

Policy Brief: Food Security

Champion Provider Fellowship
April 20, 2018

Hilary Seligman MD MAS

Associate Professor of Medicine and of Epidemiology & Biostatistics, UCSF
Food Policy, Health, and Hunger Program, UCSF Center for Vulnerable Populations
Director, CDC's Nutrition and Obesity Policy Research and Evaluation Network
Senior Medical Advisor, Feeding America



2018 Updates in Health and Food Insecurity: A Policy Focus

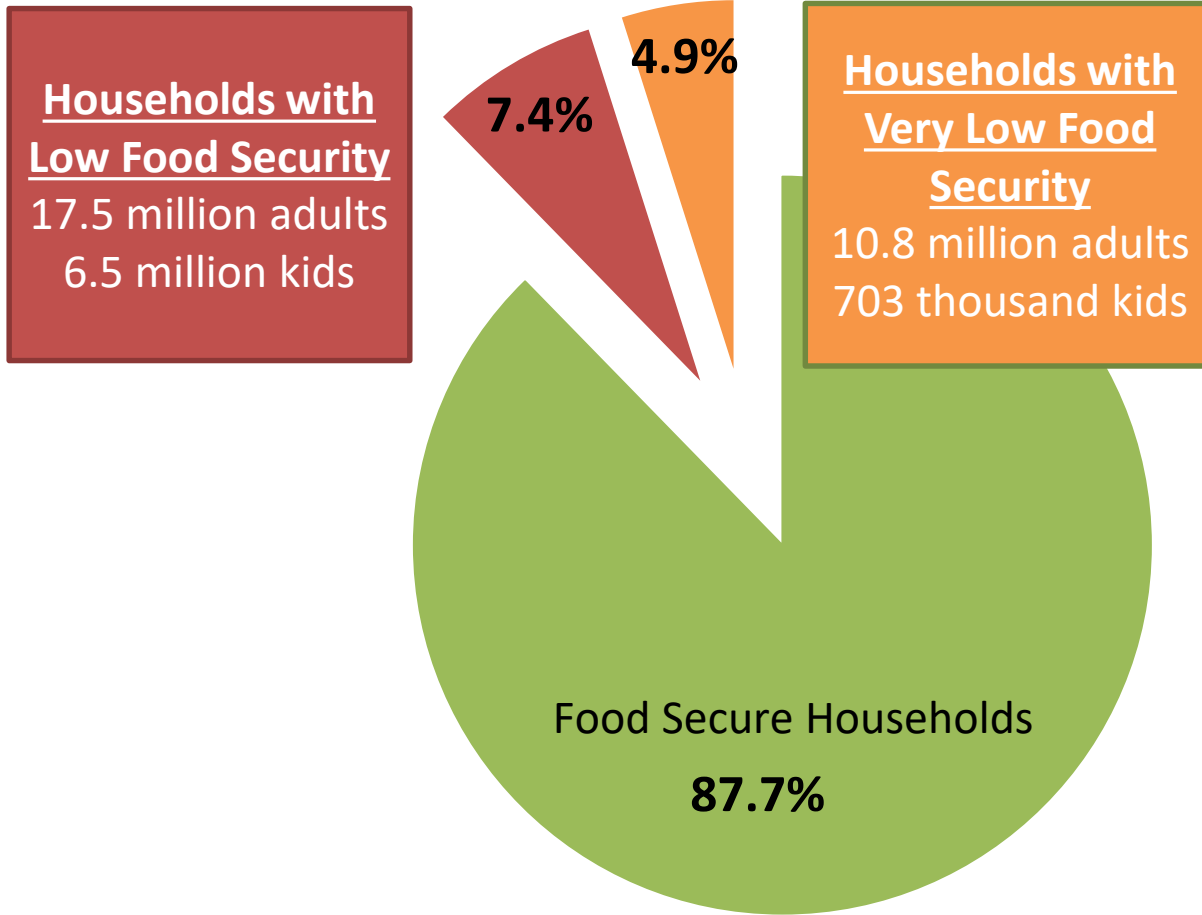
- Health care costs associated with food insecurity that may help drive policy
- Clinical efforts to address food insecurity
- Key policy initiatives for 2018 being discussed at federal, state, and local levels



- Food security:
Access by all people at all times to enough food for an active, healthy life
- Food insecurity:
Household-level economic and social condition of limited or uncertain access to adequate food



12.7% of U.S. Households by Food Insecure, 2016



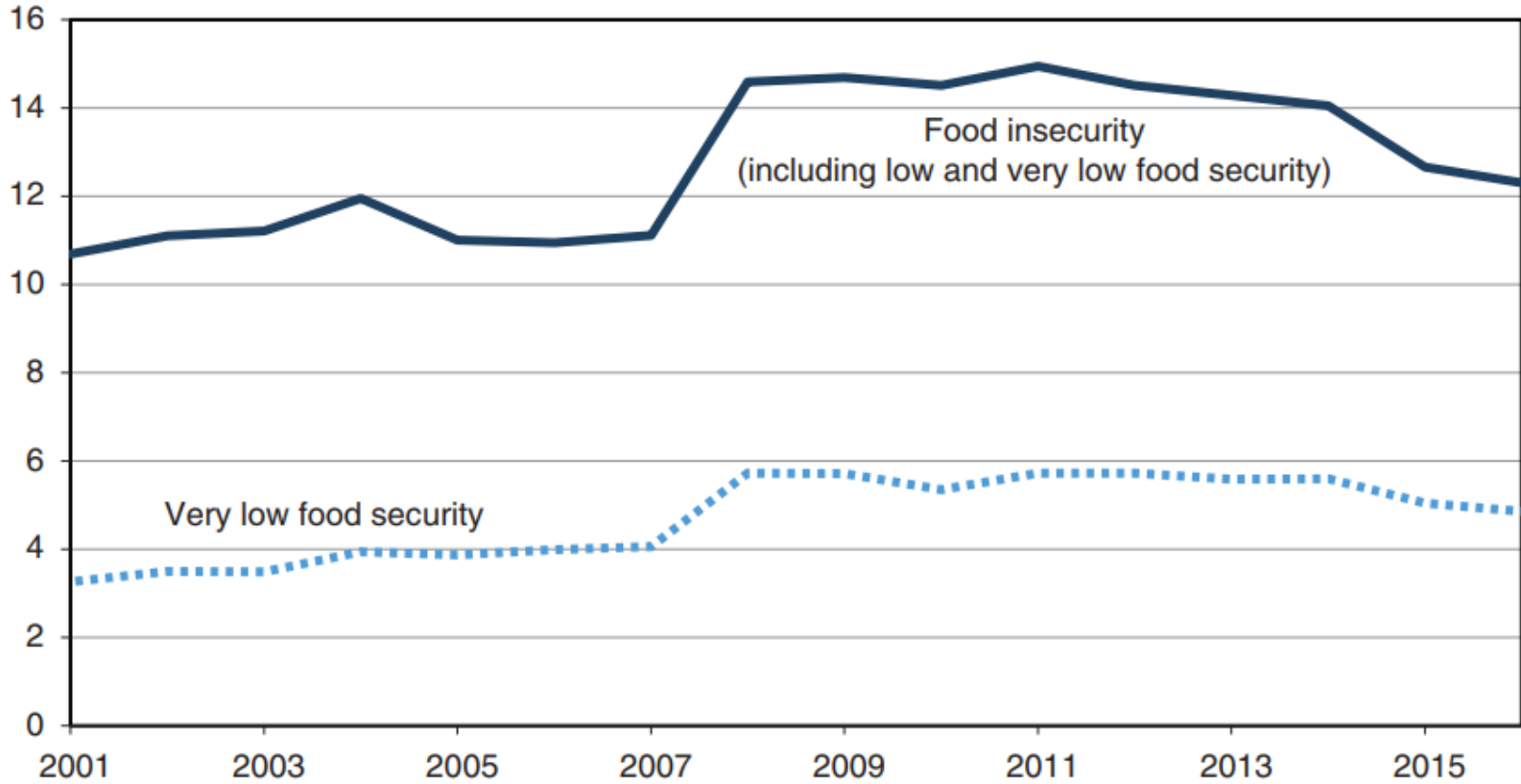
Source: Calculated by ERS, USDA, using data from the December 2016 Current Population Survey Food Security Supplement



Figure 3

Trends in the prevalence of food insecurity and very low food security in U.S. households, 2001-2016

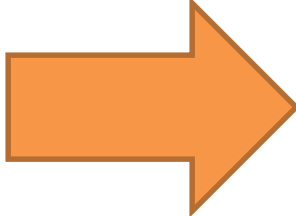
Percent of households



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, Current Population Survey Food Security Supplement.

