Moving Upstream:
Improving care and value by addressing health-related social needs

RISHI MANCHANDA MD MPH
TEXAS CARE ALLIANCE
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We improve care and the social determinants of health by making clinical & community partnerships more effective and efficient.

About HealthBegins

Our clients and partners include the American Hospital Association, Medicaid health plans, large hospitals and healthcare delivery systems, community health centers and self-insured employers. In 2017, HealthBegins was selected to provide technical assistance to CMS Accountable Health Communities model grantees.
Quadruple aim

Outcomes
- Effective interventions
- Less preventable illness
- Decreased disparities

Patient Experience
- Satisfaction
- Quality
- Trust

Provider Experience
- Professionalism
- Joy at Work
- Recruitment & Retention

Costs
- Lower per-capita costs
- Appropriate spending & utilization

Equity
- Societal opportunity
- Decision making
- Structural Fairness
Increasingly, it’s what the most effective health systems will (need to) be doing

- Value-based payments
  - CMS Accountable Health Communities Model
  - Medicare Advantage
  - Medicaid
    - State 1115 Medicaid waivers and Delivery System Reform Incentive Payment (DSRIP)

- Regulatory standards
  - NCQA PCMH standards
  - NCQA Health Plan Accreditation (HPA) standards for Population Health Management

Why address social determinants of health?
CMS is testing an approach to identify and address health-related social needs among Medicare and Medicaid beneficiaries.

Goal: Reduce health care utilization and cost.

Disclosure: CMS selected Mathematica Policy Research, Center for Health Care Strategies, and HealthBegins to provide implementation and learning system support for AHC bridge organizations.
Healthcare professionals are frustrated

“I'm a [physician in a rural county]...meth addiction, high school drop out rate... Many more issues. Understand upstream approach for years.

Try my best but falls by the wayside as I don't have resources – No help, city/county overwhelmed. Patients lost to follow up- I'm seeing over 30 a day. How to manage? Would like to discuss.”

- Physician
Worse Outcomes
- Ineffective interventions
- More preventable illness
- Continued disparities

No social determinants integration = No quadruple aim

Poor Patient Experience
- Lower Satisfaction
- Low Quality
- Low Trust

Rising Costs
- Rising per-capita costs for high need
- Wasteful spending & utilization

Poor Provider Experience
- Eroding Professionalism
- Frustration at Work
- Costly Recruitment & Retention

Less Equity
Meet Mrs. M
She’s a 46 year old mother of two who also cares for her frail elderly mother.

Her Type II diabetes is poorly controlled (last HbA1c = 8.1). At the end of last month, she nearly fainted at work and was admitted at a local hospital.

The cause of her admission was hypoglycemia (low blood sugar).
What could have led to Mrs. M’s hospitalization?

Lower-income diabetic adults have a 27% higher rate of hospital admissions at the end of the month due to food insecurity, compared with higher-income diabetics.

Food insecurity & Type II diabetes

- Food insecure adults are 2-3 times more likely to have diabetes than food-secure adults, even after controlling for important risk factors such as income, employment status, physical measures, and lifestyle factors. (Fitzgerald et al)

- Diabetes prevalence rises with increasing severity of food insecurity (10% for mild household food insecurity vs. 16.1% for severe). (Seligman et al)

- Lower-income diabetic adults have a 27% higher rate of hospital admissions due to food insecurity, compared with higher-income diabetics. (Seligman et al)

Meal Delivery Programs Reduce The Use Of Costly Health Care In Dually Eligible Medicare And Medicaid Beneficiaries

Seth A. Berkowitz¹, Jean Terranova², Caterina Hill³, Toyin Ajayi⁴, Todd Linsky⁵, ... See all authors
We want to reduce preventable hospital admissions for patients like Mrs. M while advancing the Quadruple Aim.

How do we do this?
A step-wise approach to building capacity and capability to go upstream

Let’s identify our:

1. Priority populations (e.g. Diabetics like Mrs. M)
2. Priority social determinants of health (e.g. Food Insecurity)
3. Existing resources and interventions
4. Early wins
5. Roadmap for change management
Stakeholders often have different priorities and definitions of “social determinants of health”

- Social determinants of healthcare
- Social determinants of health
- Social determinants of health equity
### Stakeholder Priorities Differ by Level of Prevention

<table>
<thead>
<tr>
<th>Level of Prevention</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Prevention</td>
<td>Concerned with preventing the onset of disease; aims to reduce the incidence of disease.</td>
</tr>
<tr>
<td>Secondary Prevention</td>
<td>Concerned with detecting a disease in its earliest stages, before symptoms appear, and intervening to slow or stop its progression: &quot;catch it early.&quot;</td>
</tr>
<tr>
<td>Tertiary Prevention</td>
<td>Refers to interventions designed to arrest the progress of an established disease and to control its negative consequences.</td>
</tr>
</tbody>
</table>

