE 2015



*prepared for the Blue Cross Blue Shield of Massachusetts Foundation by  
Lauren A. Taylor, Caitlin E. Coyle, Chima Ndumele, Erika Rogan,  
Maureen Canavan, Leslie Curry, and Elizabeth H. Bradley*

*Yale Global Health Leadership Institute*

*Which* social services produce better health **and** save dollars?

- housing for chronically homeless individuals
  - integrated housing and health care for homeless families
- Women, Infants and Children (WIC)
- home-delivered meals for older Americans
- case management with home visitation by registered nurses for low-income individuals and low-income, first time moms

Highlights the wrong pocket problem.

# High Profile Results Since Then

RESEARCH ARTICLE

CULTURE OF HEALTH

HEALTH AFFAIRS > VOL. 37, NO. 4: CULTURE OF HEALTH

Meal Delivery Programs  
Costly Health Care In Du  
And Medicaid Beneficiar

Seth A. Berkowitz<sup>1</sup>, Jean Terranova<sup>2</sup>, Caterina Hill<sup>3</sup>, et al

AFFILIATIONS

PUBLISHED: APRIL 2018 Full Access

SECTIONS

VIEW ARTICLE

PERMISSIONS

JAMA Internal Medicine

Journals

Enter Search Term

Original Investigation

March 2018

Association of Rideshare-Based  
Transportation Services and Missed  
Primary Care Appointments  
A Clinical Trial

Krisda H. Chaiyachati, MD, MPH, MSHP<sup>1,2</sup>; Rebecca A. Hubbard, PhD<sup>3</sup>; Alyssa Yeager, MD<sup>4</sup>; et al

Author Affiliations | Article Information

JAMA Intern Med. 2018;178(3):383-389. doi:10.1001/jamainternmed.2017.8336

Author Affiliations | Article Information

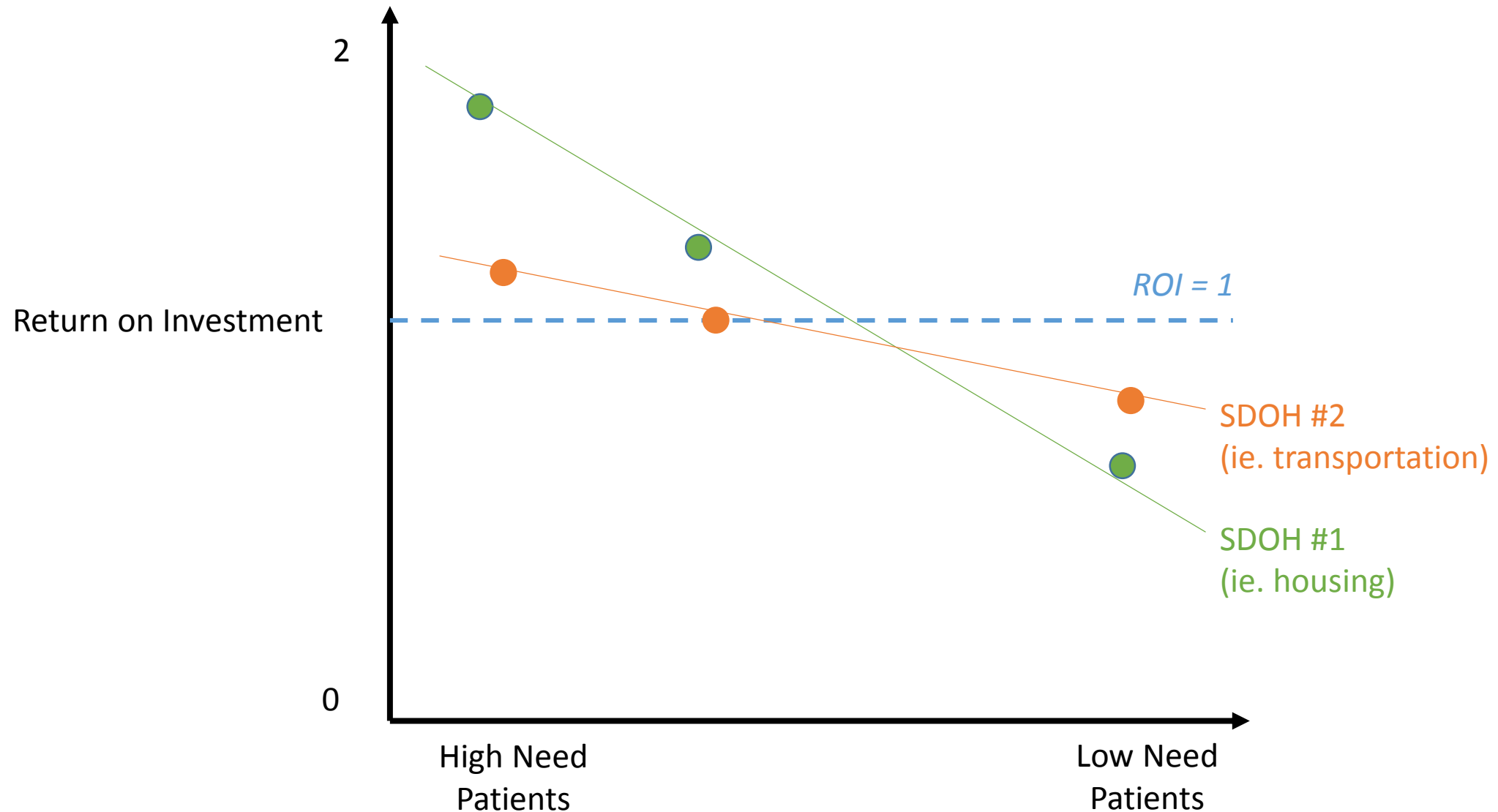
JAMA Intern Med. 2018;178(12):1635-1643. doi:10.1001/jamainternmed.2018.4630