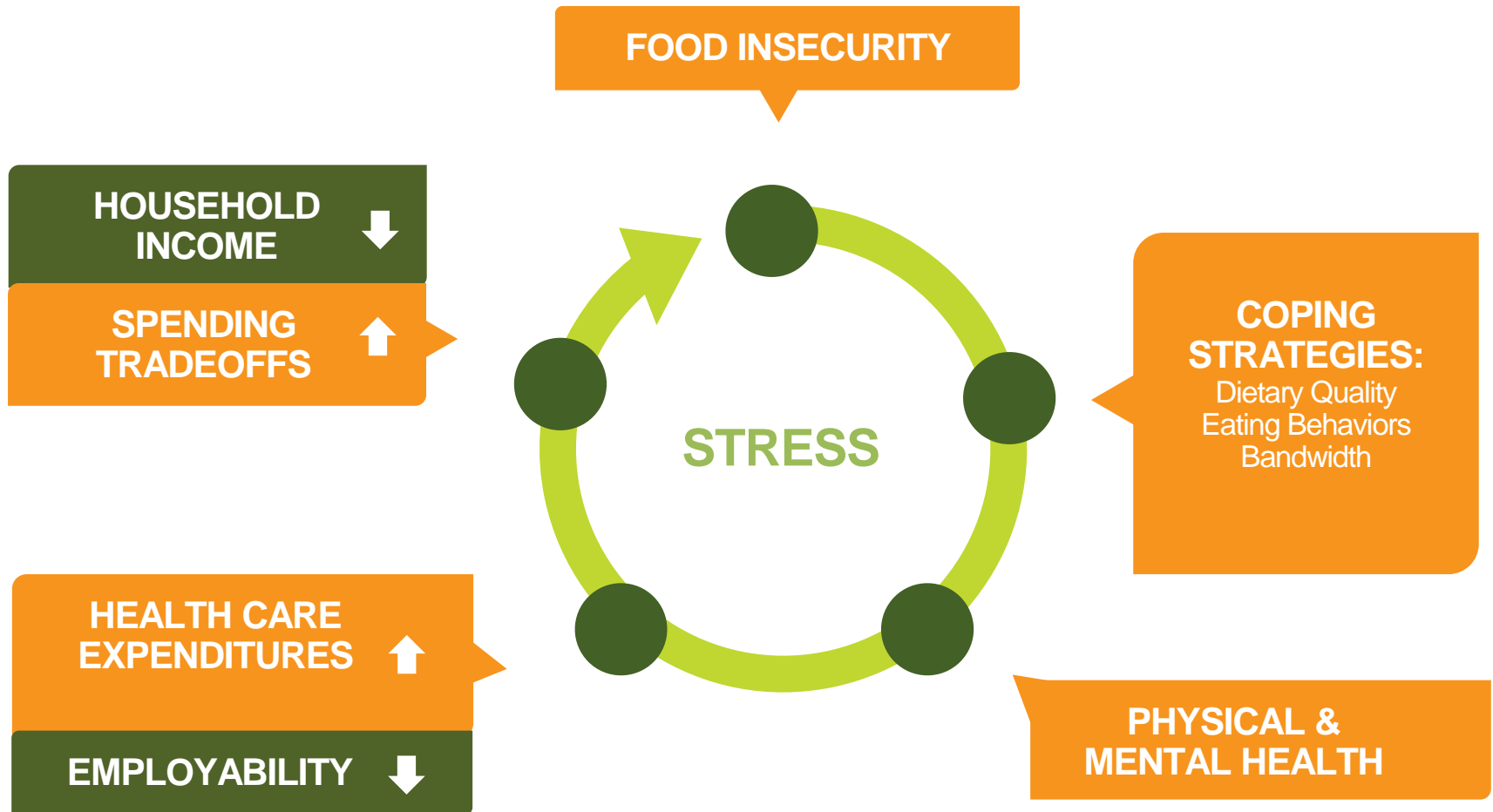


Coping Strategies to *Avoid* Hunger

- Eat low-cost foods
 - Eat highly filling foods
 - Small variety of foods
 - Avoid food waste
 - Binge when food is available
- 
- Higher risk of obesity, diabetes, & other chronic disease
 - Once chronically ill, poorer ability to manage illness



Does Food Insecurity Impact Health?



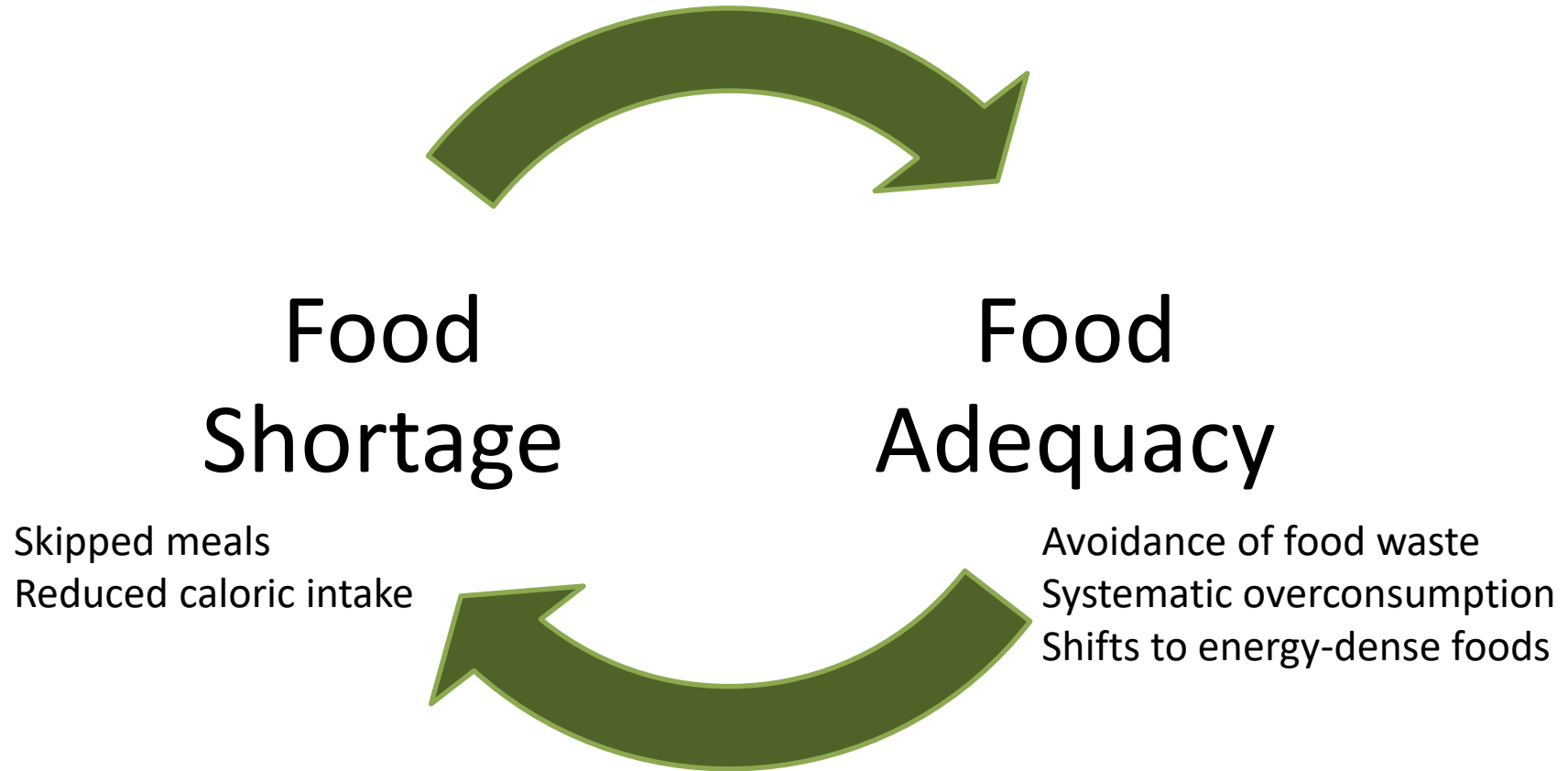
Adapted from Seligman and Schillinger,
New England Journal of Medicine, 2010.

