

# Leveraging Local Food to Improve Patient Health in Rural Communities

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Rural Health Network of SCNY

NYS Association for Rural Health Conference

# Rural Health Network of SCNY

**The mission of the Rural Health Network of South Central New York is to advance the health and well-being of rural people and communities.**

**Counties Served:** Broome, Chemung, Chenango, Cortland, Delaware, Otsego, Tioga, and Tompkins

## **Rural Health Network Services:**

- **Community Health Services:** Case Management, Navigation, Education, Advocacy
- **Getthere:** Transportation and Mobility Management
- **National Service:** AmeriCorps, AmeriCorps – VISTA
- **Rural Health Planning & Population Health (PHIP)**
- **Food & Health Network:** Developing the regional food system to support positive health and economic outcomes.

# Food & Health Network Program

**Food and Health Network (FaHN) is an eight-county coalition of diverse stakeholders working to build food-secure communities and a strong regional food system through collaboration. FaHN programs connect food access, health, and local agriculture.**

- Fruit & Vegetable Prescription Program
- Farm to School
- Regional Volunteer Program
- Growing Health Educational Forums
- Research & Assessments
- Food System Policy & Advocacy



## What We'll Cover:

- ✓ **Why Prescriptions for Fruits & Vegetables?**
- ✓ **SCNY Program Goals**
- ✓ **Clinical & Community Implementation**
- ✓ **Outcomes**
- ✓ **Evaluation & ROI**
- ✓ **Future Opportunities**
- ✓ **Discussion**

# Leveraging Our Agricultural Assets to Improve Health and Economic Outcomes

- **Question:** Why isn't the health sector working to better utilize our diverse NYS agricultural assets and fresh, nutrient dense food to address diet related chronic disease and food insecurity?
- **Strategy:** Utilize Innovation Funding from Care Compass Network PPS to pilot Fruit & Vegetable Prescription Program.

# FOOD INSECURITY & HEALTH

- ▶ Forgo the foods needed for special medical diets (e.g., diabetic diets)
- ▶ Purchase a low-cost diet that relies on energy-dense but nutrient-poor foods
- ▶ Make trade-offs between food and other basic necessities (e.g., housing)<sup>2</sup>
- ▶ Adults forgo food so children can eat enough
- ▶ Cost-related medication underuse
- ▶ Postpone preventive or needed medical care

