



Prioritizing Nutrition Security: Emerging Approaches in Research and Practice



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NIFA's Nutrition Security Webinar Series

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Join USDA's National Institute of Food and Agriculture (NIFA) for its new virtual Nutrition Security Webinar Series. The series will feature speakers across a range of backgrounds and disciplines as they lead discussions about nutrition security during and beyond the COVID-19 pandemic.

BACKGROUND

Food and Nutrition Security in the United States

Today's Panelists



Dariush Mozaffarian, MD, DrPH

Dean

**Friedman School of Nutrition Science & Policy
Tufts University**



Emily Engelhard, MA

**Managing Director of Thought Leadership in
Research
Feeding America**

Panelists' bios available at –

<https://nifa.usda.gov/program/nifa-nutrition-security-webinar-series>

Today's Panelists

Los Angeles County Public Health Nutrition & Physical Activity Program Team



Julia Caldwell, PhD, MPH
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Dipa Shah-Patel, MPH, RD
Director



Kelly Warner, MPH, RD
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COUNTY OF LOS ANGELES
Public Health

Panelists' bios available at –
<https://nifa.usda.gov/program/nifa-nutrition-security-webinar-series>

Today's Panelists



Angela Odoms-Young, PhD
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College of Human Ecology
College of Agriculture and Life Sciences
Cornell University



Nutrition Security: Need, Definitions, and Evolving Concepts

Dariusz Mozaffarian, MD, DrPH

Dean

Jean Mayer Professor of Nutrition & Medicine

National Institute of Food and Agriculture (NIFA)

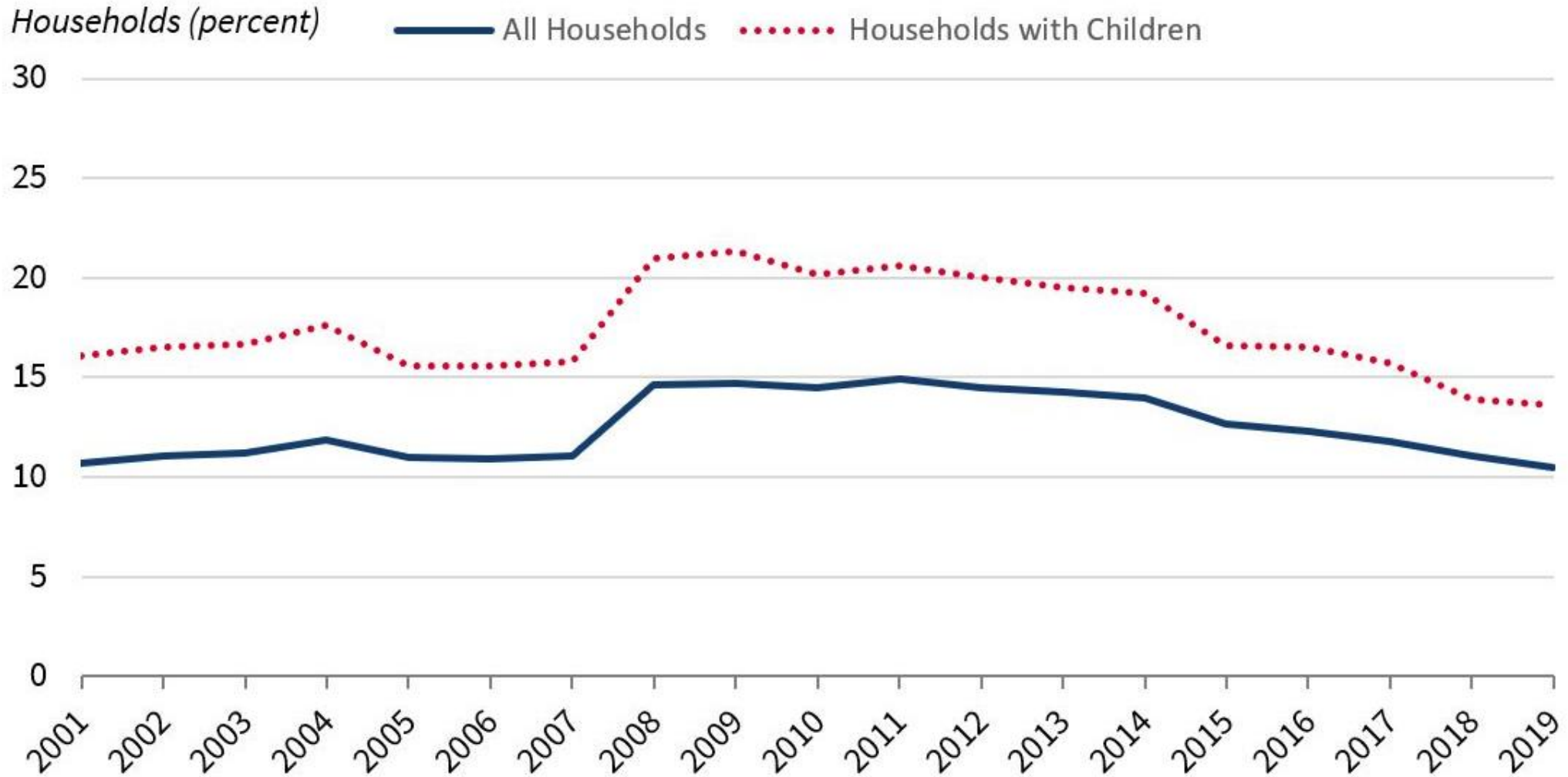
Nutrition Security Webinar Series

September 21, 2021



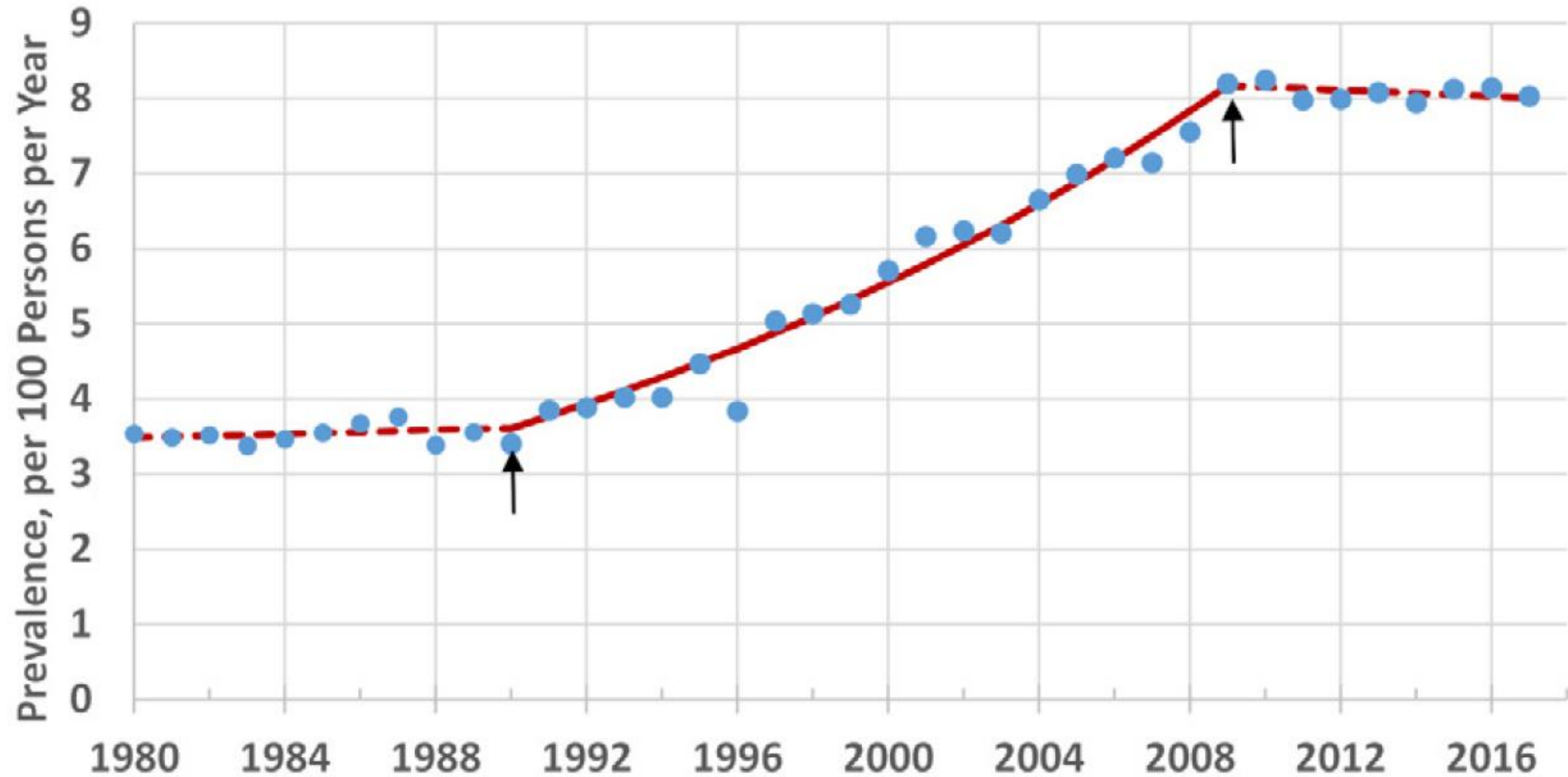
Gerald J. and Dorothy R.
Friedman School of
Nutrition Science and Policy

Trends in US Food Insecurity, 2001-2019



Source: USDA ERS – Interactive Charts and Highlight

Trends in US Diabetes, 1980-2016



Source: USDA ERS – Interactive Charts and Highlight

Diet-Related Disease in the U.S.

- More Americans are **sick** than are healthy
 - **Half** of adults have **diabetes or prediabetes**.
 - **More than half** have **cardiovascular disease**, causing 841,000 deaths each year – **2,300 deaths each day**.
 - **3 in 4** adults are **overweight or obese**.
 - Only **12%** of adults are **metabolically healthy**.
- **Tremendous economic costs**
 - Healthcare costs have skyrocketed **from** :
 - **5%** to **28%** of federal and **29%** of state budgets
 - **\$79 billion** to **\$1,180 billion** for US businesses
 - **>11,000/year** per man, woman, and child in the US

Centers for Medicare & Medicaid Services, 2018

American Heart Association, *Heart Disease and Stroke Statistics*, 2018

The Milken Institute, *America's Obesity Crisis*, 2018

True Cost of Food in the United States (\$B/year)



True Cost of Food: Measuring What Matters to Transform the U.S. Food System. The Rockefeller Foundation 2021
<https://www.rockefellerfoundation.org/wp-content/uploads/2021/07/True-Cost-of-Food-Full-Report-Final.pdf>



Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy

Nutrition Security

Nutrition security: Consistent access, availability, and affordability of foods and beverages that promote well-being and prevent (and if needed, treat) disease.

- A focus on “food insecurity” has helped address problems of food access and affordability over the last 25 years.
- But, food *quality* – nutrition – has been underemphasized, with large and rising disparities in diet-related diseases.
- A shift to a broader, more holistic focus on “nutrition insecurity” is the next natural evolution to help us promote equitable well-being for all Americans.

Nutrition Security

“Our nation suffers from nutrition insecurity. We must do more to ensure access to the nutritious foods that can protect and promote health.”

- Secretary Tom Vilsack, Senate Confirmation Hearing

“It’s a very large problem we have to address,” Vilsack said, adding, “We cannot have the levels of obesity, diabetes and chronic disease that we have. It will literally cripple everything we’re trying to do as a country.”