Food Insecurity is Cyclic & Episodic

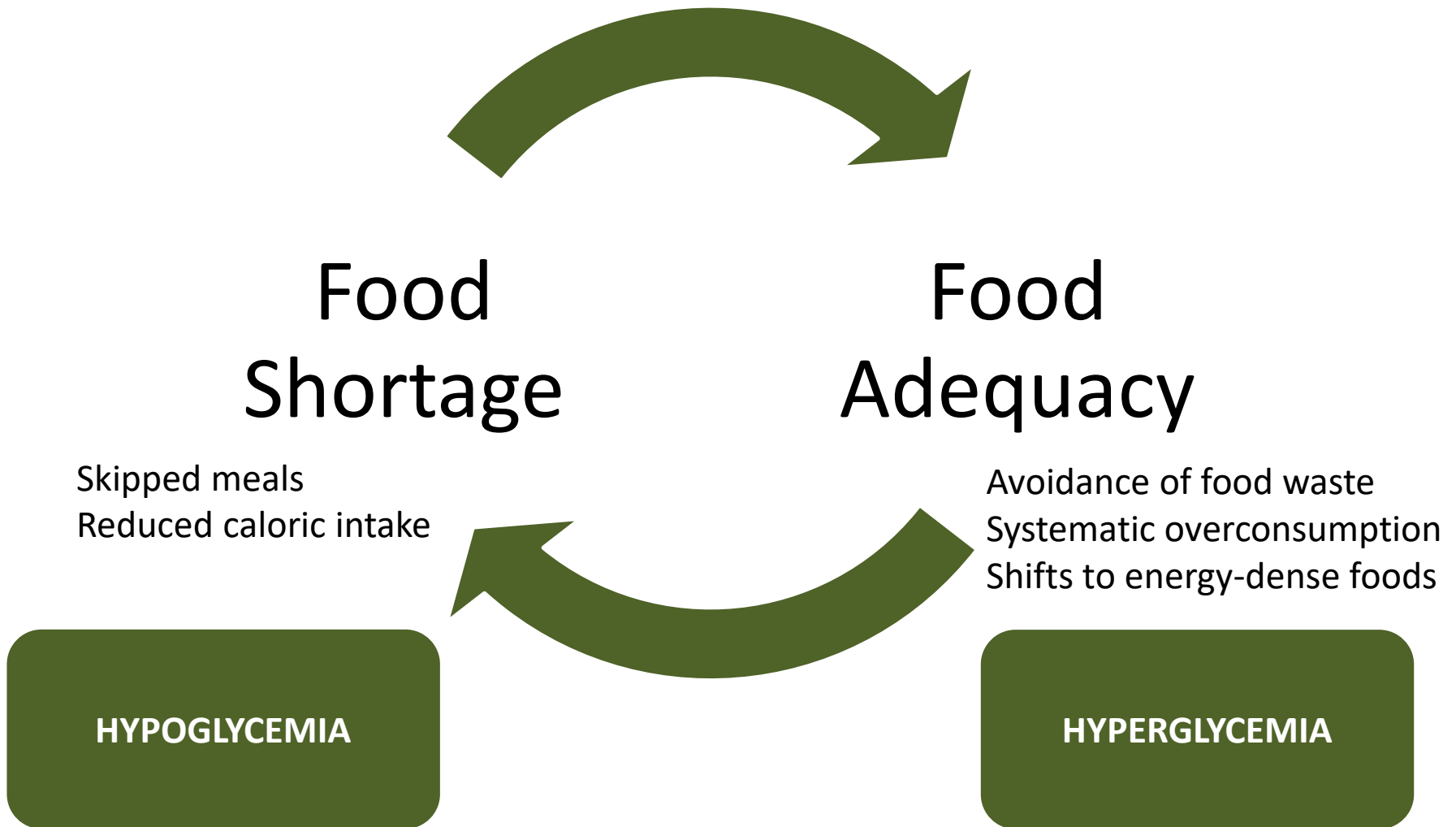
- Variation is monthly, seasonal, & random
- Average 7 episodes per year
- Dietary intake fluctuates, particularly among mothers



