The Veggie Van Implementation Study: History, Current Work and Future Plans

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FORMATIVE WORK

North Carolina: 2009-2011
Food Access Focus Groups

• 8+ focus groups with lower-income individuals in NC
• Asked people about what would help them eat more F&V
• Explored several options including farmers’ markets incentive programs, community gardens, low-cost healthy fast food restaurant, etc.
Feedback on Mobile Markets

• Generally well-received by participants
• Having markets come to convenient locations would make it easier to purchase fresh F&V
  – Consistent timing, i.e., operating at the same time each week, and flexible hours crucial for accessibility
  – Produce sold at mobile market needs to be high quality and fresh:
    • “We don’t want them to come through our neighborhood because we are low income realty. We don’t want them to bring no leftovers.”
• Good customer service, trusting vendors, and building relationships with vendors/farmers increases participants likelihood of shopping there
Participants preferred Mobile Markets

• 88% of participants indicated on a post-focus group survey that they would be “very likely” or “somewhat likely” to use a mobile produce market
Veggie Van Model

• Weekly boxes of North Carolina grown F&V
  – Delivered to convenient locations in community
  – Reduced cost, accepts multiple tenders including SNAP
  – Nutrition and Cooking Education, Recipes, Newsletters and more
Social Cognitive Theory

**Food Access Intervention**
- **Spatiotemporal**: Delivery to frequently visited locations in underserved communities
- **Economic**: Priced to meet needs of community, accepts SNAP Benefits (food stamps)
- **Social**: Responsive to cultural food norms
- **Service Delivery**: Incentives, quality, customer education
- **Quality**: Fresh, local food

**Educational Intervention**
- **Expectations**: Nutrition lessons/newsletter content on benefits of healthy diet
- **Expectancies**: Social marketing campaigns at community sites
- **Observational Learning**: Cooking demonstrations, social modeling
- **Behavioral Capability**: Recipes and food preparation tips

**Food Environment**
- Perceived Access
- F&V Consumption
- Self-Efficacy

**Individual**

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**Veggie Van**
University at Buffalo
RCT in 12 communities

**Adjusted** (n=142)  
**Outliers Removed** (n=138)  
**First 8 Sites** (n=114)  

*Adjusted for baseline values, education and clustering in sites*
OVERVIEW OF CURRENT STUDY
Main Goal

• Take the “successful” Veggie Van model and help other organizations to adapt and implement it in new communities
  – Veggie Van toolkit will be used to help organizations start their own program
  – Our team will provide technical assistance and help with community engagement
  – We will look at changes in fruit and vegetable consumption and monitor implementation
What’s in the Veggie Van toolkit

• Marketing materials
• Sample budgets and “break-even analysis” spreadsheet
• Job Descriptions and Operations Manuals
• “Point-of-sale” Nutrition Curriculum including a database of recipes by produce item and season, sample newsletters and activity ideas
Aim 1a

KEY INFORMANT INTERVIEWS
Key Informant Interview Goals

• **Improve the toolkit by including additional financial models and community outreach strategies from other organizations**

• **Update RFP selection criteria based on additional measures of mobile market success identified through qualitative analysis**
Methods

• Identified existing Mobile Markets and ask them to complete a screener survey

• Selected 21 experienced/successful market operators to serve as key informants
  – Initial Interview
  – Follow-up interviews on unique program aspects
  – 4 organizations undergoing business analysis

• Analyze interviews to determine best practices/barriers and keys to success
Aim 1b

RFP PROCESS
RFP Goals

• Identify organizations across the north and southeast to serve as partners in the Veggie Van implementation study
  – Received 58 intent to apply submissions
  – Invited 24 applicants to apply
  – Received 17 full applications
  – Invited 12 finalists to attend our training and selection meeting in March

• Select final 8 partner organizations by April 2019
Benefits of Partnership

• Up to $50,000 to offset the cost of running a mobile market according to the Veggie Van Model and participating in ongoing evaluation efforts
• Access to the online Veggie Van toolkit which includes:
  • Training on the toolkit and ongoing technical assistance
  • Assistance with community engagement and developing a community advisory board
  • FarmersRegister Mobile Market point-of-sale software
  • Access to data and reporting related to mobile market evaluation outcomes.
• Assistance with developing a sustainability plan and identifying program funding sources
Aim 2a.