Diabetes is directly linked to both food insecurity and nutrition insecurity, he said, making it incumbent upon the USDA to “modernize our nutrition security and food security systems,” Vilsack said, adding, “We’re dealing with twin issues.”

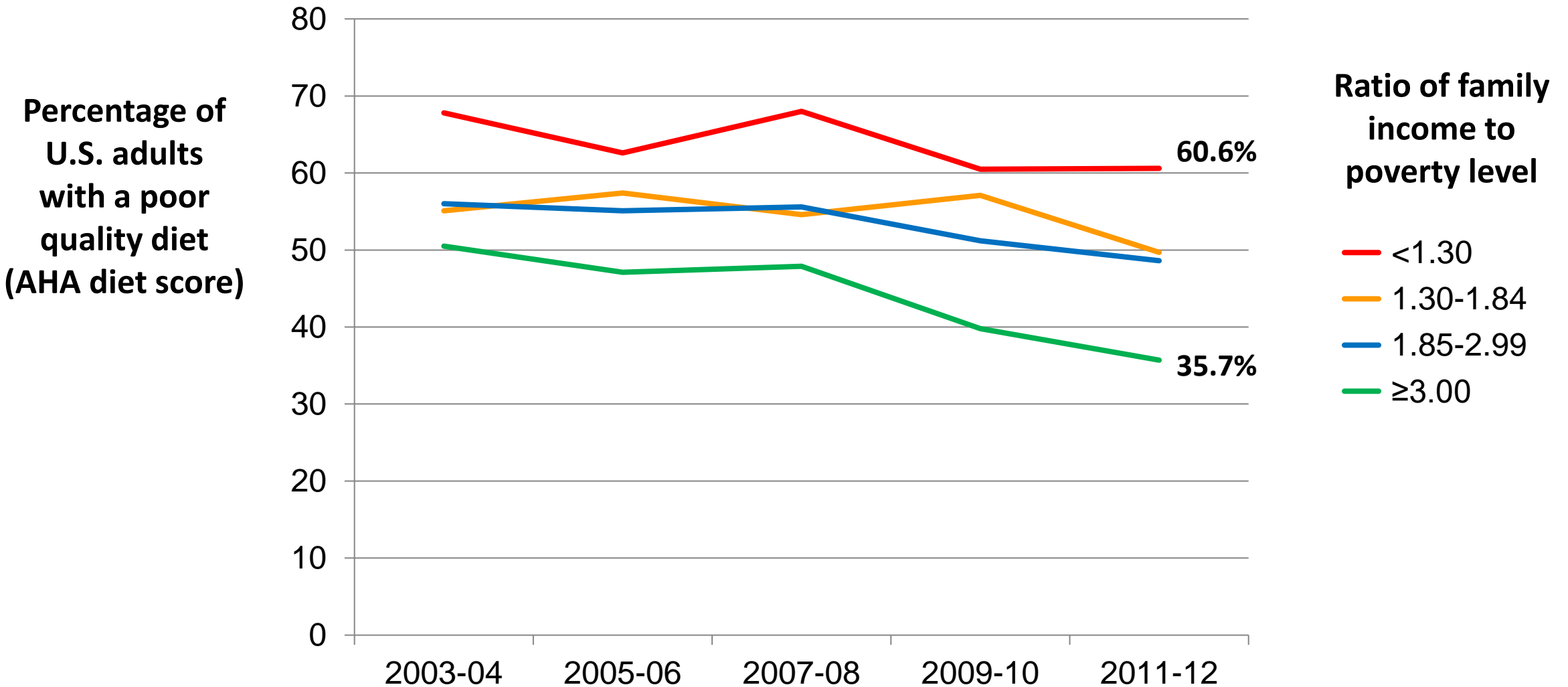
Senate Confirmation Hearing, Feb 3, 2021

National Press Foundation Address, Mar 5, 2021

Food Bank News, Mar 5, 2021

Major Nutritional Disparities

Percent of U.S. adults with poor nutritional quality, by income



Measuring Food Insecurity

- “The food that I/we bought just didn’t last, and I/we didn’t have money to get more.” Was that often, sometimes, or never true for you in the last 12 months?
- “I/we couldn’t afford to eat balanced meals.” Was that often, sometimes, or never true for you/your household in the last 12 months?
- In the last 12 months, did you/your household ever cut the size of your meals or skip meals because there wasn't enough money for food?
 - If yes, how often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
- In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?
- In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?

Measuring Nutrition Insecurity ?

- **Thinking about the last 12 months, how hard was it for you to regularly obtain and eat nutritious foods that support your health and well-being?**
 - a. Very hard
 - b. Hard
 - c. Somewhat hard
 - d. Not very hard
 - e. Not hard at all

[If respondent lives with others]

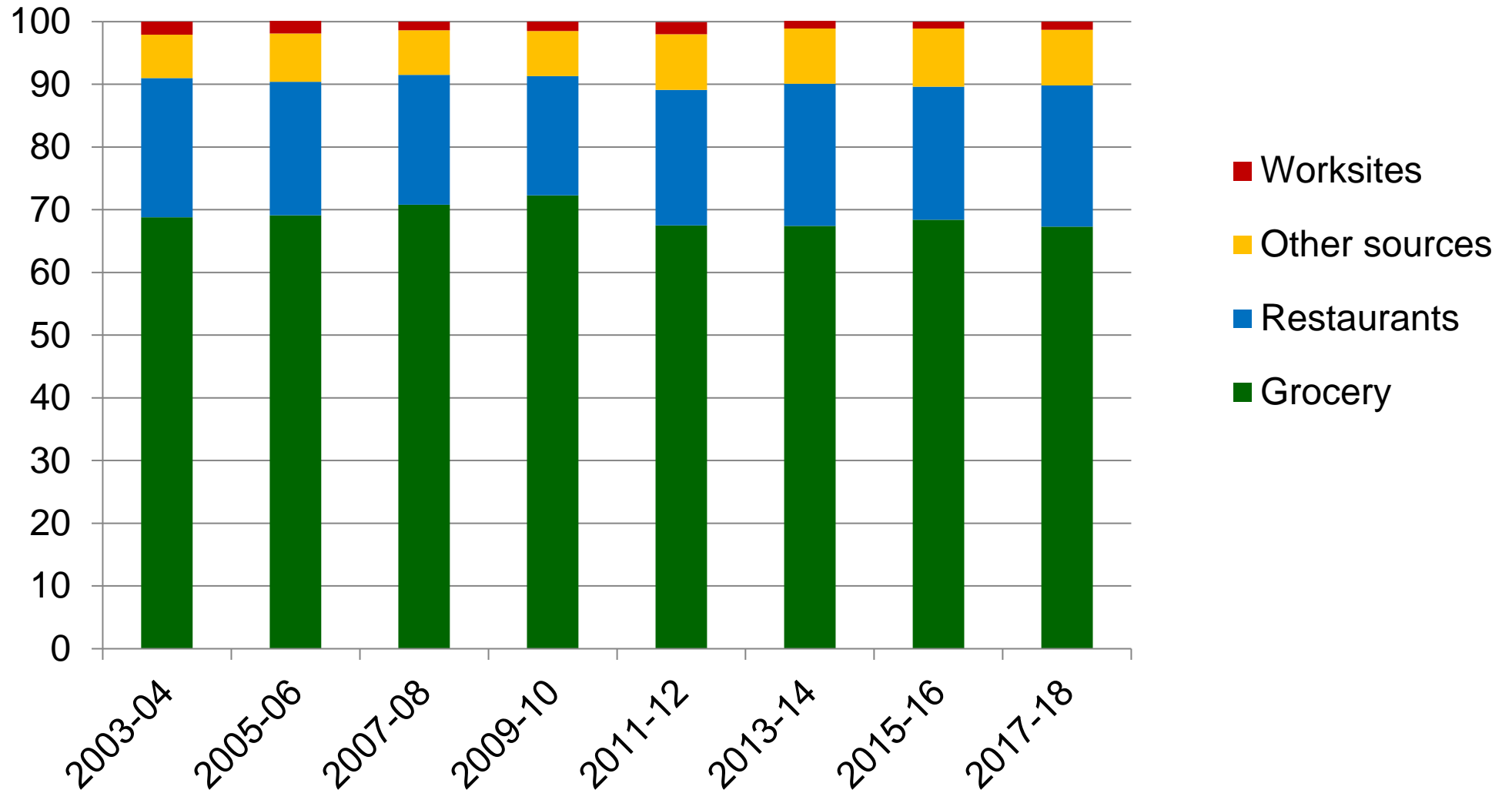
- **Thinking about the last 12 months, how hard was it for you to regularly obtain and eat nutritious foods that support your family's health and well-being?**

“Best Buy” Policy and Systems Innovations

Science & Innovation	Healthcare	Economic Incentives	Schools	Worksites	Standards and Labeling
<ul style="list-style-type: none"> • National Institute of Nutrition (NIN) • Public-private partnerships • Fundamental discovery • Big data, technology 	<ul style="list-style-type: none"> • Medically tailored meals • Produce Prescriptions • Nutrition education for providers • Nutrition in the EHR • Billing & quality metrics 	<ul style="list-style-type: none"> • Govt feeding programs (SNAP, WIC) • Tax policy for food/nutrition innovation • ESG metrics, investor vehicles • B Corps • Taxes on SSBs, sugar, salt • Retail incentives 	<ul style="list-style-type: none"> • School meal standards • Competitive food standards • Breakfast in the classroom, summer meals • Fresh F&V programs • School gardens 	<ul style="list-style-type: none"> • Procurement standards • Behavioral economics • Technology wellness platforms • Wellness incentives for healthy food 	<ul style="list-style-type: none"> • Additives (trans fat, salt, sugar) • FOP, menu, and warning labels • Marketing to children • Qualified health claims