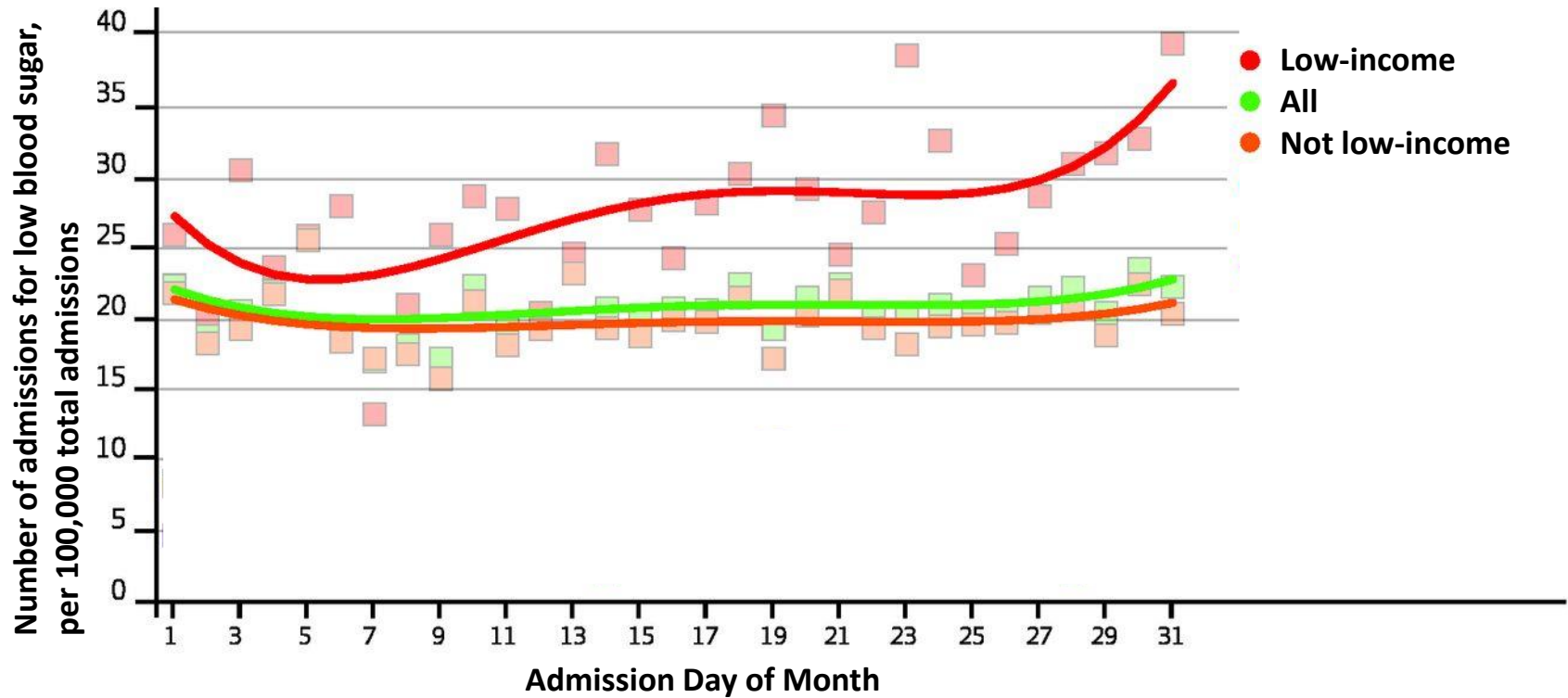
Compensatory Strategies



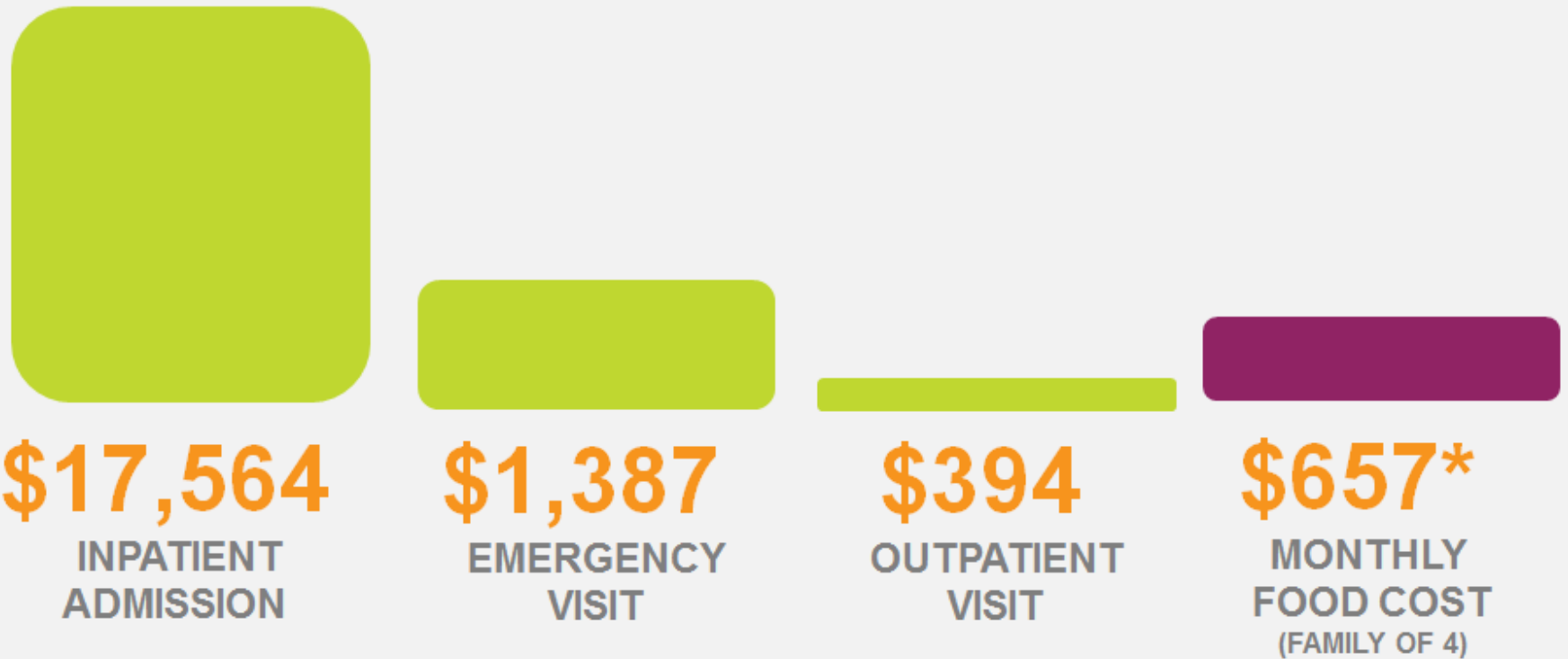
Diabetes as a Model



Admissions for Hypoglycemia Increase by 27% in Last Week of the Month for Low-Income Population





Cost of A Health Care Visit for Low Blood Sugar vs. Food



American Journal of Managed Care, 2011.

*Thrifty Food Plan

Cost of A Health Care Visit for Low Blood Sugar vs. Food

As a policymaker you may want to know:
If we put money ,
can we save money ?



\$17,564

INPATIENT
ADMISSION

\$1,387

EMERGENCY
VISIT

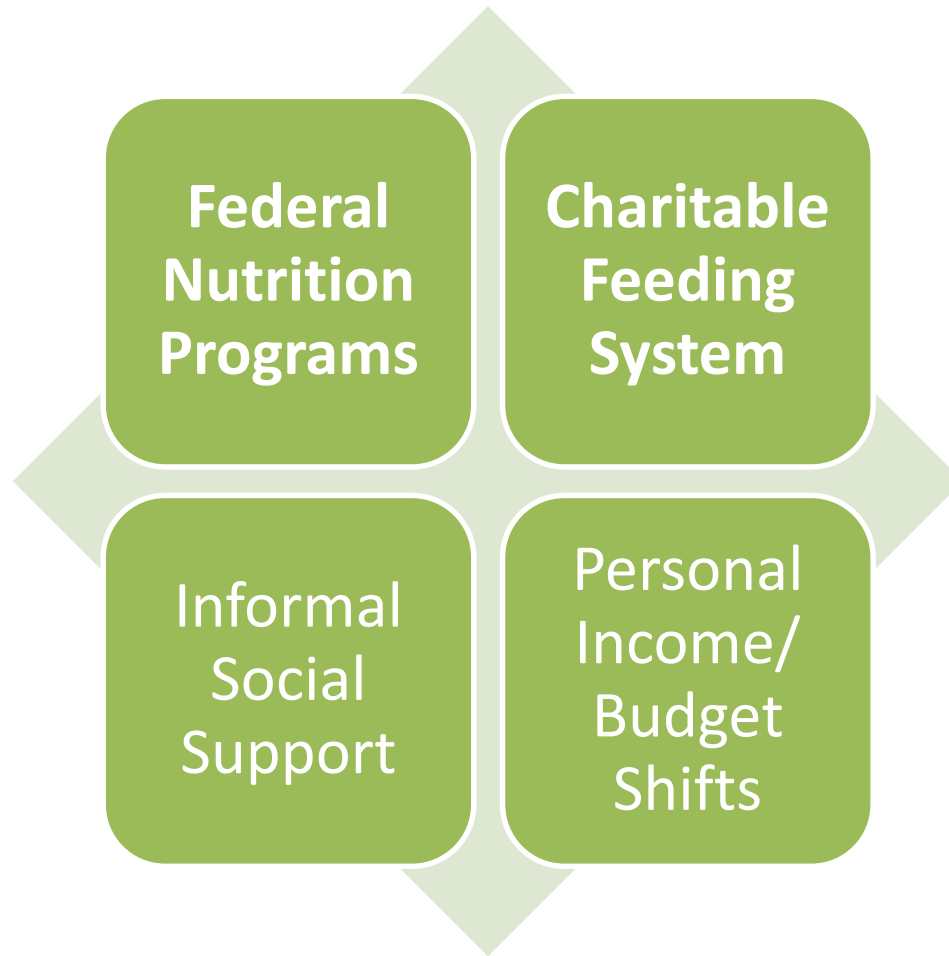
\$394

OUTPATIENT
VISIT

\$657*

MONTHLY
FOOD COST
(FAMILY OF 4)

