CENTER FOR ADVANCING HEALTHY COMMUNITIES

NATIONAL ASSOCIATION OF CHRONIC DISEASE DIRECTORS
Promoting Health. Preventing Disease.

White House National Strategy on Hunger, Nutrition, & Health Learning & Discussion Series

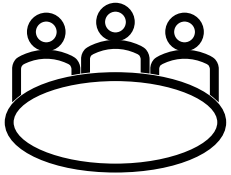
Session 6:

Pillar 5 - Enhance Nutrition and Food Security Research

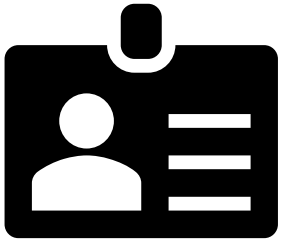
September 21, 2023
2:00 – 3:15 p.m. ET

A few reminders…

This meeting will be recorded



We encourage you to share



Please use the same display name as the one you used to register. Display your pronouns if you wish.

Please take a moment to complete the survey, at end of today's meeting

Use Chat for, questions, comments and reactions

Meeting Norms

- Encourage each other to be emotionally, intellectually, and socially engaged
- Feel free to speak *your* truth, while knowing it's only *part of* the truth, and empathizing with the truth *of others*
- Listen to understand
- Practice being vulnerable. It's ok to speak in rough draft.
- Be mindful of the impact of what you say, not just your intention
- Understand that we are all learning
- Be ok with not having all of the answers and be honest about your capacity
- Communicate positive, reflective, constructive feedback for collective solutions

Today's Objectives

1. Provide an overview of Pillar 5.

2. Discuss state/territorial- and community-level activities that align with Pillar 5.

3. Identify one action that you can take in your state or community to support implementation of Pillar 5.

Today's Agenda

- Welcome
- Opening Activity
- Learn more about Pillar 5
  - Group Activity and Discussion re: Pillar 5
  - Speaker Presentations
- Audience Q&A
- Resources, Reminders and What's Next

Correction from August session

- Incorrect Quote: Nothing about us without us is <u>not</u> for us

- Correct Quote: *Nothing about us without us is for us.*

- *Nothing about us without us*
- *Nothing without us*

Opener

Opener: Mentimeter Activity

Using 1-2 words

1. What excites you about nutrition and food security research being enhanced?

2. What do you see as a major challenge to consider in this work?

Visit menti.com and enter code: 7153 3066 to respond to the questions.

Mentimeter

What excites you about nutrition and food security research being enhanced?

30 responses

4 23

Mentimeter

What do you see as a major challenge to consider in this work?

32 responses

18

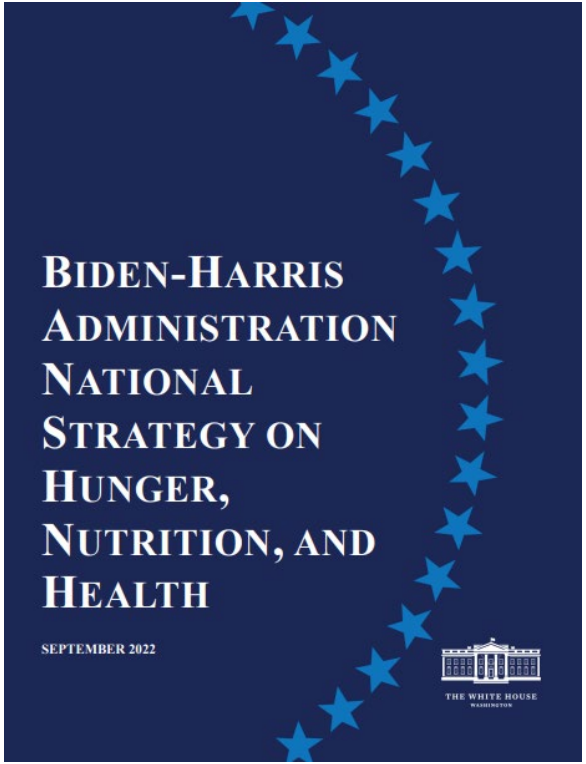
NACDD and White House Discuss Challenge to End Hunger and Build Healthy Communities

A group of NACDD executive leadership and staff gather on the White House grounds before the Thought Leader Discussion: Promoting the White House Challenge to End Hunger and Build Healthy Communities in Washington, DC.

