Rethinking Healthcare in New York State:
Improving Health Outcomes by Addressing the Social Determinants of Health

Millennium Collaborative Care
Denard Cummings, Director
NYS DOH/OHIP/DPDM/BSDH
August 7, 2018
What are the Social Determinants of Health?
# Social Determinants of Health

<table>
<thead>
<tr>
<th>Economic Stability</th>
<th>Neighborhood and Physical Environment</th>
<th>Education</th>
<th>Food</th>
<th>Community and Social Context</th>
<th>Health Care System</th>
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<tr>
<td>Employment</td>
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<td>Zip code / geography</td>
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**Health Outcomes**
- Mortality
- Morbidity
- Life Expectancy
- Health Care Expenditures
- Health Status
- Functional Limitations
Factors Correlated with Health Outcomes

Determinants of Health

- Physical Environment: 7%
- Medical Care: 11%
- Genetics and Biology: 21%
- Social Circumstances: 23%
- Individual Behavior: 38%

Why Are SDH Interventions Important?

Addressing social determinants can have a significant **impact on health outcomes**

SDH Interventions can be **less costly** than traditional medical interventions

Under VBP, VBP contractors aim to **realize cost savings** while achieving **high quality outcomes**

- The VBP program design **incentivizes** VBP contractors to **focus on** the core underlying drivers of poor health outcomes—**the Social Determinants of Health**
Healthcare spending in the US
Health Care Spending in US & Other Countries

Health Care Spending as a Percentage of GDP, 1980–2013

* 2012.
Notes: GDP refers to gross domestic product. Dutch and Swiss data are for current spending only, and exclude spending on capital formation of health care providers.
Source: OECD Health Data 2015.
On average, other wealthy countries spend half as much per person on healthcare than the U.S.

Total Health Expenditure per capita, U.S. dollars, PPP adjusted 2016

- United Kingdom: $4,192
- Japan: $4,519
- France: $4,600
- Australia: $4,708
- Canada: $4,753
- Belgium: $4,840
- Comparable Country Average: $4,840
- Netherlands: $5,198
- Sweden: $5,488
- Germany: $5,551
- Switzerland: $7,919
- United States: $10,348
Health Care and Social/SDH Spending

Health and Social Care Spending as a Percentage of GDP

Notes: GDP refers to gross domestic product.
# Health Care Quality, Health Care Spending, and Social/SDH Spending

## Country Rankings

<table>
<thead>
<tr>
<th>Country</th>
<th>Quality Care</th>
<th>Effective Care</th>
<th>Safe Care</th>
<th>Coordinated Care</th>
<th>Patient-Centered Care</th>
<th>Access</th>
<th>Cost-Related Problem</th>
<th>Timeliness of Care</th>
<th>Efficiency</th>
<th>Equity</th>
<th>Healthy Lives</th>
<th>Health Expenditures/Capita, 2011**</th>
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<tr>
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Notes: * Includes ties. ** Expenditures shown in SUS PPP (purchasing power parity); Australian $ data are from 2010.
New York State’s Roadmap to Success
Social Determinants of Health (SDH) Standards & Guidelines
“To stimulate VBP contractors to venture into this crucial domain, VBP contractors in Level 2 or Level 3 agreements will be required, as a statewide standard, to implement at least one social determinant of health intervention. Provider/provider networks in VBP Level 3 arrangements are expected to solely take on the responsibilities and risk.” (VBP Roadmap, p. 41)

Description:
VBP contractors in Level 2 or 3 arrangement must implement at least one social determinant of health intervention. Language fulfilling this standard must be included in the MCO contract submission to count as an “on-menu” VBP arrangement.
Guideline: SDH Intervention Selection

“The contractors will have the flexibility to decide on the type of intervention (from size to level of investment) that they implement...The guidelines recommend that selection be based on information including (but not limited to): SDH screening of individual members, member health goals, impact of SDH on their health outcomes, as well as an assessment of community needs and resources.” (VBP Roadmap, p. 42)

Description:
VBP contractors may decide on their own SDH intervention. Interventions should be measurable and able to be tracked and reported to the State. SDH Interventions must align with the five key areas of SDH outlined in the SDH Intervention Menu Tool, which includes:


The SDH Intervention Menu Tool was developed through the NYS VBP SDH Subcommittee and is available here: https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/vbp_library/
The 5 Domains of Social Determinants of Health

VBP Contractors must select a social determinant of health intervention that aligns with at least one of the 5 key areas of social determinants of health, as outlined in the SDH Intervention Menu and SDH Recommendation Report.