Exacerbate disease

Compromise health

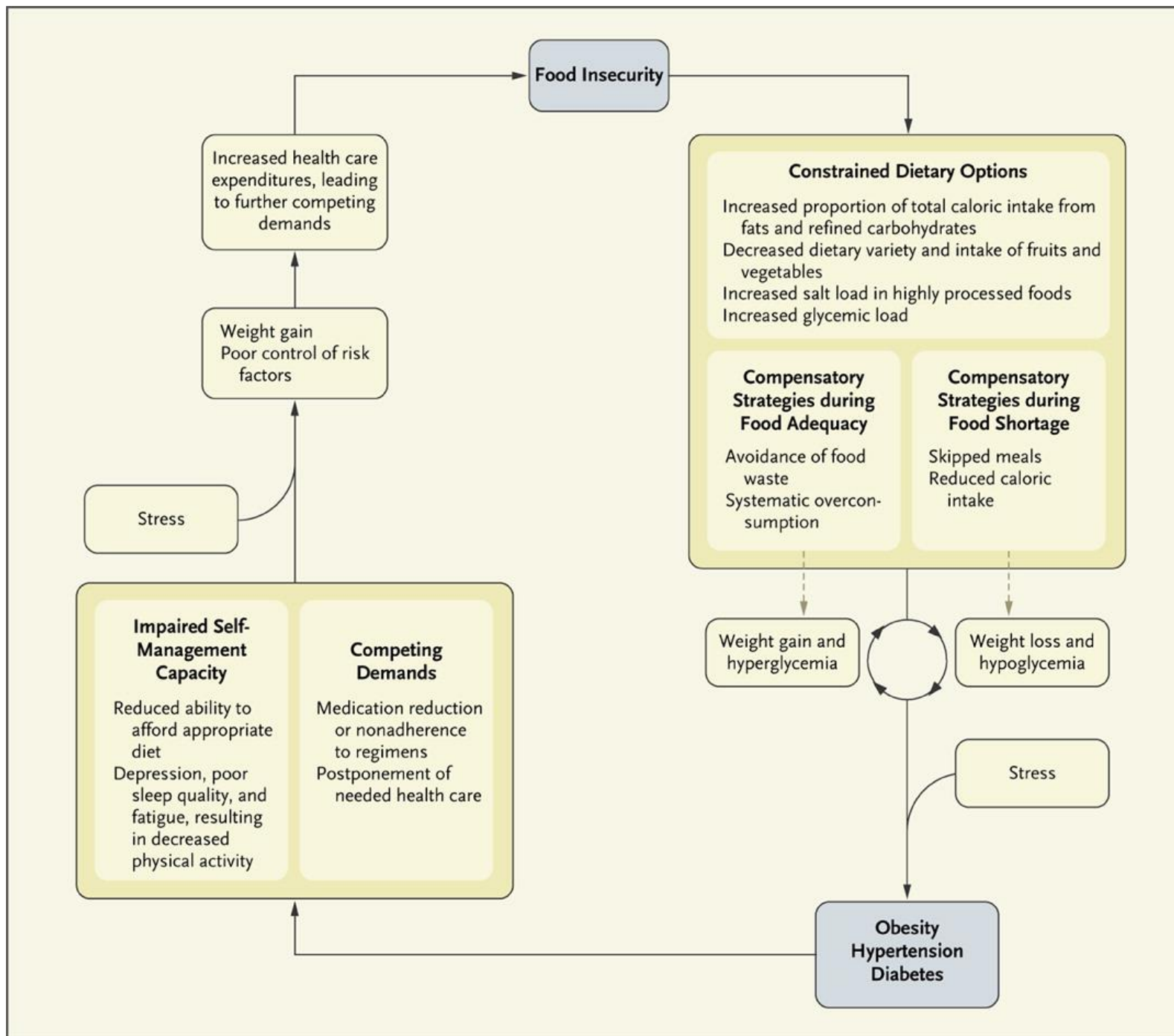
Increase physician encounters

Increase ER visits

Increase hospitalizations

Increase expenditures for prescription medications

Sources: FRAC's *Hunger & Health Series*, 2017; Gundersen et al., *Health Affairs*, 2015



## FOOD INSECURITY & HEALTH (Adults)

Diabetes

Heart disease

Hypertension

Pregnancy  
complications

Poor overall  
health status

Poor sleep  
outcomes

Functional  
limitations

Depression and  
mental health  
problems

Obesity  
(primarily  
women)

Sources: FRAC's *Hunger & Health Series*, 2017; Gundersen et al., *Health Affairs*, 2015



Household food insecurity is a strong predictor of higher health care utilization and increased health care costs.

Health-related costs of hunger and food insecurity  
in U.S.

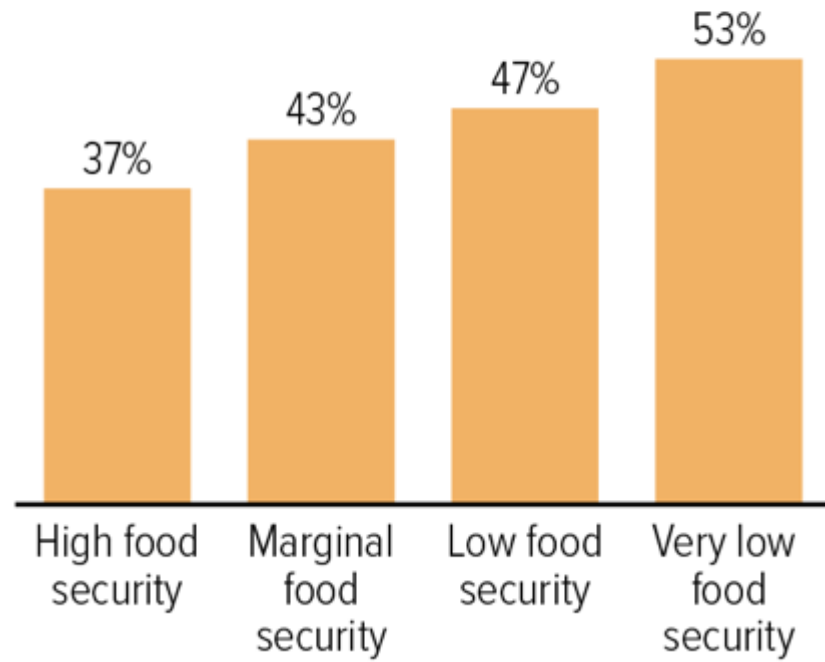
**Estimate: \$160 billion (2014)**

Sources: Berkowitz et al., *Health Services Research*, 2017; Cook et al., *2016 Hunger Report*;  
Tarasuk et al., *Canadian Medical Association Journal*, 2015