Source: University of Ottawa. [https://www.med.uottawa.ca/sim/data/Prevention_e.htm](https://www.med.uottawa.ca/sim/data/Prevention_e.htm)
Stakeholder priorities differ by level of intervention

<table>
<thead>
<tr>
<th>Patient /Client Level of Intervention</th>
<th>Organization Level of Intervention</th>
<th>General Population Level of Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interventions directed toward individual beneficiaries (e.g. patients, clients)</td>
<td>Interventions directed toward organizations and their stakeholders (e.g. employees, vendors, partners, investors)</td>
<td>Interventions directed toward entire communities or broad populations (e.g. zip codes, cities, states)</td>
</tr>
</tbody>
</table>
## The Upstream Strategy 3 x 3™

1. Map existing clinical and community needs and resources
2. Then identify interventions to improve care and health-related social needs for priority populations.

(example: diabetes and food insecurity)

### Upstream Strategy 3x3 Matrix™, Manchanda R. HealthBegins.

Adapted from Chokshi and Farley (2012); Gottlieb et al. (2013); Cohen and Swift (1999); and Leavell and Clark (1965). Abbreviations: DM, diabetes mellitus.

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<tbody>
<tr>
<td><strong>Primary Prevention</strong></td>
<td>Financial literacy, support, &amp; nutrition programs for low-income families with strong family history of DM</td>
<td>Provide on-site Farmers’ Market, gym, walking trails, or financial counseling for families at risk for DM</td>
<td>Advocate for local increase in minimum wage and supports for low-income families, particularly those at risk of DM</td>
</tr>
<tr>
<td><strong>Secondary Prevention</strong></td>
<td>Poverty screening &amp; financial assistance for DM patients at-risk of end-of-month hypoglycemia</td>
<td>Subsidize vouchers to local Farmer’s Market or hire a financial counselor for at-risk employees</td>
<td>Change timing and content WIC &amp; school food programs to avoid food insecurity among DM</td>
</tr>
<tr>
<td><strong>Tertiary Prevention</strong></td>
<td>Reduce hospital use among high-utilizer severe diabetics using food and income support</td>
<td>Coordinate with local banks, collectors, lenders, to reduce debt burden for utilizer diabetics</td>
<td>Support legislation/regulations to provide financial and “hotspotter” services to severe diabetics</td>
</tr>
</tbody>
</table>
A step-wise approach to building capacity and capability to go upstream

Let’s identify our:

1. Priority populations (e.g. Diabetics like Mrs.M)
2. Priority social determinants of health (e.g. Food Insecurity)
3. Existing resources and potential interventions
4. Early wins
5. Roadmap for change management
### Identify Early Wins

3. Choose **clinical-community partnerships** to implement early win interventions

(example: diabetes and food insecurity)

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5. Roadmap for change management
A path to achieving early wins in clinical-community partnerships

1. Get Ready
Once early wins are identified, assess the organizational capability of current or potential healthcare partners to help address target social determinants of health.

2. Get Set
Based on level of readiness, our experts & coaches help identify or optimize on a priority population, an upstream problem, relevant partners and data to move upstream.

3. Go Upstream with QI
Using the Upstream Quality Improvement toolkit, launch rigorous, targeted campaigns to redesign systems and workflows to dramatically improve health and social outcome measures.
The Upstream Capability Assessment

• Based on best practices and constructs from organizational development theory and practical implementation science*

• Used by a growing number of administrators, experts, and frontline practitioners in health & healthcare. Over 200 to date.

• Web/mobile friendly. Takes 15 minutes to complete self-assessment across 10 domains.

*Scaccia et al. 2015; Greenhalgh et al., 2004; Hammer, 2007; Weiner, 2009; Wandersman et al., 2015
<table>
<thead>
<tr>
<th>Upstream Capability Assessment Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. The External Environment:</strong> Assess the favorability of external environment for your organization to address social determinants of health</td>
</tr>
<tr>
<td><strong>2. Perceived Value of Moving Upstream:</strong> Identify the perceived value of a change to assess and address social determinants of health</td>
</tr>
<tr>
<td><strong>3. Executive Sponsorship:</strong> Assess the quality and degree of executive sponsorship to advance social determinants interventions</td>
</tr>
<tr>
<td><strong>4. Staff and Team Roles:</strong> Identify if staff and team roles have been clearly defined and integrated into upstream work</td>
</tr>
<tr>
<td><strong>5. Scope of Work of Upstream Interventions:</strong> Consider if the scope of the proposed or current upstream intervention has been defined.</td>
</tr>
<tr>
<td><strong>6. Project Management of Upstream Interventions:</strong> Assess the maturity and style of project management for social determinants interventions</td>
</tr>
<tr>
<td><strong>7. Workflow Integration:</strong> Assess the degree to which your social determinant intervention is integrated in care delivery workflows</td>
</tr>
<tr>
<td><strong>8. Quality Improvement:</strong> Assess your organization’s quality improvement culture and processes as they relate to social determinants interventions</td>
</tr>
<tr>
<td><strong>9. Organizational Infrastructure:</strong> Consider the organizational infrastructure and supports for your social determinants intervention</td>
</tr>
<tr>
<td><strong>10. Financial Readiness:</strong> Identify the degree to which financial risks and rewards and payment models have been optimized for your intervention</td>
</tr>
</tbody>
</table>
Review your report

