



# Healthy Food Interventions

Sarah Mills, MPH, RD

Director of Wellness and Nutrition Education

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# AGENDA

- About Gleaners Community Food Bank and the Emergency Food Network
- Food Insecurity in our Community
- Food Insecurity and Chronic Disease
- Strategies and Interventions



# Who is Gleaners

A vital link between available food and those who need it most



Efficient, proven methods for distributing food to those in need



**NUMEROUS  
PROGRAMS AND  
INITIATIVES**



**5 DISTRIBUTION  
CENTERS:**  
Wayne, Oakland,  
Macomb, Livingston  
and Monroe



**534 PARTNERS**  
Soup kitchens, food  
pantries, shelters and  
other agencies  
throughout southeast  
Michigan



Provides nearly  
**42 MILLION POUNDS**  
of nutritious food

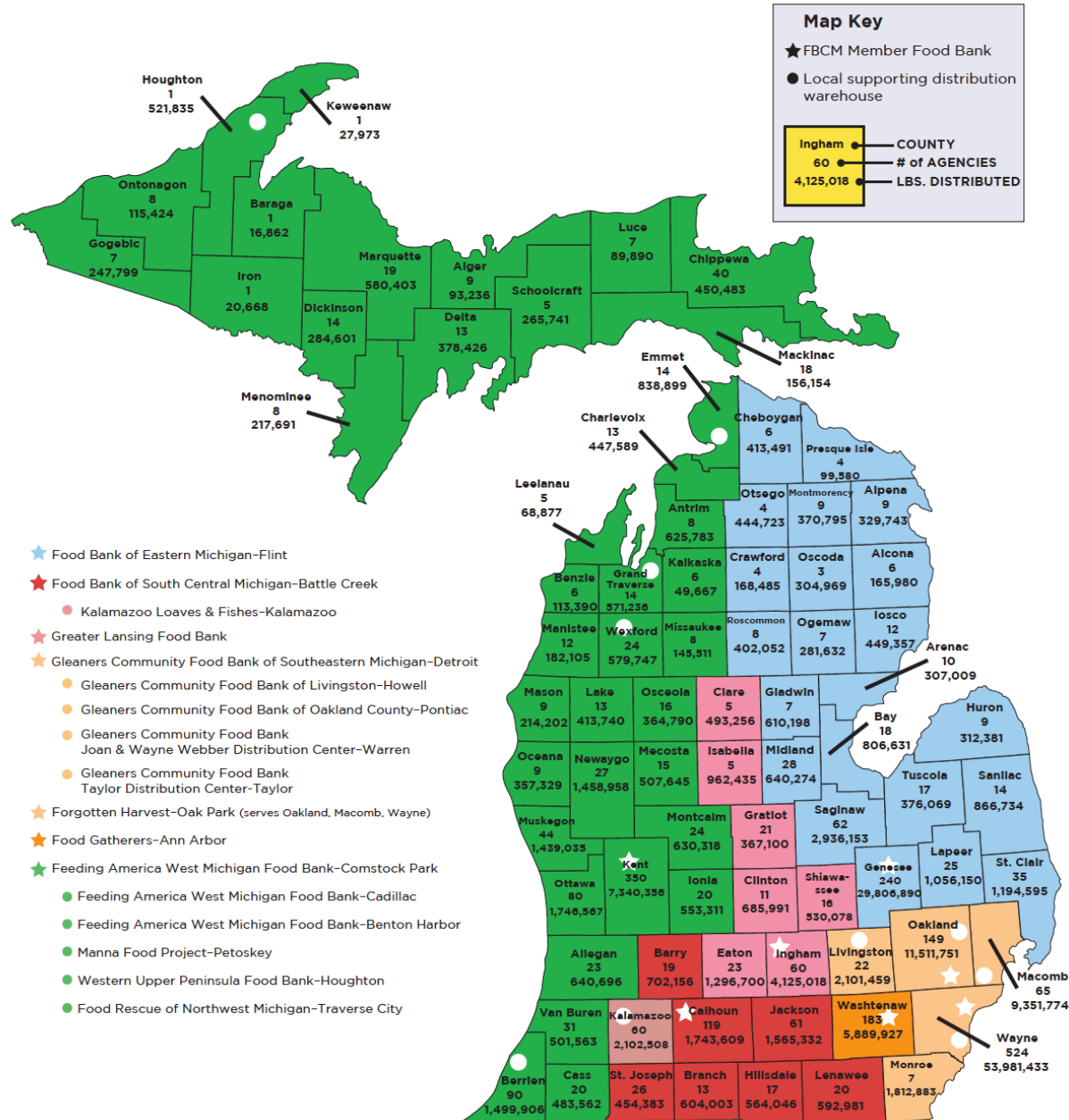


Distributes  
**96,178 MEALS  
EACH DAY**

Maximizes partnerships to achieve community goals



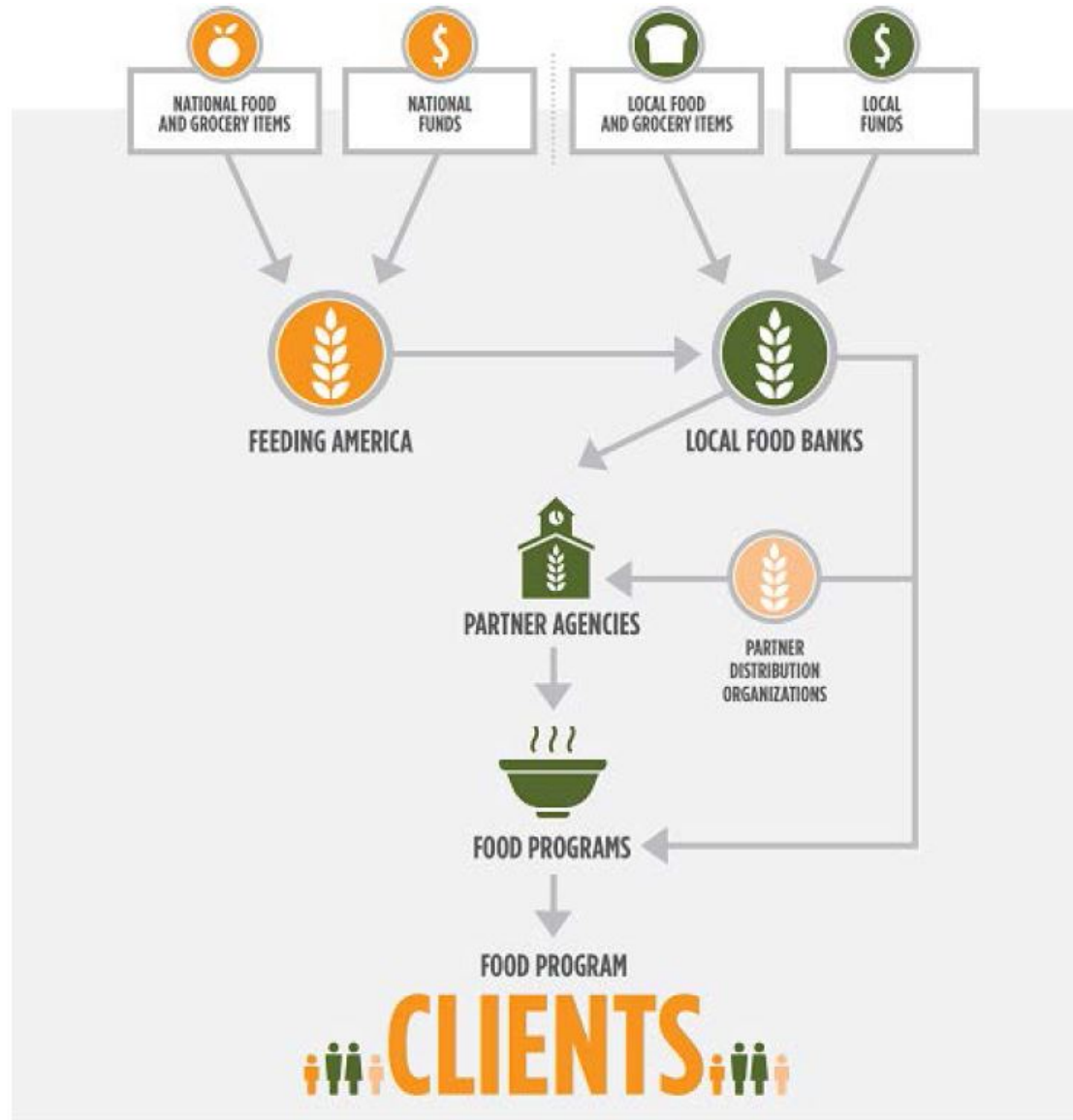
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2,996 hunger-relief agencies and programs distributed 169,024,682 pounds of food.