WH National Strategy - Progress

FDA: Strategies to Reduce Added Sugars Consumption

Listening Sessions: November 6-8, 2023



About Pillar 5

Enhance Food and Nutrition Security Research

Pillar 5 - FEDERAL GOV'T ROLE

Improve nutrition metrics, data collection, and research to inform nutrition and food security policy, particularly on issues of equity, access, and disparities.

- *Bolster nutrition research funding to support evidence-based policies.*
- *Ensure diversity and inclusion in nutrition, health, and food security research.*
- *Invest in creative new approaches to advance research regarding the prevention and treatment of diet-related diseases.*
- *Research the intersection of climate change, food security, and nutrition.*

Pillar 5: Call to Action Strategies

- *State and territory governments should* ***support nutrition and food security research at universities and colleges****, including HBCUs, MSIs, and Tribal Colleges and Universities.*
- *State, local, and territory governments should enter into* ***data sharing agreements*** *with universities, think tanks, food retailers, and other entities to provide administrative data about the use of food banks, participation in after-school sports, or development of Tribal traditional food systems.*
- *State, local, and territory governments* ***should invest in programs building the pipeline of researchers,*** *particularly from communities of color, rural communities, and people with disabilities.*

Pillar 5: Call to Action Strategies Continued

- *Universities, colleges, and academic medical centers should bolster hunger, nutrition, and physical activity research and data collection* ***disaggregated by factors, including race, ethnicity, and other demographic and social factors****.*

- ***Philanthropy should support research studies*** *and efforts to bolster and diversify the nutrition science pipeline.*

- *The private sector should* ***invest in robust research and development focused on nutrition, equity, and health****, including research on the microbiome, immunity, diabetes, and other chronic diseases and underserved populations.*

Pillar 5: State Examples

Evaluation/ research with communities on improving access to farmers markets - particularly use of WIC FMNP, SNAP, other benefits there. (Illinois)

Host Early Childhood Nutrition Research Symposium speaker at State Obesity plan meetings. (Oklahoma)

Work with University of West Virginia, Office of Health Services Research to monitor produce prescription program “FARMacy” and report metrics for use, success, barriers, etc. (West Virgina)

We Want to Hear From you!

Please go to Jamboard to share about your work that aligns with Pillar 5.

The link will be dropped in the chat.

What work are you doing that aligns with Pilar 5 of the White House National Strategy? Please include your state name.

Kentucky- Bringing together local organizations to create a healthy foods policy for Food Banks. Also utilizing Farmers' Markets foods share.

Collecting feedback on the impact of the Local Food Purchasing Agreement (USDA grant) food distributed in Utah.

Partnering very closely with researchers in our state ... Developing an MOU with Hunger Free OK that includes data sharing (though we are already sharing!) (OK)

North Dakota - Investing time to understand the impacts of Federal Indian policies on Indigenous food system post colonization.

North Dakota - Examining social networks and their impacts on community food systems.

Piloting a senior farmers market bulk food distribution model--Utah.

Launching a Double Up Food Bucks (DUFB) program in Monterey County, California. This will allow SNAP participants to double the value of fresh produce

Meet Today’s Speakers

Meet Today's Speakers

Mariah Ehmke, PhD
Research Agricultural Economist
US Department of Agriculture,
Economic Research Services

Tara Maudrie, MSPH
Sault Ste Marie Tribe of Chippewa Indians
PHD candidate
John Hopkins Bloomberg School of Public Health, Center for Indigenous Health

USDA Economic Research Service
U.S. DEPARTMENT OF AGRICULTURE

COVID-19 Working Paper: Obesity Prevalence Among U.S. Adult Subpopulations During the First Year of the Coronavirus Pandemic

Mariah D. Ehmke
Brandon Restrepo
USDA Economic Research Service
Research Agricultural Economists

USDA Briefing
July 12, 2023

How did your life change with COVID-19's arrival?

How many of these changes impacted your diet?
Movement?