Resources for Food Insecure Households



Resources for Food Insecure Households

Federal
Nutrition
Programs

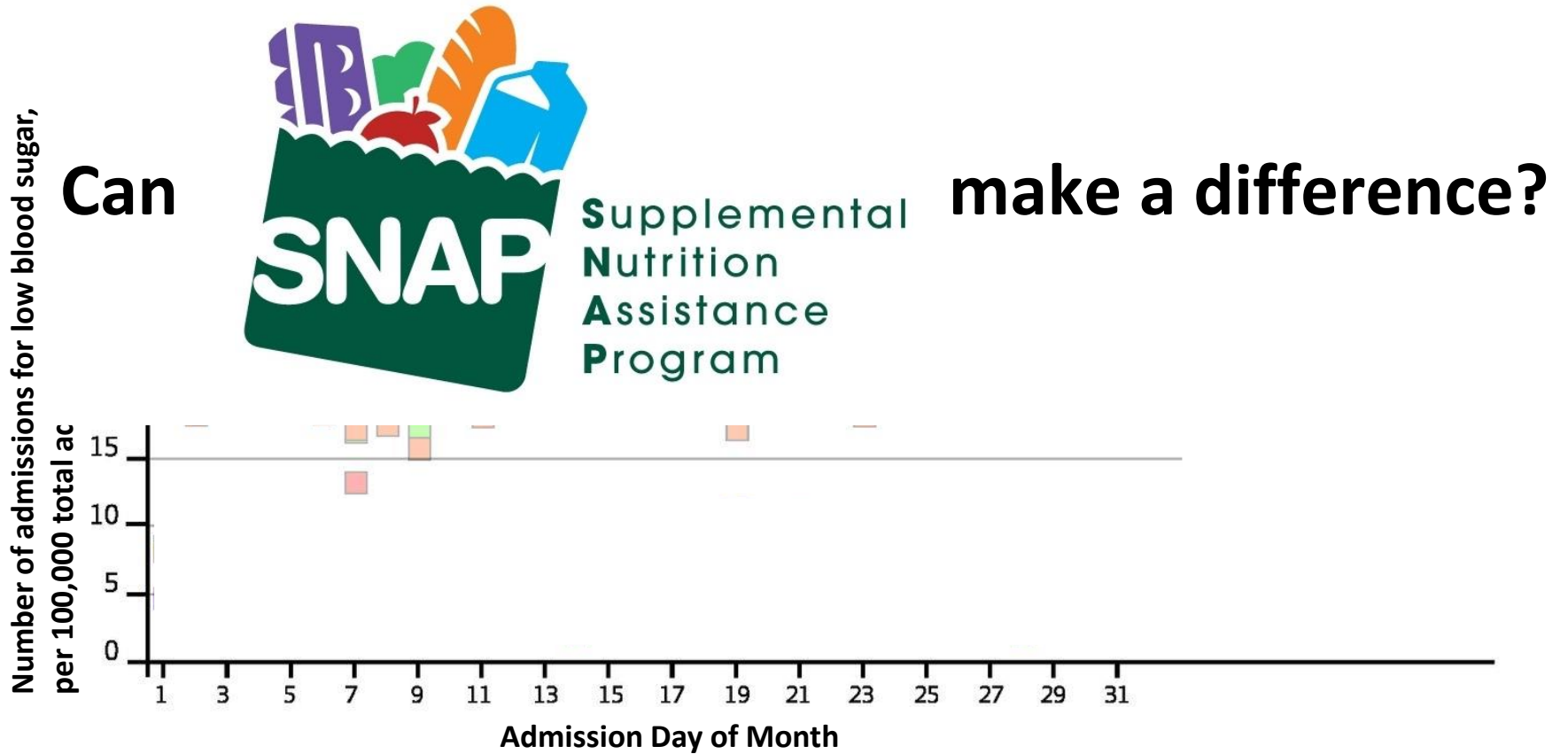


Supplemental
Nutrition
Assistance
Program



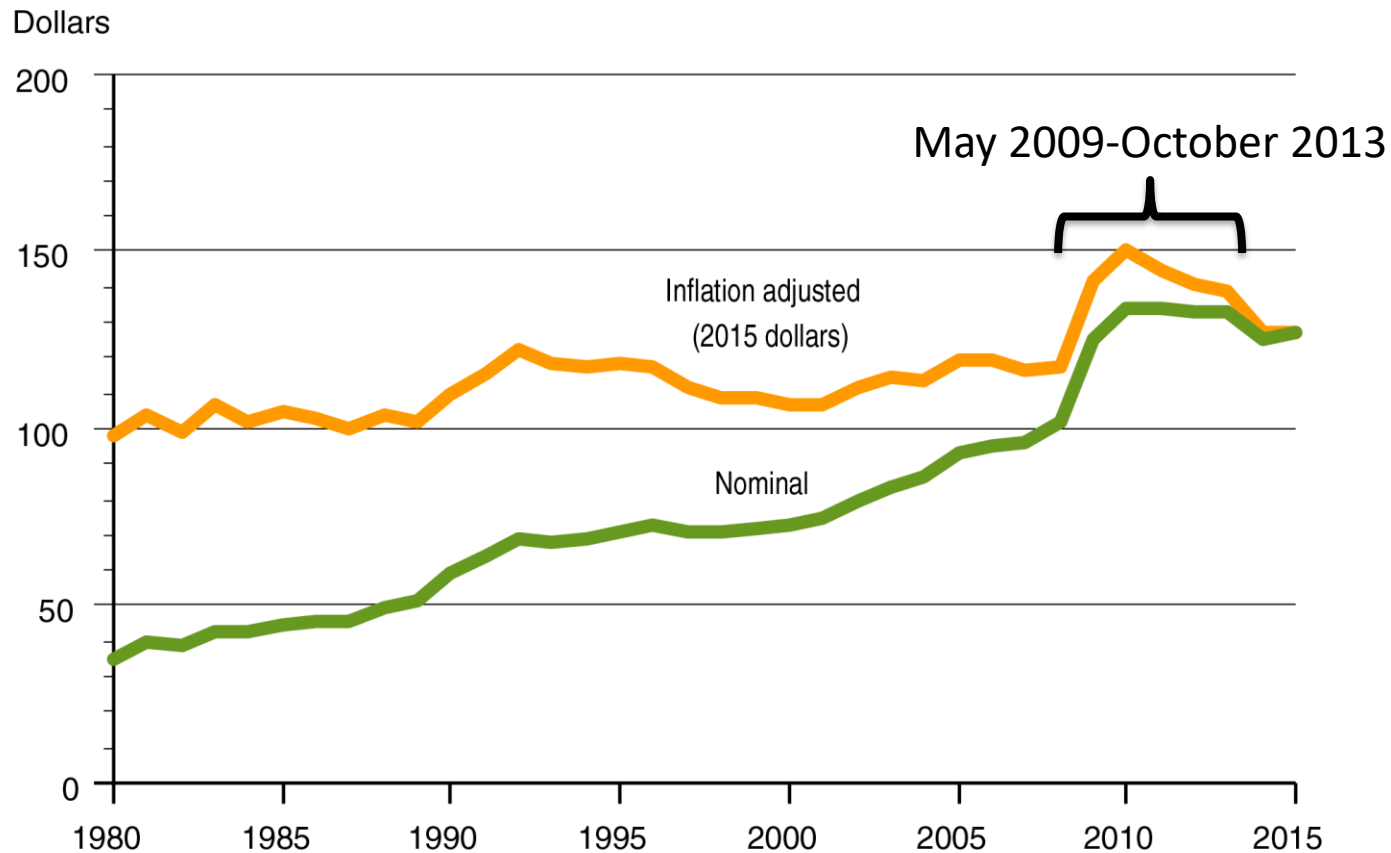
- Approximately 1 in 7 Americans (46 million people, \$70 billion)
- Redeemable in every US county
- Average benefit **\$1.40**/person/meal
- Very effective at reducing food insecurity, but 54% of households still foodinsecure

Admissions for Low Blood Sugar Increase by 27% in Last Week of the Month for Low Income Population



American Recovery & Reinvestment Act

Average monthly SNAP benefits per person, fiscal 1980–2015



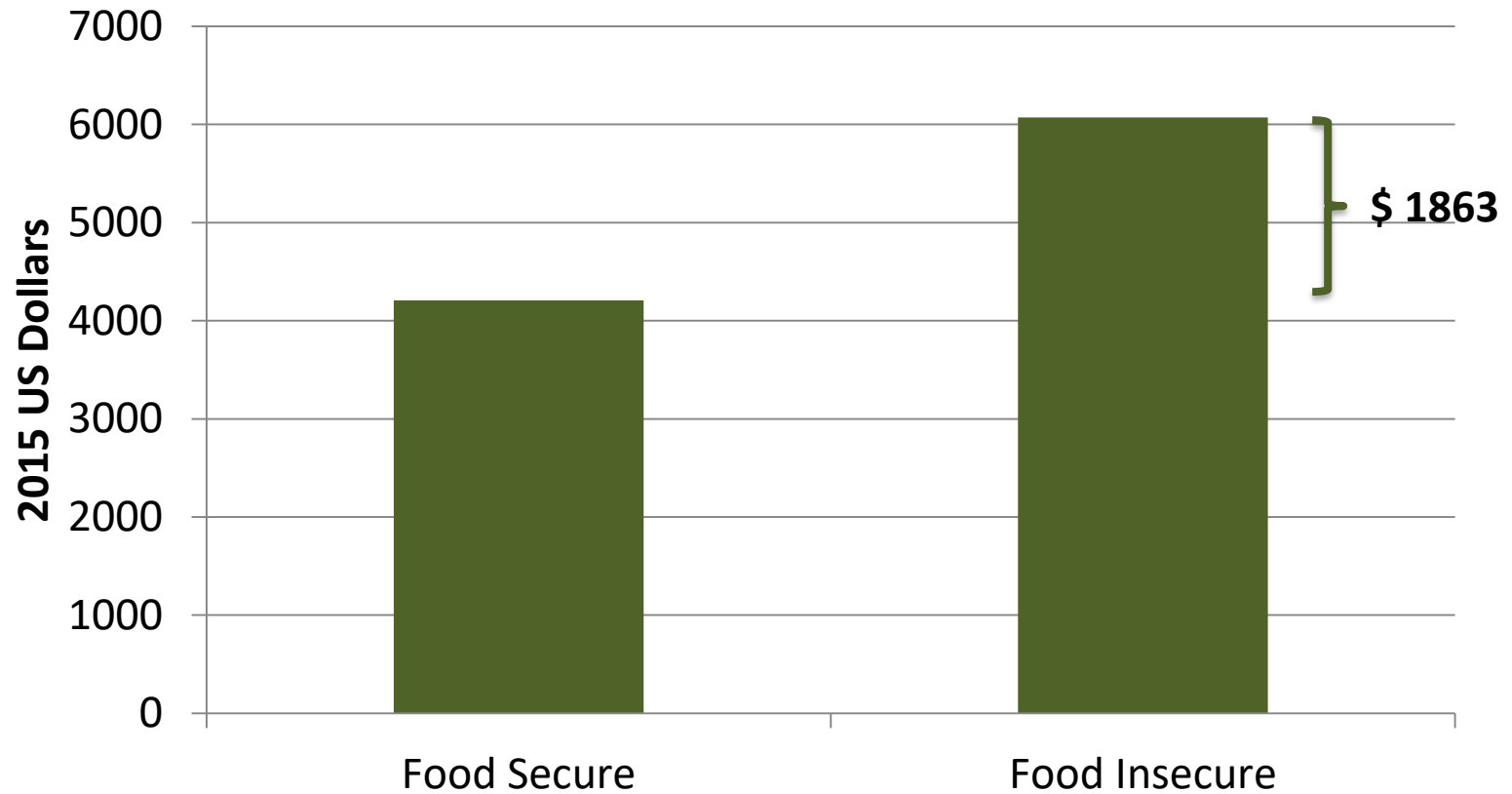
SNAP = Supplemental Nutrition Assistance Program.

Source: USDA, Economic Research Service using data from USDA, Food and Nutrition Service and U.S. Department of Labor, Bureau of Labor Statistics.