# How Food Is Distributed

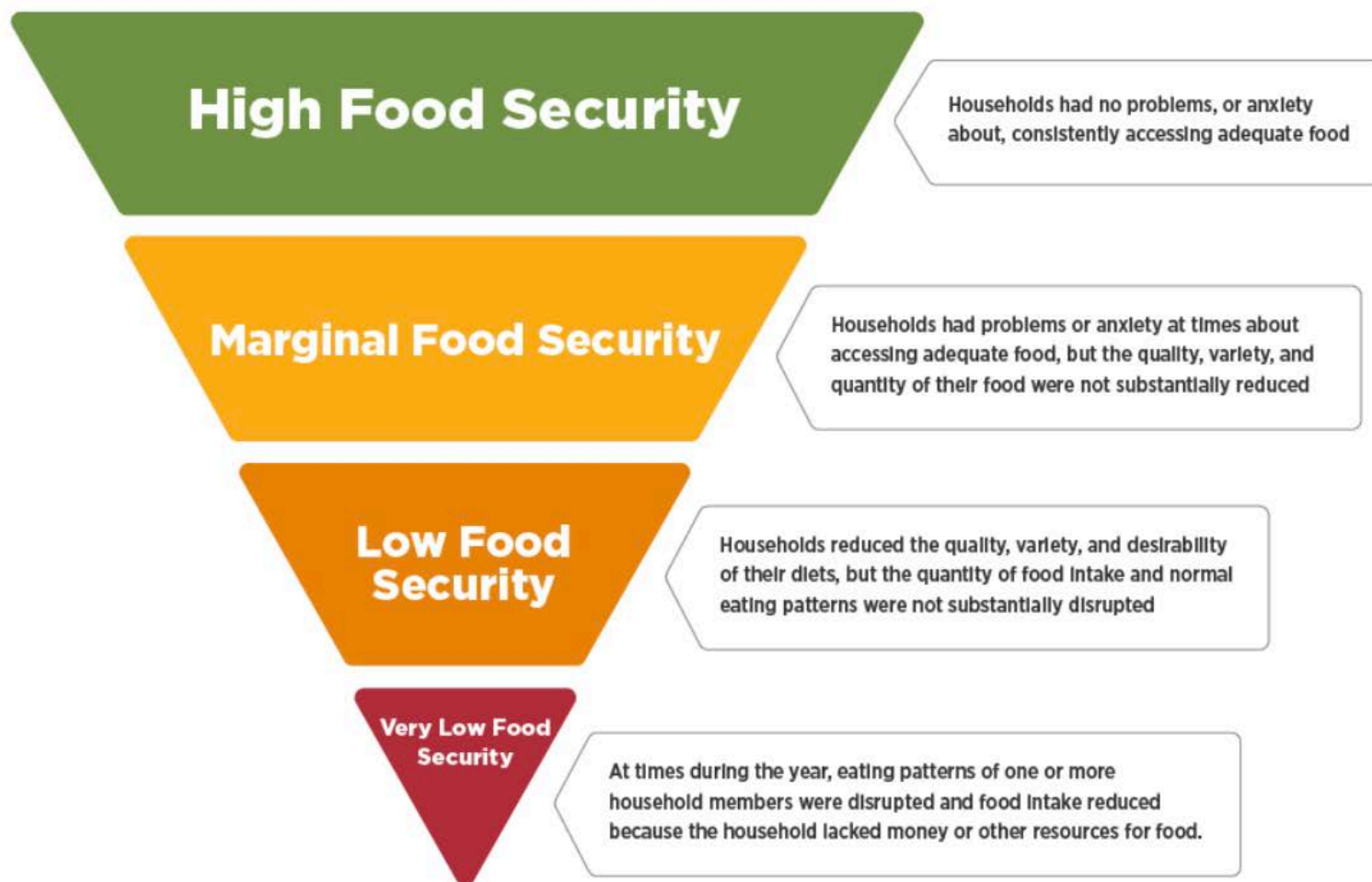




# What is Food Insecurity?

- The U.S. Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life.
- Hunger and food insecurity, are NOT the same.





Source: Adapted from the USDA Economic Research Service.





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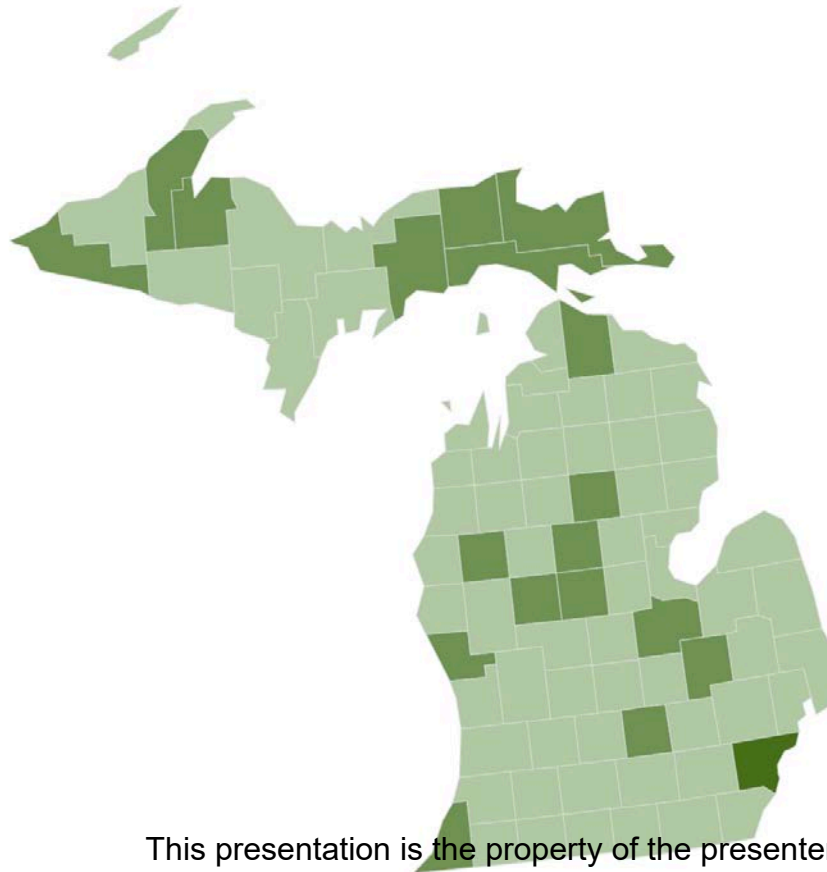
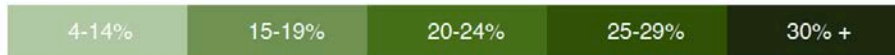




# Food Insecurity- Michigan

- ▶ Nationwide, the average county level food insecurity rate is 12.9%
- ▶ The average county-level food insecurity rate in Michigan is 14.2%

Overall Food Insecurity Rates



## TOP COUNTIES WITH THE HIGHEST FOOD INSECURITY RATES

Wayne  
Lake  
Isabella  
Genesee  
Schoolcraft

# CLOSING THE GAP: WHO NEEDS GLEANERS?

Nearly  
**700,000**  
people are food  
insecure in the  
5-county region:  
we reach  
**430,000**  
each year



**47%** of the  
households in  
need have an  
employed adult



# Food Insecurity is a Complex Problem

## Primary Drivers of Food Insecurity



Needs don't exist in isolation and families are making tough tradeoffs to meet basic needs



# The Health Effects of Food Insecurity

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# Making Tough Choices



Michigan's clients report that their household income is inadequate to cover their basic household expenses.

