Welcome to the
APCM LEARNING SESSION

August, 17, 2017
Introduction Slide
FIVE STRATEGIES

Teams
Build care teams that are a reflection of patient needs

Data
Use actionable and real time data

Appropriate Care
Enhance appropriate care and work to reduce unnecessary emergency department utilization and ambulatory care sensitive admissions

Access
Centered around patient’s schedule, mode of preference

Partner
Partner with patients to co-create and provide self-management services
EQUALITY

EQUITY
Upstream Interventions: Keeping Our Eyes on the Prize and Our Feet on the Ground

Laurie Francis, Partnership Health Center and,
Laura Gottlieb, University of California San Francisco and Social Interventions Research and Evaluation Network (SIREN)
Laurie Slides?
What do we know about integrated social and medical care delivery?

Laura Gottlieb, MD, MPH
Director, Social Interventions Research and Evaluation Network
Associate Professor, UCSF Department of FCM
Causes of premature mortality
Social and economic risk factors

- Food security
- Employment
- Social support
- Education

- Transportation
- Financial security
- Housing quality

- Social support
- Housing security
- Safety
HOORAY—THAT EAR IS BETTER...
ANYTHING ELSE...?
Community work targets SDH

Public health

Adapted from Brian Park, MD, OHSU Health Equity Summit, Portland, OR 4/22/17
Clinical care informed by SDH

Community work targets SDH

Health care

Public health

Adapted from Brian Park, MD, OHSU Health Equity Summit, Portland, OR 4/22/17
Clinical care informed by SDH

Clinical care targets SDH

Community work targets SDH

Health care

Public health

Adapted from Brian Park, MD, OHSU Health Equity Summit, Portland, OR 4/22/17
Demonstration programs
Increase in SDH publications, 2000-2016

Number of articles

- SDH
- SDH + Health care


Number of articles
Change in SDH interventions

- Clinical SDH intervention evaluations
- SDH
- SDH + Health care

Number of articles

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<th>Year</th>
<th>SDH</th>
<th>SDH + Health care</th>
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<td>2016</td>
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Social prescribing is being widely advocated and implemented but current evidence fails to provide sufficient detail to judge either success or value for money. If social prescribing is to realize its potential, future evaluations must be comparative by design and consider when, by whom, for whom, how well, and at what cost.

Opportunities
Agile is here

Innovators

Early Adopters

Chasm

Early Majority

Late Majority

People demanding proof are here

Laggards
Effectiveness research

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<tr>
<th>Process outcomes</th>
<th>SDH Outcomes</th>
<th>Health Impacts</th>
<th>Utilization / Cost Impacts</th>
<th>Provider Outcomes</th>
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Implementation research
Challenges
Evaluation Barriers

- Long causal chain
- Dose
- Ethics of randomization
- Denominator data
“The Triple S” for SDH Data

Systematic SDH data

Example: SDH data collected during all encounters with target population

Slides adapted from: “Why Collect Standardized Data on Social Determinants of Health?” HITECH, March 2017
“The Triple S” for SDH Data

Systematic SDH data
Example: Notes in the patient chart on SDOH needs collected during all encounters with population of focus

Structured SDH data
Example: Data collected using tools that enable clinic or institution-wide aggregation
“The Triple S” for SDH Data

**Systematic SDH data**
*Example: Notes in the patient chart on SDOH needs collected during all encounters with population of focus*

**Structured SDH data**
*Example: Data collected using tools that enable clinic or institution-wide aggregation*

**Standardized SDH data**
*Example: Data collected and coded using standardized tools (e.g., ICD-10 z-codes) that enable aggregation across institutions*
Social Interventions Research & Evaluation Network

SIREN’s mission is to catalyze and disseminate high quality research that advances efforts to address social determinants of health (SDH) in health care settings.

