Advances in Improving Social and Medical Care Integration

May 26th, 2016
Laura Gottlieb, MD, MPH
UCSF Center for Health and Community
J. Nwando Olayiwola, MD, MPH, FAAFP
Ashley Rubin, MS
Center for Excellence in Primary Care

Webinar sponsored by:
The Center for Excellence in Primary Care and the Center for Care Innovations
Facilitating Care Integration

Nearly half of adults with health issues report problems with the coordination of their care in the United States. As Community Health Centers (CHCs) and other safety net settings transform into Patient-Centered Medical Homes, their role in the larger medical neighborhood will become pronounced. However, challenges with care coordination are magnified in the safety net setting and continue to be increasingly complex.

In 2014, the [UCSF Center for Excellence in Primary Care](http://www.ucsf.edu) with funding from the [Blue Shield of California Foundation](http://www.bscf.org) completed a comprehensive literature review outlining strategies CHCs use to integrate into the medical neighborhood in the domains of primary care-specialty care, primary care-diagnostic imaging, primary care-oral health and primary care-hospital care. A conceptual model which was used to classify innovations and strategies for integration can be found in the full report [here](http://www.ucsf.edu).

The [UCSF Center for Excellence in Primary Care](http://www.ucsf.edu) has partnered with the Center for Care Innovations to develop this online resource center. The purpose of this Care Integration site is to disseminate...
Advances in Improving Social and Medical Care Integration

Laura Gottlieb, MD, MPH
Director, Social Interventions Research and Evaluation Network
Associate Professor of Family and Community Medicine
UCSF Center for Health and Community
May 26, 2016
Laura Gottlieb has documented no financial relationships to disclose or Conflicts of Interest (COIs) to resolve.
Today’s Agenda

Share **what we know** about screening and interventions at the intersection of social and medical care.
IHI Triple Aim

- Population Health
- Experience of Care
- Per Capita Cost
SOCIAl

CEPC Quadruple Aim

Population Health

Per Capita Cost

Experience of Care

Provider Experience
4 in 5 physicians surveyed say patient’s social needs are as important to address as their medical conditions. This is especially true for physicians (95%) working in low income, urban communities.
4 IN 5 physicians surveyed (80%) are not confident in their capacity to address their patients’ social needs.

Health Care’s Blind Side. RWJF December 2011.
Degrees of Integration

IOM Report: Primary Care and Public Health
Exploring Integration to Improve Population Health.
March 2012.
Screening

<table>
<thead>
<tr>
<th>IOM Recommended Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Use</td>
</tr>
<tr>
<td>Race and Ethnicity</td>
</tr>
<tr>
<td>Residential Address</td>
</tr>
<tr>
<td>Tobacco Use</td>
</tr>
<tr>
<td>Census Tract-Median Income</td>
</tr>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Financial Resource Strain</td>
</tr>
<tr>
<td>Intimate Partner Violence</td>
</tr>
<tr>
<td>Physical Activity</td>
</tr>
<tr>
<td>Social Connections &amp; Social Isolation</td>
</tr>
<tr>
<td>Stress</td>
</tr>
</tbody>
</table>
Which tool should I use in my setting?
Who does the screening?
✓ Screening
Screening

Then what?
Interventions: Literature review

Search Terms for Interventions Addressing SDH in Clinical Settings

<table>
<thead>
<tr>
<th>Social Determinants of Health*</th>
<th>Health Care Settings</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social determinant</td>
<td>Primary health care</td>
<td>Intervention</td>
</tr>
<tr>
<td>Socioeconomic factors</td>
<td>Patient-centered care</td>
<td>Organizational case studies</td>
</tr>
<tr>
<td>Housing</td>
<td>Health services</td>
<td>Program development</td>
</tr>
<tr>
<td>Employment</td>
<td>Patient care team</td>
<td>Referral and consultation</td>
</tr>
<tr>
<td>Food</td>
<td>Delivery of health care</td>
<td>Pilot projects</td>
</tr>
<tr>
<td>Education</td>
<td>Community health services</td>
<td>Needs assessment</td>
</tr>
</tbody>
</table>
Literature Review Flow Diagram

3,330 Records Identified (PubMed & Gray Lit.)

- 316 Records Full Text Review
  - 91 Excluded (no SDH intervention)
  - 132 Records Reviewed Evaluation of SDH Intervention
    - 20 Records Excluded (No Evaluation)
    - 112 Records Included Evaluation of SDH Intervention
  - 93 Excluded (SDH Intervention not clinically integrated)

- 2,984 Records Excluded Title & Abstract Review (no SDH intervention)
Literature Review
Flow Diagram: Deeper Dive

63 Records Describe Evaluations of 57 Blended Interventions

49 Records Describe Evaluations of 26 Social Interventions
Literature Review: SDH Programs
What do we know about what works?

Social Interventions

<table>
<thead>
<tr>
<th>Process measures</th>
<th>SDH outcomes</th>
<th>Health outcomes</th>
<th>Utilization outcomes</th>
</tr>
</thead>
</table>

UCSF
What do we know about what works?