**69%**

HAVE HAD TO  
CHOOSE BETWEEN  
PAYING FOR  
**UTILITIES** AND FOOD

**65%**

HAVE HAD TO  
CHOOSE BETWEEN  
PAYING FOR  
**TRANSPORTATION**  
AND FOOD

**63%**

HAVE HAD TO  
CHOOSE BETWEEN  
PAYING FOR  
**MEDICINE** AND FOOD

**53%**

HAVE HAD TO  
CHOOSE BETWEEN  
PAYING FOR  
**HOUSING** AND FOOD



# 2014 Hunger in America Report



OF HOUSEHOLDS REPORT PURCHASING  
INEXPENSIVE, UNHEALTHY  
FOOD TO FEED THEIR FAMILY



OF HOUSEHOLDS WITH  
CHILDREN REPORT  
THIS COPING STRATEGY



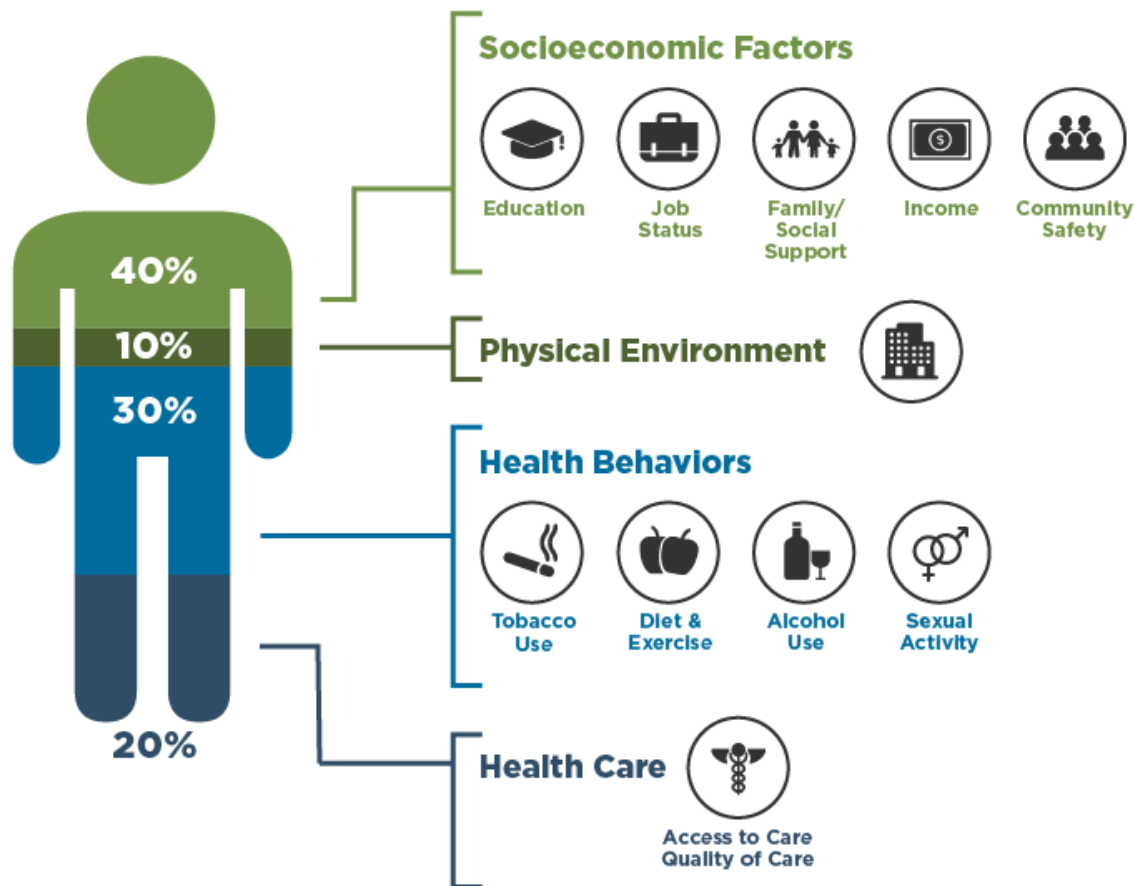
58%  
OF HOUSEHOLDS HAVE A  
MEMBER WITH HIGH  
BLOOD PRESSURE