y Health Worker  
Outcomes of Low-  
ross Primary Care

al Trial

D<sup>5</sup>; Lindsey Norton, MSS, MLSP<sup>1</sup>; et al

“What pays?” ➡ “For whom does what pay?”



# Insight from Corporate Social Responsibility



The “morality pays” argument easily results in the opposite belief: “morality has to pay.”

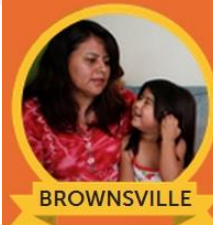
Michael Asslaender,  
PhD and Stefanie Kast,  
Making the Means to  
an End? (2018)



# National Trends Incentivizing SDOH Investments

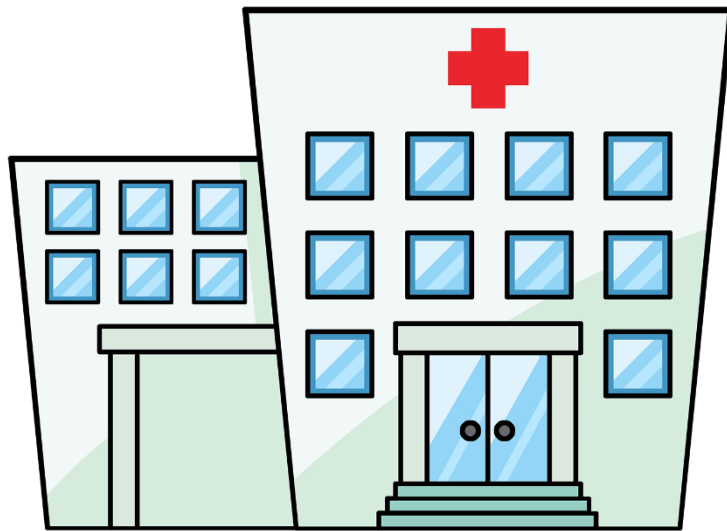


## Meet the RWJF Culture of Health Prize Winners

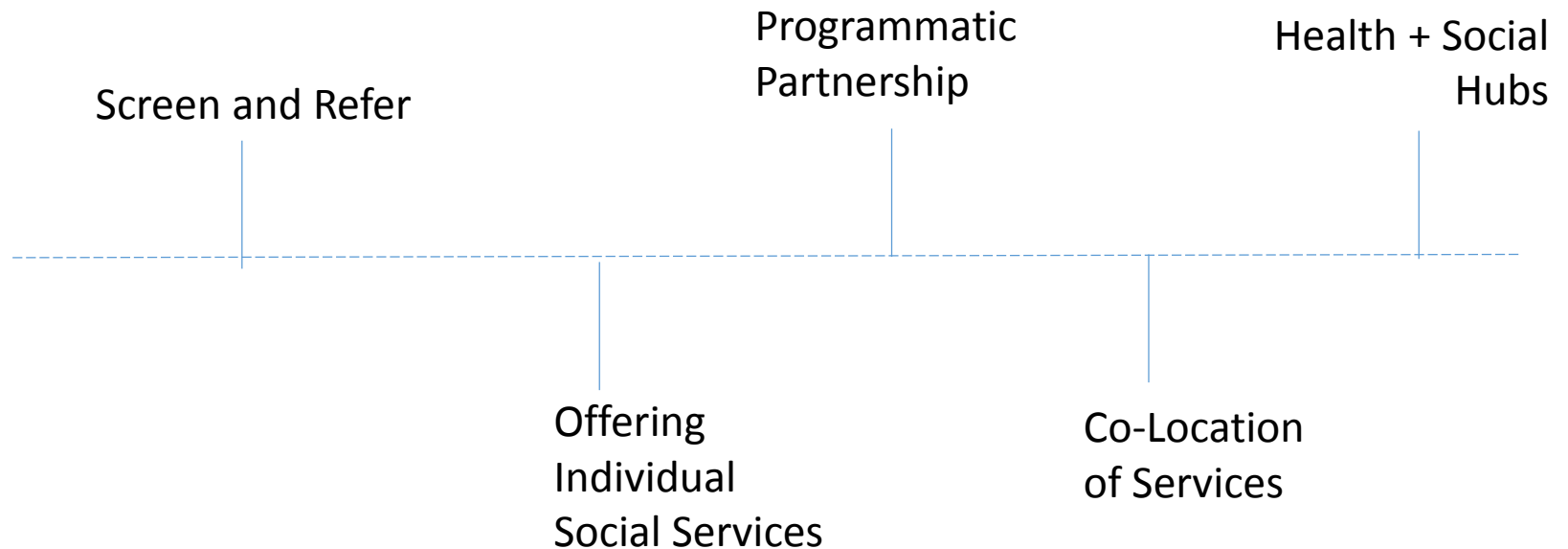


These six communities are beacons of hope and progress for healthier people and families. They were selected from more than 250 applicants, and are leading some of the nation's most innovative efforts to build a national Culture of Health.

# Evidence Exists for Various Integration Models



Traditional Health Care Sector





# Community-Based Organizations Response

## **How are Massachusetts Community-Based Organizations Responding to the Health Care Sector's Entry into Social Determinants of Health?**

November 2018



Elena Byhoff, MD, MSc  
*Tufts Medical School*

Lauren A. Taylor, MDiv, MPH  
*Harvard Business School*

1

Health care and CBOs have different timelines, target population, ways of working

2

CBOs perceive policy as moving the right direction

3

CBOs position themselves to partner with health care

## Three Emergent Themes



# 4

## CBO efforts to position themselves given health care SDOH strategy

### Codes

- Talking/measuring their work in terms of health