COVID-19 & Obesity

- From 1999 to 2018 U.S. adult obesity rose from 30.5 to 42.4 %
- Obesity identified as a risk factor for medical complications and death from COVID-19

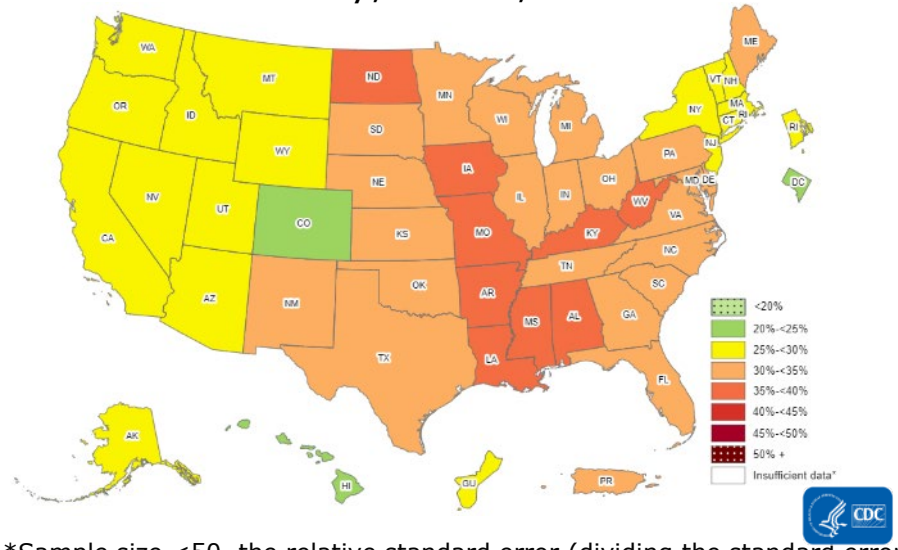
Obesity Prevalence **Prior** to COVID-19

Adult sub-groups more vulnerable to obesity included those defined by:

- Employment status
- Marital status
- Age
- Racial or ethnic affiliation
- Income, food assistance use
- Education

Obesity Prevalence **Prior** to COVID-19, continued…

Prevalence of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2018



*Sample size <50, the relative standard error (dividing the standard error by the prevalence) ≥30%, or no data in a specific year.

Research Objective

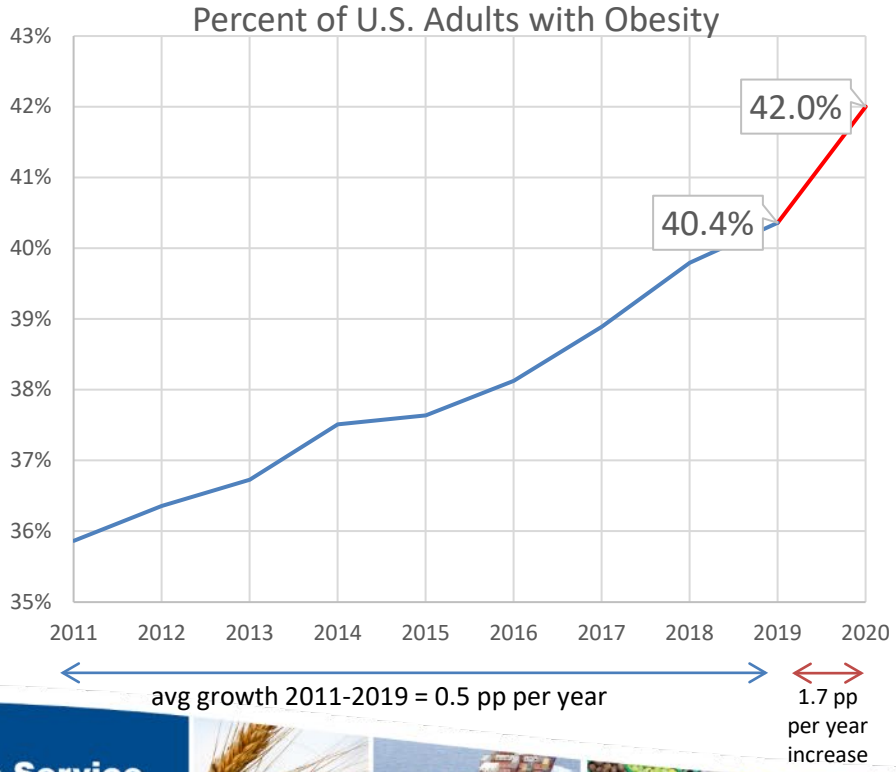
Measure changes in U.S. adult obesity rates overall and across a demographic and socioeconomic subgroups during the first year of the pandemic.