Activities include:

- Catalyzing high quality research
- Collecting & disseminating research findings
- Providing evaluation, research, & analytics consultation services

siren

sirenenetwork.ucsf.edu | siren@ucsf.edu | @SIREN_UCSF
More information

Website: [https://sirenetwork.ucsf.edu](https://sirenetwork.ucsf.edu)
Twitter: @SIREN_UCSF
LinkedIn: Social Interventions Research and Evaluation Network (SIREN)
Email: siren@ucsf.edu
Q&A

siren
Connecting the Dots: Strategy, Accountability and Transformation

Charles Ashou, Oregon Primary Care Association
Population Segmentation:
Learning Community Status Update –
Where are we now?

Carly Hood, OPCA
Oregon by county...

2017 Health Factors

2017 Health Outcomes

Source: http://www.countyhealthrankings.org/app/oregon/2017/overview
Why primary care?

Return on Investment = $13 to $1

4 in 5 physicians believe that unmet social needs are leading to worse health among Americans.

yet...

4 in 5 physicians feel unable to address their patients health concerns caused by unmet social needs.

Social and economic factors, 40%
Health behaviors, 30%
Clinical care, 20%

Sources:
Population segmentation

10,000 PEOPLE POPULATION

Use analytics to piece together target population characteristics.
May require multiple data sources and analytic processes.

SUB-POPULATION(S)

- 834 diabetics
- 223 with HbA1c > 9

TARGET POPULATION

- 56 out of the 223 diabetics with HbA1c > 9 who also:
  - Missed 2 appointments in the last 6 months
  - Live below 100% FPL
  - Are non-native English speaker
  - Have a co-occurring mental health diagnosis
  - Did not graduate from high school

Understanding Their Needs
- Empathic inquiry and community data *(PRAPARE)*

Responding to Their Needs
- Redesigning care teams
- Developing strong community partnerships
- Expanding social determinants of health/upstream interventions

Demonstrating Impact
- Metrics of success
- Understanding cost and ROI
CHCs in Oregon to date...
Segmentation efforts

- **April 2015**: Develop 3 x 10 activity
- **July 2016**: Health centers select subpopulation, Start interview process
- **Nov 2016**: Initial SDH work plan development, Develop upstream canvas
- **May 2017**: APCM F2F in Portland - updates
- **July 2017**: OPCA phone call check in with clinics
"Project Canvas" to develop upstream QI solutions

What we have heard...

Screening/referrals happen by behaviorist and CHW’s largely

Patient self-efficacy & empowerment surveys being considered

Social isolation interventions through walking groups, cooking classes, living well groups.

Interest in attaching z codes to social needs/hand offs

Easier to implement intervention strategy in a smaller community

clinics are focused on food insecurity efforts

Formally tracked in EHR to completed on a paper form

At least 722 patients screened using a Social Determinants of Health Tool

At least 2 clinics started to develop interventions in response to identified social determinants needs
• Need a role/capacity internally to support the work
• Fear of screening when we know we can’t address the need
• So much to do, challenge in keeping it all up
• Potential duplication of tools – keep connected to partners
• Clarity around next steps in moving this forward and/or evaluate efforts
• Difficulty in interviewing – asking
• Desire to learn from other CHCs
SDH screening tools
Example: PRAPARE screening tool

Positions health centers to...

- Document the extent to which each patient and their total patient populations are **complex**
- Use that data to:
  - **improve** patient health
  - **affect change** at the community/population level, and
  - **sustain resources** and **create community partnerships** necessary to improve health.

### Core

<table>
<thead>
<tr>
<th>UDS SDH Domains</th>
<th>Non-UDS SDH Domains (MU-3)</th>
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<tbody>
<tr>
<td>1. Race</td>
<td>10. Education</td>
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<td>2. Ethnicity</td>
<td>11. Employment</td>
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<td>6. Income</td>
<td>15. Transportation</td>
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<td>7. Insurance</td>
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<td>8. Neighborhood</td>
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<td>9. Housing Status</td>
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### Optional