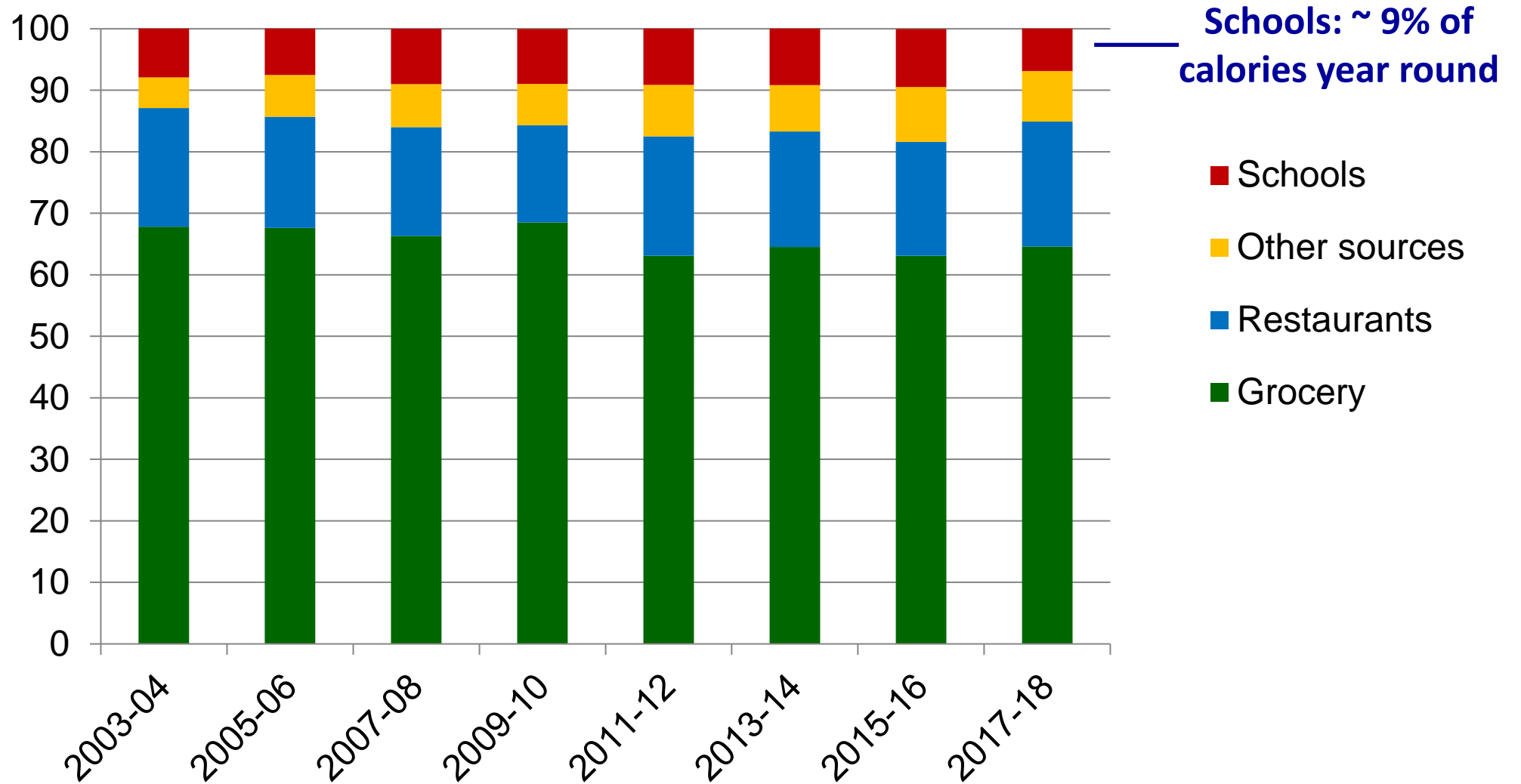
Sources of Calories Among US Adults, 2003-2018

Percentage of daily calories from different food sources, US adults



Sources of Calories Among US Children, 2003-2018

Percentage of daily calories from different food sources, US children



Addressing Food and Nutrition Insecurity: A Reimagined Food System

- **Leverage Federal Nutrition Programs**
- **Food as Medicine in Healthcare**
- **FDA Standards and Excise Taxes**
- **Public Health Infrastructure**
- **Science and Innovation**
- **Catalyze the Private Sector**
- **Federal Food Policy Coordination**

Measuring Nutrition & Health in the Charitable Food System

Emily Engelhard

September 27, 2021

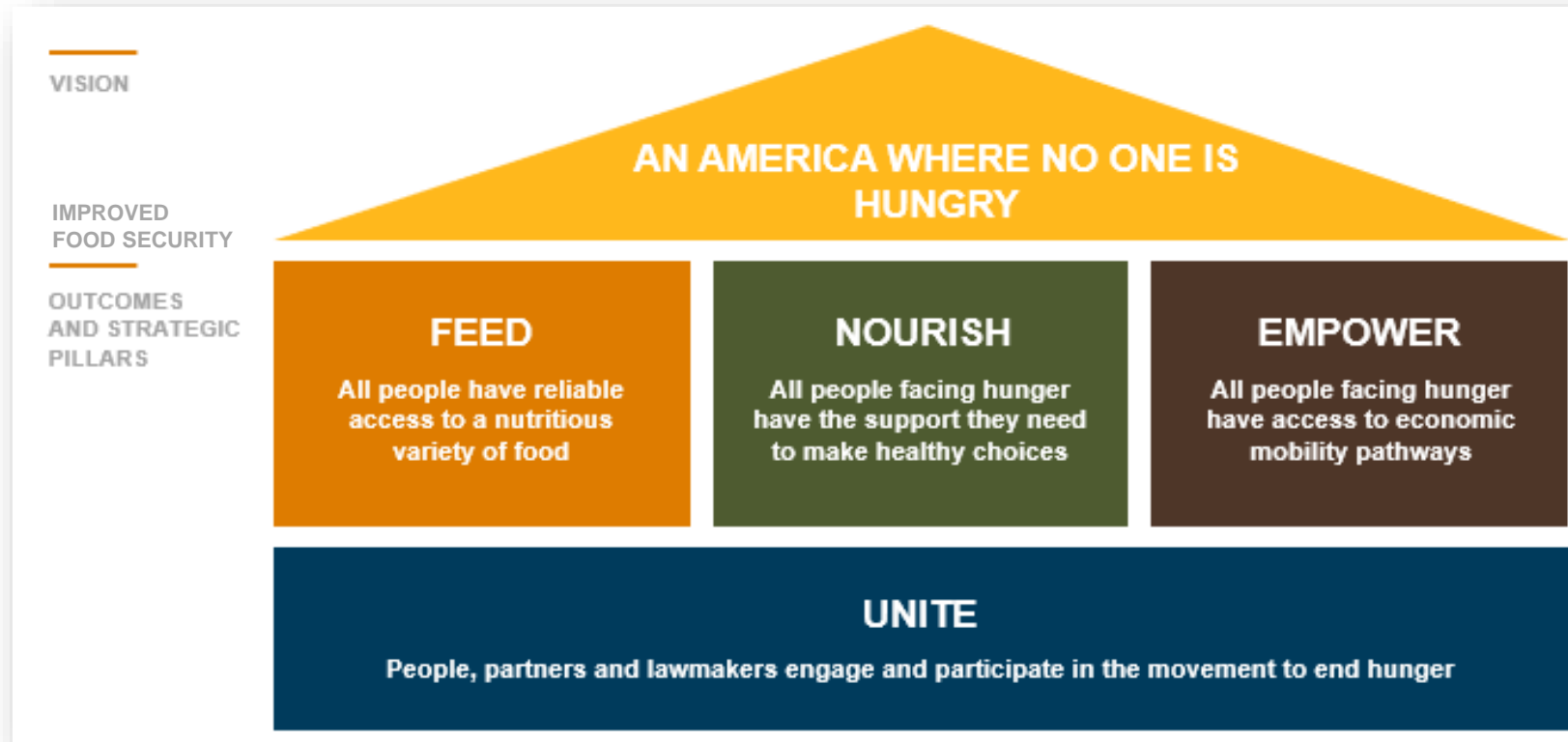
NIFA webinar

Prioritizing Nutrition Security:

Emerging Approaches in Research and Practice

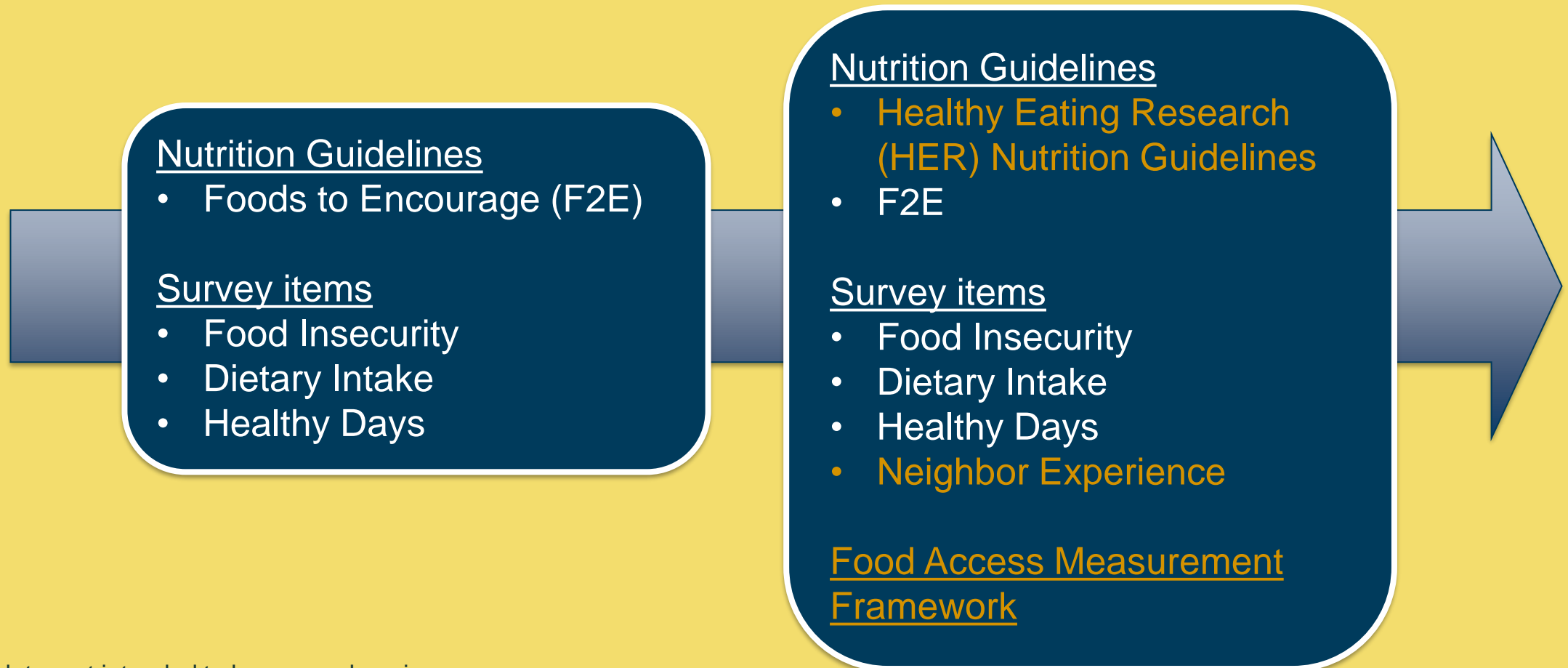


Our mission is to advance change in America by ensuring **equitable access to nutritious food** for all in partnership with food banks, policymakers, supporters, and the communities we serve.