Data: Behavioral Risk Factor Surveillance System (BRFSS)

- U.S. residents from all 50 States, Washington, D.C., and 3 U.S. territories
- 400,000 adult (20 years or older) interviews annually
- 2011 to 2020

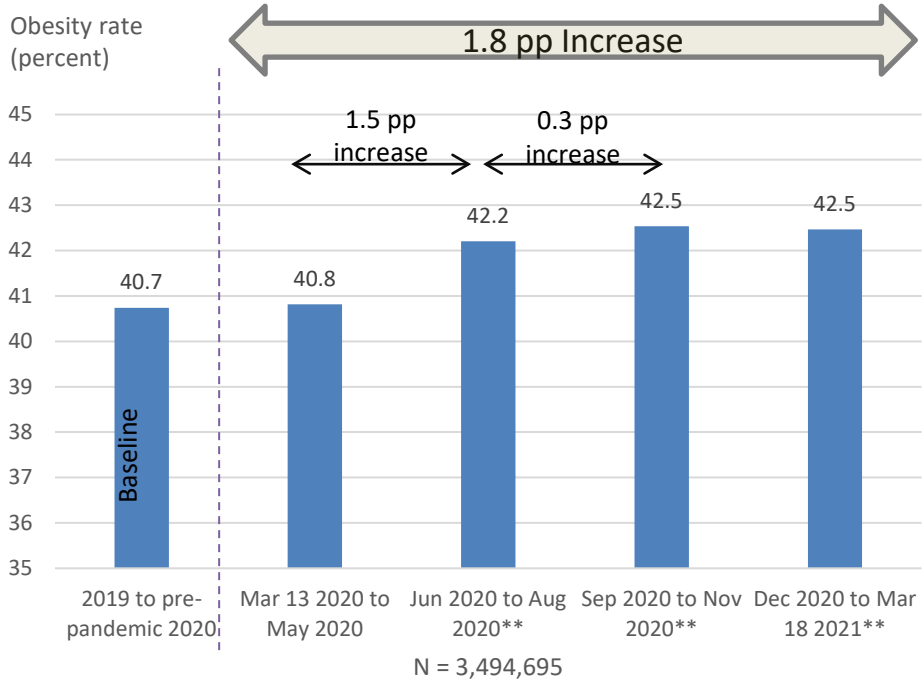
Overall Findings

Growth of U.S. Adults afflicted with Obesity from 2011-2020