<table>
<thead>
<tr>
<th>Process measures</th>
<th>SDH outcomes</th>
<th>Health outcomes</th>
<th>Utilization outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Blended Interventions</td>
<td></td>
</tr>
</tbody>
</table>
Effectiveness data are sparse.
A. Describe types of evaluation conducted;

B. Define outcomes collected and ways research and evaluation results are applied;

C. Identify influential research partners and collaborators;

D. Identify key barriers to research on clinical social interventions
Findings: Evaluation Activities

- Implementation Research
- Effectiveness Research
- Dissemination Research
Implementation evidence is out there, but not published.
Barriers to evaluation in this new health services gray area...

Medical Care Services

Social Care Services

Social services integrated into clinical settings
Addressing social determinants of health in pediatric health care settings: RCT findings

- Laura Gottlieb, MD, MPH
- Danielle Hessler, PhD
- Dayna Long, MD
- Abby Burns, MD, MSW
- Ellen Laves, MD
- Anais Amaya, BA

- Christine Schudel, MSW
- Leanna Lewis, LCSW
- Patricia Sweeney, BA
- Nancy Adler, PhD
Primary research goal

Examine the comparative effectiveness of two interventions that address families’ social needs.
Methods: Study Design

- Two hospitals serving low-income, racially and ethnically diverse patient populations
- Primary and urgent care settings
- Cluster randomization by day
- Inclusion criteria for caregivers:
  - English and/or Spanish primary language
  - \( \geq 18 \) years
  - Familiar with the child’s household environment
- Exclusion criteria: Child with high severity acute illness or child in foster care
Methods: Study Arms

Active Control: Social screening + written resources
(Exceeds standard of care, inexpensive, easily disseminated)

**SOCIAL SCREENING**

Do you need...?

- Food
- Housing
- Help with benefits
- Legal services
- Utilities assistance

[Image of a document with a plus sign]
Methods: Study Arms

Navigation arm: Social screening + in-person resource navigation (More time-consuming and expensive)

**SOCIAL SCREENING**

Do you need...?

- Food
- Housing
- Help with benefits
- Legal services
- Utilities assistance
Methods: Main outcome measures

✓ Social needs
  • food insecurity
  • money for utilities
  • homelessness
  • habitability
  • medical bills
  • help with benefits programs
  • health insurance coverage
  • source of primary care
  • caregiver mental health
  • unemployment

✓ Parent-reported child global health status (NSCH 2011/2012)

• Parent-reported and EHR-based child health care utilization (*analyses pending*)
Consort

Caregivers approached 4472

Refused 1752
Ineligible 911

Urgent Care 1237

Active Control 649
Follow up 382

Navigation 588
Follow up 336

Primary Care 572

Navigation 284
Follow up 165

Active Control 288
Follow up 171
Results: Demographics

<table>
<thead>
<tr>
<th>Demographics*</th>
<th>Active Control n=937</th>
<th>Navigation Arm n=872</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Age</td>
<td>5.2 ± 4.8</td>
<td>5.1 ± 4.8</td>
</tr>
<tr>
<td>Child Race/Ethnicity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>4.4% (41)</td>
<td>3.8% (33)</td>
</tr>
<tr>
<td>Hispanic White</td>
<td>50.9% (475)</td>
<td>50.9% (444)</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>25.8% (242)</td>
<td>26.5% (231)</td>
</tr>
<tr>
<td>≤ 100% Federal Poverty Level</td>
<td>72.4% (567)</td>
<td>75.7% (548)</td>
</tr>
</tbody>
</table>

*There were no significant group differences on key demographic variables.
Results: Prevalence of social needs (% of total sample)

<table>
<thead>
<tr>
<th>Social Need</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running out of food</td>
<td>41.2</td>
</tr>
<tr>
<td>Difficulty paying utility bills</td>
<td>41.1</td>
</tr>
<tr>
<td>Difficulty finding a job</td>
<td>31</td>
</tr>
<tr>
<td>Not having a place to live</td>
<td>29.2</td>
</tr>
<tr>
<td>Unhealthy living environment</td>
<td>22.8</td>
</tr>
<tr>
<td>Medical bills</td>
<td>21</td>
</tr>
<tr>
<td>No health insurance</td>
<td>17.6</td>
</tr>
<tr>
<td>Other housing concerns</td>
<td>16.5</td>
</tr>
<tr>
<td>Cut off or denied from benefits programs</td>
<td>14.3</td>
</tr>
<tr>
<td>No primary care or regular doctor</td>
<td>13.8</td>
</tr>
<tr>
<td>Disability interfering with ability to work</td>
<td>9.7</td>
</tr>
<tr>
<td>Mental health care for adult in household</td>
<td>7.3</td>
</tr>
<tr>
<td>Problems with a current or former job</td>
<td>6.1</td>
</tr>
<tr>
<td>Pregnancy-related work benefits</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Change in total number of social needs