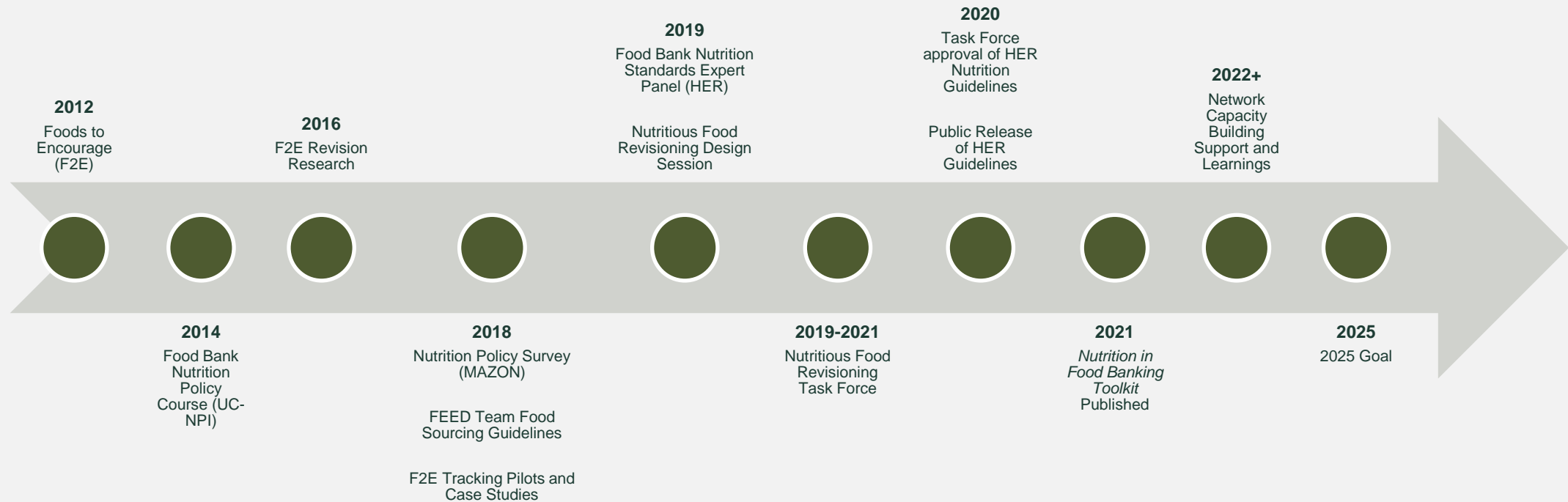
Evolution of nutrition & health measurement over time

Goal: to improve access, selection, and consumption of nutritious, culturally inclusive foods with and within communities served



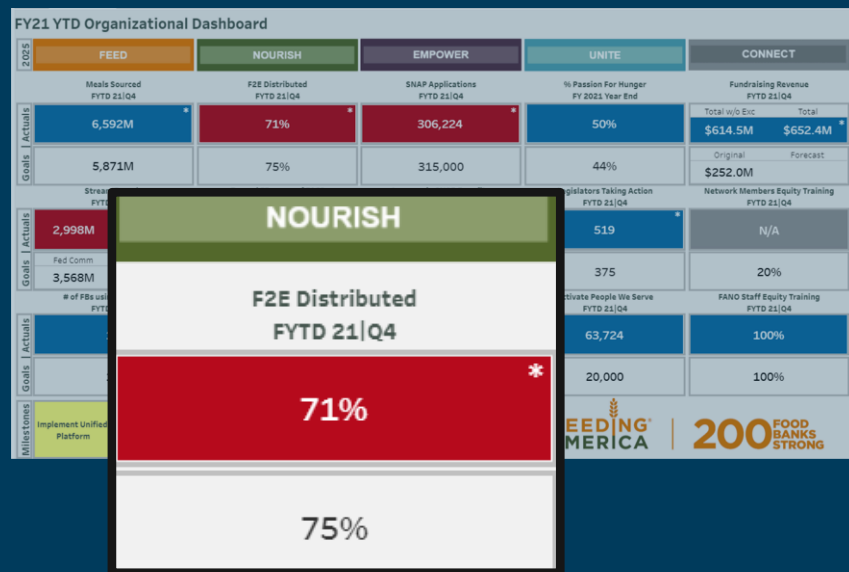
Note: not intended to be comprehensive.

Deeper dive on nutrition guidelines



From Foods to Encourage (F2E)

to Healthy Eating Research (HER) Nutrition Guidelines



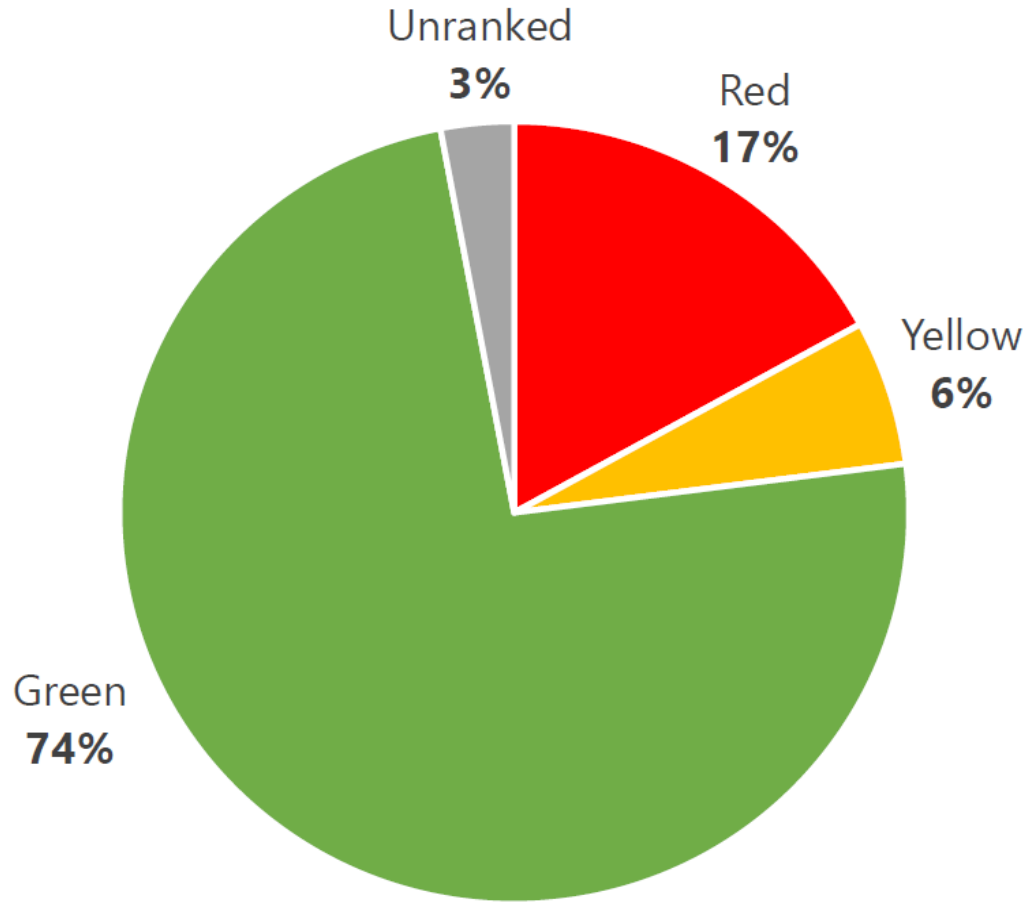
HER ranking	Pounds distributed
Choose often	XXX lbs
Choose sometimes	YYY lbs
Choose rarely	ZZZ lbs

Improved data can better inform food bank sourcing and distribution strategies

Implementation of HER Nutrition Guidelines to drive donor conversations

EXAMPLE

Total Donations – July – December 2020



Total pounds donated:
3,124 lbs

- Green ranked food: **2,313 lbs**
- Yellow ranked food: **195 lbs**
- Red ranked food: **533 lbs**
- Unranked food*: **82 lbs**

Green and Yellow ranked foods make up
80% 
of all your donations for this period.

**Unranked foods: Some donated items go directly to our partner programs or do not go through sortation. We cannot determine the nutrient content of these items.*

Charitable Food Access Measurement Framework

Food access is **multi-dimensional**, suggesting a measurement framework that fosters capacity-building across more than one measure, including:

Access for Non-Participants: Awareness and Comfort

Community members in need who are not seeking services facing barriers to access

- High level metric: field 2 survey questions to non-participants
- In-depth follow-up: targeted interviews with non-participants



Community-Level Access: Mapping Need & Service

Mapping proximity-based measures using admin. data on charitable food access & need

- High level metric: mapping main measure of high-need, low access communities
- In-depth follow-up: layering additional data of interest



Client Experience: Direct Neighbor Input

Experience of access among participants of the charitable food system

- High level metric: 6-item module
- In-depth follow-up: targeted community needs assessment

Client Experience 6-item Module

NOT FINAL

1. How often have you wanted to go to a site for free meals/groceries but have been unable to go because they weren't open? [Never, Rarely, Sometimes, Often, Always]
2. How often have you had trouble accessing free meals/groceries because you did not have easy access to a car or public transit, couldn't afford gas/fare, or had trouble carrying your food home? [Never, Rarely, Sometimes, Often, Always]
3. How long does it typically take you to get to a site for free meals/groceries? [30 minutes or less, 31 minutes to 1 hour, More than 1 hour but less than 2 hours, More than 2 hours]
4. How long does it typically take to get your food from the time that you arrive at a site to the time you leave, including waiting in line and filling out any paperwork? [30 minutes or less, 31 minutes to 1 hour, More than 1 hour but less than 2 hours, More than 2 hours]
5. How often can you get the variety and types of foods that you need or want? [never, rarely, sometimes, often, always]
6. Have you ever felt that a staff member or volunteer at a site judged you because of your personal circumstances or other reasons? [strong yes, yes, no, strong no, don't know or prefer not to answer]

Why Does Understanding and Meeting Neighbor Food Needs and Preferences Matter?



It's about **dignity, respect, and expanding choice and equitable access**...seeing our neighbors and ourselves in our wholeness.

Needs and preferences are based on **more than just nutrients**. They're also informed by culture, geography, family traditions, historical food access, religion, medical needs, and taste.

People experiencing food insecurity face **several barriers to "healthy" dietary intake** that exacerbate vulnerability to chronic diseases; many of these barriers stem from structural and institutional racism and community disinvestment.

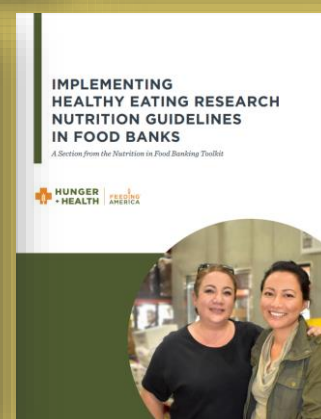
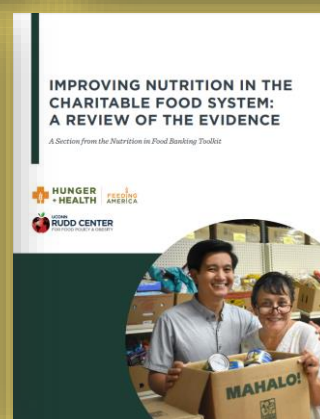
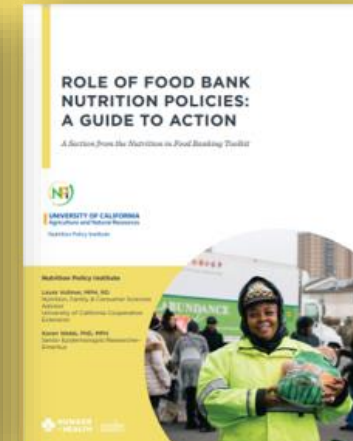
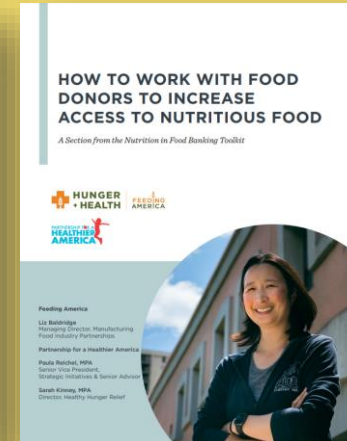
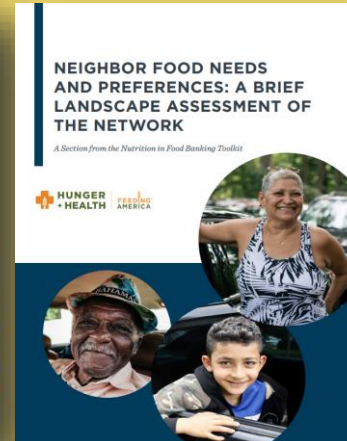
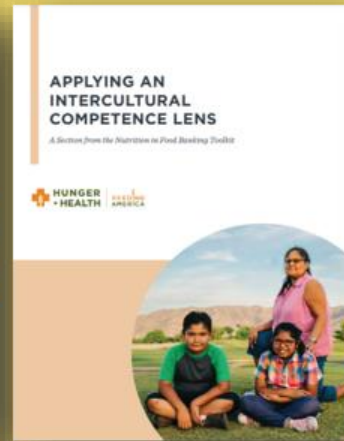
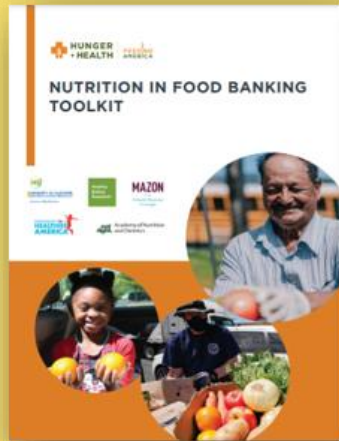
Food from food banks and food pantries is an **important contributor to dietary intake** in many households.