EFFECTIVENESS
EVALUATION
Participant Recruitment

Goals: Recruit 30 participants at each of 32 locations (8 organizations x 4 sites per organization x 30 participants=960)

• Potential study participants will be those interested in having more healthy food options in their community.
  – Organizations will identify these individuals through different community engagement channels and ask them to complete an interest form
  – Those who complete an interest form will be invited to VV kick-off OR community forum (comparison)
Data Collection

– At the kick-off/forum recruited participants will:
  • Have height and weight measured
  • Complete a survey
  • Veggie Meter

– After initial data collection, participants will be called and asked to complete two 24 hour dietary recalls

– If we don’t get 30 participants at the kick-off/forum, additional participants will be recruited at their first mobile market visit or at future food systems planning events (comparison) for up to 2 months after initial data collection
Aim 2b.

INTERVENTION IMPLEMENTATION
Implementation Goals

- Work with organizations to adapt the Veggie Van program to their setting
- Understand barriers and facilitators to implementing the VV by each organization
- Document fidelity to the intervention, program adaptations and reach
Aim 3

REVISE TOOLKIT FOR FUTURE DISSEMINATION
Mobile Markets in Rural Communities

• Most of the RFP applicants who did not get invited to apply were rural
  – Limited to urban due to lack of experience/testing in rural areas
  – Concerns about viability of model in rural areas
Preliminary questions/concerns

• Could not reach as many sites in one day or as many people at one site?
  – Would the idea of partnering with an organization that people are already going to still hold up?
  – Would home delivery work better? Could it be scaled at low-cost?
Involving Rural Communities

• Mobile Market Summit in Buffalo, NY
  March 5\textsuperscript{th} & 6\textsuperscript{th}
    – Networking and sharing
    – Training and expert consultations
    – Open to anyone

• Interviews with rural mobile markets to understand how they are different?
Your thoughts and questions?
Overcoming Previous Challenges

STUFF I THINK IS COOL!
Challenge #1

Community Partners Don’t Like Randomization

Solution: RFP Process

- Organizations apply to receive technical assistance and funding to start/expand a mobile market program
- Each organization that applies identifies 4 sites/communities they would work with (2 most be lower-income)
- RFP team selects 8 organizations to participate in the intervention and randomize their 4 sites (2 to intervention, 2 to control)
Challenge #2

Mobile market programs lack financial sustainability; How do we pay farmers enough and keep the price low for consumers

Solution: Business Model Analysis

• Work with current successful programs to identify best practices
• Expert business model analysis
• Explore cost offset, incentive and sliding scale programs
• Share models as part of toolkit
Challenge #3

VV host sites had limited reach; the underserved are by nature hard to reach; Not everyone used VV who said they would

Solution: Community Engagement

• Our team will work with each organization to develop a community engagement plan and advisory committee

• Initial recruitment and data collection will happen at mobile market kick-off
Challenge #4

Incomplete purchasing data from mobile market customers

Solution: Point of Sale Software for Mobile Markets with Research “Back-End”

- Each organization receive license for Farm Register software and iPad to run it on
- Back-end aggregates individual and site-level data for research access; link to personal info using a loyalty card
- De-identified data from any market using Farm Register will be available in perpetuity for research access
Challenge #5

Self-report dietary data is difficult to collect and unreliable

Solution: Veggie-Meter as a Supplement to 24-hour Dietary Recalls

- All participants need to do is stick their finger in the machine
- Uses pressure mediated Raman Spectroscopy to measure dermal carotenoids
- Dermal carotenoids correlate with serum carotenoids which are a biomarker for fruit and vegetable consumption