After you complete your self-assessment:

- **Identify** highest and lowest-rated competencies
- **Compare** with colleagues to facilitate a team discussion
- **Review** results by site, department, role
- **Receive** detailed feedback and recommendations
Compare results

- Compare your self-assessment with an external assessment from HealthBegins or its partners.

- Get support and insights into best practices and tools from peer organizations.

- Associations, health plans, large systems and foundations can review upstream capability by organization and/or region.

### Organizational domains of upstream capability

<table>
<thead>
<tr>
<th>Clinical sites</th>
<th>External environment</th>
<th>Perceived value</th>
<th>Executive sponsorship</th>
<th>Staff &amp; team roles</th>
<th>Scope of work</th>
<th>Project management</th>
<th>Workflow integration</th>
<th>Quality improvement</th>
<th>Infrastructure</th>
<th>Financial Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1 of 14</td>
<td>48</td>
<td>64</td>
<td>42</td>
<td>58</td>
<td>48</td>
<td>62</td>
<td>64</td>
<td>68</td>
<td>78</td>
<td>56</td>
</tr>
<tr>
<td>Site 2 of 14</td>
<td>62</td>
<td>56</td>
<td>74</td>
<td>50</td>
<td>62</td>
<td>92</td>
<td>48</td>
<td>72</td>
<td>48</td>
<td>64</td>
</tr>
<tr>
<td>Site 3 of 14</td>
<td>70</td>
<td>82</td>
<td>90</td>
<td>62</td>
<td>78</td>
<td>80</td>
<td>56</td>
<td>82</td>
<td>70</td>
<td>76</td>
</tr>
<tr>
<td>Site Composite</td>
<td></td>
<td></td>
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</tbody>
</table>
Get Set

Based on level of capability of partners, identify opportunities to:

• Develop specific, targeted Upstream QI campaigns
• Identify actionable measures and data to track progress
• Refine and implement integrated clinical-community workflows

• Engage and support champions ("upstreamists") inside healthcare and social service partner institutions
Get Set:

What if you haven’t yet identified

- priority population?
- priority social need?
- partners?
Get Set: Rapidly design Upstream QI Campaigns

Healthcare and community partners can collaborate to rapidly design their campaign using the Upstream QI Project Canvas.

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>PROBLEM</th>
<th>UPSTREAM VALUE PROPOSITION (UVP)</th>
<th>UPSTREAM QI SOLUTION</th>
<th>KEY PARTNERS</th>
<th>KEY METRICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify your target population</td>
<td>List the problems facing your target population, then identify an Addressable upstream cause to hone in on target group. Review “Bridges to Health” approach.</td>
<td>A single clear compelling upstream-aligned message that turns an unaware person into an interested stakeholder.</td>
<td>Outline a clinically-integrated, QI-based solution for the addressable upstream cause.</td>
<td>List internal &amp; external stakeholders &amp; initiatives</td>
<td>List key numbers that will tell you how well the upstream intervention is working.</td>
</tr>
<tr>
<td>EARLY ADOPTERS</td>
<td>EXISTING ALTERNATIVES</td>
<td>MAKE YOUR UVP SMART</td>
<td>CHANNELS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Split broad population segments into smaller ones</td>
<td>How is the health problem currently addressed?</td>
<td>A single sentence that turns UVP into a SMART objective</td>
<td>How will you reach the target population?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEAM</td>
<td>FINANCING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who needs to be on your Upstream QI team? Revisit Step 1</td>
<td>Estimate Annual Cost/Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How do we best screen for social needs?
Considerations for social needs screening

1. **Universal** - Will you screen all patients for core social needs at least once?

2. **Selected** - What specific subpopulations would benefit from targeted social needs screening? How often?