Increasing access and consumption of healthy foods is a **priority across the charitable food system**.

With understanding comes **clearer awareness** of trade-offs and ROI when aiming to meet the need (e.g., strategy, sourcing, capacity, cost, data, donor, and messaging decisions)

Nutrition in Food Banking Toolkit: Editions 1 & 2 (Summer 2021)

> Aimed at supporting network capacity and knowledge to improve access, selection, and consumption of nutritious, culturally inclusive foods with and within communities served



Questions?

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Health & Nutrition Department

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Resources

[Learn more at HungerandHealth.org](https://www.hungerandhealth.org)

[FeedingAmerica.org](https://www.feedingamerica.org)





Assessing Nutrition Security in Los Angeles County

Los Angeles County Department of Public Health

Nutrition and Physical Activity Program



Snapshot of Los Angeles County

- 10 million residents
- 4,753 square miles
- 36.6% are SNAP-Ed eligible
- 70% of SNAP-Ed eligible adults are overweight or obese, as compared to 63% of adults overall



[Image retrieved from: 2020 Census: Counting Los Angeles County - PublicPolicyInstitute of California \(ppic.org\)](#)

The racial/ethnic breakdown is:

48.4% Latino

28.3% White

14.4% Asian

8.5% African American



Nutrition and Physical Activity Program

Mission

To advance good nutrition practices and physical activity for all persons in LA County

Organizational Structure

Housed in the Division of Chronic Disease
and Injury Prevention

Funding

SNAP-Ed- \$13.6 million

Gus Schumacher Nutrition Incentive Program- \$1,562,500

Productivity Investment Fund- \$300,000

Monitoring and Surveillance of Food Insecurity

Social Determinants of Health Rising Food Insecurity in Los Angeles County



July 2015



FOOD INSECURITY IN LOS ANGELES COUNTY

Introduction

Most Americans are able to consistently access and purchase high quality, nutritious food to live a healthy life. Nonetheless, recent data from 2016 demonstrate that approximately 12.3% of U.S. households remain food insecure, which means that they face barriers at some time during the year to purchasing healthy foods like fruits, vegetables, lean meats, and foods high in fiber.¹ Food insecurity is more likely to occur among racial and ethnic minorities and low-income communities.² The United States Department of Agriculture (USDA) considers a household to be food insecure if it experiences either:

1. Low food security – reports a reduction in the quality, variety, or desirability of diet with little to no indication of reduced food intake, or
2. Very low food security – reports of multiple indications of disrupted eating patterns and reduced food intake³

Families and individuals in food insecure households often have poor diets because they resort to buying less expensive foods that are high in calories but lacking in nutritional value. For instance, they are more likely to eat in fast food restaurants where

foods are served in greater portions and are higher in salt, saturated fat, and added sugar.⁴ Thus, they are also at increased risk for poorer health in the long run, as excess intake of calories, salt, saturated fat, and added sugar increases the risks for many chronic health conditions, including high blood pressure, obesity, diabetes, heart disease, stroke, and many types of cancer.^{5, 6, 7}

Food insecurity during childhood can lead to delayed development, diminished academic performance, impaired social skills, and early onset of obesity.⁸ It is especially important for children to not skip meals and to be supported in making healthy food choices early in their development. Doing so may help them sustain healthy eating habits and maintain optimal health and well-being throughout their lifetimes.

To assess trends in the status of food insecurity in households with incomes less than 300% of the federal poverty level (FPL) in Los Angeles County, four cycles of the Los Angeles County Health Survey, from 2002 to 2015, were analyzed.

1. Coleman-Jensen, A., Rabbitt MP, Gregory CA, Singh A. Household Food Security in the United States in 2016. Economic Research Service, Research Service, September 2017. Available from <https://www.ers.usda.gov/pubs/err127>

2. Rising Food Insecurity in Los Angeles County. Social Determinants of Health. Issue #1. Los Angeles: Los Angeles County, Department of Public Health, July 2015.

3. Coleman-Jensen A, Gregory CA, Rablitt M. Definition of Food Security. 2016. Available from <https://www.ers.usda.gov/topics/food-nutrition-access/food-security-in-the-usa/definition-of-food-security/>

4. Wells AL et al. Food Insecurity Associated with Obesity Behavior? An Analysis with Income-poor, Ethnicity-Diverse Participants in a National Longitudinal Study. *Am J Clin Nutr*. 2010; 91:1066-1071.

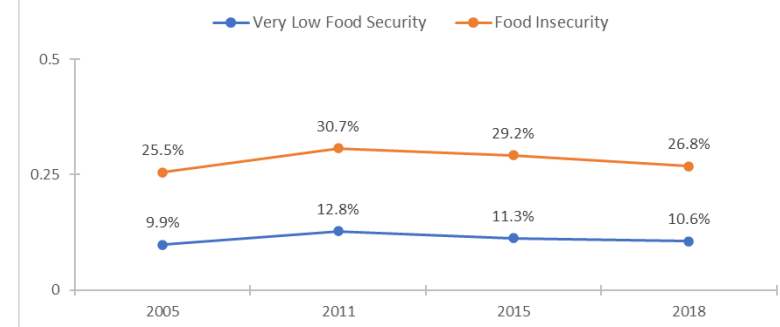
5. Bauer DC, Black FR, Coulman JA, Browner WA. Prevention of Chronic Disease with a Diet Emphasizing Intakes of Low Energy-Density Sources of Protein and Fiber in the USA. *Lancet* 2014; 384: 69-72.

6. Selinger LK, Laska SK, Aftab SB. Food Insecurity is Associated with Chronic Disease among Low-Income NHANES Participants. *J Nutr* 2010; 140: 306-310.

7. Bhatnagar S, Bhatnagar D. Effects of Exercise and Diet on Health. *Obesity & Appl Physiol* 2006; 98: 3-8.

8. Wells AL, Goldberg EA, Jones SJ. Food Insecurity Affects School Children's Academic Performance, Weight Gain, and Social Skills. *J Nutr* 2005; 135: 2001-2005.

Figure 1: Food Security Trends among Households <300% FPL, LACHS 2018



Data Driven Policies



- **Food Insecurity Screening in County Clinics, December 2017**
- **Reducing Both Food Waste and Food Insecurity In Los Angeles County, February 2019**



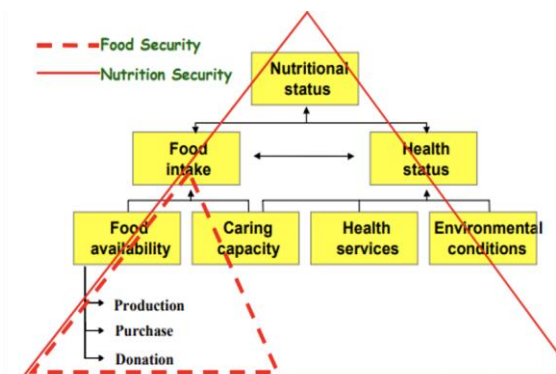
The Need to Measure Nutrition Security

- Unique role of local health department to increase access to healthy food
- Nuanced information is necessary to inform our program
- Include questions on nutrition security in next Los Angeles County Health Survey

How is "nutrition security" defined in the literature?

- Conducted literature review from 2000–2021
- Limited research on “Nutrition Security” compared to those that focus on “Food Security” or “Food and Nutrition Security”

The Conceptual Framework of Nutritional Status at Household Level



“Nutrition
Security is an
integral
component
of Food
Security”



Hwalla, N., Labban, S.E., Bahn, R.A., (2016). Nutrition security is an integral component of food security, *Frontiers in Life Science*, 9:3, 167-172, DOI: [10.1080/21553769.2016.1209133](https://doi.org/10.1080/21553769.2016.1209133)

Most recent definition (Mozaffarian et al, 2021)

- *“Nutrition Security is having consistent access, availability, and affordability of foods and beverages that promote well-being and prevent (and if needed, treat) disease”*

Mozaffarian D, Fleischhacker S, Andrés JR. (2021). Prioritizing Nutrition Security in the US. *Journal of the American Medical Association*. 325(16):1605–1606. DOI: [10.1001/jama.2021.1915](https://doi.org/10.1001/jama.2021.1915)





How is nutrition security distinct from Low Food Security?

Low Food Security

- Old label = Food insecurity without hunger
- Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake

Nutrition Security

- Consistent access, availability, and affordability of foods and beverages that promote well-being and prevent disease



Do existing validated tools measure "nutrition security" at a population level?

- 18-Item USDA Food Insecurity Module has one question that gets at nutritional quality

'{I/We} couldn't afford to eat balanced meals.' Was that often true, sometimes true, or never true for you and your household in the last 12 months?

- Validated Dietary Recall Modules assess dietary quality at the individual level (Powell and Greenberg Screening Tool)

How often do you eat five or more fruits/vegetables servings a day? 0-1 days a week, 2-3 days a week, 4-5 days a week, 6-7 days a week



How are others in LA County operationalizing "nutrition security"?

- Interview with Leah's Pantry Executive Director, Adrienne Markworth
- Discussion with Data Workgroup of Food Equity Roundtable
- Feedback from DPH Health Assessment Unit



Los Angeles County Health Survey

- Population based telephone survey conducted every three years
- Adult and Child (<18 years) questionnaires
- 2018: 7,000 adult interviews and 5,000 child interviews
- Conducted in English, Spanish, Cantonese, Mandarin, Vietnamese, and Korean
- Opportunity to add new nutrition security questions for 2022



Current Questions in LA County Health Survey

- Consumption/Diet Quality
 - Total servings of fruits and vegetables eaten yesterday
 - Total servings of sugar sweetened beverages on an average day
 - Frequency of fast-food consumption per month
- Public Program Participation
 - SNAP/CalFresh participation
 - WIC participation
- Food Insecurity questions
 - Six-item short form



Other Measures

- USC Understanding America Study – Coronavirus Tracking Survey – LA County
- Swiss Health Survey
- Perspectives on Eating Healthy Among Food Pantry Clients (Dave J.M. et. al *Health Equity* 2017)
 - Qualitative study identified barriers to healthy eating: financial uncertainty, cost of healthy foods, lack of time, rationing food within family, lack of transportation, lack of adequate kitchen equipment, lack of nutrition knowledge and skills, and social support network



Proposed LA County Health Survey Questions

The next questions are about healthy foods. Healthy foods are foods that promote good health and prevent disease. These foods include fruits, vegetables, whole grains, beans, fish, and lean meats. Less healthy foods can include foods that are highly processed, packaged, and high in salt, sugar, and unhealthy fats.

1. In the last 12 months, how often have you or your household had to buy less healthy foods because healthy foods were too expensive?

