National Summit on Social Determinants of Health
FOOD IS MEDICINE: INTEGRATING FOOD AND NUTRITION SERVICES INTO HEALTHCARE THROUGH POLICY AND ADVOCACY

ROOT CAUSE COALITION NATIONAL SUMMIT

DEC. 6, 2016
Training center for the next generation of health and food lawyers, law and policy reform think tank, advocacy leadership development and law reform advising program.

Health Law

Food is Medicine

Food Law

Access to health care for underserved populations

Preventive health care & chronic disease management

Access to healthy food

Sustainable food systems
HEALTHCARE IMPACT OF FOOD INSECURITY

- Improved Population Health
- Health Care Reform
- Improved Patient Experience
- Reduced Costs
**FOOD IS MEDICINE PYRAMID**

Food is Medicine interventions, such as prescribed medically-tailored meals, should be covered services within public and private health insurance systems as they improve health outcomes and reduce healthcare costs for individuals living with chronic health conditions.

- **Prevent**
  - Healthy food for those who are malnourished or food insecure

- **Prescription**
  - Prescribed medically-tailored food for those diagnosed as at risk for acute or chronic illness

- **Treatment**
  - Prescribed medically-tailored food for those diagnosed with acute or chronic illness
  - Prescribed medically-tailored meals for those diagnosed with serious illness or disability who cannot shop or cook for themselves

- **Healthcare Funded Interventions**

**Medically-tailored Food**: Food designated by a Registered Dietitian as an appropriate part of a treatment plan for an individual with a defined health condition or combination of conditions.
FOOD IS MEDICINE

3 medically-tailored meals per day = $24/day

1 box of medically-tailored food at $16/box

Fruit/vegetable voucher at $1/day per person
Health Promotion through the Feeding America Network

ROOT CAUSE COALITION NATIONAL SUMMIT

DECEMBER 6TH, 2016

Michelle Berger Marshall, MS, RD
Director of Health & Nutrition
We are a nationwide network of food banks and feeding programs.

- 200 Member Food Banks
- 1 National Office
- 60K Food Pantries and Meal Programs

= 46M People Served Annually
The health concerns facing people served by the Feeding America network are profound

58% of households have a member with high blood pressure

33% of households have a member with diabetes

*The Affordable Care Act went into effect after the fielding period of this survey.
Families are making difficult choices to meet basic needs

- 69% have had to choose between paying for utilities and food
- 67% have had to choose between paying for transportation and food
- 57% have had to choose between paying for medicine and food
- 74.9% have had to choose between paying for housing and food

Sources: Map the Meal Gap (2014) and Hunger in America (2014)
How can we intervene to break the “cycle” of food insecurity and poor health?

We are working to increase access to nutritious food

68% of the food we distribute closely aligns with the USDA Dietary Guidelines for Americans.
Why Focus on Food Bank Health Interventions?

1. Food Bank Network
   - Deep reach into vulnerable communities disconnected from care
   - Food access & distribution capacity
   - New and existing frameworks and linkages (CBOs, health care)

2. Client level benefits
   - Improved health outcomes, capacity for self-management

3. Population level benefits
   - Household interventions
   - Potential to impact range of chronic health conditions
We piloted an innovative model to address food insecurity and diabetes through food banks (2011-2014)

• Assess feasibility of providing diabetes supports at food pantries
  – Food, DSME, PCP-linkages, monitoring

• Three food banks (CA, TX, OH)

• 687 participants (diverse, food insecure, low education, BMI 34)
The outcomes showed immense promise!

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Follow-Up</th>
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<tbody>
<tr>
<td><strong>HbA1c, %</strong></td>
<td>9.52</td>
<td>9.04****</td>
</tr>
<tr>
<td>HbA1c&gt;9%, %</td>
<td>52</td>
<td>43****</td>
</tr>
<tr>
<td><strong>F&amp;V intake, servings/day</strong></td>
<td>2.8</td>
<td>3.0**</td>
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<tr>
<td><strong>Self-efficacy</strong></td>
<td>6.7</td>
<td>7.2****</td>
</tr>
<tr>
<td><strong>Diabetes distress</strong></td>
<td>3.3</td>
<td>2.8****</td>
</tr>
<tr>
<td><strong>Medication non-adherence</strong></td>
<td>1.2</td>
<td>1.1*</td>
</tr>
<tr>
<td><strong>Severe hypoglycemic events, %</strong></td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td><strong>Trade-offs between food &amp; medicine/diabetes supplies</strong></td>
<td>51</td>
<td>40****</td>
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</tbody>
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Pre-post, unadjusted analysis of approximately 396 participants.