- Hiring health care staff/board
- Creating service-line menus
- Conducting grant-funded research to build evidence base
- Creation of umbrella/hub organizations
- Various iterations of partnerships (some interpersonal relations, some contracts)

...we are changing our metrics. We've gone from pounds of food...more towards healthy meals. When we do that...our numbers change and it's going to take a while for people to understand...that pounds doesn't really capture what we're doing.

# 4

## CBO efforts to position themselves given health care SDOH strategy

### Codes

- Talking/measuring their work in terms of health
- **Hiring health care staff/board**
- Creating service-line menus
- Conducting grant-funded research pilots, interest in developing evidence base
- Creation of umbrella/hub orgs and other forms of consolidation
- Various iterations of partnerships (letters of support, interpersonal relations, some contracts)

# 4

## CBO efforts to position themselves given health care SDOH strategy

### Codes

- Talking/measuring their work in terms of SDOH
- Hiring health care staff/board
- **Creating service-line menus**
- Conducting grant-funded research pilots, interest in developing evidence base
- Creation of umbrella/hub orgs and other forms of consolidation
- Various iterations of partnerships (letters of support, interpersonal relations, some contracts)

[Health Centers] all have different strengths and infrastructure, so when we offer this three prong program, we do it as a menu of options. We say, "Hey these are the three things that we can offer you, where are you guys at?"

