Connecting you with experts. Exploring the latest childhood obesity news and research.

We will begin at 1:05 to allow participants time to join the webinar.
Spotlight:
- Evaluating Community Health Care Engagement Models in Obesity Prevention
- The Power of Healthy Communities: Clinic-Community Collaboration

One on One
What’s Next?
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Today’s Speakers

**Elaine Arkin**  
National Collaborative on Childhood Obesity Research

**Darcy Freedman**  
Associate Professor of Epidemiology, Biostatistics, and Social Work at Case Western Reserve University

**Elsa Keeler**  
Pediatric Physician  
HealthPartners

**Marna Canterbury**  
Director of Community Health  
Lakeview Health Foundation  
HealthPartners
Evaluating Community Health Care Engagement Models in Obesity Prevention

Darcy Freedman, MPH, PhD
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Associate Director, Prevention Research Center for Healthy Neighborhoods
Case Western Reserve University, Cleveland, Ohio
Right Choice Fresh Start (RCFS) Farmers Market
Disclosures

• This research is a product of the University of South Carolina (USC) Prevention Research Center, supported by Cooperative Agreement Number 3U48DP001936 for the USC Cancer Prevention and Control Research Network, and by the Prevention Research Center for Healthy Neighborhoods at Case Western Reserve University, supported by Cooperative Agreement Number U48DP001930, both awarded by CDC.

• I do not have conflicts of interest, real or perceived, related to this presentation. Results and information presented are the views of the author and do not necessarily represent the official position of the CDC.
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- Sylvia Ellis

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- Vicki Young, PhD

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- James Hebert, ScD (PI)
- Heather Brandt, PhD
- Kassy Alia, MS
- Amy Mattison-Faye, MPH
- Jason Greene, MPH
- Aaron Guest
- Kathryn Kranjc
- Thomas Hurley, MS
- Seul Ki Choi, MPH
What is the RCFS Farmers’ Market model?
Background

Federally Qualified Health Center (FQHC) based farmers’ market.

Formed in 2010 as a community-university partnership between University of South Carolina (USC) and Family Health Centers, Inc.

Supported through the USC Cancer Prevention and Control Research Network (CPCRN) funded by CDC through the Prevention Research Center Special Interest Project (SIP) Program (2010-2014).

Opened for its 6th season on June 3, 2016!

**FQHCs** - serve an underserved area or population, offer a sliding fee scale, provide comprehensive services, have an ongoing quality assurance program, and have a governing board of directors.
## Patient Population in 2009:
- >25,000
- Diabetes prevalence: 15%
- Uninsured: 30%
- Medicaid: 30%

### Study Context

<table>
<thead>
<tr>
<th></th>
<th>South Carolina</th>
<th>Orangeburg County</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American, 2011*</td>
<td>28.1%</td>
<td>62.3%</td>
</tr>
<tr>
<td>Median household income, 2006-10*</td>
<td>$43,939</td>
<td>$32,849</td>
</tr>
<tr>
<td>Person below poverty level, 2006-10*</td>
<td>16.4%</td>
<td>25.8%</td>
</tr>
<tr>
<td>Persons/square mile, 2010*</td>
<td>153.9</td>
<td>83.6 (micropolitan area)</td>
</tr>
<tr>
<td>Adult obesity**</td>
<td>31%</td>
<td>40%</td>
</tr>
<tr>
<td>Diabetes**</td>
<td>11%</td>
<td>15%</td>
</tr>
</tbody>
</table>

*U.S. Census Bureau, **County Health Rankings
Desired Outcomes

1. To increase access to produce among patients at the community health center.

2. To improve diet among adults and children in the community.

3. To increase demand for local farmers’ products.
Successes & Opportunities
Successful Strategies: Engaging the Community