Answer options include: Often, sometimes, never, don't know, refused



2. Many people believe it's important to eat healthy foods but find it difficult to do so for a variety of reasons. Please indicate how often the following statements were true for you or your household in the last 12 months. Answer options include: Often true, sometimes true, never true, don't know, refused

- a) Healthy foods are too expensive
- b) There are not a lot of healthy foods for me to choose from at the stores I usually shop
- c) I don't live near any stores or food pantries that have healthy foods
- d) I don't have a car or an easy way to get to a store that has healthy foods
- e) I don't have time to shop for groceries or cook
- f) I don't have adequate cooking equipment or ways to store food
- g) I don't know how to cook
- h) I don't know what foods are considered healthy foods
- i) I don't think I qualify for food assistance programs like food stamps (also known as SNAP, CalFresh, or EBT) or WIC that would help me buy healthy foods
- j) Other – please specify: _____




Conclusion

- Public Health Departments play a critical role in addressing nutrition security
- Challenges with operationalizing nutrition security
- Newly collected nutrition security data will help to address long standing equity issues
- Data will geographically pinpoint where public health resources and programs are needed



Thank You!



Opportunities, Challenges
and Emerging Approaches to
Reduce Diet-related
Disparities and Accelerate
Nutrition Equity:
Implications for Prioritizing
Nutrition Security

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Overview

- ♦ Racial/Ethnic and Socioeconomic Disparities in Diet in the United States.
- ♦ Prioritizing Nutrition Security to Achieve Health Equity and Promote Food Justice: Potential Challenges/ Considerations/ Recommendations



Racial/Ethnic and Socioeconomic Disparities in Diet in the United States



- Poor nutrient/food group intakes and overall dietary quality in Blacks and Indigenous populations compared to Whites, Asian, and in most studies, Hispanic populations.
- Blacks and Indigenous populations have a higher burden of diet-related chronic disease.
- Black, Indigenous, and Hispanic populations have higher rates of food insecurity.
- Black and Indigenous communities have lower availability of healthy food options and higher availability of food outlets associated unhealthy food options.
- Findings in Hispanic/Latinx populations has been mixed.

Applying a Nutrition Security Framing Could Help Address Disparities and Promote Equity, IF....

- Prioritizing Nutrition Security to Achieve Health Equity and Promote Food Justice: Potential Challenges/Considerations
 - Think beyond poverty to focus on other determinants including racism.
 - Consider individuals that are marginally food insecure, nutrition insecure.
 - Acknowledge and avoid more structural and cultural violence: recognition is required for reconciliation.
 - Avoid a reductionist approach.
 - Consider First Food Equity

Think beyond poverty to focus on other determinants including racism.

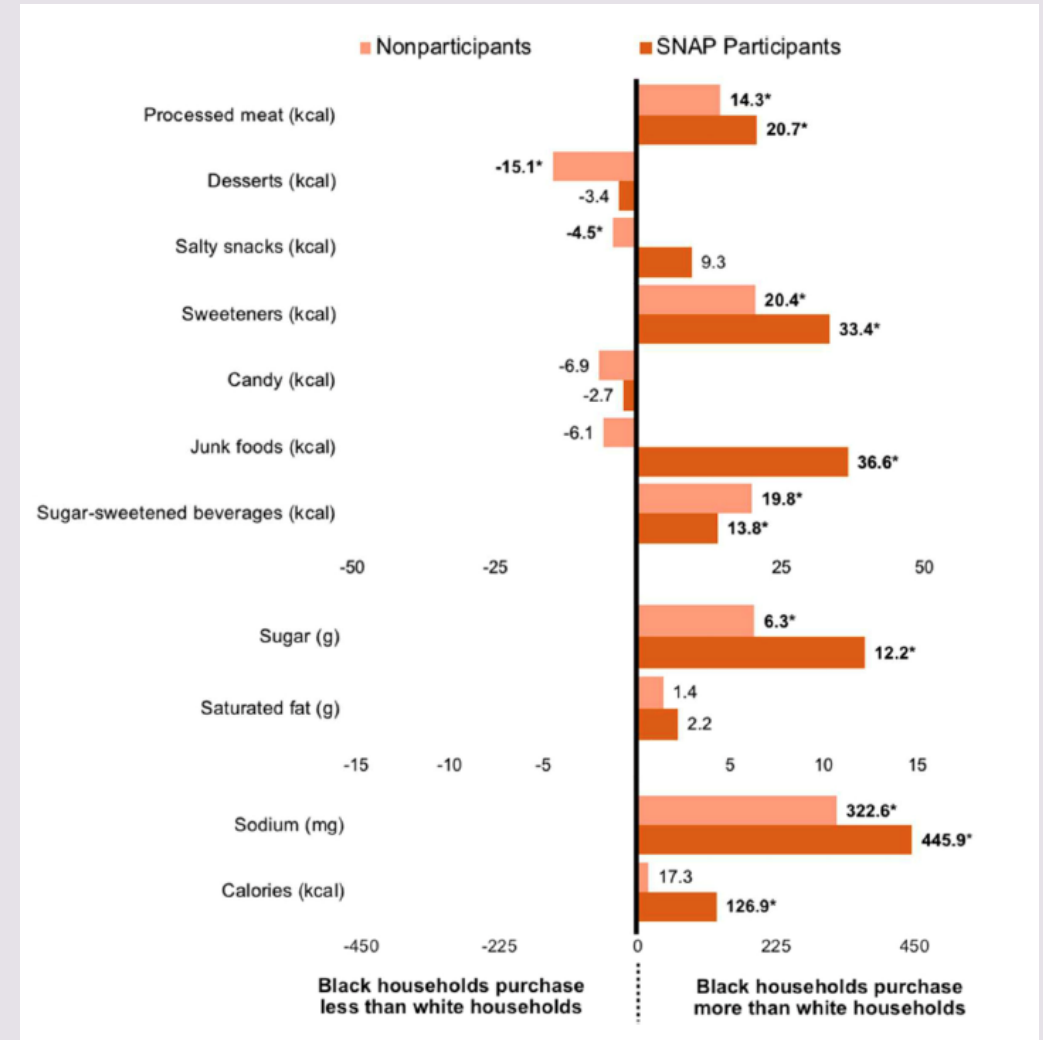
- ♦ Racial/Ethnic Disparities in Dietary Intake of U.S. Children Participating in WIC. Zimmer et. al. *Nutrients* 2019, 11, 2607
 - Among U.S. children participating in WIC, nutrient intake of Hispanic children was greater than non-Hispanic White children for fiber and potassium (Zimmer et al., 2019).
 - Conversely, nutrient intake of non-Hispanic Black children was lower than that of non-Hispanic White children for calcium and vitamin D and higher in sodium (Zimmer et al., 2019).
 - There was one instance of better nutrient intake among non-Hispanic Black children compared to non-Hispanic White children; saturated fat intake was lower (Zimmer et al., 2019).

Nutrient Category	N-H White n = 110		N-H Black n = 242		Hispanic n = 305		Other/Mixed n = 70		Recommended Amount ^b
	Mean (SE)	Mean (SE)	p-Value	Mean (SE)	p-Value	Mean (SE)	p-Value		
Energy Density (kcal/g)	1.9 (0.1)	1.8 (0.1)	0.056	1.6 (<0.1)	<0.001	1.8 (0.1)	0.156	-	
Nutrients to Increase^a									
Fiber (g)	10.7 (0.3)	10.8 (0.5)	0.812	12.1 (0.5)	0.026	9.9 (0.5)	0.129	14/16.8-19.6 (DGA)	
Potassium (mg)	1936 (63)	1889 (56)	0.491	2071 (44)	0.038	1951 (117)	0.903	3000/3800 (AI)	
Calcium (mg)	992 (50)	826 (39)	0.009	1012 (32)	0.684	996 (68)	0.958	700/1000 (RDA)	
Iron (mg)	10.3 (0.5)	11.3 (0.5)	0.184	11.6 (0.6)	0.151	12.0 (0.8)	0.090	7/10 (RDA)	
Zinc (mg)	7.3 (0.4)	7.4 (0.3)	0.730	7.6 (0.2)	0.388	7.7 (0.4)	0.380	3/5 (RDA)	
Vitamin D (mcg)	7.5 (0.6)	5.7 (0.4)	0.012	6.8 (0.3)	0.187	7.4 (0.7)	0.876	15 (RDA)	
Nutrients to Limit^a									
Added sugars (tsp-eq)	9.7 (1.3)	10.0 (0.6)	0.832	11.0 (1.6)	0.477	11.2 (1.6)	0.456	<10% kcal (DGA)	
Saturated fat (g)	20.2 (1.1)	17.5 (0.5)	0.016	19.1 (0.6)	0.386	18.9 (1.1)	0.384	<10% kcal (DGA)	
Sodium (mg)	1906 (52)	2136 (51)	0.006	2048 (38)	0.061	1987 (63)	0.339	1500/1900 (UL)	

Think beyond poverty to focus on other determinants including racism.

- Differences in adjusted mean purchases of black vs. white households, Supplemental Nutrition Assistant Program (SNAP) participants and nonparticipants, 2010–2014. A. Grummon and L. Taillie. Public Health Nutr. 2018 December ; 21(18): 3377–3385.

- Among nonparticipants, households headed by a black individual purchased more calories from processed meats, sweeteners, and sugar-sweetened beverages than households headed by a white individual and purchased more total sugars and sodium (p 's < 0.05).
- All five of these disparities persisted among SNAP participants (p 's < 0.05).
- Further disparities between white and black households emerged among SNAP participants that were not present among nonparticipants including purchases of junk foods or in purchases of total calories.
- Additionally, for desserts, salty snacks, and candy, nonparticipant black households showed significant advantages over nonparticipant white households (i.e., purchased less of these categories, p 's < 0.05), but among SNAP participants, these advantages disappeared.



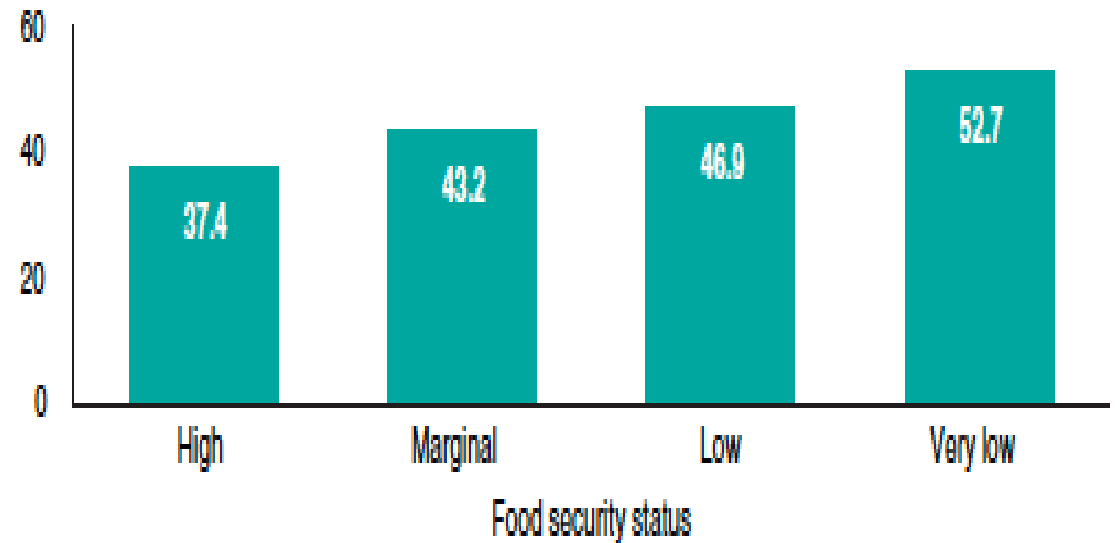
Multivariate adjusted differences, comparing black to white households' per capita per day purchases of foods, beverages and nutrients among SNAP participants and nonparticipants ($n = 89,043$ household-by-quarter observations), controlling for sociodemographic characteristics, geographic market, and number of purchases made during the quarter. A positive difference indicates black households had higher adjusted mean purchases compared to white households

Consider individuals who are marginally food insecure, nutrition insecure

- Gregory and Coleman-Jensen, 2017
 - Adults in households with lower food security status have elevated probabilities of chronic disease.
 - Adults in very low food-secure households are 10.5 percentage points more likely than adults in high food-secure households to be diagnosed with hypertension.
 - Adults in households with very low food security were 15.3 percentage points more likely to have any chronic illness than adults in households with high food security.
 - Adults in households with marginal food security were 9 percentage points less likely to report excellent health, compared to those in households with high food security, and 1.3 percentage points more likely to report poor health.
- Studies also show poor mental and physical health outcomes for mothers and children that are marginally food insecure (Cook et al., 2013; Gunderson, 2015).
- Studies suggest that fruit and vegetable prescription programs may have a stronger impact on the diets of individuals that are marginally food insecure.