\$54 million averted

Emergency department and inpatient hospitalization costs *only* for commercially-insured adults between the ages of 19 and 64

Food Insecurity & Subsequent Annual Health Care Expenditures



NHIS-MEPS data adjusted for: age, age squared, gender, race/ethnicity, education, income, rural residence, and insurance.



\$77.5

billion

**additional health care
expenditures annually**

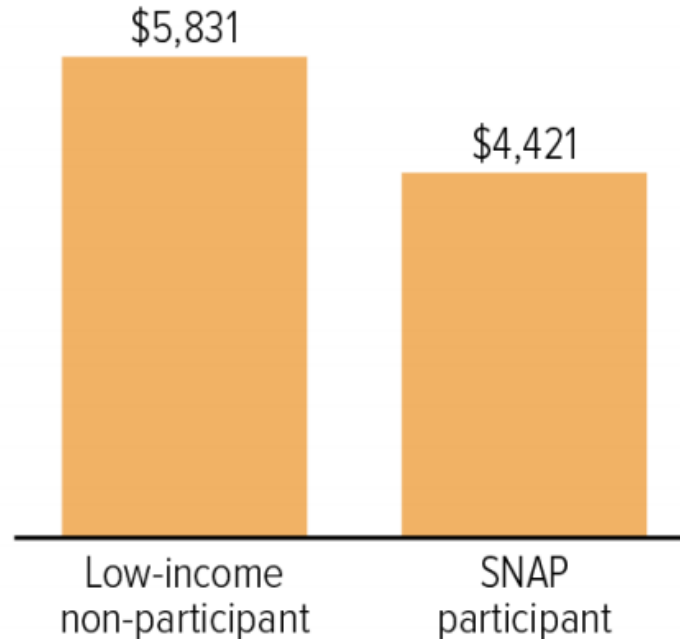


\$1,409
savings

FIGURE 10

A SNAP Participant Incurs \$1,400 Less for Health Care

Estimated annual per-person health care spending



Note: Health care spending includes out-of-pocket expenses and costs paid by private and public insurance, including Medicare and Medicaid.

Source: Seth Berkowitz, Hilary K., Seligman, and Sanjay Basu, "Impact of Food Insecurity and SNAP Participation on Healthcare Utilization and Expenditures," University of Kentucky Center for Poverty Research, 2017.

Why Talk About Costs?

- Hunger safety net designed to feed people, *not to save health care costs*
 - Strong incentives for health systems to reduce costs
 - Cost is a “common currency” that may align sectors: tension between traditional role of public health, health care, and social safety net
 - **Alignment of sectors helps drive policy**
- Documenting excess health costs may support **programs**
 - Programs can have an enormous impact

2018 Updates in Health and Food Insecurity: A Policy Focus

- Health care costs associated with food insecurity that may help drive policy
- **Clinical efforts to address food insecurity**
- Key policy initiatives for 2018 being discussed at federal, state, and local levels



Food Insecurity Screening Being Implemented in Varied Clinical Settings all Over the Country

- Most interventions include screening using the Hunger Vital Sign
- Clinicians should only screen if:
 - Condition is a significant public health problem
 - Screening must be safe & cost-effective
 - Screening identifies high % of people with the condition
 - Screening must be widely available (looking for population health impact)
 - Early detection prevents disease or improves health outcomes
 - Interventions responding to a positive screen must be widely available

Hunger Vital Sign:

2-item Clinical Screen for Food Insecurity

1. Within the past 12 months we worried whether our food would run out before we got money to buy more.
2. Within the past 12 months the food we bought just didn't last and we didn't have money to get more.

Often or sometimes (versus never) true to EITHER question suggests food insecurity (97% sensitivity, 83% specificity)

For test characteristics among households with children: Hager, Pediatrics, 2010.

For test characteristics among households without children, population-based:

Gundersen, PHN, 2017.

Screen and Intervene

Identification of food insecurity by positive clinical screen

Referral to entity managing connection to federal or community program

Enrollment in federal or community food program

Improved diet quality, food security, and clinical satisfaction

Improvement of health and utilization outcomes



Food Insecurity Screening Algorithm for Pediatric Patients

Preface Questions with:

"I ask all of my patients about access to food. I want to make sure that you know the community resources that are available to you. Many of these resources are free of charge."



Screening for Food Insecurity Using the Hunger Vital Sign™

Screening Parents or Caregivers of Young Children (0-11 yrs)

"For each statement, please tell me whether the statement was

Often True, Sometimes True, or Never True for your household in the past 12 months."

"Por cada una de las siguientes declaraciones, por favor indique si la declaración se aplica a su familia frecuentemente, a veces o nunca durante los últimos 12 meses."

- 1 "We worried whether our food would run out before we got money to buy more."
"Estábamos preocupados de que los alimentos se acabaran antes de que tuviéramos suficiente dinero para comprar más."
- 2 "The food we bought just did not last, and we did not have money to get more."
"Los alimentos que compramos no duraron mucho, y no teníamos suficiente dinero para comprar más."

Screening Adolescents (> 11 yrs)* (If possible, assess with confidential questions)

"For each statement, please tell me whether the statement was

Often True, Sometimes True, or Never True based on your experiences in the past 12 months."

"Por cada una de las siguientes declaraciones, por favor indique si la declaración se aplica a su familia frecuentemente, a veces o nunca durante los últimos 12 meses."

- 1 "I worried about not having enough to eat."
"Me preocupé sobre no tener suficiente que comer."
- 2 "I tried not to eat a lot so that our food would last."
"Traté de no comer mucho para que nuestra comida dure."

If Often True or Sometimes True to EITHER STATEMENT

STEP 1: Assess and treat, if indicated

- Growth parameters (underweight, overweight, and short stature)
- Problems with behavior and/or development
- Dental caries
- Iron deficiency
- Child or parent depression or anxiety
- Academic underperformance
- Asthma

STEP 2: Code for Food Insecurity

Z59.4: Lack of adequate food and safe drinking water

STEP 3: Refer to Food Resources

- Sustainable food resources may include:
 - SNAP: formerly Food Stamps
 - WIC: pregnant women & children <5 years old
 - School breakfast/lunch
 - Afterschool meals and snacks
 - Summer meals programs
- Emergency food resources may include:
 - Food pantries
 - Soup kitchens/free dining rooms
- Enroll in all eligible benefits (childcare assistance, Medicaid, TANF, etc.)

STEP 4: Follow-Up at Next Visit

Follow-up on referrals to food resources

www.nopren.org

Working Groups: Hunger Safety Net Clinical Linkages Resources



*Hunger Vital Sign: Hager E, Quigg A, Black M, Coleman S, Heeren T, Rose-John. Development and validity of a 2-item screen to identify families at risk for food insecurity. Pediatrics. 2010;126(1):e26-e32.

*Citation for adolescent questions: Fram MS, Frensillo EA, Draper CL, Fishbein EM. Development and Validation of a Child Report Assessment of Child Food Insecurity and Comparison to Parent Report Assessment. Journal of

Food Insecurity Screening Algorithm for Adults

Download the algorithm at: <http://bit.ly/foodinsecurityscreening>

Screen all adult patients at least once. Screen **high-risk** patients annually.
High-risk demographics: 50-65 years old, enrollment in Medicaid, socially isolated
High-risk clinical indicators: Frailty, malnutrition, unintentional weight loss, poor appetite, pressure ulcers, diabetes, depression or apathy, poor medication adherence and obesity



Screening for Food Insecurity Using the Hunger Vital Sign™

Preface Questions with:

"I ask all of my patients about access to food. I want to make sure that you know the community resources that are available to you. Many of these resources are free of charge."

"For each statement, please tell me whether the statement was

Often True, Sometimes True, or Never True for your household in the past 12 months."

"Por cada una de las siguientes declaraciones, por favor indique si la declaración se aplica a su familia frecuentemente, a veces o nunca durante los últimos 12 meses."

- 1 "I/We worried whether our food would run out before I/we got money to buy more."
"Estábamos (Estaba) preocupado(s) de que los alimentos se acabaran antes de que tuviéramos (tuviera) suficiente dinero para comprar más."
- 2 "The food I/we bought just did not last, and I/we did not have money to get more."
"Los alimentos que compramos (compré) no duraron mucho, y no teníamos (tenía) suficiente dinero para comprar más."

If **Often True** or **Sometimes True** to EITHER STATEMENT, patient is food insecure.