3. **Indicated** - Do you have a standard protocol to perform social needs screening when members present with signs or symptoms of potential ‘social’ emergencies?
There are a growing number of measures and metrics available for health-related social needs.
### Upstream Medicine Workflow Canvas™

<table>
<thead>
<tr>
<th>Role/ Process</th>
<th>Tools/ Data Source</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical-Community Partnership Team</td>
<td>Upstream QI committee oversees &amp; tracks PDSAs</td>
<td># QI team participation # PDSAs</td>
</tr>
<tr>
<td>Pre-visit</td>
<td>Patients receive automated info on food resources</td>
<td># Message open rate</td>
</tr>
<tr>
<td>Screen</td>
<td>Medical Assistant Ask during vitals of diabetics</td>
<td>% screened</td>
</tr>
<tr>
<td>Triage</td>
<td>Medical Assistant Flag in EMR</td>
<td>% positive % flagged</td>
</tr>
<tr>
<td>Exam</td>
<td>PCP Review / Adjust treatment plan if food insecure</td>
<td>% plans updated</td>
</tr>
<tr>
<td>Chart/Code</td>
<td>Medical Assistant Scribe, standing order to refer to SW</td>
<td>% internal referrals</td>
</tr>
<tr>
<td>Refer</td>
<td>Social Worker or RN Assess / Food bank referral</td>
<td>% referred</td>
</tr>
<tr>
<td>Post-visit</td>
<td>Social Worker or RN Q1month or more check-in based on risk</td>
<td>% decrease in food insecurity &amp; utilization</td>
</tr>
</tbody>
</table>

**What if you’re further along?**

How can you optimize existing workflows to incorporate addressing social needs?
Go Upstream with targeted Upstream QI campaigns

Example: A FoodRx program to reduce hospital admissions for diabetic patients with food insecurity

Improve screening of food insecurity among diabetics by 30% within 6 months

Improve provider confidence to address food insecurity by 30% within 6 months

Reduce hospital admissions among food-insecure patients by 30% within 18 months
Our path to building upstream capability and impact

1. Get Ready
Take the **Upstream Readiness Assessment** to assess your healthcare system’s readiness to effectively address social determinants of health.

2. Get Set
Based on your level of readiness, our **experts & coaches** help you identify a priority population, an upstream problem, relevant partners and data to move upstream.

3. Go Upstream with QI
Using the **Upstream Quality Improvement toolkit**, launch rigorous, targeted campaigns to redesign systems and workflows to dramatically improve your health and social outcome measures.
Go Upstream: Clinical and community leaders create an Upstream QI Project
Example: A FoodRx program to reduce hospital admissions for patients like Mrs. M

Improve screening of food insecurity among diabetics by 30% within 6 months

Improve provider confidence to address food insecurity by 30% within 6 months

Reduce hospital admissions among food-insecure patients by 30% within 18 months
Case study:

Results of an Upstream QI Campaign at a large hospital system
A step-wise approach to building capacity and capability to go upstream

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5. Roadmap for change management
What about equity and sustainability?
Community-based organizations (CBOs) need to identify real costs and calculate potential risks and rewards for providing services in a clinical-community partnership.
Cost variables for social services

Four basic cost variables

- Eligible Population
- Case Prevalence
- Service Intensity
- Service Cost

HN-HC Recipients x Cases HN-HC Recipients x Services Case x Costs Services = Costs

Source: Victor Tabbush, PhD, Senior Fellow, HealthBegins; Professor Emeritus, UCLA
Alternative Payment Systems For Social Services

Cost Recovery  Fee per Service  Fee per Case  Fee per Person  Gain Sharing

Source: Victor Tabbush, PhD, Senior Fellow, HealthBegins; Professor Emeritus, UCLA
Each Payment System Divides Risks Differently

<table>
<thead>
<tr>
<th>System</th>
<th>Medical Partner</th>
<th>CBO Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Recovery</td>
<td>⬤⬤⬤</td>
<td>None</td>
</tr>
<tr>
<td>Fee per Service</td>
<td>⬤⬤⬤</td>
<td>None</td>
</tr>
<tr>
<td>Fee per Case</td>
<td>⬤⬤⬤</td>
<td>None</td>
</tr>
<tr>
<td>Fee per Person</td>
<td>⬤⬤⬤</td>
<td>None</td>
</tr>
<tr>
<td>Gain Sharing</td>
<td>⬤</td>
<td>⬤</td>
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Source: Victor Tabbush, PhD, Senior Fellow, HealthBegins; Professor Emeritus, UCLA
Upstream Risk-Reward Calculator For Clinical-Community Partnerships

Four basic cost variables:
- Eligible Population
- Case Prevalence
- Service Intensity
- Service Cost

HN-HC Recipients x Cases HN-HC Recipients x Services Case x Costs Services = Costs

Community-based organizations (CBOs) can identify real costs and calculate potential risks and rewards for providing services in a clinical-community partnership.

Five Basic Payment Systems:
- PBPM
- Capitated Rate
- Case Rate
- FFS
- FCR

CBOs and clinical entities analyze five payment model options and select the optimal payment approach for their partnership.

Source: Victor Tabbush, PhD, Senior Fellow, HealthBegins; Professor Emeritus, UCLA
Move upstream to the Quadruple aim

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Thank you!