The VBP SDH subcommittee created an Intervention Menu Tool and recommendations to supply providers with evidence-based interventions that aim to improve SDH: SDH Intervention Menu and Recommendations (Appendix C)
Changing the Healthcare Delivery Conversation
Case Study

Philip’s Story

- Homeless
- Food Insecure
- Crime History
- Chronic Comorbid Conditions
- History of Substance Abuse
- Cognitive Limitations
- No Informal Support System
- 160 Emergency Room Visits one year prior to intervention
Philip’s Story

- Health Home Enrollment (Coordination of Care)
- Supportive Housing Intervention
- Nutrition Intervention
- Reduction in Law Enforcement Interactions
- Reduction in Emergency Room utilization from 160 visits annually to 20 visits the year following the intervention
- Increased access to nutritious food
Housing Security: Outcomes of MRT Supportive Housing

**Objective**
- Medicaid Redesign Team Supportive Housing invests in the social determinants of health to reduce avoidable hospital utilization for high-cost, high-need Medicaid recipients

**Accomplishments**
- 40% reduction in inpatient days
- 26% reduction in emergency department visits
- 44% reduction in patients with inpatient rehab admissions
- 27% reduction in patients with inpatient psychiatric admissions
- Medicaid health expenditures reduced by 15% in one year (average decrease of $6,130 per person)
- Through strategic prioritization, the top decile of enrollees had average Medicaid savings of $23,000-$32,000 per person per year (varied by program)
- 29% increase in care coordination after housing enrollment
- MRT houses extremely vulnerable populations
  - 66% have a serious mental illness
  - 46% of a substance use disorder
  - 40% are HIV+
  - 53% have one or more other chronic medical conditions
  - 26% have at least three of these diagnosis types

**Benefits**
- Reduce Medicaid health expenditures
- Improved participant health outcomes and quality of life
- Increased Olmstead compliance statewide

**Decreased Inpatient, ED Use**

<table>
<thead>
<tr>
<th></th>
<th>12 Months Pre-Housing</th>
<th>12 Months Post-Housing</th>
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<tbody>
<tr>
<td>Avg. # of inpatient days</td>
<td>10.1</td>
<td>6.1</td>
</tr>
<tr>
<td>Avg. # of ED visits</td>
<td>3.1</td>
<td>2.3</td>
</tr>
</tbody>
</table>

**Decreased Percentage of Recipients with Behavioral Health Admissions**

<table>
<thead>
<tr>
<th></th>
<th>Any psychiatric inpatient</th>
<th>Any inpatient rehab</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Months Pre-Housing</td>
<td>10.0%</td>
<td>7.3%</td>
</tr>
<tr>
<td>12 Months Post-Housing</td>
<td>4.0%</td>
<td>7.2%</td>
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</table>
Food Security: Food is Medicine

- Low-cost/High-impact intervention: Feed someone for half a year by saving one night in a hospital
- Reduce overall healthcare costs by up to 28% (all diagnoses compared to similar patients not on MTM)
- Reduce hospitalizations by up to 50% (all diagnoses compared to similar patients not on MTM)
- Reduce emergency room visits by up to 58% (pre-post MTM intervention)
- Increase the likelihood that patients receiving meals will be discharged to their home, rather than a long term facility (23%) (all diagnoses compared to similar patients not on MTM)
- Increase medication adherence by 50% (pre-post MTM intervention)

God’s Love We Deliver – Medically Tailored Meals

Nutrition is an Inexpensive Intervention

Feed someone for 1/2 a year for the same cost as 1 day in the hospital

#foodismedicine

http://www.glwd.org
Community Based Organizations (CBOs)
Standards & Guidelines
“Though addressing SDH needs at a member and community level will have a significant impact on the success of VBP in New York State, it is also critical that community based organizations be supported and included in the transformation. It is therefore a requirement that starting January 2018, all Level 2 and 3 VBP arrangements include a minimum of one Tier 1 CBO.” (VBP Roadmap, p. 42)

Description:
Starting January 2018, VBP contractors in a Level 2 or 3 arrangement MUST contract with at least one Tier 1 CBO. Language describing this standard must be included in the contract submission to count as an “on-menu” VBP arrangement.