Timeline of Increase

Prevalence of adult obesity before and during stages of the COVID-19 pandemic

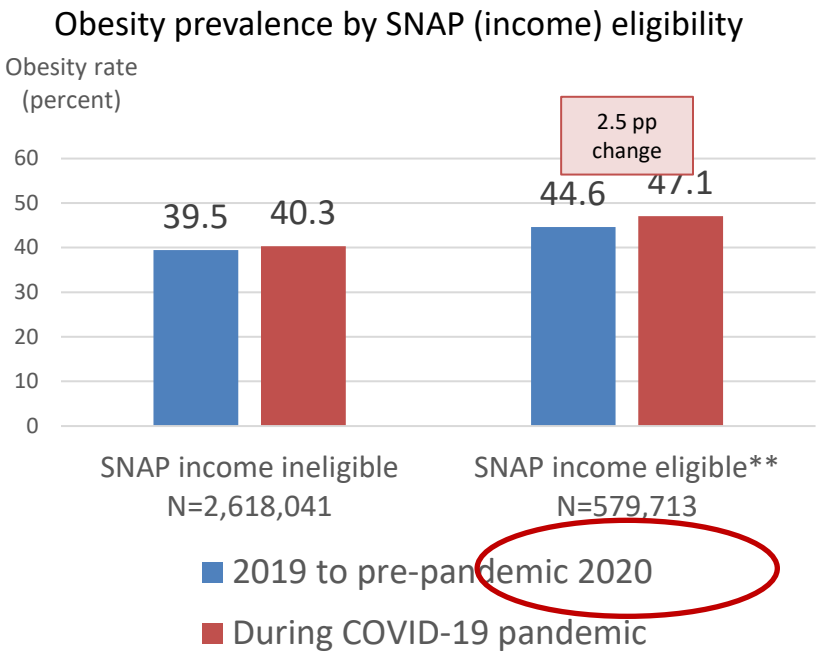


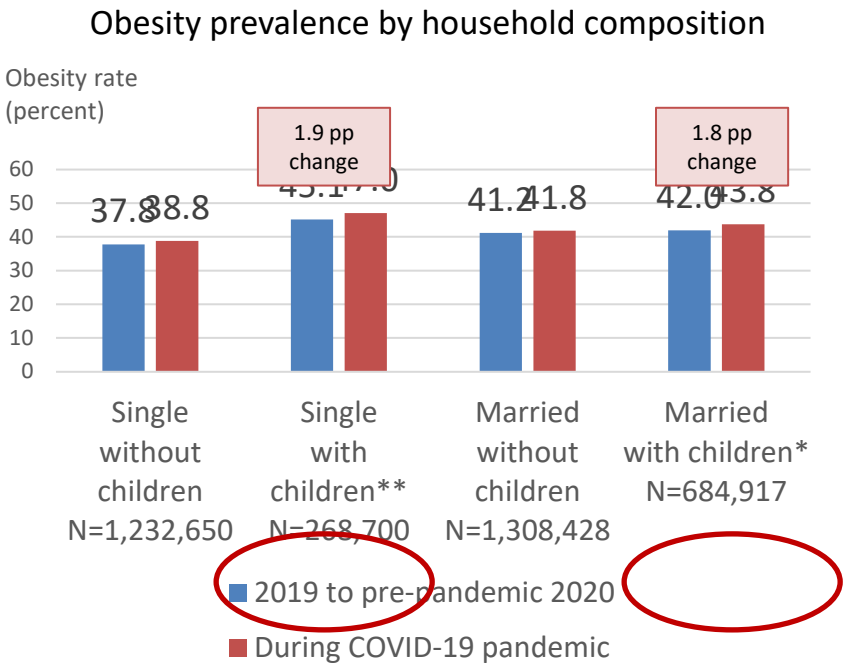
Note: Statistical significance is indicated by *$p<0.10$, **$p<0.05$, or ***$p<0.001$

Source: Ehmke and Restrepo (2023)