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<tbody>
<tr>
<td>1. Incarceration History</td>
<td>3. Domestic Violence</td>
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<td>2. Safety</td>
<td>4. Refugee Status</td>
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<tr>
<td>Challenge: Inability to Address SDH</td>
<td>Solution: Message “Have to start somewhere and do the best we can with what we have. Collecting information will help us figure out what services to provide”.</td>
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<tr>
<td>Catalog current resources available to address SDH needs, both in-house and in community (community resource guide)</td>
<td>Identify resources that need to be developed and/or community partnerships that need to be initiated or strengthened</td>
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<tr>
<td>Incorporate tool into other aspects and initiatives at health center: QI meetings, board meetings, ACO discussions so staff see value in this work</td>
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Why keep at it?
Priorities

What Makes Us Healthy

- Socioeconomic factors 40%
- Health behaviors 30%
- Clinical care 20%
- Physical Environment 10%

What We Spend On Being Healthy

- Medical services 88%
- Other 8%

Source: RWJF County Health Rankings
Source: Derived from information from the Boston Foundation (June 2007).
A Framework for Health Equity

How well do we know the needs of our patients and what’s truly impacting their health?

Are services addressing SDH incentivized and sustainable?
Talk to your neighbor!

Questions? Reach out to:
Carly Hood MPA, MPH
chood@orPCA.org
Population Segmentation:
Examples from the field

Ariel Singer, Oregon Primary Care Association
Rick Rankin, Rogue Community Health Center
Michelle Farmer, Neighborhood Health Center
Learning Together: Peer discussion time
Break-Out Activity

1. Patient-Centered Approach to Conducting SDoH interviewing
2. Sustaining momentum for practice change
3. Conducting the data analysis for segmentation
Lunch on the lawn!
12:15-1:15

CHW and Phase 6 information table discussion will be had on the lawn
Population Segmentation: Teamwork time
Reflect on what you’ve heard so far

Review your Population Segmentation Work Plans

Make modifications to your work plan if needed and identify three segmentation action steps to share
Leveraging Human-Centered Design to Achieve Health Equity

August 2017
OPCA’s Mission

*Leading the transformation of primary care to achieve health equity for all*

*Health equity for all* means supporting all people in achieving their fullest potential – this is the mission of *Upstream Health Innovations*. 
What You Can Expect To Leave With

• An understanding of *Upstream* Health Innovations journey and progress to date

• An overview of Human-Centered Design

• A roadmap to aid in pursuing Minimal Viable Prototypes (MVPs)

• An understanding of what it takes to impact health equity with human-centered design prototyping
UPSTREAM HEALTH INNOVATIONS JOURNEY
Overview of HCMC

- Minnesota’s premier Level 1 adult and pediatric trauma center
- 1 hospital; 12 community clinics
- 5,900 employees
- On pace to have over 640,000 ambulatory clinic visits this year
- 52% of patient population is Medicaid
Who We Are

Upstream Health Innovations

- Launched in April 2015
- Supported by a $2.5M grant from United Health Foundation
- Engage the community in co-creation
- Seek to nurture patient’s personal capacity
- Employ human-centered design
- Develop innovations that shift the focus to upstream opportunities
- Seek to nurture patient’s personal capacity

Who We Are
Our Team

Chip Truwit, MD  
Chief Innovation Officer

Bill Walsh, MD  
Deputy Innovation Officer

Susan Jepson  
Vice President

Emily Anderson  
Sr. Project Manager

Stephanie Bellefuille  
Project Manager

Andrea Brown  
Designer

Samantha Dempsey  
Designer
UHI Video
OUR PROCESS IS HUMAN CENTERED DESIGN
After Food and Housing what is the 3rd SDOH needs of your patients?
Human Centered Design is a Process

We listen, prototype, iterate and listen again...
A Problem Framing and Problem-Solving Methodology

“If I were given one hour to save the planet, I would spend 59 minutes defining the problem and one minute resolving it”
- Albert Einstein
And a Mindset

“Problems cannot be solved by the same level of thinking that created them.”
- Albert Einstein
Start here

Desirability
What do people desire?

Feasibility
What is technically & organisationally feasible?

Viability
What can be financially viable?