Adults in households with more severe food insecurity are more likely to have a chronic illness

Predicted prevalence (percent)



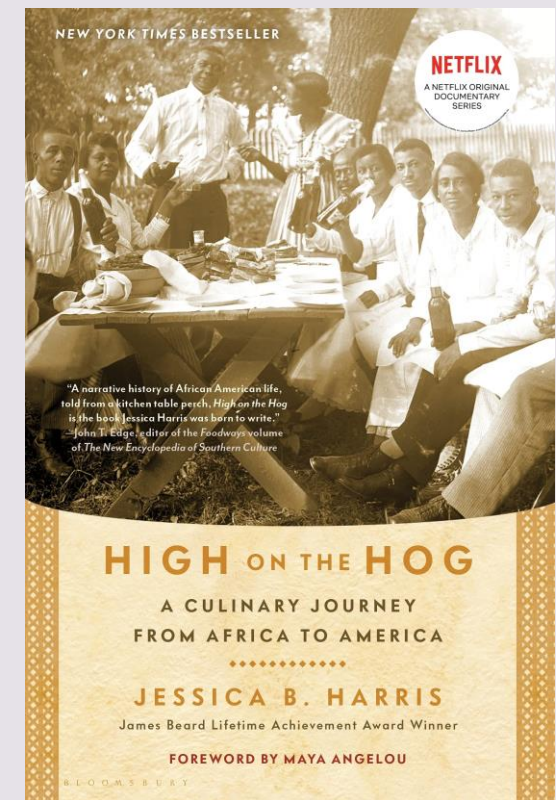
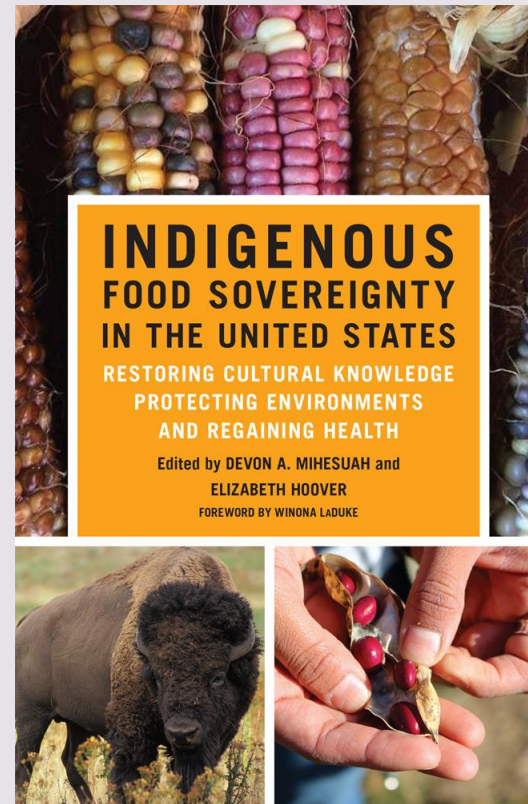
Source: USDA, Economic Research Service calculations using National Health Interview Survey data 2011-2015.

To Understand the Relationship between Structural Racism, Diet, and Health...Think More than Nutrients

- Dietary practices/Food Consumption Behaviors happen in bodies that have been impacted by racism and trauma.
- The historical, social, physical, and marketing contexts in which people access/acquire food and the economic costs associated with that acquisition
- Individual and community capacity and economic, and social resources available including money, education, knowledge, and skills
- Food identity, culture, and culinary/agricultural traditions that impact food production, preservation, preparation, and presentation



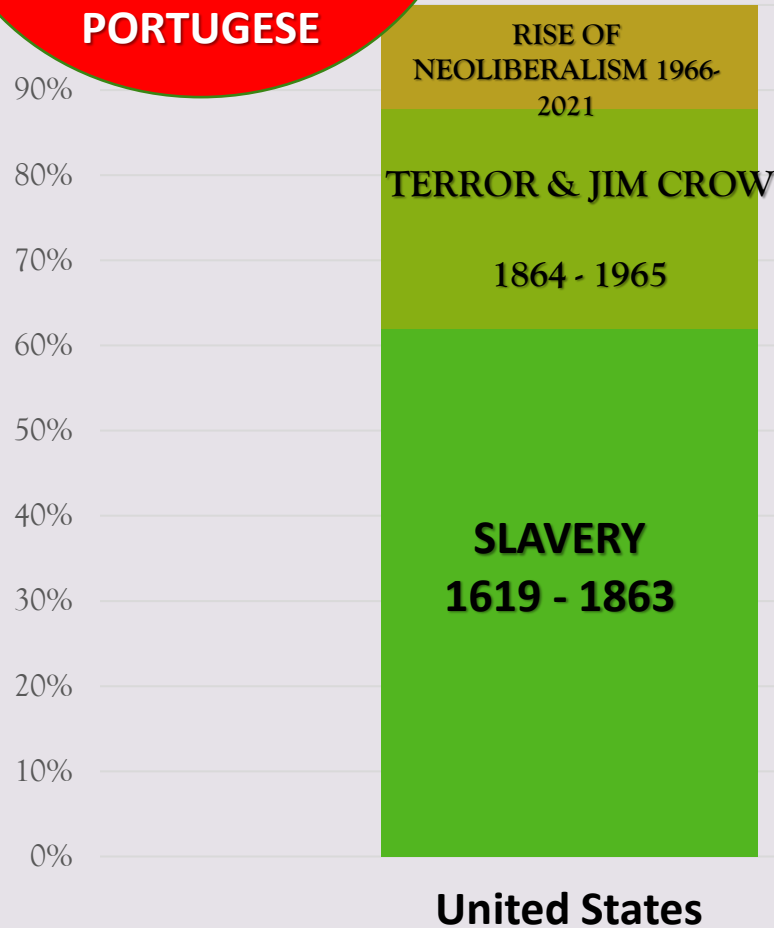
Acknowledge and avoid more structural and cultural violence: recognition is required for reconciliation.



- Acknowledge how the problem
 - Colonization disrupted traditional food systems
 - Land dispossession
 - Structurally violence policies
 - Acknowledge the impact of years of oppression and intergenerational trauma.
 - Industrial food system and ethnically targeted food marketing
 - Think chances not choices to not further marginalize and disempower communities
 - Examine history BIPOC traditions and culture

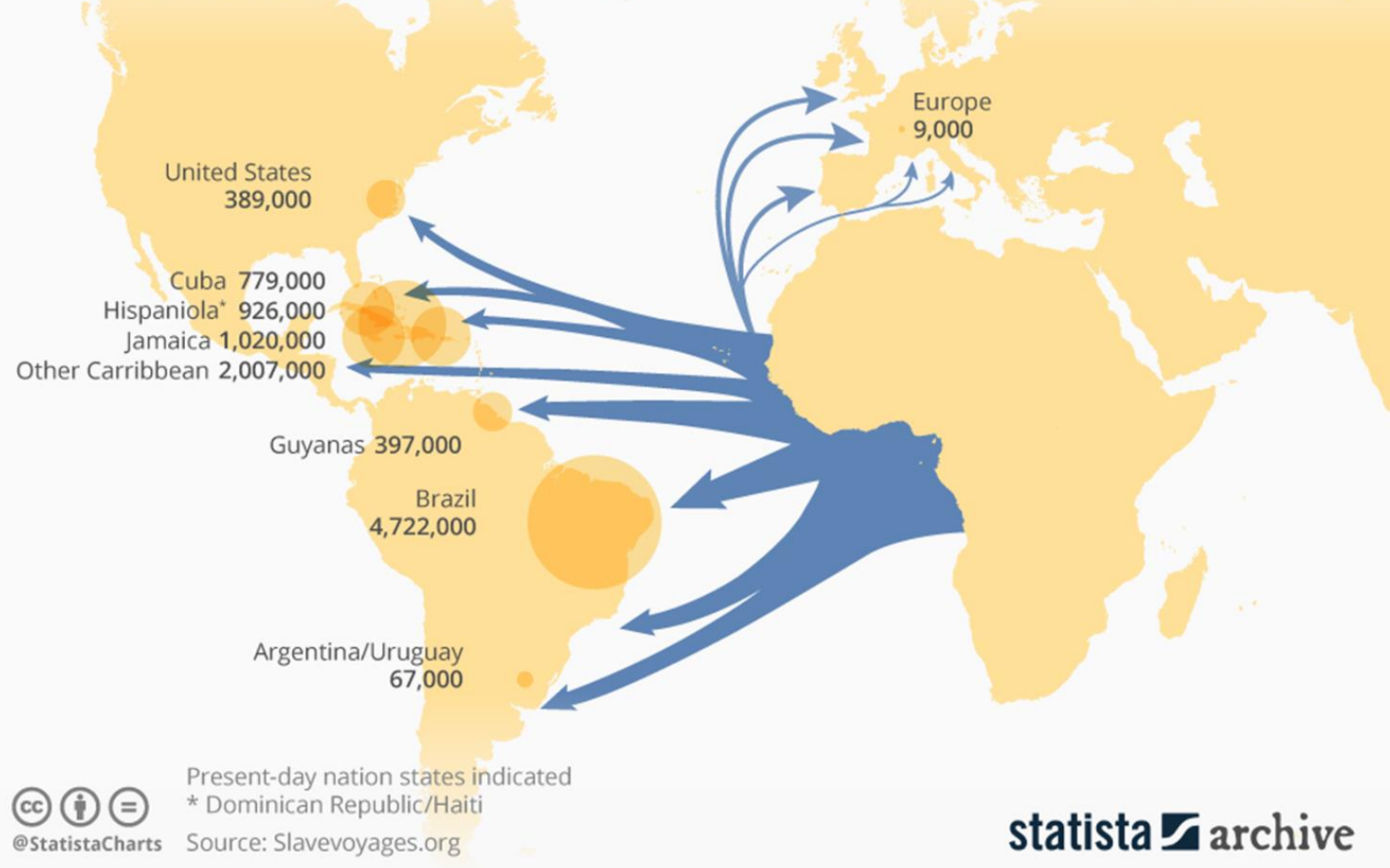
Historical Overview of African - Americans

Vast MAJORITY
of African –
Americans do
NOT live in USA
& we speak
SPANISH &
PORTUGUESE