STEP 1: If food insecure, assess for co-existing risk factors for poor nutrition

- Poor food access (e.g., limited proximity or transportation to stores)
- Frailty or cognitive decline
- Dental problems
- Social isolation
- Lack of appetite (e.g., medication-related, palatability of disease-appropriate diet)
- Limited capacity to prepare food or feed oneself, particularly the inability to complete instrumental activities of daily living (IADLs)
- Lack of cooking or storage equipment

STEP 2: Code for Food Insecurity

Z59.4: Lack of adequate food and safe drinking water

STEP 3: Assess weight trajectory

STEP 4: Refer to Resources

- Sustainable food resources may include:
 - SNAP: formerly Food Stamps
 - Congregate meal sites
 - Home delivered meals (e.g., Meals on Wheels)
 - Medically-tailored meals
 - If children in household: child nutrition programs, like WIC or school meals
- Emergency food resources may include:
 - Food pantries
 - Soup kitchens/free dining rooms
- Enroll in all eligible household benefits (e.g., childcare assistance, Medicaid, utilities/transportation assistance, earned income tax credit, etc.)
- Patient assistance programs for support with medication costs

STEP 5: Follow-Up at Next Visit

- Referrals to resources
- Weight trajectory
- Food insecurity

www.nopren.org

Working Groups:
Hunger Safety Net
Clinical Linkages
Resources



Screening for Food Insecurity Using the Hunger Vital Sign™

Preface Questions with:

"I ask all of my patients about access to food. I want to make sure that you know the community resources that are available to you. Many of these resources are free of charge."



"For each statement, please tell me whether the statement was

Often True, Sometimes True, or Never True for your household in the past 12 months."

"Por cada una de las siguientes declaraciones, por favor indique si la declaracion se aplica a su familia frecuentemente, a veces o nunca durante los últimos 12 meses."

- 1 "I/We worried whether our food would run out before I/we got money to buy more."
"Estábamos (Estaba) preocupado(s) de que los alimentos se acabaran antes de que tuviéramos (tuviera) suficiente dinero para comprar más."
- 2 "The food I/we bought just did not last, and I/we did not have money to get more."
"Los alimentos que compramos (compré) no duraron mucho, y no teníamos (tenía) suficiente dinero para comprar más."

If **Often True** or **Sometimes True** to EITHER STATEMENT, patient is food insecure.

STEP 1: Clinical Management

Prioritize medications with lower risk for hypoglycemia

- Metformin, if clinically appropriate
- If using sulfonylureas: glipizide preferred immediately before meals (skip if not eating)
- If using long-acting insulin: dose low using a peakless analog (e.g., glargine)
- If using short-acting insulin: deliver by pen if possible; OK to use immediately after meal if meals are unreliable
- Prescribe glucose tabs

STEP 2: Gather Supportive Clinical Data

- Hyperglycemia and hypoglycemia frequency, patterns, and management skills
- Adherence to and affordability of medications and supplies
- Depression and anxiety
- Social support
- Dietary intake, sleep, and physical activity

STEP 3: Patient Education

- Medication Management:
 - Days with unreliable or inadequate food access may require lower medication doses
 - Medication schedules should be defined by when patient eats rather than time of day
- Diet Counseling: Emphasize cost-neutral strategies, such as reducing carbohydrate portion size
- Ensure patient has refrigeration for insulin
- Smoking cessation (tobacco products divert money from food budget)

STEP 4: Refer to Resources

- Sustainable food resources may include:
 - SNAP: formerly Food Stamps
 - Congregate meal sites
 - Home delivered meals (e.g., Meals on Wheels)
 - Medically-tailored meals
 - If children in household: child nutrition programs, like WIC or school meals
- Emergency food resources may include:
 - Food pantries
 - Soup kitchens/free dining rooms
- Enroll in all eligible household benefits (e.g., childcare assistance, Medicaid, utilities/transportation assistance, earned income tax credit, etc.)
- Patient assistance programs for support with medication costs

STEP 5: Code for Food Insecurity

Z59.4: Lack of adequate food and safe drinking water

STEP 6: Follow-Up at Next Visit

- Referrals to resources
- Weight trajectory
- Hypoglycemic episodes
- Food insecurity

*Hager E, Quigg A, Black M, Coleman S, Heeren T, Rose-Jacob. Development and validity of a 2-item screen to identify families at risk for food insecurity. *Pediatrics* 2010;124(1):e26-e32.
Gundersen C, Engelhardt EE, Crumbough AS, Seligman HK. Brief assessment of food insecurity accurately identifies high-risk US adults. *Public Health Nutr.* 2017 Feb 20;1-5. PubMed PMID: 28215190.

This tool is the work of the Nutrition and Obesity Policy Research and Evaluation Network's (NOPREN) Hunger Safety Net Clinical Linkages Workgroup funded by the Prevention Research Centers at the Centers for Disease Control and Prevention. Content does not necessarily represent the official position of CDC or DHHS.

www.nopren.org

Working Groups: Hunger Safety Net Clinical Linkages Resources



So what is a health partner to do?

1. *Implementing on-site initiatives*
2. Clinical initiatives – Screening for food insecurity and referring to community based partners (there are good new studies on screening in suburbia!)
3. Engaging actively in community advocacy and policy development
 - Participating in community coalitions, like your local food policy council
4. Financing community initiatives that your patients are using to address their dietary needs, either through community benefits or operating funds
5. Modelling the importance of food security and health for the community – attractive, healthy foods in cafeteria are affordable
6. Intentionally hiring from neighborhoods at highest risk and supporting career growth and leadership opportunities



On-Site Initiatives: A Spectrum

- Educating clinicians and health care staff about screening
- Onsite food distribution
 - Food Pharmacy (“Farmacy”) permanently located at hospital or clinic, stocked and/or staffed by Food Bank
 - Mobile food distributions at hospital or clinic
 - Take-home meals provided at discharge
- Meal programs onsite
 - Summer Food Service Program
 - Congregate Meal Site
- On-site SNAP enrollment assistance during clinic visit or hospitalization



IDENTIFYING & ADDRESSING FOOD INSECURITY AT A HEALTHCARE SITE



Screen and Intervene

Identification of food insecurity by positive clinical screen

Referral to entity managing connection to federal or community program

Enrollment in federal or community food program

Improved diet quality, food security, and clinical satisfaction

Improvement of health and utilization outcomes



2018 Updates in Health and Food Insecurity: A Policy Focus

- Health care costs associated with food insecurity that may help drive policy
- Clinical efforts to address food insecurity
- **Key policy initiatives for 2018 being discussed at federal, state, and local levels**

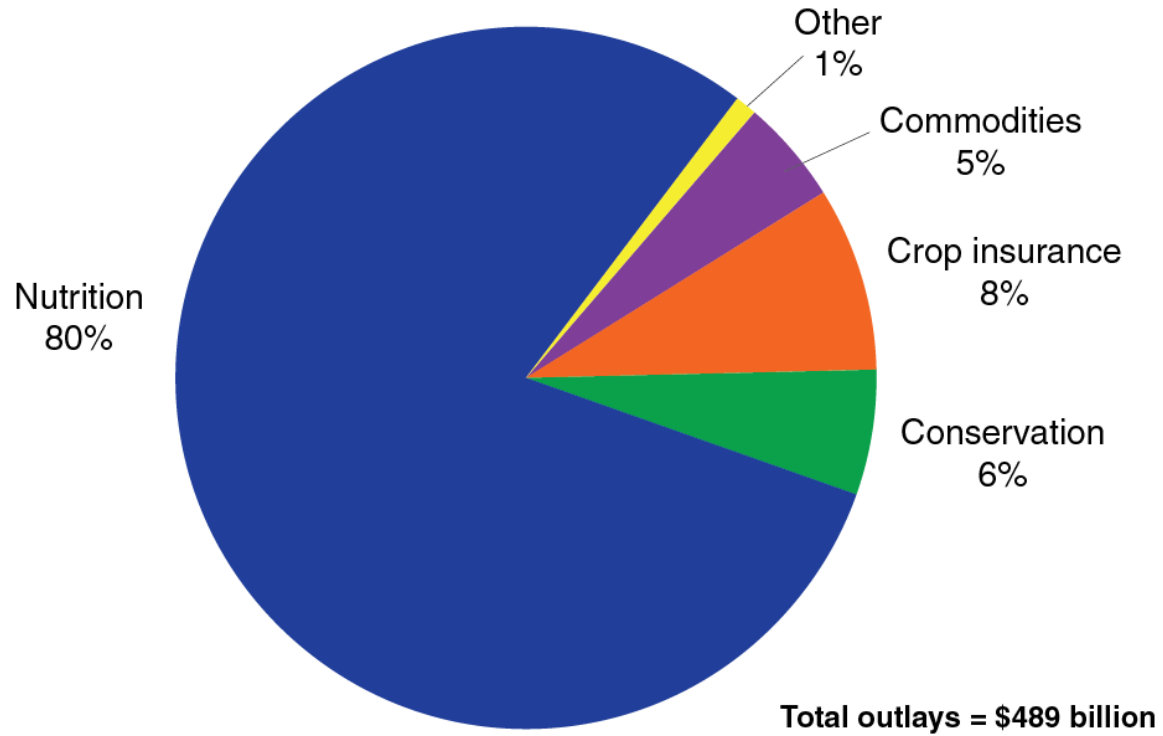


Federal Update—A Caveat

I am writing this slide on Monday. It may be completely outdated and irrelevant by Friday..