*p<0.10 **p<0.05 ***p<0.01 ****p<0.001. Results similar for all 687 participants, with pre-post HbA1c reduction from 8.11% to 7.96%.
We are now conducting a Diabetes RCT to investigate the efficacy of this intervention

- 2-year study prescriptive food bank-based intervention
  - Screening & monitoring
  - Food packages (HH)
  - DSME / SMS
  - PCP referrals

- Health care utilization
Food banks are engaging with health care partners in a variety of ways

- Coalition Building
- Nutrition & Health Education
- Food Insecurity Screening
- SNAP Application Assistance
- Mobile Distribution at health care partner sites
- Health Screening at the Food Distribution Site
- Health Insurance Enrollment Assistance
- Hospital or Clinic Pantry
There are many promising food bank-health care partnership models that warrant attention and evaluation.

Second Harvest Food Bank (SHFB) of Santa Clara and San Mateo Counties

Food Pharmacy Pantry Program

Trinitas Hospital & Jewish Family Services – Care Transition Program

Community Food Bank of New Jersey (CFBNJ)
Common barriers to successful food bank-health care collaborations

- Buy-in from health care partners (every partner requires a different message)
- Learning health care language and getting aligned takes time
- Limited food bank staff time and expertise
- Limited agency capacity
- Reliability and cost of healthy food
- Sustainable funding
- Evaluation/data sharing
Many more opportunities for health interventions and partnership

• DPP pilot
• FAITH-DPP
• FAITH-HTN

• Evidence building
  – Food prescriptions & logistics
  – Health screening activities
  – Disease-specific SMS and curriculum

• Policy collaboration
  – SNAP, WIC
  – Medicaid
References

Connect with us!

Visit and learn more at www.hungerandhealth.org
Email: mbergermarshall@feedingamerica.org
Food is Medicine

The Role of Medically Tailored Home-Delivered Meals in Holistic, Patient-Centered Models of Care

The Root Cause Coalition National Summit
December 6, 2016
Community Servings’ Mission

Community Servings is a not-for-profit organization with a 26 year history of providing medically tailored meals and nutrition services to homebound individuals and their families coping with critical and chronic illnesses.
Our History is Tied to the AIDS Crisis

Founded in 1990 to provide home-delivered meals to individuals living with HIV/AIDS, we initially served 30 people a day in Roxbury and Dorchester.

We now serve 1,850 clients each year in 20 cities and towns in Massachusetts, regardless of illness.
A Regional and National Movement

• We are the only program of our kind in New England, and will expand into Rhode Island in January 2017.

• We are founding partners of The Food is Medicine Coalition (FIMC), a volunteer association of nonprofit, medically-tailored food and nutrition services (FNS) providers seeking to preserve and expand coverage of FNS for the critically-ill.
Community Servings’ Clients: Homebound with 35+ Illnesses

- HIV/AIDS: 37%
- Cancer: 18%
- Kidney Disease: 11%
- Diabetes: 7%
- Lung Disease: 3%
- Cardiac: 3%
- MS: 3%

71% of clients have multiple diagnoses
At least 92% live in poverty
# Nutrition Interventions Tailored to Address Severe Illnesses and Co-Morbidities

**Medically Tailored Home-Delivered Meals**
- 17+ medical diets, up to three combinations per patient
- Appetizing, culturally appropriate foods
- Meals made from scratch
- Children’s menu

**Additional Services**
- Individualized nutrition counseling
- Disease-specific nutrition education
- Nausea care packages
The Urgent Challenge of Malnutrition

At least 1 in 3 patients enters the hospital malnourished*

Hospital stays for malnourished patients are up to 3x longer than for properly nourished patients.¹

Healthcare costs for malnourished patients are up to 3x higher than costs for properly nourished patients.²

Medically Tailored Home-Delivered Meals are a Low-Cost Healthcare Intervention

According to peer-reviewed studies, properly nourished patients are:

- **45%** less likely to have an ER visit and
- **47%** less likely to have an inpatient stay than malnourished patients.

Individuals with severe chronic illnesses who received medically tailored home-delivered meals from MANNA of Philadelphia experienced:

- **50%** fewer hospitalizations and
- **20%** lower healthcare costs than comparison groups.