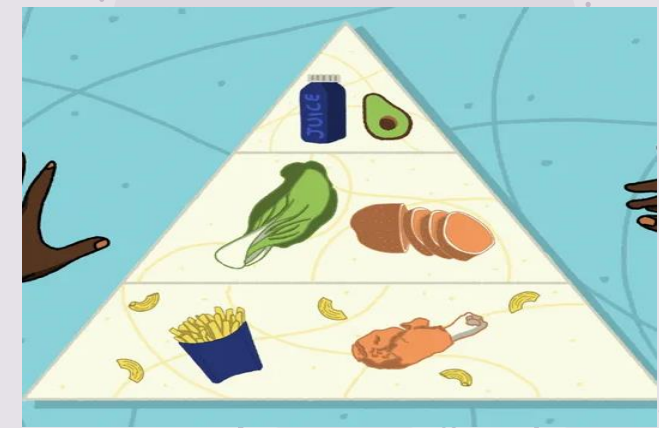


The Trans-Atlantic Slave Trade Uprooted Millions

Number of enslaved Africans arriving on the American continent and in Europe (1501-1866)



Avoid a reductionist approach



Insecurity

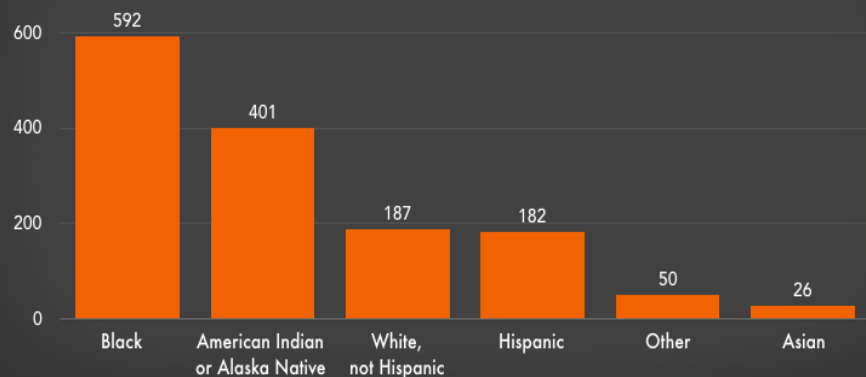
1. uncertainty or anxiety about oneself; lack of confidence.
2. the state of being open to danger or threat; lack of protection.

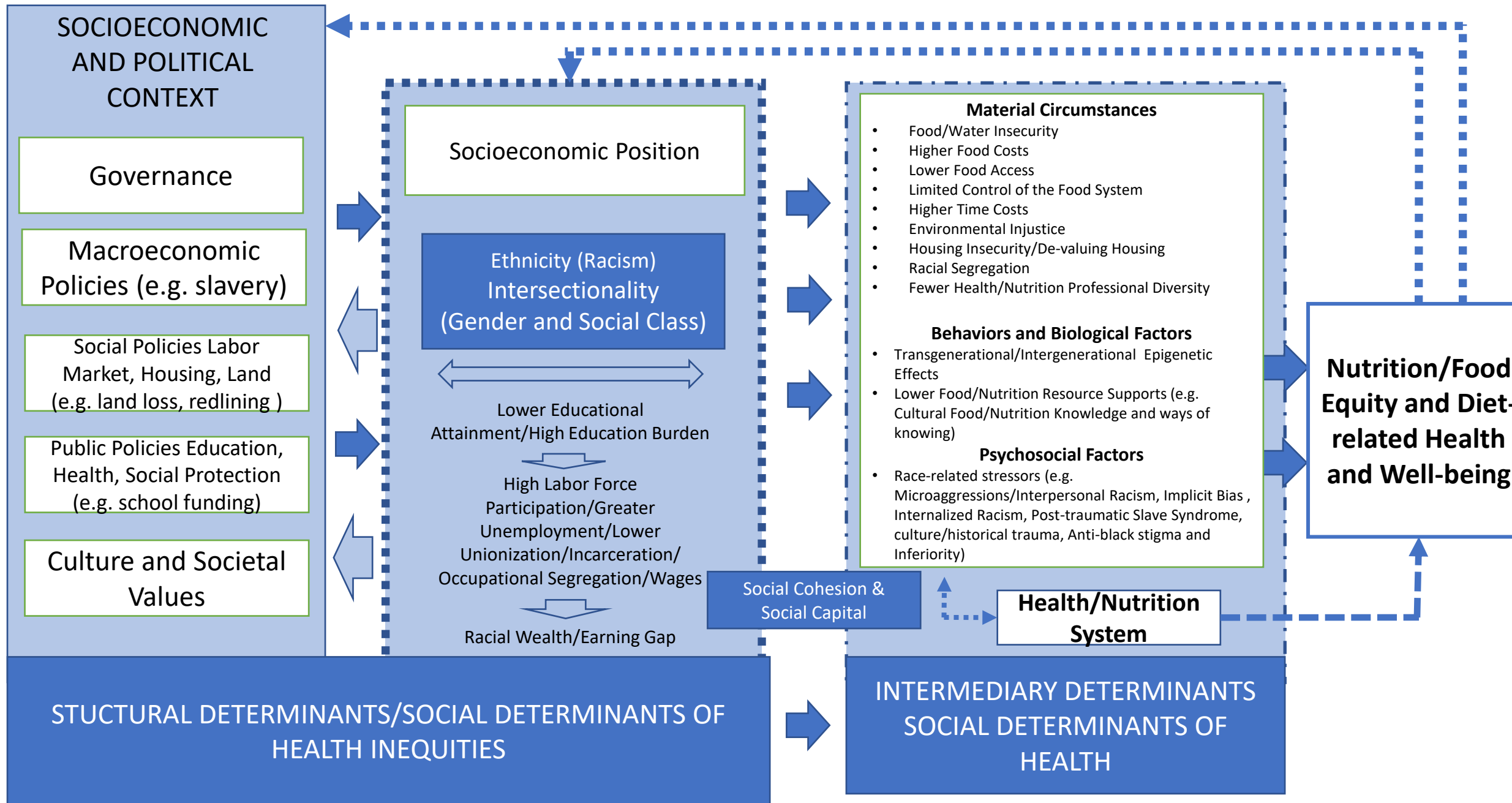
Nutrition

1. the process of providing or obtaining the food necessary for health and growth.
2. food or nourishment.

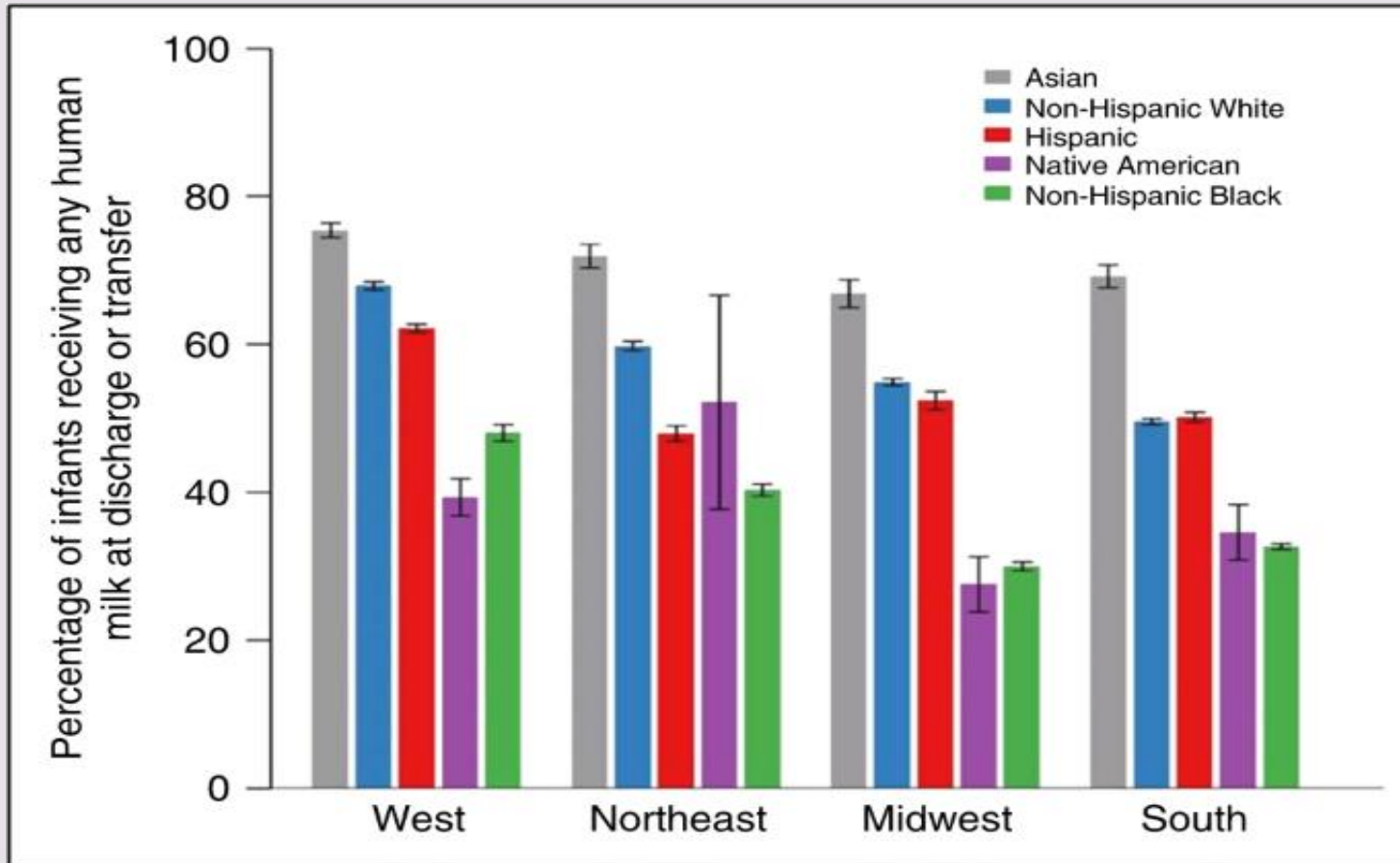
Racial disparities in local jail incarceration rates, 2018

Number of people incarcerated in local jails per 100,000 people in each racial or ethnic category





Consider First Food Equity





Thank you!

Key Takeaways

- Promoting nutrition security is a critical ingredient to building back better
- Emerging approaches have promise but more work remains

You're a part of prioritizing nutrition security!



**Ending the
Pandemic**



**Responding
to the
Economic
Downturn**



**Addressing
the Hunger
and Food
Insecurity
Crisis**



**Centering
Climate in
Agriculture,
Food, and
Forestry**



**Building
Back Better
for Rural
Economies**



**Advancing
Racial
Equity**



NIFA Nutrition Security Webinar Series

Questions – Sheila.Fleischhacker@usda.gov



Strengthening Intersections between Climate Change, Food Systems, and Nutrition Security: NIFA's Aims & Activities

Date: Wednesday, October 20th at 3:30 to 4:00 pm EST

NIFA Panelists:

- **Keesha Corbin, MPH, Program Specialist, Division of Youth and 4-H, Institute of Youth, Family, and Community and NIFA Climate Change Team Executive Secretary**
- **Amy Ganguli, PhD, National Program Leader, Institute of Bioenergy, Climate, and Environment**
- **Robert Godfrey, PhD, Division Director of Animal Sciences, Institute of Food Production and Sustainability**
- **Lydia Kaume, PhD, RDN, National Program Leader, Division of Nutrition, Institute of Food Safety and Nutrition**
- **Kevin Kephart, PhD, NIFA Climate Team Lead**
- **Emma Moran, PhD, Biologist & Analyst**
- **Megan O'Rourke, PhD, National Science Liaison – Climate Change**