# 4

## CBO efforts to position themselves given health care SDOH strategy

### Codes

- Talking/measuring their work in terms of health
- Hiring health care staff/board
- Creating service-line menus
- **Conducting grant-funded research pilots, interest in developing evidence base**
- Creation of umbrella/hub orgs and other forms of consolidation
- Various iterations of partnerships (letters of support, interpersonal relations, some contracts)



# 4

## CBO efforts to position themselves given health care SDOH strategy

### Codes

- Talking/measuring their work in terms of health
- Hiring health care staff/board
- Creating service-line menus
- Conducting grant-funded research pilots, interest in developing evidence base
- **Creation of umbrella/hub orgs and other forms of consolidation**
- Various iterations of partnerships (letters of support, interpersonal relations, some contracts)

# 4

## CBO efforts to position themselves given health care SDOH strategy

### Codes

- Talking/measuring their work in terms of health
- Hiring health care staff/board
- Creating service-line menus
- Conducting grant-funded research pilots, interest in developing evidence base
- Creation of umbrella/hub orgs and other forms of consolidation
- Various iterations of partnerships (letters of support, interpersonal relations, some contracts)

# Lantz, P. The Medicalization of Population Health: Who Will Stay Upstream? *The Milbank Quarterly*. 2019.

## Opinion

### The Medicalization of Population Health: Who Will Stay Upstream?

PAULA M. LANTZ

POPULATION HEALTH, DEFINED BROADLY AS THE DISTRIBUTION of health-related risks and outcomes within and across populations, has been developing as a subject of scientific inquiry and public health practice for more than two centuries.<sup>1</sup> More recent attention has been fueled by the growing understanding of both upstream (macro-level) and downstream (micro-level) social determinants of health, and increased recognition of the limits of medical care in reducing socially driven health disparities.<sup>2</sup>

A robust finding from population health research is that the United States spends a much greater percentage of its GDP on medical care than any other developed country, yet ranks quite low in broad population-level indicators of health status, including life expectancy and infant mortality. In response, the Institute for Healthcare Improvement introduced the Triple Aim framework in 2007 to optimize health care system performance: reduce *costs*, improve *quality*, and improve *population health*.<sup>3</sup>

This explicit focus on population health within the context of health care improvement has fueled significant growth in what is generally called "population health management."<sup>3</sup> In these efforts, the term "population" typically refers to individuals who are covered by a health insurance plan or the patients of a health care delivery organization. Although population health management significantly narrows the concept of a "population," it also promotes an expanded approach to health care delivery. Common approaches to population health management include data-driven chronic disease management, lifestyle and behavioral health interventions, case management approaches that attempt to address patient social circumstances, and partnerships with public health and social service agencies.<sup>4</sup>

Not surprisingly, there has been a contemporaneous explosion of new business-oriented tools, products, and consulting services designed to

# Castrucchi and Auerbach, Jan 2019

The screenshot shows the Health Affairs website interface. At the top, there is a red banner with the "HealthAffairs" logo. To the right of the logo is the Harvard Library logo with the text "Brought to you by HARVARD UNIVERSITY". Further right are links for "SUBSCRIBE", "FOR AUTHORS", and a shopping cart icon. Below the logo banner is a dark navigation bar with links for "TOPICS", "JOURNAL", and "BLOG". A search bar with a magnifying glass icon and the text "ADVANCED SEARCH" is also present. Below the navigation bar is a blue banner for the "HEALTH AFFAIRS BLOG". Underneath this banner, there is a section for "RELATED TOPICS" with links to "SOCIAL DETERMINANTS OF HEALTH", "ACCESS TO CARE", "COSTS AND SPENDING", and "SYSTEMS OF CARE". The main content area features the title "Meeting Individual Social Needs Falls Short Of Addressing Social Determinants Of Health" in a large, dark blue font. Below the title, the authors "Brian Castrucci, John Auerbach" are listed. The date "JANUARY 16, 2019" and a DOI number "10.1377/hblog20190115.234942" are also displayed. A dark blue bar contains icons for "TOOLS" and "SHARE". The beginning of the article text is visible: "Until recently, efforts to improve the health of Americans have focused on expanding access to quality medical care. Yet there is a growing recognition that medical care alone cannot address...". At the bottom of the page, there is a file download bar showing "public\_goods\_best....pdf" and a "Show all" button with a close icon.