Demographic and Sub-Group Differences

Household Characteristics



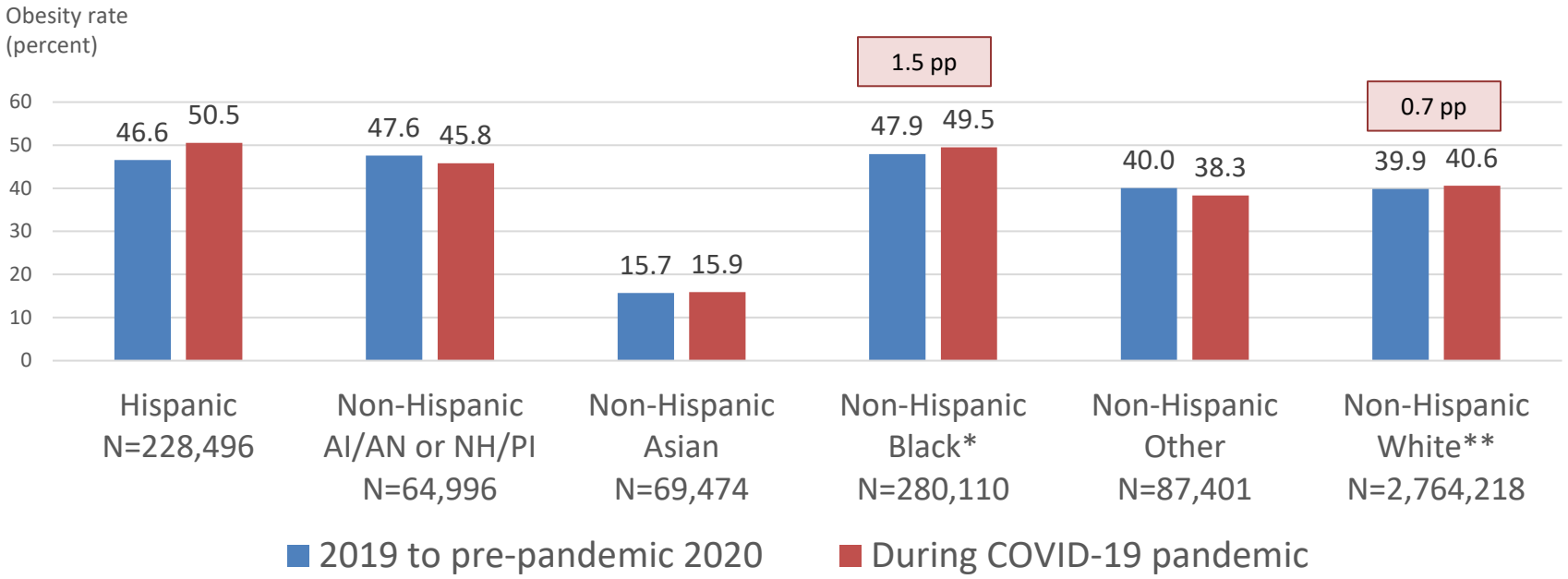


Note: Statistical significance is indicated by *$p<0.10$, **$p<0.05$, or ***$p<0.001$

Source: Ehmke and Restrepo (2023)

Racial and Ethnic Group Differences

Obesity prevalence by race/ethnicity before and during the COVID-19 pandemic

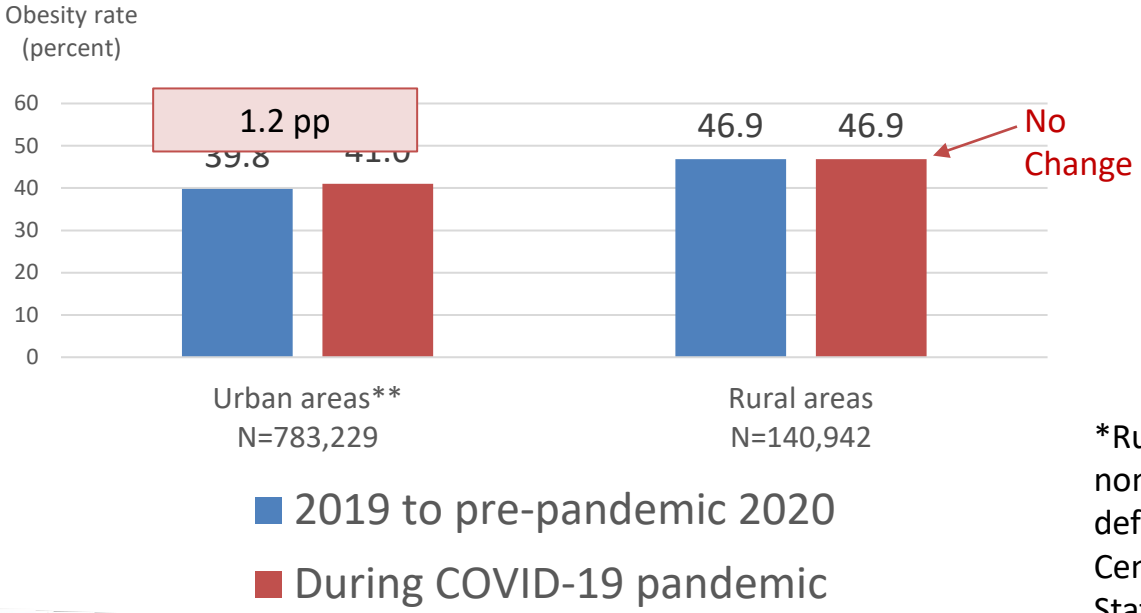


Note: Statistical significance is indicated by *$p<0.10$, **$p<0.05$, or ***$p<0.001$

Source: Ehmke and Restrepo (2023)