Aidala et al., Comm Health Advisory Brief, 2013; Gurvey et al., J Prim Care Comm Health, 2013; George, 10/21/2016 symposium at Harvard Law School
Food is Medicine Policy Initiative

Advocating for the reimbursement of medically tailored home-delivered meals through public and private funding streams

- Reimbursement Partners and Prospects
- Research Partners and Prospects
- Policy and Advocacy Partners
Reimbursement Partners and Prospects

Insurers

- **Commonwealth Care Alliance** – since 2013 – through dual eligible demonstration projects for seniors and adults with disabilities – have served over 300 individuals to date
- **Neighborhood Health Plan of Massachusetts** – since summer 2015 – for highest utilizers of the plan’s healthcare services
- **PACE of Rhode Island** – beginning in January 2017

ACOs

- Massachusetts’ newly structured Medicaid ACOs will receive designated funding for social services beginning in July of 2017. We are partners in the Collaborative that is developing the ACO, and anticipate having our services funded when the ACO launches.
Our Partnership with Commonwealth Care Alliance – a Case Study

Meet “Sarah”:

52 Year old Woman with:
- Morbid obesity
- Pituitary dysfunction
- Type 2 Diabetes
- High blood pressure
- Chronic kidney disease
- Blindness
- History of blood clots
- Lives alone in a 1-bed apartment

Multiple medical co-morbidities, dependent on strict dietary compliance – unable to prepare her own food

Takes 32 daily medications, including a blood-thinner

Sarah’s dietary needs:
- Low potassium
- Low vitamin K
- Non-dairy
- Diabetic (low carbohydrate)

*Patient’s name, initials and identifying information have been changed to protect confidentiality
*Slide prepared and presented by Dr. Toyin Ayaji, Chief Medical Officer of Commonwealth Care Alliance, during Food is Medicine symposium at Harvard Law School on 10/21/2016
Research Partners and Projects

Projects
• Pilot study of impact of our diabetic meals on patients with food insecurity and advanced diabetes (anticipate results by Spring 2017)
• Retrospective evaluation of claims data of clients we have served through Commonwealth Care Alliance (anticipate results by Fall 2018)
• Surveys and structured interviews of our referral partners (complete)

Principal Investigators
• Dr. Seth Berkowitz, internist, faculty member, Massachusetts General Hospital, Harvard Medical School
• Daniel Cohn, Emerson National Hunger Fellow, Congressional Hunger Center

Funders
• Blue Cross Blue Shield of Massachusetts Foundation
• BNY Mellon
• AARP Foundation
Partners in Policy Development
Next Steps…

- Continue to build the evidence base, through research and evaluation projects
- Increase referrals for pending and prospective reimbursement partners
- Explore a state-wide policy agenda, and continue to build on federal policy requests, led by Congressman McGovern
- Continue to engage with The Root Cause Coalition’s Research, Education, and Advocacy Sub-committees
Questions?

Thank you!

David B. Waters, CEO
dwaters@servings.org | 617-522-7777 x210
Food insecurity drives poor health outcomes and increases health costs.

- Hospitalizations
- Emergency department visits
- Depression
- Missed appointments
- Poor medication adherence

**Association between household food insecurity and annual health care costs:**

<table>
<thead>
<tr>
<th>Level of Food Insecurity</th>
<th>Rx Not Included</th>
<th>Rx Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal</td>
<td>+ 16%</td>
<td>+ 23%</td>
</tr>
<tr>
<td>Moderate</td>
<td>+ 32%</td>
<td>+ 49%</td>
</tr>
<tr>
<td>Severe</td>
<td>+ 76%</td>
<td>+ 121%</td>
</tr>
</tbody>
</table>

For The Price Of...

- Average cost of an ED visit ($2,168) = 3 months of 3 medically-tailored meals per day
- Average cost of hospitalization paid by Medicaid ($7,500) = 10 months of meals
- Average cost of hospitalization – all payers ($9,700) = 1 year of meals
- Average cost of hospitalization paid by Medicare ($11,600) = 16 months of meals

Caldwell et al., PLoS ONE 8(2) (2013); AHRQ Healthcare Cost & Utilization Project, Statistical Brief #146;
### 2-Pronged Advocacy Strategy

#### Lay the Groundwork for the Future

- Understand the scope of food insecurity and malnutrition → institutionalize screening in the healthcare setting.
- Understand the impact of food and nutrition interventions (FNIs) → prioritize FNI research, appropriate research dollars.

#### Seize Current Opportunities

- Incorporate FNI into our public healthcare systems → Medicare (federal); Medicaid (state)
- Test FNI in all demonstration projects → Incentivize meaningful partnerships between the healthcare system and the community safety net.
- Be a pilot site.
(1) What are the implications of expecting healthcare systems to partner with community-based organizations in a data-driven environment?

(2) How do we create Electronic Health Records (EHR) systems that are nimble enough to respond to our evolving understanding of the factors that impact health and the way we want to deliver healthcare in the future?

(3) How do we address disparities in urban/rural food access?