- Memorandum of Agreement (10/2010, renewed annually)
- Community Visioning Meeting (11/2010), N=50
- Advisory Council (2/2011-ongoing); Establish Vendor Policies; Hire Farmers’ Market Manager
- Farmers’ Market opened June 2010; 6th season opened June 2016;
  Customer and Farmer Satisfaction Surveys (ongoing); Events at market
- Seek additional funding: SC Cancer Alliance, CTG, Farm Bureau, USDA Community Food Project, USDA Farmers’ Market Marketing Grant

Freedman & Alia, 2013 “Building Farmacies” manual
Successful Strategies: Guided by Multicomponent Nutritious Food Access Framework

(Freedman et al., 2013)

<table>
<thead>
<tr>
<th>Domain of Food Access</th>
<th>Intervention Components</th>
</tr>
</thead>
</table>
| Economic                      | • SNAP accepted  
• Fair market prices  
• Financial incentive programs                                                                                                                     |
| Service Delivery              | • Vendor policy  
• Focus on customer service (e.g., manager, vendors, volunteers)                                                                                   |
| Spatial-temporal              | • Located at federally qualified health center  
• Easy to access by car, bus, or foot  
• Handicap accessible  
• Open at time convenient to community                                                                                                               |
| Social                        | • Ongoing feedback from community (e.g., community visioning meeting, customer feedback)  
• Organized by Community Advisory Council  
• Hired community member to be manager  
• Events at market                                                                                                                                           |
| Personal                      | • Health education at and through the market (e.g., RX program)  
• Recipe exchanges (formal and informal)  
• Education about healthy eating                                                                                                                          |
Successful Strategies: Focused on Systems Change

Example: Produce Prescription Program

Family Health Centers, Inc.

Name: ____________________________ Date: ____________________________

Eating plenty of fruits and veggies may help reduce the risk of many diseases, including heart disease, high blood pressure, diabetes, and some cancers.

Fruits and veggies are HIGH in fiber, vitamins, and minerals and are naturally LOW in calories.

Rx:

At each meal, fill half your plate with colorful fruits and vegetables!

Try to consume at least 5 servings of fruits and vegetables each day.

Limit the use of butters, oils, meats, and sugars to flavor produce.

Provider: ____________________________

Fill your prescription at the Right Choice Fresh Start (RCFS) Farmers’ Market between June 3 and October 28, 2011 and receive $1.00 off your purchase of fresh fruits and veggies. Coupon only redeemable at the RCFS farmers’ market. Prescription must be submitted to farmer for redemption. Provided while funds last.
Researchers innovating change rather than empowering community health center to lead

- Prescription program
- Advisory Council
- Evaluation
- Grant writing

“I would love to see it [RCFS] go forward. We must keep it simple. If we get too far out there, we can get beyond what we can handle and it will go the wrong way. So we have got to keep it simple and adjust according to what needs to be addressed. That is very important.”

Alvin Pair, Market Vendor and Advisory Council Member
Evaluation
Reach
Enrollment in Shop N Save Healthy Food Incentive Program (n=336)

• 54% patient at FQHC
• 91% female
• 90% African American
• 52% had SNAP
• 39% with children in household
• 30% had diabetes
• 41% had high blood pressure

Freedman et al, 2014
Shop N Save - self-enrollment intervention that provides one $5 monetary incentive per week to farmers’ market customers spending at least $5 at the market using SNAP, WIC, and/or Senior or WIC FMNP vouchers.

52% extension of food assistance dollars through SNS matching program

$1.00 in food assistance became $1.52 with SNS match

Example: $5.00 food assistance resulted in

Without match ($5.00)
9 fruits and veggies

With match ($7.60)
15 fruits and veggies
Continued Success of RCFS

• In 2015:
  • 1,153 SNAP/EBT purchases were made at the RCFS farmers’ market.
  • Average of 55 SNAP/EBT transactions per week
  • 1,409 people received healthy food incentives

• Goal to expand the RCFS to additional health center sites through USDA funding
What Dose Would Be Effective?