The solutions that emerge at the end of the Human-Centered Design should hit the overlap of these three lenses: they need to be Desirable, Feasible, and Viable.
OUR PARTNERS AND COLLABORATORS
We cannot build **health equity for all**, or a sustainable business model, until community is included in decision-making
Collaboration with Community Partners

• Interviewed and shadowed
• Brainstormed and narrowed focus
• Continue to engage throughout development phases
Partnership and Collaboration

- **Healthcare Systems**
  - Allina Health
  - Children’s Hospital and Clinics
  - HealthPartners
  - Hennepin Health
  - Kaiser Permanente

- **Industry Leaders**
  - Lyft
  - UHG
  - US Bank

- **Technology Leaders**
  - DevJam
  - GoKart Labs
  - Tarmac

- **Healthcare Start ups**
  - Learn to Live
  - Livio
  - NowPow
  - Xealth

- **Community/County/State**
  - Over 75 community based organizations
  - Hennepin County/Ramsey County
  - MN Department of Human Services (DHS)
  - United Way/211/ MnHelp
  - University of Minnesota
  - University of St. Thomas
Social Impact Collaborative

Healthcare systems and community based organizations working together to address health equity by leveraging NowPow technology.
OUR FINDINGS
Ethnographic Learnings

- Build my trust: Consistency • Familiarity
- Honor my priorities: Understanding • Resources
- Respond to my capacity: Personalization • Availability
- Help me contribute: Outlets • Support
Concepts
What are the Attributes of a Minimal Viable Prototype?

• Focus on principles (user needs) not the features
• Make it as lo-fi as possible
• It doesn’t have to be fully functional software to convey how fully functional software can work
MVP Process

1. Conduct Research
2. Identify the need or opportunity
3. Create a concept to test
4. Develop a prototype
AN EXAMPLE OF OUR PROCESS IN ACTION
Patient Self-Service Tool

A self-service digital tool that empowers patients to identify and gain access to social service resources in their neighborhoods.

A co-development effort with NowPow
Framing the Problem

Only 3% of HCMC primary care patients are enrolled in Health Care Home

Providing resource information can be time-consuming for staff

Social professionals seek opportunities for empowering patients to take care of themselves

Many patients are looking for ways to help themselves and demonstrate their commitment to their health
Identifying the Need

**Learning Objective**
Would a SDOH self-service tool be valuable to patients and staff? How? Who would benefit? Who would not?

**Research Activities**
SDOH card sort
Interviews
Observations

**Participants**
7 Patients
4 Social Professionals
Hennepin Healthcare System

SDOH Card Sort

Christa, 40

**Most personally important to least important:**
1. Quitting Smoking
2. Food
3. Mental Health
4. Disability

**Most Urgent to Least Urgent:**
1. Quitting Smoking
2. Food
3. Mental Health
4. Disability

**Easiest to Address to Hardest to Address:**
1. Disability
2. Food
3. Mental Health
4. Quitting Smoking

*Upstream Health Innovations*
Synthesis: What We Heard

Patients and SHP like the idea of allowing patients to help themselves.
“Sometimes I want to call myself instead of them looking it up on their screen. I like to take initiative and do it myself sometimes - so I can show that I’m responsible.” - Patient

A self-service tool will only help patients who are already motivated to address SDOH needs.
“You have to be willing to help yourself. You have to try [...] In MN, help is everywhere. All you have to do is want the help.” – Patient

A self-service tool cannot address all SDOH needs because the processes for addressing some of these needs involve complex systems and people may need customized guidance.
“I definitely think for those who know what they want, they would use it more. But for others who don’t know where to start, or might have more barriers, more of them might need to come in and figure out stuff with me.” – CHW
Choosing a Starting Point

Learning Objective
How might we start small with a single social determinant to test the hypothesis that technology can be used to help a patient find a helpful community resource on their own?

Research Activities
SDOH ranking activity
Social health professional / Patient role play

Participants
4 Social Health Professionals

Ranking Activity: Social health professionals on the team ranked social determinants by those they think patients are most likely to successfully self address and those they think patients are most motivated to self address.
Decision to Focus First on Food

Participants
4 Social Health Professionals

What it Means for Design
Food was seen as the perfect intersection between priority, motivation and simplicity. If a self-service tool can’t help patients find food resources, it is not likely to work for other SDOH.