Community Type

Obesity Prevalence in the U.S. by Urbanicity/Rurality*

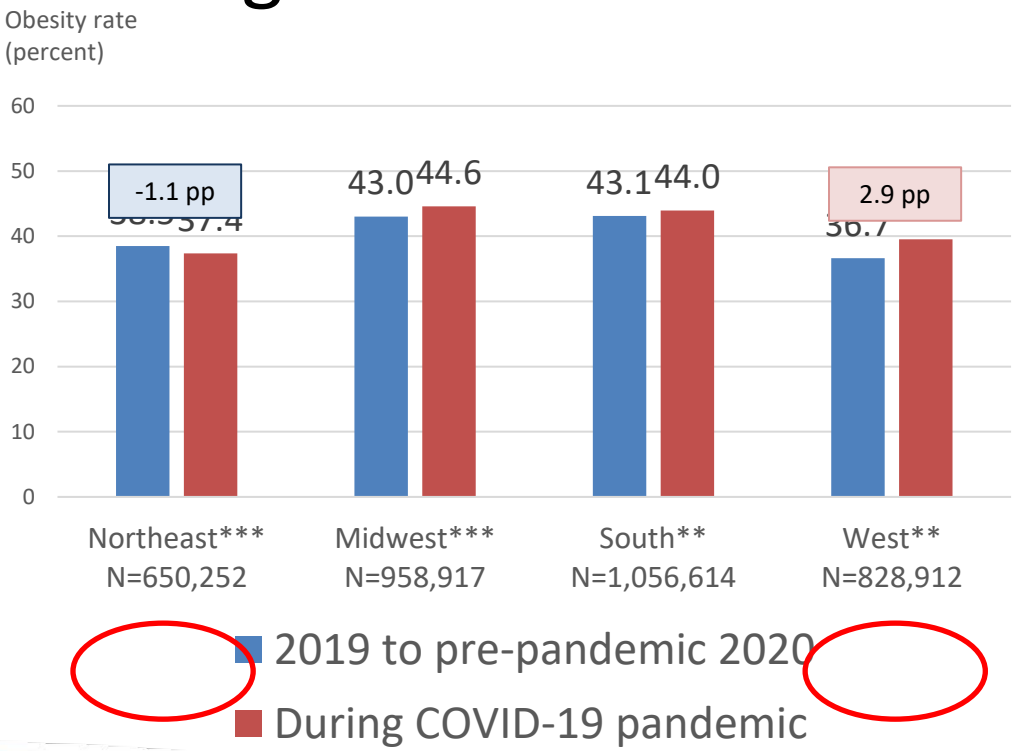


*Rural counties are noncore counties defined by National Center for Health Statistics

Note: Statistical significance is indicated by $^{**}p<0.05$

Source: Ehmke and Restrepo (2023)