Table 4
Odds ratios and 95% confidence intervals of increases in fruit and vegetable consumption over time among diabetics frequenting a FQHC-based farmers' market in rural South Carolina, June–October, 2011 (N = 41).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Odds ratio</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reported BMI</td>
<td>1.04</td>
<td>0.92–1.17</td>
</tr>
<tr>
<td>Payment type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study voucher only</td>
<td>38.8**</td>
<td>3.35–445.0</td>
</tr>
<tr>
<td>Study voucher + other form of payment</td>
<td>1.00</td>
<td>Referent</td>
</tr>
<tr>
<td>Number of farmers' market visits</td>
<td>2.07*</td>
<td>1.09–3.95</td>
</tr>
<tr>
<td>Total amount of money spent at the farmers' market</td>
<td>1.02</td>
<td>0.94–1.09</td>
</tr>
<tr>
<td>Receipt of food assistance in the past year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0.39</td>
<td>0.07–2.08</td>
</tr>
<tr>
<td>No</td>
<td>1.00</td>
<td>Referent</td>
</tr>
</tbody>
</table>

* p<0.05.
** p<0.01.
<p>| | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How Did You hear about the RCFS Market?</strong></td>
<td></td>
<td></td>
<td></td>
<td>my Healthcare</td>
<td>Other</td>
</tr>
<tr>
<td>Word of Mouth</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Advertisement</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sign of Banner at Family Health Center</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Other Provider</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>14</td>
</tr>
</tbody>
</table>
Planting Healthy Roots:
A Look at the Right Choice, Fresh Start Farmers’ Market

Please join us for light refreshments and a screening of this new documentary film telling the story of the Right Choice, Fresh Start Farmers’ Market.

Two screening dates are offered for your convenience:

Thursday, October 13, 2011
6:30 to 8:00 in the evening
Trinity United Methodist Church
185 Boulevard North East
Orangeburg, South Carolina

or

Tuesday, October 18, 2011
6:30 to 8:00 in the evening
John W. Matthews, Jr. Auditorium at South Carolina State University
810 Golf Avenue
Orangeburg, South Carolina

Due to limited seating, please RSVP by October 7 for the October 13 viewing or by October 14 for the October 18 screening to Shonna Hastie at hastie@bellsouth.net or 803-777-2074.

http://www.youtube.com/watch?v=viPtYFwzD6I
Building Pharmacies:

A Guide for Implementing a Farmers’ Market at a Community Health Center

Darcy A. Freedman & Kassandra A. Alia
University of South Carolina, College of Social Work
University of South Carolina, Cancer Prevention and Control Program
University of South Carolina, Department of Psychology
February 2013

Guest et al, 2015
The Department of Social Services shall establish a program to provide coupons that will allow Supplemental Nutrition Assistance Program (SNAP) recipients to obtain additional fresh fruits and vegetables when purchasing fresh produce at grocery stores or farmers markets with SNAP benefits through their EBT cards. Each coupon shall allow the beneficiary to double the amount of produce purchased, up to five dollars. The agency shall utilize all funds received in the prior and current fiscal years from the U.S. Department of Agriculture as a bonus for reducing the error rate in processing SNAP applications to fund the program.
Food Insecurity Nutrition Incentive Program (FINI), Agriculture Act of 2014

FINI Grant Program supports projects to increase the purchase of fruits and vegetables among low-income consumers participating in the Supplemental Nutrition Assistance Program (SNAP) by providing incentives at the point of purchase. There are three categories of projects: (1) FINI Pilot Projects (awards not to exceed a total of $100,000 over one year); (2) Multi-year, community-based FINI Projects (awards not to exceed a total of $500,000 over no more than four years); and (3) Multi-year, FINI Large-Scale Projects (awards of $500,000 or more over no more than four years).
Replicability & Sustainability

https://access.fmtracks.org/


Contact Information

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at Case Western Reserve University
Associate Director of the Prevention Research Center for Healthy Neighborhoods
Director of the Ohio Building Capacity for Obesity Prevention Research Network
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Phone: 216-368-3060
Twitter: @darcyfOH1
Questions?