** p<.01

Active Control

Navigation Arm
# Change scores in specific social needs

<table>
<thead>
<tr>
<th></th>
<th>Active Control (Δ in percent reporting need)</th>
<th>Navigation (Δ in percent reporting need)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running out of food</td>
<td>-5.8</td>
<td>-13.1</td>
</tr>
<tr>
<td>Housing security</td>
<td>6.1</td>
<td>-4.2</td>
</tr>
<tr>
<td>Not having enough money to pay utility bills</td>
<td>-1</td>
<td>-9.4</td>
</tr>
<tr>
<td>Unhealthy living environments</td>
<td>-2.2</td>
<td>-8.1</td>
</tr>
</tbody>
</table>
Change in parent-reported child health

** Navigation Desk

Active Control

Navigation Arm

** p<.01
Study significance

• Social intervention RCTs are feasible.
• Comparative effects analyses should inform resource allocation decisions.
• Health effects may increase commitment to in-person social interventions.
Funding for social and medical care integration in health care delivery

- Laura Gottlieb, MD, MPH
- Sara Ackerman, PhD, MPH
- Holly Wing, MA
- Kim Garcia, MPH
- Rishi Manchanda, MD, MPH
52 Key Informant Interviews

A. Define social determinants of health

B. Explain the value their organization places on addressing members’ social determinants of health

C. Describe clinical and non-clinical social determinants of health interventions supported by their organization; and

D. Give their perception of state, federal and other organizations’ influences on their social determinants of health-related activities.
Key Findings: Rationale

• Understanding and addressing SDH is connected to Medicaid Managed Care organizational missions, especially for not-for-profit agencies.
Key Findings: Rationale

- Population Health
- Experience of Care
- Per Capita Cost
“There are times where we come to the conclusion that the only way something’s going to get done is if we write the check...Because by taking care of a problem sooner...we end up with not only a better quality outcome, but a more cost-effective outcome.”

--President, MMCO
Key Findings: Programs and Evaluation

- Considerable MMC experimentation exists around SDH interventions, especially around food and housing.
Key Findings: Programs and Evaluation
Key Findings: Programs and Evaluation
Key Findings: Funding

- Key barriers to intervention implementation and expansion include MMC state regulatory environments.
Key findings: Funding

- Administrative expenses
- Medical expenses
Take home messages
Take home messages

Screening

• Pick an existing evidence-based tool, whether a single or multi-item;
Take home messages

Screening

• Pick an existing evidence-based tool, whether a single or multi-item;
• Conduct screening electronically or via other patient-completed method, if possible;
Take home messages

Screening

• Pick an existing evidence-based tool, whether a single or multi-item;
• Conduct screening electronically or via other patient-completed method, if possible;
• Collect information across a population of patients;
Take home messages

Screening

• Pick an existing evidence-based tool, whether a single or multi-item;
• Conduct screening electronically or via other patient-completed method, if possible;
• Collect information across a population of patients;
• Ensure data are extractable from EHR.
Take home messages

Interventions

• In-person interventions > written resources;
Take home messages

Interventions

• In-person interventions > written resources;

• We need more high-quality, comparative effectiveness evidence across clinical settings and populations;
Take home messages

Interventions

• In-person interventions > written resources;
• We need more high-quality, comparative effectiveness evidence across clinical settings and populations;
• Collect and share your evidence or ask questions at SIREN@ucsf.edu.
Stay tuned as...

- Results return from the flexible funding experiments in Oregon and California;
Stay tuned as...

• Results return from the flexible funding experiments in Oregon and California;
• The national conversation evolves around risk adjustment and social determinants of health;
Stay tuned as...

• Results return from the flexible funding experiments in Oregon and California;
• The national conversation evolves around risk adjustment and social determinants of health;
• More evidence emerges on how SDH interventions impact health and health care utilization.
It takes a village!

- UCSF Center for Health and Community, incl. Nancy Adler, Danielle Hessler, Sara Ackerman, Holly Wing, Andy Quinones-Rivera, and Stephanie Chernitskiy;

- The many research teams and Advisory Groups with whom we conducted this work, including from the UCSF Benioff Children’s Hospital Oakland, Zuckerberg San Francisco General Hospital, John Snow Institute, and HealthBegins, and SIREN. This presentation includes work we did with many collaborators, who are too numerous to name on one slide!

Additional Resources

• IOM report on Capturing Social and Behavioral Domains in Electronic Health Records: Phase 2

• NACHC PRAPARE tool

• NACHC Upcoming training on using PRAPARE with eCW
  http://www.nachc.com/event-detail.cfm?EID=425

• iScreen study: http://pediatrics.aappublications.org/content/134/6/e1611.long

• AJMC literature review on MMCO interventions

• Health Plan of San Mateo housing pilot:
  http://www.chcs.org/media/HPSM-CCS-Pilot-Profile-032916.pdf
Questions

Care Integration Resource Center