33%  
OF HOUSEHOLDS  
HAVE A MEMBER  
WITH DIABETES



# What Goes Into Your Health?



**People who are food insecure are more likely to develop chronic disease**

Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)

Adapted from The Bridgespan Group

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# Food Insecurity Directly Impacts Health: Disease Risk & Management

## Food Insecure individuals have increased **Risk for Chronic Disease:**

- Cardiovascular disease (hypertension  $\approx$  25% more common)
- **Diabetes (Type 2 Diabetes Mellitus rates  $\approx$  25% higher)**
- Kidney disease ( $\approx$  50% higher)
- Osteoporosis (4x  $\uparrow$  risk)

Without adequate access to healthy food, **management of chronic disease** is also more challenging

- **Food Insecurity in Diabetes leads to:**
  - Increases Medication Non-adherence
  - More food-medicine-medical supplies tradeoffs
  - Poorer diabetes distress and diabetes self-efficacy
  - Worse glycemic control
- Self-management challenges with food insecurity & other diseases
  - HTN
  - HIV
  - Cancer



## Cycle of Food Insecurity & Chronic Disease



# STRATEGIES AND INTERVENTIONS

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# The Role of the Food Bank Network

- Targeted food purchases
- Dairy programs
- Education
- Healthcare partnerships
- SNAP Outreach
- Mobile Markets
- School food mobiles
- Backpack programs
- Other federal programs



# Foods to Encourage and NUDGES



Fruits and  
Vegetables



Whole  
Grains



Low-Fat and  
Non-Fat Dairy



Lean  
Proteins

- Factors such as signage, colors, packaging and product placement can influence choices as a consumer.
- Nudge Strategies in pantry settings are easy, cost effective methods of promoting healthy foods and increasing access.





# Healthy Pantry Initiative







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**FAITH**  **DM**

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# FAITH DM Study Design

- ▶ **Randomized, controlled trial design, 2015 – 2017**
- ▶ **Hypothesis:** adults with poorly controlled T2DM who participate in a food bank intervention (food distributions, diabetes education, glycemic monitoring, and healthcare referrals) would experience significant improvements in HbA1c over a 6-month timeframe.
- ▶ **Secondary outcomes:** food security, fruit and vegetable intake, diabetes distress, severe hypoglycemic events, depressive symptoms, medication adherence, tradeoffs (food vs medication/supplies), and food stability
  - 6- and 12-month follow-up for primary and secondary outcomes
- ▶ **Intervention:** food distributions, formal and informal DSME, referrals, HCUA communication

(Seligman, et al., 2018)



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# FAITH DM Study Results

- Did improve food security and dietary intake for participants; HbA1c was not significantly improved
  - however...
- Food bank intervention alone was not enough. Coordination with health care partners to reach highly vulnerable populations and coordinate interventions with clinical care is essential.
- For participants who most were most highly engaged, demonstrated A1C improvements
  - Within the Intervention Group, fully engaged participants improved more than less engaged participants in the group [8.67% vs. 9.23%,  $p=0.04$ ]



## Intervention group reported very high levels of satisfaction with the project

- How would you say you and your family like the diabetes food box compared to the regular food box?
  - 80.4% answered “my family and I like the diabetes food box better” or “I like the diabetes food box better but my family likes the regular food box better”
- Helpfulness of diabetes-appropriate food
  - 97.9% answered “very helpful” or “somewhat helpful”
- Overall, how much better do you think you can control your diabetes as a result of this program?
  - 95.4% answered “a lot better” or “a little better”





# Healthcare Initiatives – Henry's Groceries



A partnership with Henry Ford Health System.