Please type your question(s) in the chat box located on the right.
The Power of Healthy Communities: Clinic-Community Collaboration

Dr. Elsa Keeler, MD, MPH, Pediatric Physician, HealthPartners
Ms. Marna Canterbury, MS, RD, Director of Community Health
Lakeview Health Foundation, Health Partners
• **Purpose**: Community-based initiatives, to make better eating and physical activity easy, fun, and popular so youth can reach their full potential.
• Shared leadership with specific communities
• Focus on community-level change over 10+ years
Community Initiatives Framework

Community-based
- In and with the community
- Shared leadership

Multi-level
- Environment
- Engagement
- Programs
- Clinical

Measure over time
# Community Engagement and Change

## Community Engagement and “Phases” Continuum

<table>
<thead>
<tr>
<th>Outreach</th>
<th>Consult</th>
<th>Involve</th>
<th>Collaborate</th>
<th>Shared Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community informed</td>
<td>Community provides feedback</td>
<td>Community participates</td>
<td>Community as a partner</td>
<td>Community leads, makes decisions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III*</th>
<th>Phase IV</th>
<th>Long-Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Program Promotion</td>
<td>Core Initiative Development</td>
<td>Innovation, Strategy Development</td>
<td>Sector Expansion, Community ownership</td>
<td>Sustainable, Community Change</td>
</tr>
</tbody>
</table>

Sources: Principles of Community Engagement, CDC  
PowerUp/BearPower Community Phase Framework, HealthPartners
Co-Creating Community Change

• School Challenge Program and School Change Toolkits
• Sports Nutrition Training
• School policy change
• Parks Passport
• Open gyms and pools
• Farmer’s Markets/Community Gardens
• Transforming Food Shelves: Better Shelf for Better Health
• Local Government proclamations
PowerUp and BearPower Reach and Engagement over time

Count of Events by Community Over Time 2013-Present

NCCOR CONNECT & EXPLORE
Fruit and Veggie Rx

- **Purpose:** Engage clinicians in encouraging patient families to purchase fruits and vegetables.
- **Rx for $10 of fruits/veggies redeemable at local grocery**

<table>
<thead>
<tr>
<th>RX Year /Reach</th>
<th># Clinics</th>
<th>Issued</th>
<th>Redeemed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 BP Pilot</td>
<td>2: Hugo/WBL</td>
<td>177</td>
<td>29%</td>
</tr>
<tr>
<td>2015</td>
<td>15 clinics Hugo clinic</td>
<td>6480 250</td>
<td>33% 48%</td>
</tr>
<tr>
<td>2016</td>
<td>58 clinics Hugo/WBL clinics</td>
<td>&gt;15,000</td>
<td>TBD: grocer covers cost of Rx for 50 clinics</td>
</tr>
</tbody>
</table>
**Partnership:** HealthPartners WBL clinic/YMCA
- Rx: 3 month discounted family YMCA membership
- Monitoring: referrals, visits, continuation of membership

**Eligibility**
- Live in area, 3 to 12 years old
- Need for and interest in healthy lifestyle and physical activity

**Reach**
- 34 prescribed, 20 (71%) enrolled
- Phone follow-up from YMCA after Rx is received
- 50% of those enrolled continue YMCA membership without a prescription
• **Solid Ground**
  • Affordable housing and support for families experiencing homelessness
  • Part of WBL community, early childhood, schools, and healthcare
  • **A story of co-learning, engagement, collaboration…**
  • 2014
    • Resident Council + BearPower+ Clinic
  • 2015
    • “Soul Food” Community meal
    • BearPower clinic garden, produce to SG
  • 2016
    • Solid Ground/Clinic gardens
    • Garden Produce Community meal
    • Canning
    • Youth engagement
Contact Information

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Marna Canterbury
Director of Community Health
Lakeview Health Foundation
HealthPartners
Marna.M.Canterbury@Lakeview.org
Questions?