HealthAffairs

HARVARD LIBRARY  
Brought to you by  
HARVARD UNIVERSITY

SUBSCRIBE  
FOR AUTHORS

TOPICS JOURNAL BLOG

ADVANCED SEARCH

HEALTH AFFAIRS BLOG

RELATED TOPICS:  
SOCIAL DETERMINANTS OF HEALTH | ACCESS TO CARE | COSTS AND SPENDING | SYSTEMS OF CARE

## Meeting Individual Social Needs Falls Short Of Addressing Social Determinants Of Health

Brian Castrucci, John Auerbach

JANUARY 16, 2019 10.1377/hblog20190115.234942

TOOLS SHARE

Until recently, efforts to improve the health of Americans have focused on expanding access to quality medical care. Yet there is a growing recognition that medical care alone cannot address...

public\_goods\_best....pdf

Show all

# Coalitions, galore!

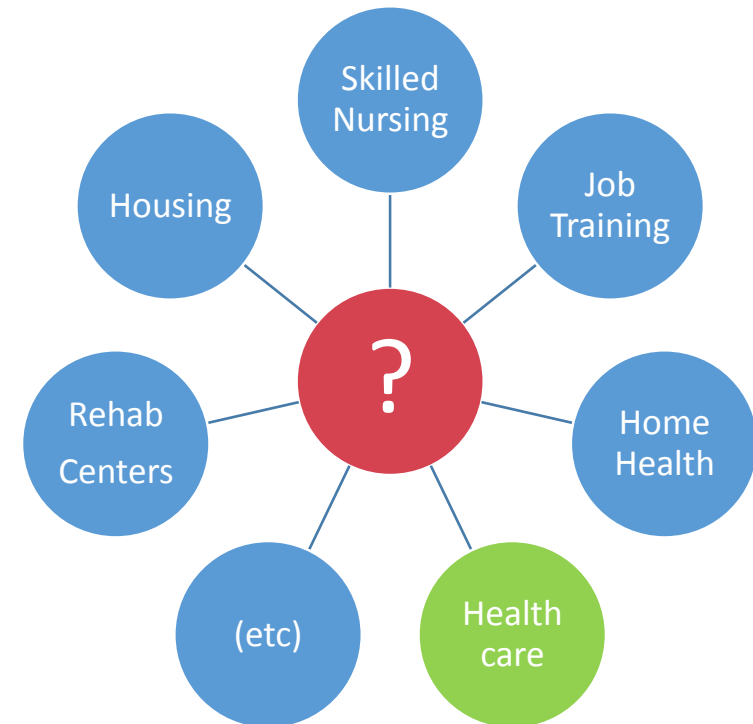


## Principle 3: **Mobilize across sectors**

The roots of poor health and poverty are complex. A siloed approach is inefficient and ineffective. To be successful, work must intentionally engage multiple sectors to improve the health and wellbeing of individuals, families, and communities.

*An integrated approach to building healthy and prosperous places:*

- Forges new partnerships and encourages learning across sectors
- Coordinates sectors (e.g., education, employment, housing, transportation, and health care) that can influence improvements in health, prosperity, and equitable opportunity
- Leverages public and private resources and existing community assets
- Advances equitable policies (e.g., federal, state, and local)
- Includes members of the community as partners in cross-sector coalitions



By Len M. Nichols and Lauren A. Taylor

POLICY INSIGHT

Social Determinants As Public Goods: A New Approach To Financing Key Investments In Healthy Communities

**ABSTRACT** Good research evidence exists to suggest that social determinants of health, including access to housing, nutrition, and transportation, can influence health outcomes and health care use for vulnerable populations. Yet adequate, sustainable financing for interventions that improve social determinants of health has eluded most if not all US communities. This article argues that underinvestment in social determinants of health stems from the fact that such investments are in effect public goods, and thus benefits cannot be efficiently limited to those who pay for them—which makes it more difficult to capture return on investment. Drawing on lesser-known economic models and available data, we show how a properly governed, collaborative approach to financing could enable self-interested health stakeholders to earn a financial return on and sustain their social determinants investments.