## FOOD INSECURITY & HEALTH

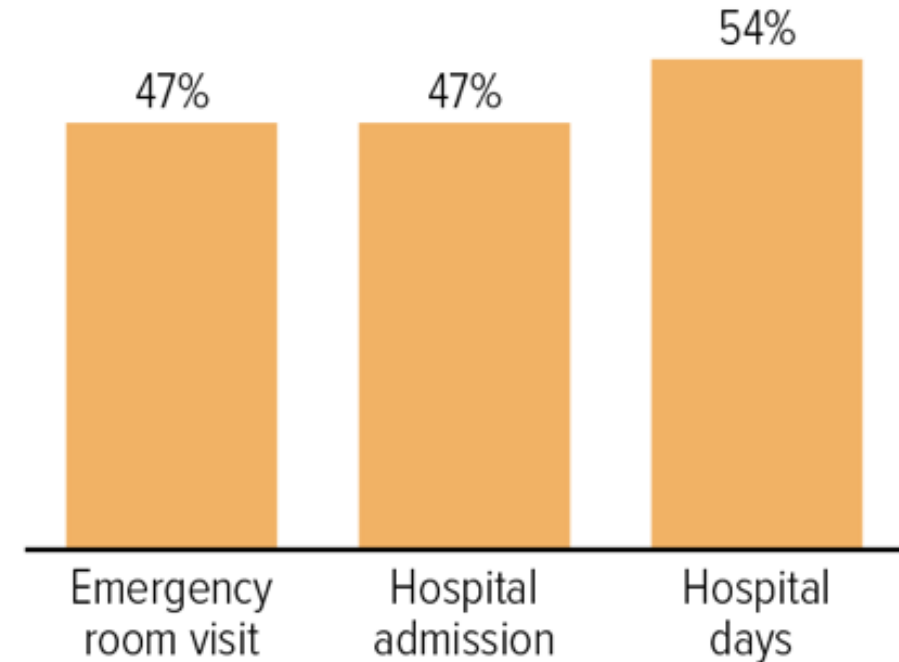
### Adults in Households with Less Food Security Are Likelier to Have a Chronic Illness

Probability of any chronic illness



### Adults in Food-Insecure Households Have More Emergency Room Visits and Hospital Admissions

Percent more likely relative to food-secure households



	Broome	Delaware	Tioga
<b>Poverty</b>	16.5%	17.5%	12.7%
<b>Food Insecurity</b>	13.8%	12.1%	9.9%
<b>ALICE Households</b>	26%	30%	26%
<b>Families Enrolled in SNAP</b>	15.8%	14.8%	12%
<b>Daily recommended servings of fruits and vegetables</b>	27.4%	24.2%	22.5%
<b>Overweight or Obese</b>	64.1%	58.6%	68.1%

# Why a Fruit & Vegetable Prescription Program?

## PROGRAM IMPACTS NATIONALLY

- **54%** of participants increased their fruit & vegetable consumptions
- **55%** decreased their BMI
- **45%** of patient households reported an increase in food security
- **92%** reported that the prescription was important in their decision to shop at participating retail sites

# South Central NY

## Fruit & Vegetable Prescription Program

### Program Goals:

1. **Help prevent and manage chronic diet-related disease**
  - Package low-cost strategies including vouchers for local produce, nutrition counseling, cooking education, peer support, and transportation assistance to reduce high-cost interventions in the future.
  - **Focus on cardiovascular disease, diabetes, and associated risk-factors**

# South Central NY

## Fruit & Vegetable Prescription Program

### Program Goals:

2. **Develop clinical work flows** that effectively screen and connect patients with community-based preventative and management services, and integrate into the EMR.

# South Central NY Fruit & Vegetable Prescription Program

## Program Goals:

3. **Evaluate the Return on Investment** for nutrition-based preventative health care to determine replicability and sustainability.