Please type your question(s) in the chat box located on the right.
How can clinics establish relationships with farmers without the help of university researchers?
What are the characteristics of a community that make it more successful in adopting this kind of program?
Questions from the Audience
TOOLS YOU CAN USE
NEW SNAP-Ed Evaluation Framework

- The Evaluation Framework complements the SNAP-Ed Strategies and Interventions: An Obesity Prevention toolkit for States
- Includes a focused menu of outcome indicators that align with the SNAP-Ed guiding principles
- Focus on 4 levels of change:
  - Individual
  - Environmental Settings
  - Sectors of Influence
  - Population Level
- Presented in a logic model format
# SNAP-ED Evaluation Framework

**Nutrition, Physical Activity, and Obesity Prevention Indicators**

<table>
<thead>
<tr>
<th>READINESS &amp; CAPACITY</th>
<th>CHANGES</th>
<th>EFFECTIVENESS &amp; MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SHORT TERM (ST)</strong></td>
<td><strong>MEDIUM TERM (MT)</strong></td>
<td><strong>LONG TERM (LT)</strong></td>
</tr>
</tbody>
</table>

## INDIVIDUAL
- **GOALS AND INTENTIONS**
  - ST1: Healthy Eating
  - ST2: Food Resource Management
  - ST3: Physical Activity and Reduced Sedentary Behavior
  - ST4: Food Safety

## ENVIRONMENTAL SETTINGS
- **ORGANIZATIONAL MOTIVATORS**
  - ST5: Need and Readiness
  - ST6: Champions
  - ST7: Partnerships

## SECTORS OF INFLUENCE
- **MULTI-SECTOR CAPACITY**
  - ST8: Multi-Sector Partnerships and Planning

## BEHAVIORAL CHANGES
- MT1: Healthy Eating
- MT2: Food Resource Management
- MT3: Physical Activity and Reduced Sedentary Behavior
- MT4: Food Safety

## MAINTENANCE OF BEHAVIORAL CHANGES
- LT1: Healthy Eating
- LT2: Food Resource Management
- LT3: Physical Activity and Reduced Sedentary Behavior
- LT4: Food Safety

## ORGANIZATIONAL ADOPTION AND PROMOTION
- MT5: Nutrition Supports
- MT6: Physical Activity and Reduced Sedentary Behavior Supports

## ORGANIZATIONAL IMPLEMENTATION AND EFFECTIVENESS
- LT5: Nutrition Supports Implementation
- LT6: Physical Activity Supports Implementation
- LT7: Program Recognition
- LT8: Media Coverage
- LT9: Leveled Resources
- LT10: Planned Sustainability
- LT11: Unexpected Benefits

## MULTI-SECTOR IMPACTS
- LT12: Food Systems
- LT13: Government Investments
- LT14: Agriculture Sales and Incentives
- LT15: Educational Attainment
- LT16: Shared Use Streets and Crime Reduction
- LT17: Health Care Cost Savings
- LT18: Commercial Marketing of Healthy Foods and Beverages
- LT19: Community-Wide Recognition Programs

## POPULATION RESULTS (R)
- **TRENDS AND REDUCTION IN DISPARITIES**
  - R1: Overall Diet Quality
  - R2: Fruits & Vegetables
  - R3: Whole Grains
  - R4: Dairy
  - R5: Beverages
  - R6: Food Security
  - R7: Physical Activity and Reduced Sedentary Behavior
  - R8: Breastfeeding
  - R9: Healthy Weight
  - R10: Family Meals
  - R11: Quality of Life

## CHANGES IN SOCIETAL NORMS AND VALUES

**APRIL 2015**
Interpretive Guide

• Identifies and explains the indicators, outcome measures, and preferred methodologies for tracking success and developing state- and local-level SNAP-Ed objectives and reporting program evaluation to FNS, other funders, and program stakeholders.
Further Questions?

Other questions about NCCOR or upcoming activities?

- Email the NCCOR Coordinating Center at nccor@fhi360.org
Thank you!