This requirement does not preclude VBP contractors from including Tier 2 and 3 CBOs in an arrangement to address one or more social determinants of health. In fact, VBP Contractors and Payers are encouraged to include Tier 2 and 3 CBOs in their arrangements.
Tier 1, Tier 2, and Tier 3 CBO Definitions

**Tier 1 CBO**
- Non-profit, non-Medicaid billing, community based social and human service organizations
  - e.g. housing, social services, religious organizations, food banks
- **All or nothing:** All business units of a CBO must be non-Medicaid billing; an organization cannot have one component that bills Medicaid and one component that does not and still meet the Tier 1 definition

**Tier 2 CBO**
- Non-profit, Medicaid billing, non-clinical service providers
  - e.g. transportation provider, care coordination provider

**Tier 3 CBO**
- Non-profit, Medicaid billing, clinical and clinical support service providers
- Licensed by the NYS Department of Health, NYS Office of Mental Health, NYS Office for Persons with Developmental Disabilities, or NYS Office of Alcoholism and Substance Abuse Services.

Use the **CBO list** on [DOH’s VBP website](https://www.doh.ny.gov) to find CBOs in your area
The Role of Tier 2 and 3 CBOs in VBP

Tier 2 and Tier 3 CBOs can and will play an important role in VBP!

The more the merrier
- While all Level 2 & 3 arrangements must include at minimum one Tier 1 CBO, a VBP Contractor can include more than one CBO (including Tier 2 & 3 CBOs) in an arrangement

Make a friend
- Tier 2 & 3 CBOs may partner with Tier 1 CBOs to help support the implementation of an SDH Intervention

VBP Contractors are incentivized to include multiple CBOs
- By addressing SDHs, CBOs (including Tier 2 and 3 CBOs) can have a large impact on the overall health of Medicaid members, which may result in more shared savings for a VBP Contractor

Align with a VBP arrangement
- Tier 2 and 3 CBOs may be the logical partners for specific types of arrangements if the services the CBO provides are aligned with the arrangement a lead VBP contractor is implementing

Cover a larger geographic area
- Tier 2 and 3 CBOs can cover regions/communities not already impacted by an SDH Intervention
CBO Contracting Strategies
CBO Contracting Strategies – Scenario A

- CBOs may support VBP arrangements by:
  - contracting directly with an MCO to support a VBP arrangement

Hypothetical Example

Forestland Hospital enters into a Level 2 Total Care for General Population (TCGP) VBP arrangement with GreenLeaf Managed Care.

Many of the highest ED utilizers covered under the arrangement have lack of access to affordable housing.

Greenleaf contracts with Hazelcrest Housing CBO to implement a Housing Intervention for the highest utilizers covered under Forestland’s VBP arrangement.
CBO Contracting Strategies – Scenario B

CBOs may support VBP arrangements by:

- contracting directly with an MCO to support multiple VBP arrangements

Hypothetical Example

EverGreen contracts multiple VBP arrangements targeted at the Special Needs Subpopulations (HIV/AIDS & HARP)

A community needs assessment has revealed that a large challenge facing the local Special Needs Subpopulation is food insecurity.

EverGreen contracts with Applewood CBO to implement a Nutrition Intervention for the local Special Needs Subpopulation served by the multiple VBP arrangements.
Hypothetical Example

- Hickory IPA enters into a Level 2 Integrated Primary Care (IPC) VBP arrangement with GreenLeaf Managed Care

- Hickory IPA is aware that Asthma is a chronic care episode included in the IPC arrangement, and is exploring innovative ways to prevent complications associated with asthmatics

- Mountainside Healthy Homes is a CBO that is known regionally for home environment-based interventions

- Hickory IPA subcontracts with Mountainside Healthy Homes to implement home-based interventions targeted at improving air quality in the homes of asthmatics
CBO Contracting Strategies – Scenario D

CBOs may support VBP arrangements by:

- Multi-tier CBO partners contracting directly with an MCO to support a VBP arrangement

Hypothetical Example

Forestland Hospital enters into a Level 2 Total Care for General Population (TCGP) VBP arrangement with GreenLeaf Managed Care.

Many of the highest ED utilizers covered under the arrangement have lack of access to affordable housing.

Greenleaf contracts with Hazelcrest Housing CBO to implement a Housing Intervention for the highest utilizers covered under Forestland’s VBP arrangement.

Hazelcrest Housing, a tier 3 CBO, subcontracts with CedarBrook Housing, a tier 1 CBO, to assist with implementation of Housing Intervention by covering a specific geographical area.
Community Based Organization in Action
Asthma Home Visiting Model Intervention

**Clinical Care**
- Medications, assessment and monitoring

**Home Assessment**
- Assess home for asthma triggers (mold, pest, etc)

**Health Literacy**
- Asthma self-management specific to environmental triggers in context

**Environment (Home)**
- Address triggers in the home to ensure improvement

**Intervention Overview**

CBO Partner

CBO Partner

CBO Partner
Efficacy and Return On Investment of Asthma Home Visiting Models (AHVM)

Research findings
A systematic review of home-based multi-trigger, multicomponent interventions with an environmental focus indicates that for every $1 invested, $5.30 - $14.00 is returned.¹

Expert recommendations
Based on independent systematic reviews of scientific literature, CDC’s Community Preventative Task Force² and NIH’s Expert Panel³ recommends home-based interventions for patient care and remediation of environmental triggers.