Identifying 300 food insecure, highly vulnerable patients and connecting them with home delivered food boxes.

\*Not Specifically Diabetes diagnosis

Boxes delivered 2x/month for 1 year

HFHS is looking at any improvements in biometrics and healthcare utilization for these patients



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## Early Learnings – Henry's Groceries

- Informal feedback from patients indicate they are trying new, healthy foods and making fewer tradeoffs while on participating in the program.
- Food security improved for many patients
- Patients expressed a great deal of satisfaction with the personal interaction during home deliveries and phone calls.

"It was a really good program because they give you this food where you could cut down your grocery bill," she says, adding, that it "was helping me way before I got my food assistance. So when I had no food, I could just throw something together with the food from Henry's Groceries and say, oh I got a meal right here."



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# Healthcare Initiatives – The Healthy Table

## Collaboration with CHASS in SW Detroit

### Providing healthy food boxes to patients with uncontrolled Diabetes

- Twice per month for 6 months, delivery or pick up
- Majority of household food needs
- Choice Menus; Cultural considerations



## YOUR FOOD BOX CHOICES

*Items subject to change based on availability*  
*\* Doubled for family size box*

### BOX 1 INCLUDES:

Bananas*	Gallon Milk*
Onion*	Shredded Cheddar Jack *
Sweet Potato*	Brown Rice
Poblano Peppers*	Chicken Broth
Mushrooms*	Corn
Frozen Veggies*	Diced Tomatoes
Chicken Drumsticks*	Peaches
Corn Tortillas*	Dry Pinto Beans
Plain Yogurt*	Oats

RECIPES: Chicken with Poblanos, Chicken Tortilla Casserole, Stir Fry, Roasted Sweet Potatoes and Mushrooms, Yogurt Parfaits,

### BOX 2 INCLUDES:

Bell Pepper*	Corn Tortillas *
Onion*	1 Gallon Milk*
Avocados*	Shredded Mozzarella*
Tomato*	Tomato Sauce
Limes*	Mandarin Oranges
Potatoes*	Chicken Broth
Apples*	Brown Rice
Bananas*	Peanut Butter
Chicken Breast*	Oats
Eggs*	

RECIPES: Oatmeal Breaded Chicken, Egg Burritos, Chicken and Potato, Chicken with Apples & Raisins, Apple Crisp, Egg Omelet,



# Healthcare Initiatives – The Diabetes Prevention Program

- Collaboration with the National Kidney Foundation of Michigan
- DPP is a nationally recognized program which has demonstrated impact in reducing diabetes risk
- Providing healthy food to participants in DPP program, to support behavior change
- Measuring program outcomes as compared to similar participant groups who do not receive food boxes



National **Kidney** Foundation®

of Michigan



DIABETES  
PREVENTION  
PROGRAM

A Program of the Diabetes Prevention Center

Community  
Foundation

Funded By:

FOR SOUTHEAST MICHIGAN

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# Other Food Bank Interventions in Michigan

- Food Bank of Eastern Michigan and Hurley Medical Center
  - Food FARMacy onsite for patients in need of food assistance
  - RD coordinates pantry and provides education support
  - Client choice model with nudges
- Food Gatherers
  - Involved in county wide SDoH screening and referral project.
  - Positive food insecurity screens are referred to Food Gatherer pantries.
  - Working on developing a feedback loop
  - Also working with some clinics hosting onsite pantries
  - Involved in extensive “nudge” work with partner pantries