Cornell University  
Cooperative Extension  
Broome County



Cornell University  
Cooperative Extension  
of Delaware County

Wholesome Wave



# PROGRAM GROWTH:

## Year 1

- 80 participants
- 2 Primary Care Offices
- Broome County
- Registered Dietitians



## Year 2

- 230 participants
- 12 Primary Care Offices, 2 Hospitals
- Broome, Tioga, Delaware Counties
- Registered Dietitians, Wellness Coordinators, Community Health Workers

## HOW IT WORKS: CLINICAL

1. **Providers screen for eligibility & refer patients**
2. **Participants enrolled** by Registered Dietitian, Wellness Coordinator, or Community Health Workers
3. **3 Visits** with a Registered Dietitian, Wellness Coordinator, or Community Health Worker over the course of six to eight months.

## DURING EACH VISIT:

- ✓ Support for using vouchers
- ✓ Nutrition counseling
- ✓ Connection to community resources (including transportation)
- ✓ Recipes/Cooking
- ✓ Complete surveys at each visit
- ✓ Receive vouchers at each visit

# Spending Your Vouchers

## 1. Buy a weekly produce subscription through VINES Farm Share

As little as \$18 a week!

-  To get your own weekly produce box: Pick the most convenient weekly pick-up location below.
-  Call Kate at VINES, (607) 238-3522 and mention Wholesome Rx to get more info and arrange your pickup.
-  Arrive at your weekly pick-up location with your Wholesome Rx vouchers. You can pay bi-weekly or monthly with your vouchers.

### Pick-up Locations

#### WEDNESDAYS

**Roosevelt Elementary School**  
2:30–4:00pm  
9 Ogden St, Binghamton

**Cornerstone Family Healthcare**  
2:30–4:30pm  
35 Felters Rd, Binghamton

**Whitney Point United Methodist Church**  
3:00–4:30pm  
7311 Collins St, Whitney Point

**Family Enrichment Network**  
3:30–5:30pm  
24 Cherry St, Johnson City

**Central United Methodist Church**  
4:00–6:00pm  
17 Nanticoke Ave, Endicott

#### THURSDAYS

**Carlisle Community Center**  
2:30–4:30pm  
150 Moeller St, Binghamton

**Lee Barta Community Center**  
3:00–5:00pm  
108 Liberty St, Binghamton

**Lourdes Center for Family Health**  
3:30–5:30pm  
303 Main St, Binghamton

**United Presbyterian Church**  
4:00–6:00pm  
42 Chenango St, Binghamton

**Tabernacle United Methodist Church**  
4:00–6:00pm  
83 Main St, Binghamton

## 2. Shop at the CHOW Fresh Mobile Produce Market or Participating Stores

-  Shop the mobile market or participating grocery store! Vouchers can be spent on any fresh fruits or vegetables.
-  Pay with your Wholesome Rx vouchers at checkout.
-  Take home and enjoy!

### Market Stops

#### BINGHAMTON

<b>Broome County Library</b>	185 Court St	Mon, Wed, Fri: 9:30–11:30am
<b>Binghamton Plaza</b>	33 West State St	Mon, Fri: 1:00–2:00pm
<b>First Ward Senior Center</b>	226 Clinton St	Tue: 9:00–10:30am
<b>ABC Apartments</b>	100 Chenango St	Tue: 11:30am–1:00pm
<b>Town &amp; Country Apartments</b>	100 Roberts St	Thur: 1:00–3:00pm
<b>Lee Barta Community Center</b>	108 Liberty St	Thur: 1:00–3:30pm

#### JOHNSON CITY

<b>Johnson City Senior Center</b>	30 Brocton St	Thur: 10:30–11:45am
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For CHOW, Contact: Jack Seman (607) 724-9130

## 3. Shop at Participating Farmers Markets

-  Bring your vouchers to the Market welcome table.
-  Exchange your vouchers for Market Bucks.
-  Shop the market! You can spend your Market Bucks with any farmer selling fresh fruits and vegetables.