Michigan MATCH study
A 2005 pre-post study of 37 Asthma Network patients showed 66% reduction in hospital admissions, 46% reduction in length of IP stay, and 60% reduction in ED visits.⁴

Actuarial analysis
Based on their review of the evidence base, Milliman generated actuarial projections ranging from 25% to 40% annual decrease in per-patient medical utilization.⁵

3. https://www.thecommunityguide.org/content/task-force-publishes-findings-on-home-based-asthma-programs
5. Year 1 savings estimates are 25% for pediatric population and 12.5% for adults; annual savings increase in subsequent years.
CASE STUDY - The Smith Family

A family of four, the Smith’s son has severe asthma with a history of high medical utilization.

Home health hazards included:
- Deteriorated windows with lead;
- High dust-mite levels;
- Mouse infestation;
- High Volatile Organic Compound Use; and
- No vents

Prior to Intervention
- 3 Inpatient Stays (on average per year)
- 1 week (average length of stay)

Post Intervention
- 0 Inpatient Stays

Health Impact
- Reduction in IP, $48,300 healthcare cost saved and increase Asthma Health Literacy
Social Determinants of Health and CBO Contacting in VBP: *Facts and Myths*
Facts and Myths

MYTH

Plans and VBP Contractors can only contract with a Tier 1 CBO

• Plans and VBP contractors can contract with any tier CBO.
• Some of the most effective and cost saving social determinants of health interventions will have multiple CBO partners.
• A tier 2 or 3 can subcontract with one or many other CBO’s to make a impactful intervention
CBOs can be contracted to support more than one VBP arrangement

• The VBP roadmap does not limit the number of contracts that a CBO can enter. In fact the roadmap encourages providers and provider networks to partner with CBOs.

• CBOs may be contracted to support more than one VBP arrangement as long as the services the CBO provides are aligned with the arrangement.
Facts and Myths

Non-profit, non-Medicaid billing community based social and human service organizations may lose their Tier 1 status if they engage in VBP arrangements

- Tier 1 CBO’s providing non-Medicaid billable social services and are not required to become a Medicaid billing entity.

- The VBP provider or MCO may bill Medicaid for specific Medicaid services related to the VBP arrangement but this does not make the CBO a Medicaid billing entity.

- If there is a need for a Medicaid billing component, CBO’s can partner with a tier 2 or 3 CBO to provide that additional work through Medicaid.
A plan must provide upfront/startup funding to the SDH provider

- Upfront/startup funding is given to the provider for the initial costs to begin the SDH intervention
- This can be a designated amount for start up costs or a percentage of the contract funds upfront to give the provider funds to start the SDH intervention
Facts and Myths

A MCO must submit a SDH CBO Template

- All VBP arrangements must have a approved SDH CBO Template approved by DOH.
- This is submitted with the DOH-4255 or to contract@health.ny.gov if no DOH-4255 is being submitted.
Pathway to Implementation
Pathway to SDH Intervention Implementation

The NYS DOH website has a CBO Directory!
Social Determinants of Health – In Action!

• According to America’s Health Insurance Plans (AHIP) Addressing Social Determinants has led to a 26 percent decrease in emergency spending

• WellCare recognized an additional 10 percent reduction in healthcare costs roughly $2,400 in annual savings per person – for people who were successfully connected to social services compared to a control group.

• Montefiore Health System in the Bronx has tackled the social determinants of health by investing in housing, a move that has cut down on emergency room visits and unnecessary hospitalizations for an annual 300 percent return on investment.

Addressing Social Determinants - Improving Patient Outcome

- Conducting SDH Assessment and develop individualize comprehensive intervention to improve treatment compliance
- Peer to peer counseling to encourage engagement with primary care doctors
- Creating a walkable park with access to fresh produce.
- Training to health system employees on how to address trauma conditions induced caused by lack of social supports
- Training and engagement to treat suicide including screening and intervention techniques
- Integration with United Way 211 services completed by warm hand offs to service providers
- Community health worker (CHW)/peer bridge and wellness coaching, home-based coaching, chronic disease self-management programs
Thank you!

Contact Information:

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SDH@health.ny.gov