Role Play Activity: After using the ranking activity to narrow the list of possible SDOH down to three, a role play activity between “patient” and “social worker” illustrated the number of steps required to address each of the three needs.
Learning Objective
How do patients prefer to interact with HCMC about social needs and resources?

Research Activities
Texting prototype using NowPow
Clickable prototype in inVision
Follow up interviews
Intercept interviews in patient waiting areas

Participants
Over 20 patients

These clickable prototypes were tested with over 20 patients and developed in close collaboration with HCMC social health professionals and experts in the patient food security issues.
Synthesis: What We Observed and Heard

Participants
Over 20 patients

Patient expectations are lower in terms of personalization and eligibility than compared to texting.

“HCMC has a reason to send me a text... it’s not just random.” – Patient

Patients want to explore because they may have more than one need. Linear nature of texting makes exploration cumbersome.

“[The screen] view is better. I can see multiple things and I know I can go back [I would] pick one, see what I can find out about, then go back and see if I can find another” – Patient

Typing can be a barrier, and the screen version requires typing only when entering the zip code, while the texting requires only input typing.

“I’d probably just be checking, clicking buttons. But if I had to do a whole lot of responding back and forth, I wouldn’t do it.” – Patient
Minimal Viable Prototype: Response Design Website

Learning Objective
Evaluate desirability if patients find the tool valuable

Research Activities
Observations of patients in Pharmacy lobby and Primary Care Clinic lobby approaching Ipad kiosk
Follow up interviews

Participants
Over 20 patients
Iterative Process: Digital tool

Guided Flow

Splash Page

Get to the Resources

Add a Map
### Design Activities Overview

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<td>MVP Development</td>
<td>Synthesis</td>
<td>Iterate</td>
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**Timeline:**
- Oct 2016: Current State Research / Identify the need
OUR SERVICES
Our Services Span the Levels of Patient Capacity

NowPow
Housing Health
Hitch Health
Group Visits
Members Give Back
Patient Self-Service Tool
Hitch Health

A software product that integrates the Electronic Health Record with a ride share service (Lyft) to seamlessly remove transportation barriers and reduce “no show” rates by automatically syncing ride requests with medical appointments. Patients receive SMS text ride offers with no staff involvement.

Video
Members Give Back

Vocational rehab program that teaches job seeking and financial health skills.

Supports clients to secure meaningful employment or volunteer roles while fulfilling a sense of “giving back”, as well as, self-confidence.

“This is exactly what I need now. Now I have done my mental health program, and I don’t have to focus on that – not have that be the biggest concern in my life. Now I feel ready to expand. I need to get beyond being mentally ill. I need to get back into the community.”

- S., now volunteering

“Without Members Give Back, I probably would never have thought to go get a job. I would feel like I wasn’t capable of it, ‘My resume sucks, I have a big gap in work, no one would want to hire me.’ I didn’t feel capable of having a job. But talking about having accommodations and different types of jobs, it opened my eyes more. If I’m having a bad day, it motivates me to stay in group, because I know that I have Members Give Back that afternoon. I always feel so much better.

- M., now employed part-time
NowPow

A community resource management system that supports social health professionals with the capability to deliver targeted social service referrals that match a patient's unmet needs with a feedback loop to staff.
TAKE AWAYS
Defer Judgement - No One Knows the Answers Upfront
It is About Learning - Not About Getting it Right
Value Patient Feedback and Observations Over Data
Only a Small Sample Size is Required to See a Pattern
Time is More Important than Monetary Investment
Collaborate, Test, Learn and Iterate
Patient-Centered Solutions Over Healthcare-Focused Solutions
Drive Towards Ultimate Impact
DISCUSSION
Laurie’s Farewell (for now)
to the APCM Learning Community

Laurie Francis, Partnership Health Center
Looking Back and Looking Forward

Ariel Singer, OPCA
Thank you!
We’ll see you at the next one.

Thursday, January 25, 2018
Portland, OR