### Market Locations

**Walton Farmers' Market**  
Fri, 10:00am–2:00pm: 7/6, 7/20, 8/3, 8/17, 8/31, 9/14, 9/28  
Veterans Plaza  
181 Delaware St, Walton  
(607) 865-6531

**Vestal Farmers' Market**  
Wed & Sat, 9:00am–1:00pm  
(May 26–Nov 21)  
Vestal Public Library  
320 Vestal Pkwy E, Vestal  
(607) 625-4141

**Greater Hancock Farmers' Market**  
Sat, 9:00am–2:00pm  
(May 19–Oct 20)  
Hancock Town Square  
(607) 637-2870

**Owego Farmers' Market**  
Tue & Fri,  
9:00am–1:00pm  
(Jun 12–Oct 30)  
Rite Aid Parking Lot  
Main St & Central Ave,  
Owego  
(607) 429-8048

**Broome Regional Farmers' Market**  
Sat, 9:00am–1:00pm  
(Year-Round)  
Tue, 3:00–6:00pm  
(June–August)  
840 Front St,  
Binghamton  
(607) 584-5019

### Participating Stores

**Our Green Acres Farm Store (Open Jun–Nov):**  
Mon–Fri, 9:30am–6:00pm  
Sat, 9:30am–5:00pm  
Sun, 10:00am–5:00pm  
3965 Waverly Rd, Owego


**John's Fine Foods:**  
Mon–Sun,  
8:00am–6:00pm  
88 North Ave, Owego

\$5

Fruit and Vegetable VOUCHER

Expires: 3/31/19

wholesome Rx



- For use at VINES Farm Share, CHOW Fresh Mobile Market, and Participating Markets (see back cover)
- Only valid for fresh fruits & vegetables
- Not Redeemable for Cash

My wholesome Rx



Name \_\_\_\_\_

Wholesome Rx Patient ID# \_\_\_\_\_

Bring this card when you shop with your Wholesome Rx vouchers



# COMMUNITY EDUCATION

- Cooking demos & tours at markets
- Gardening, cooking & preserving classes in the community
- Eat Smart NY and Just Say Yes to Fruits & Vegetables
- Peer-led Chronic Disease Self-Management Program

A poster for the Green Thumb Workshop Series. The background is a close-up of green leaves and a yellow flower. The title 'Green Thumb Workshop Series' is in a yellow box at the top. Below it, 'Summer 2018' is in a yellow box. The workshops are listed in white boxes with black text. At the bottom left is the VINES logo, and at the bottom right is contact information.

## Green Thumb Workshop Series

### Summer 2018

Beginner Botany & Plant Walk
June 9th 1:00 PM   Binghamton Urban Farm, 16 Tudor St.
Attracting Beneficial Insects & Pollinators
June 21st 6:00 PM   Lee Barta Community Center, 108 Liberty St.
Cooking Fresh Herbs & Greens
July 3rd 6:00 PM   Lee Barta Center, 108 Liberty St.
Harvesting for Beginners
July 21st 1:00 PM   Binghamton Urban Farm, 16 Tudor St.
Grilling with Fresh Veggies
July 24th 6:00 PM   1st Pres. Church of Johnson City, 2 Main St.
Canning 101
August 8th 6:00 PM   United Pres. Church, 42 Chenango St.

 VINES workshops are free and open to the public.  
To find out more and reserve your spot,  
visit [www.vinesgardens.org/events](http://www.vinesgardens.org/events)  
or call us at 607-205-8108.  
Space is limited, please register early!

# MEASURING IMPACT & ROI:

- **Evaluation partnership with Binghamton University**
- **Return on Investment for preventive nutrition & food security interventions**
- **Alignment with 4 DSRIP Projects**
  - 1. 2.b.iv – Care Transitions for Chronic Diseases
  - 2. 2.c.i – Navigation
  - 3. 2.d.i – Patient Activation
  - 4. 3.b.i – Evidenced based best practice strategies for cardiovascular disease management in adults

# WHAT ARE WE MEASURING?

- Changes in household food security
- Changes in fruit and vegetable consumption.
- Knowledge and attitudes about healthy eating and how to improve their health
- Basic demographic data (household size, SNAP, WIC
- Sales data
- Health metrics via EMR
- Provider & Participant satisfaction



## WHAT DOES SUCCESS LOOK LIKE?

- 80% of participants attend 2 of the 3 FVRx visits
- Increase in fruit and vegetable consumption
- Decrease in household food insecurity
- Reduced healthcare utilization when compared to control group.
- Improvements in chronic, diet-related disease
- Increased referrals to community resources