Projected outlays under the 2014 Farm Act, 2014-2018



Source: USDA Economic Research Service using data from Congressional Budget Office, Cost Estimates for the Agricultural Act of 2014, Jan 2014.



Federal Update—Farm Bill 2018

- House version released last week
- More than 2X money for FINI grants (F/V intake among SNAP recipients)
- Eligibility restrictions: ABAWD time limits, work requirements, ending broad based categorical eligibility
 - Not in current version: drug testing, America's Harvest Box
- Administrative: Many proposals would hurt Cal-Fresh in particular, big changes in administration of SNAP-Ed
- “Protect and defend”



State Policy Update

- SSI disqualifies from SNAP benefits
- Safe drinking water for CalFresh households
- UC + other college campuses
- School meals direct certification
- Charter school lunches
- School meals in ECE settings



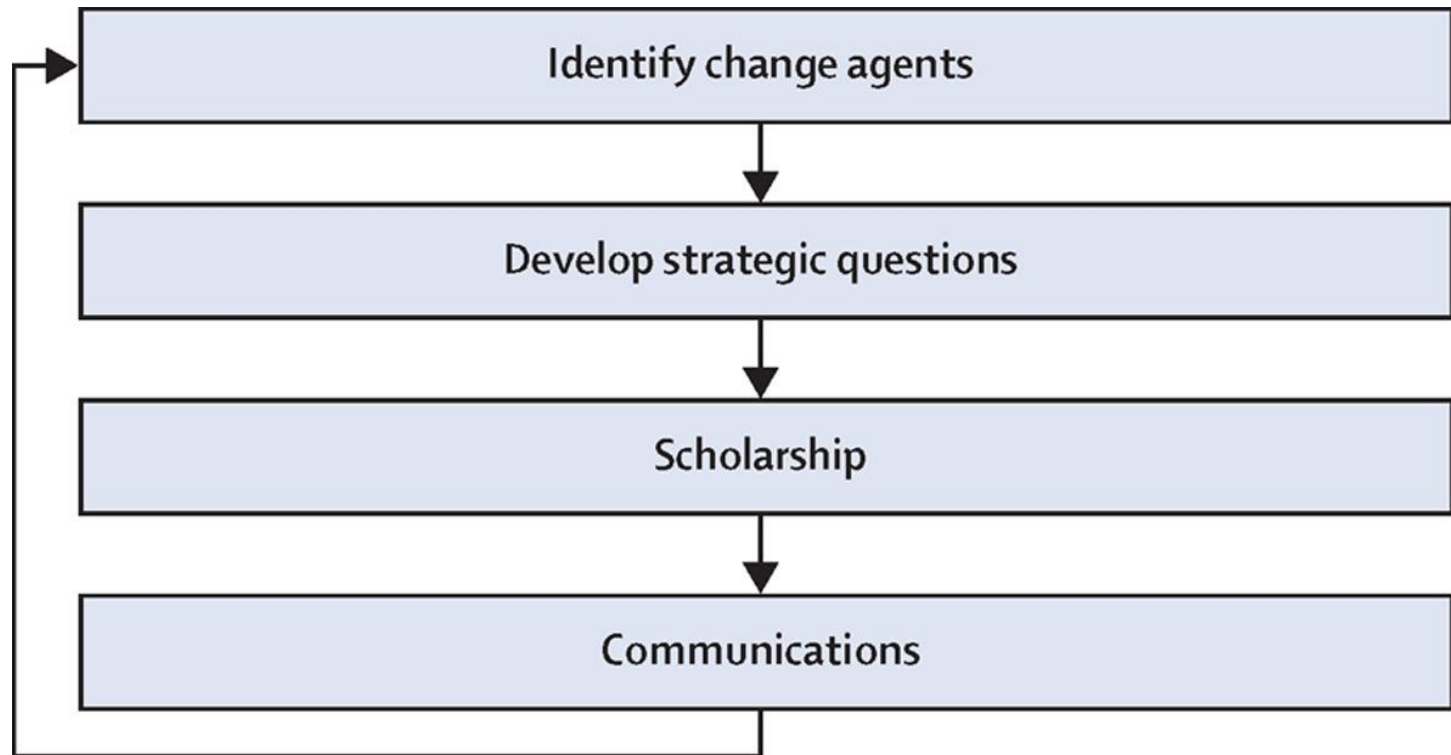
Local Policies with \pm Momentum

- Boosting CalFresh enrollment
- Fruit and vegetable voucher programs
- Food insecurity on college campuses
 - Systems solutions
- Broader anti-poverty initiatives, like affordable housing



Strategic science with policy impact

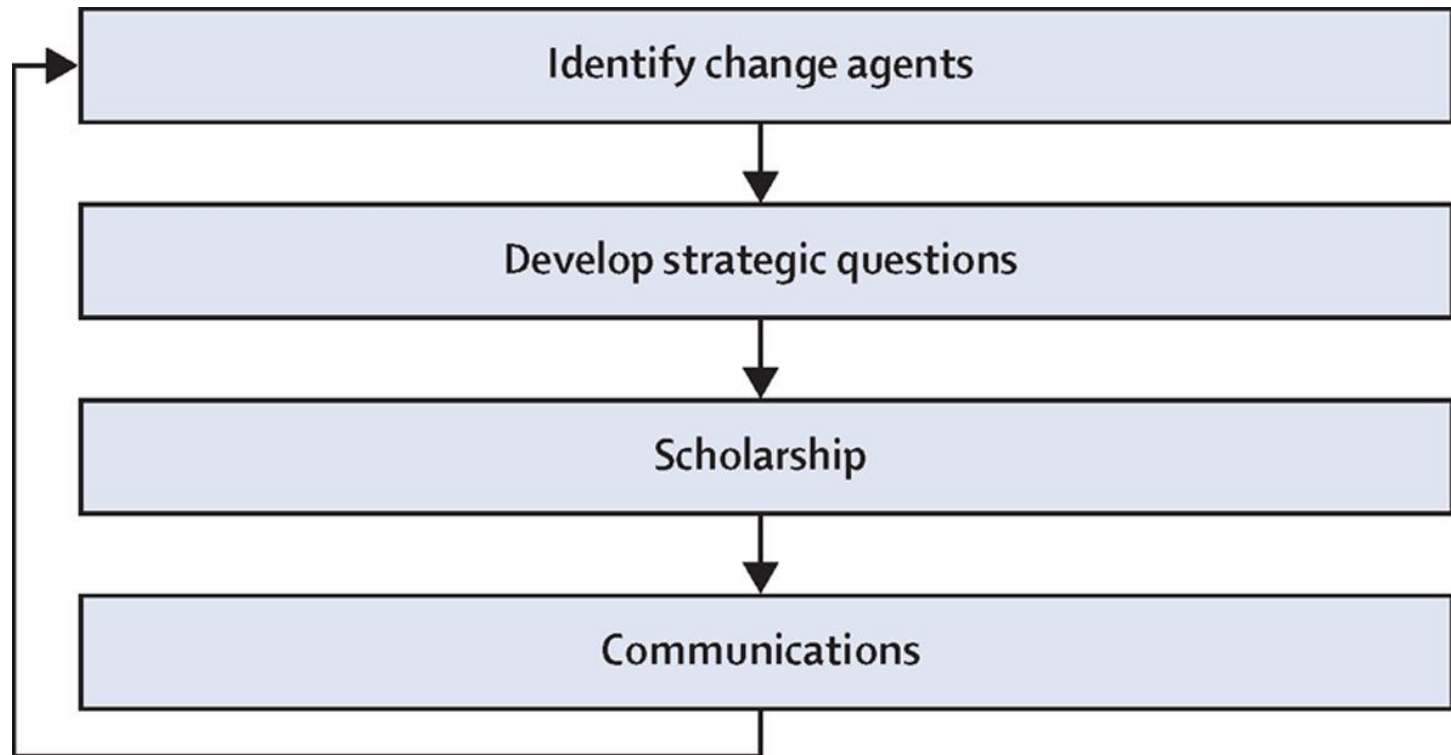
Kelly Brownell & Christina Roberto, 2015



THE
LANCET

Strategic science with *advocacy* policy impact

Kelly Brownell & Christina Roberto, 2015



THE
LANCET

Thank You!