DOI: 10.1377/hlthaff.2018.0018  
HEALTH AFFAIRS 37,  
NO. 8 (2018): 1223–1230  
GDOI: 10.1377/hlthaff.2018.0018  
The People's People Health  
Foundation, Inc.

Len M. Nichols (lnichols@georgetown.edu) is director of the Center for Health Policy Research and Ethics and a professor of health policy at George Mason University, in Fairfax, Virginia.

Lauren A. Taylor is a doctoral candidate in health management at Harvard Business School, in Boston, Massachusetts.

The tenuous survival of the Affordable Care Act (ACA), the 2017 tax cut and 2018 spending increases, and the disappointing cost savings from ACA payment reform pilots all presage a coming push for entitlement reform and political pressure to lower health care costs. Amid calls for more effective cost reduction,<sup>1</sup> few payment reform options can rival the cost-saving potential of squarely addressing the deficits in social determinants of health that constrain health and drive spending trajectories for many low-income Americans. Decades of research have demonstrated that economic stability, physical environment, education, food, and social context are powerful upstream factors that largely determine one's health before the health system is able to intervene. Social determinants of health also influence the effectiveness of medical interventions. Antibiotics are of little help to those who drink polluted water every day.<sup>2</sup> Recent work by

Elizabeth Bradley, Lauren Taylor, and others has investigated how social spending influences health outcomes in many industrialized countries, including the US.<sup>3,4</sup> System dynamics experts<sup>5,7</sup> and public health researchers<sup>6</sup> have developed the capacity to model the impact of nonmedical spending choices on health outcomes. There is growing awareness that funding for interventions related to social determinants of health has long been inadequate, leaving health systems to treat the survivors of a frayed social safety net. The ACA's hospital readmission penalties forced health care organizations to reconsider their role and self-interest in addressing deficits in social determinants of health in the community. Many learned that paying attention to the reality of people's lives at home can reduce readmissions and utilization generally<sup>8,10</sup> and that community-based organizations and nonmedical personnel such as social workers and community health workers can be more efficient

How can we fund all of this?

- Conceptualize SDOH investments as public goods

Excludability	Subtractability		
		Low	High
	Difficult	Public goods	Common-pool resources
	Easy	Toll goods	Private goods

Source: Ostrom et al. (1994, 7).



# The Basic Idea

**Step 1** Assess cost of intervention



**Step 2** Bidders confidentially bid on how much the intervention is worth to them

**Step 3** Broker sums the bids

If sum of bids exceeds cost of intervention, GO!

# 12 Step Process

## Setup

- TAs identify key stakeholders
- TAs and stakeholders identify TB
- TB convenes stakeholders

## Select Intervention

- TB, TAs, and stakeholders review evidence on salient SDoH deficits
- TAs produce projections of ROI for one or more interventions
- Stakeholders select intervention

## Bid

- With TA help, TB solicits bids
- With TA help, TB assigns Ps to each stakeholder

## Implement

- TB and stakeholders select and contract with a vendor
- Vendors implement
- TB oversees implementation

## Reconcile and Rebid

- TAs help TB and stakeholders reconcile data and facilitate rebidding for year 2

# Simplistic Example

Suppose cost of an SDOH intervention = 180

Stakeholder	Value of Solution
Health Insurer	110
Hospital A	40
Hospital B	50
TOTAL	200

The “magic” of VCG is that each Net Price  $<$  Value, so that self-interest drives, and will perpetuate, the solution

# Or, Better Yet

Suppose cost of an SDOH intervention = 180

Stakeholder	Value of Solution	Simple Cost Share	Net Value	Tax or Side Payment	Net Price
Health Insurer	110	60	50	40	100
Hospital A	40	60	-20	-25	35
Hospital B	50	60	-10	-15	45
TOTAL	200	180		0	180

The “magic” of VCG is that each  $\text{Net Price} < \text{Value}$ , so that self-interest drives, and will perpetuate, the solution

# Next Steps

- Led by Len Nichols at George Mason, 1-yr feasibility study funded by a coalition of funders.
  - Series of webinars to teach the concept to interested communities this summer
  - Site visits to pressure test concept with coalitions and teach model in more depth in Fall/Winter

Looking forward to the conversation to come.

Contact: [ltaylor@hbs.edu](mailto:ltaylor@hbs.edu), @LaurenTaylorMPH