# IMPACT ON PARTICIPANTS:



Weight loss



Reduced blood pressure



Improved blood sugar numbers



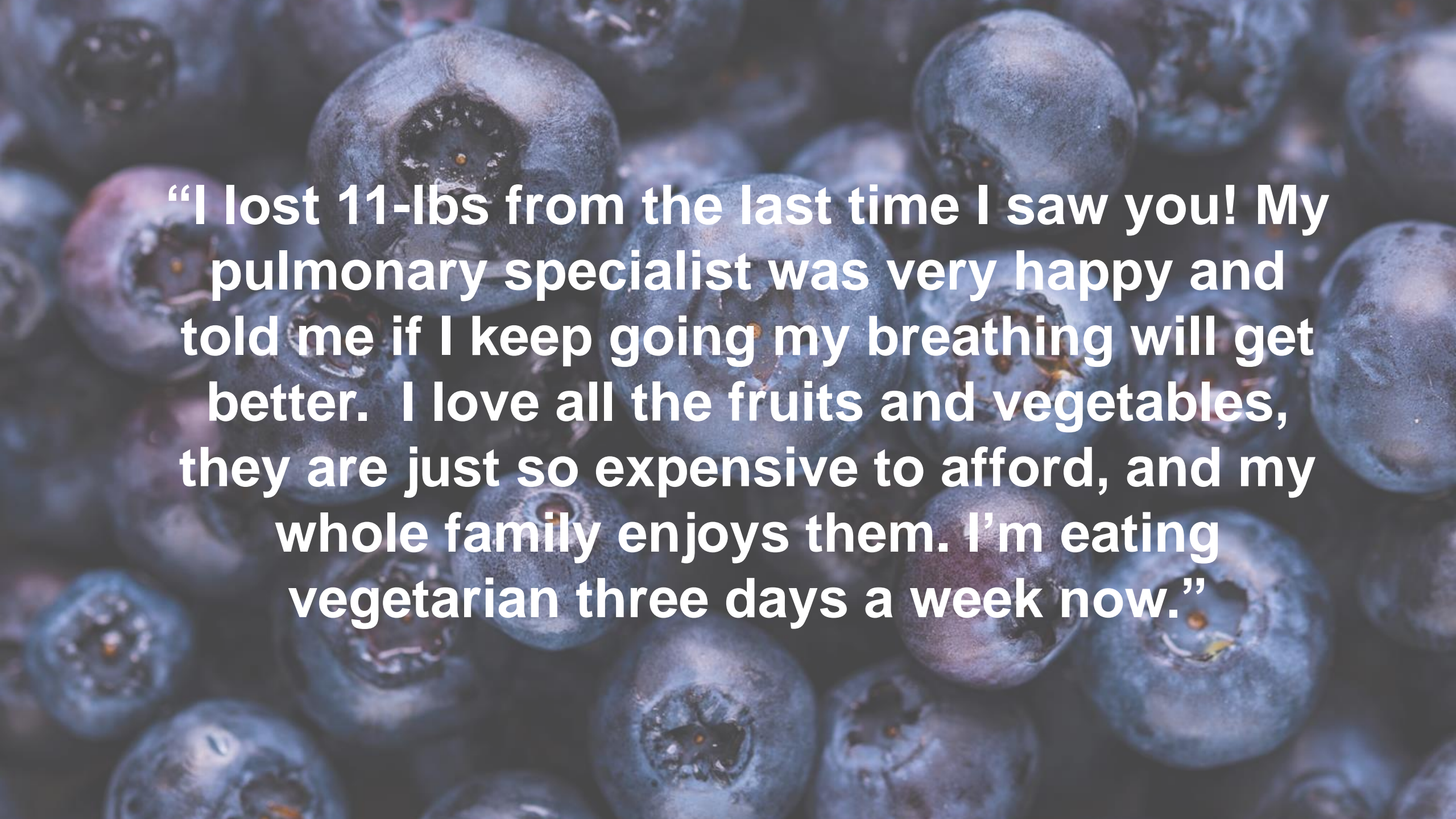
Greater autonomy in healthy decisions



Reduced stress

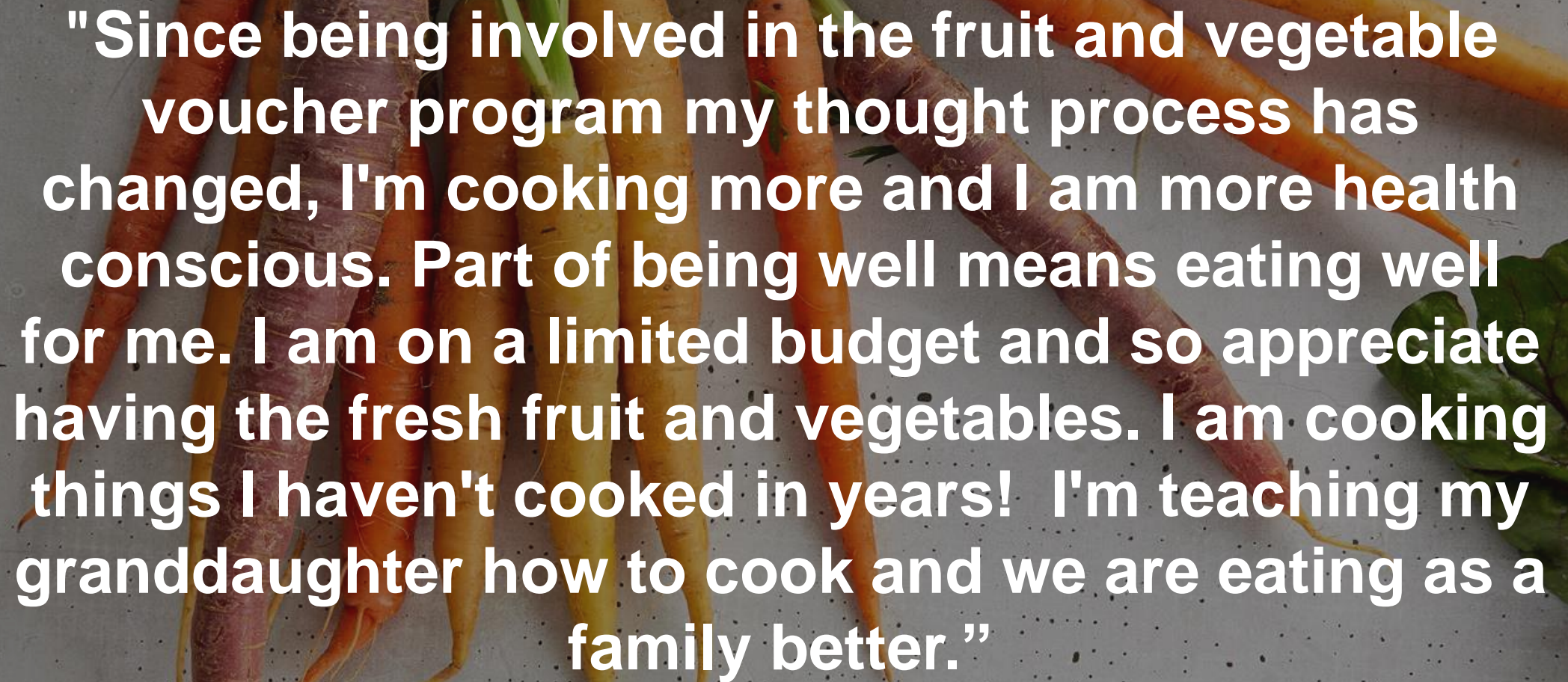


Reduced pain



**“I lost 11-lbs from the last time I saw you! My pulmonary specialist was very happy and told me if I keep going my breathing will get better. I love all the fruits and vegetables, they are just so expensive to afford, and my whole family enjoys them. I’m eating vegetarian three days a week now.”**



A photograph of various fresh vegetables, including several carrots of different colors (orange, purple, and yellow) and some leafy greens, arranged on a light-colored, speckled surface. The text is overlaid on the image, centered and in white with a black outline.