# Linking access and skills education





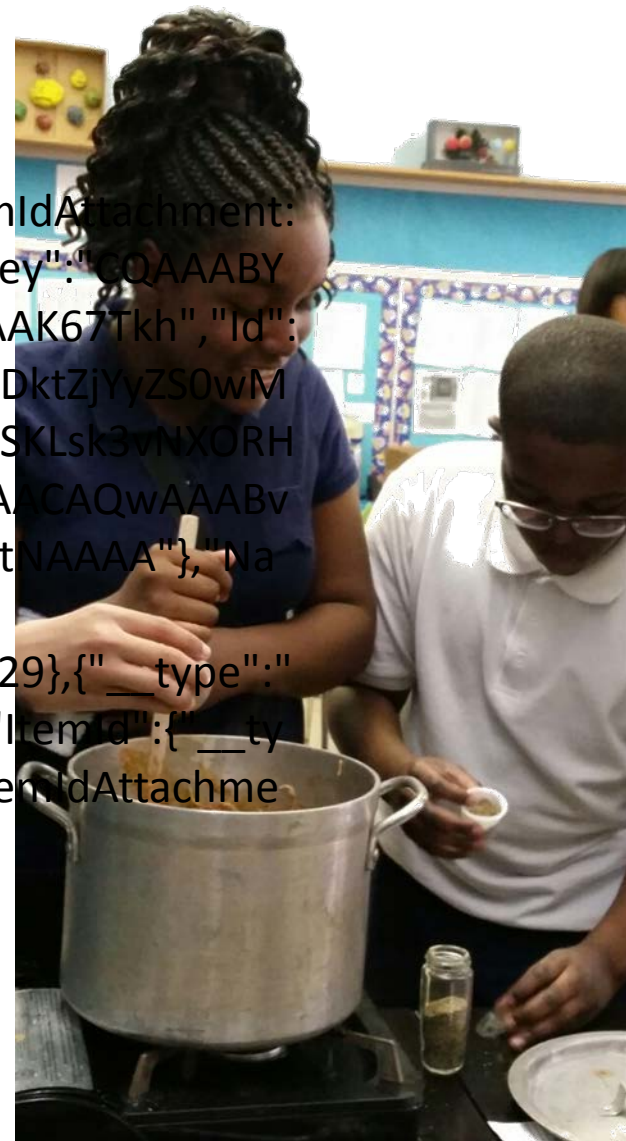
# Cooking Matters

Hands On Cooking And  
Nutrition Education

program

Offered throughout  
Gleaners 5 county service  
area and statewide

Teaches low-income  
families practical skills for  
choosing, purchasing, and  
preparing healthy, delicious  
and affordable meals.



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# Screen and Intervene Strategies

## IDENTIFYING & ADDRESSING FOOD INSECURITY AT A HEALTHCARE SITE





# Children's Health Watch Hunger Vital Sign™

The Hunger Vital Sign™ identifies individuals and families as being at risk for food insecurity if they answer that either or both of the following two statements is 'often true' or 'sometimes true' (vs. 'never true'):

**“ Within the past 12 months we worried whether our food would run out before we got money to buy more.”**

**“ Within the past 12 months the food we bought just didn't last and we didn't have money to get more.”**

(Hager, et al., 2010)



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## Refer: Short-Term

- 211
- Food Pantry
- [www.pantrynet.org](http://www.pantrynet.org)
- Direct Distribution at hospital or clinic

## Connect: Long-Term

- SNAP
- WIC
- Other healthcare partnership program
  - i.e Fresh Prescription



Food Insecurity and Health

A Tool Kit for Physicians and  
Health Care Organizations





# What We Have Learned



Food is medicine:  
the right foods  
improve blood  
sugar control and a  
client's ability to  
manage diabetes



Clients are  
interested in health  
screenings and  
education at food  
distribution sites



Health clinics are  
enthusiastic about  
partnering with food  
banks



Reaching  
clients with health  
education messages  
requires creativity



# Resources for more information

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

- More information about food insecurity in your community

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

- More information and resources on the connection between food insecurity and health, and how to address it in a healthcare setting.

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

- Information about cooking and nutrition classes in SE MI

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

- Information about Gleaners Community Food Bank programs

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

- Information about the food bank network in Michigan



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## Questions?

Sarah Mills, Director of Wellness and Nutrition Education  
313-308-0586      [smills@gcfb.org](mailto:smills@gcfb.org)

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