**"Since being involved in the fruit and vegetable voucher program my thought process has changed, I'm cooking more and I am more health conscious. Part of being well means eating well for me. I am on a limited budget and so appreciate having the fresh fruit and vegetables. I am cooking things I haven't cooked in years! I'm teaching my granddaughter how to cook and we are eating as a family better."**

## IMPACT ON PROVIDERS:

- ✓ **Greater engagement with patients**
- ✓ **Increased collaboration among providers**
- ✓ **Tailoring education and approaches**
- ✓ **Referrals to outside resources**
- ✓ **New partnerships with CBOs**



# COMMUNITY IMPACT:

“We are wrapping care around the patients - from their health care providers to the volunteers at distribution who are supporting them with direct education about the vegetables they are receiving. It's creating community, a safe place for people who may feel vulnerable about so many things to learn a new way to look at the food they are consuming.”





## IMPACT ON LOCAL ECONOMIES:

- ✓ **New, repeat customers and increased produce sales**
- ✓ **Sustaining rural farmers' markets, mobile markets, and retail grocery stores**

# 2017

## 109K purchased

**Year 1: \$109,000 in local sales**

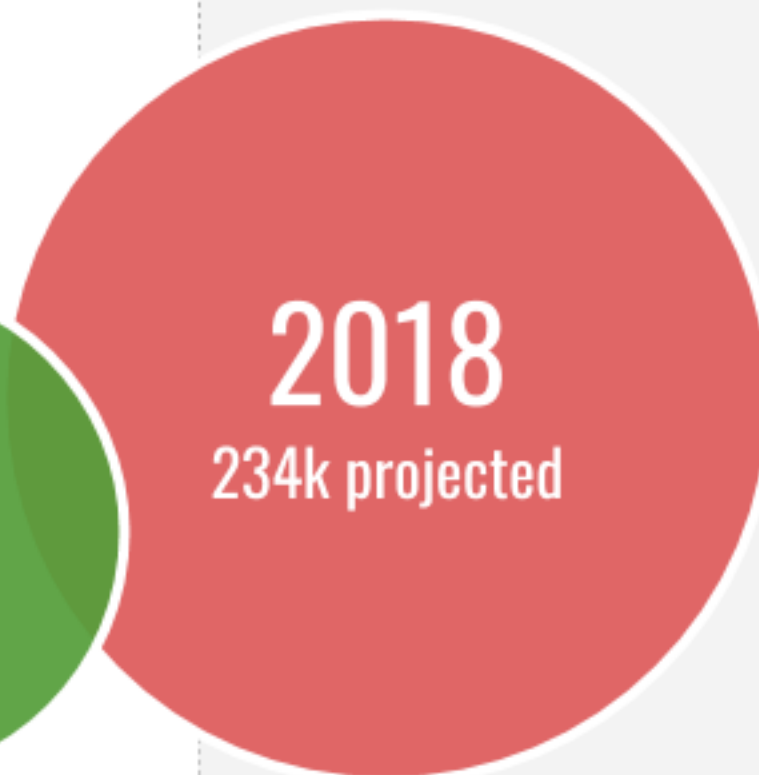
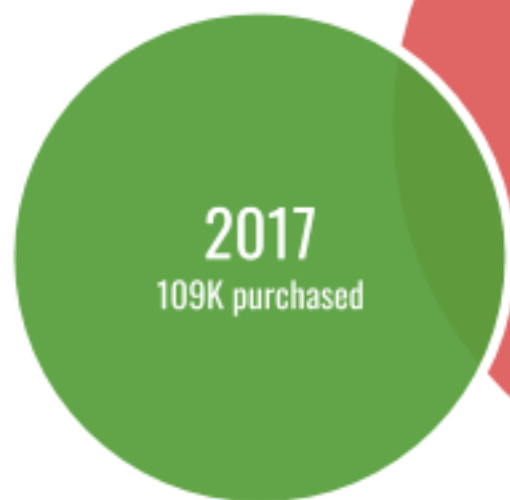
- \$16,000 FVRx
- \$93,000 Farm to School

# 2018

## 234K projected

**Year 2 (Projected): \$234,580**

- \$58,800 FVRx
- \$175,780 Farm to School





# WHAT'S NEXT?

## PATH TO SUSTAINABILITY

- **Integration with Value Based Payment**

### **National Models:**

- **Managed Care Organizations (ex. Health Partners Plan: Food is Medicine Program)**
- **Employee Wellness Benefit**
- **Hospital & Insurance Foundations**
- **Private Foundations, Federal Grants**

QUESTIONS?

# Thank You!

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[www.foodandhealthnetwork.org](http://www.foodandhealthnetwork.org)