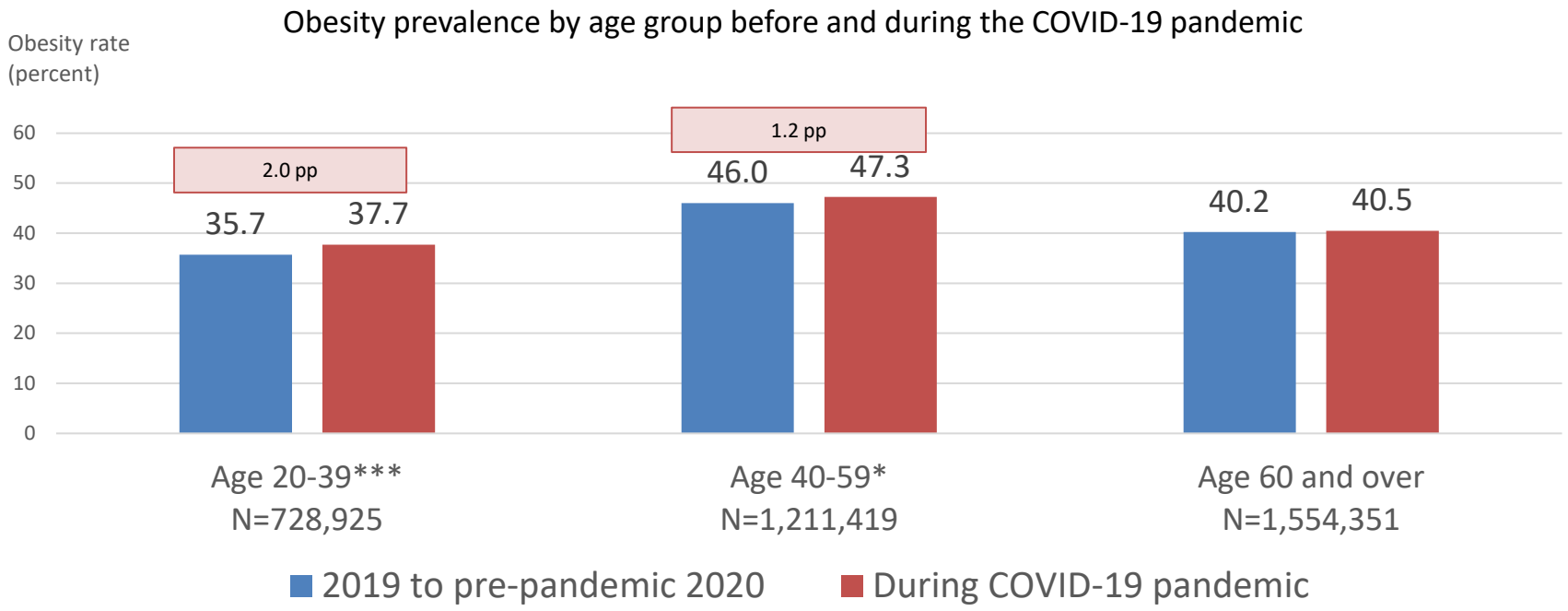
Regional Differences



Note: Statistical significance is indicated by *p<0.10, **p<0.05, or ***p<0.001

Source: Ehmke and Restrepo (2023)

Age Groups

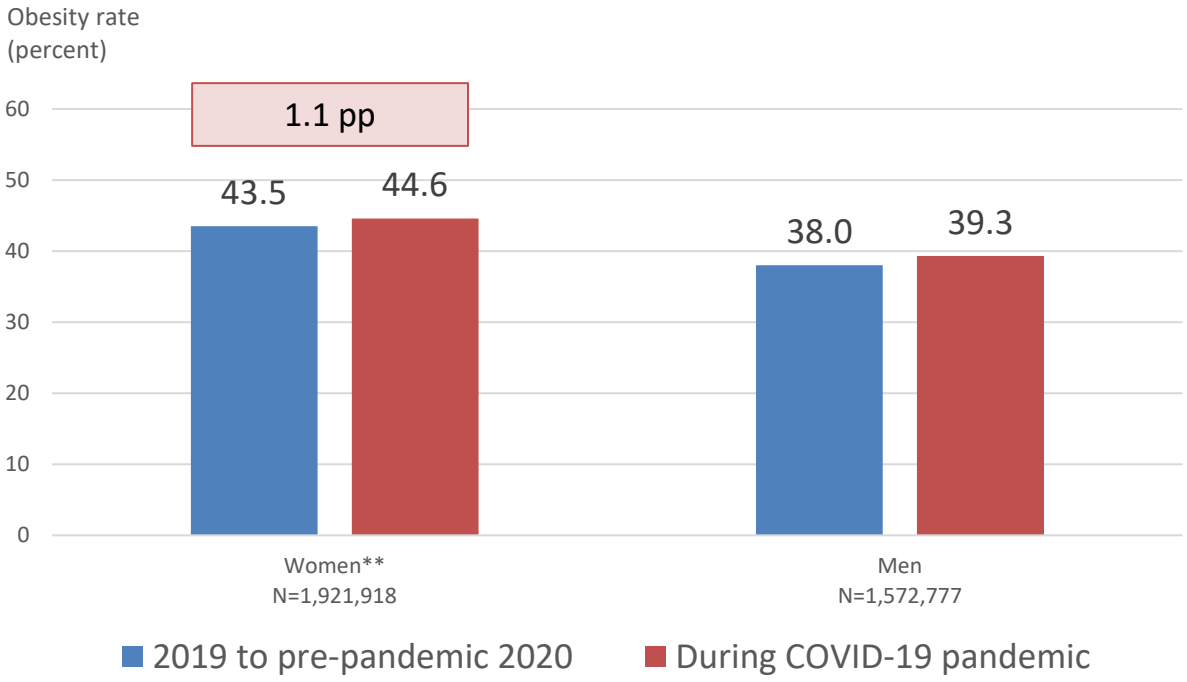


Note: Statistical significance is indicated by *p<0.10, **p<0.05, or ***p<0.001

Source: Ehmke and Restrepo (2023)

Gender

Obesity prevalence by gender before and during the COVID-19 pandemic

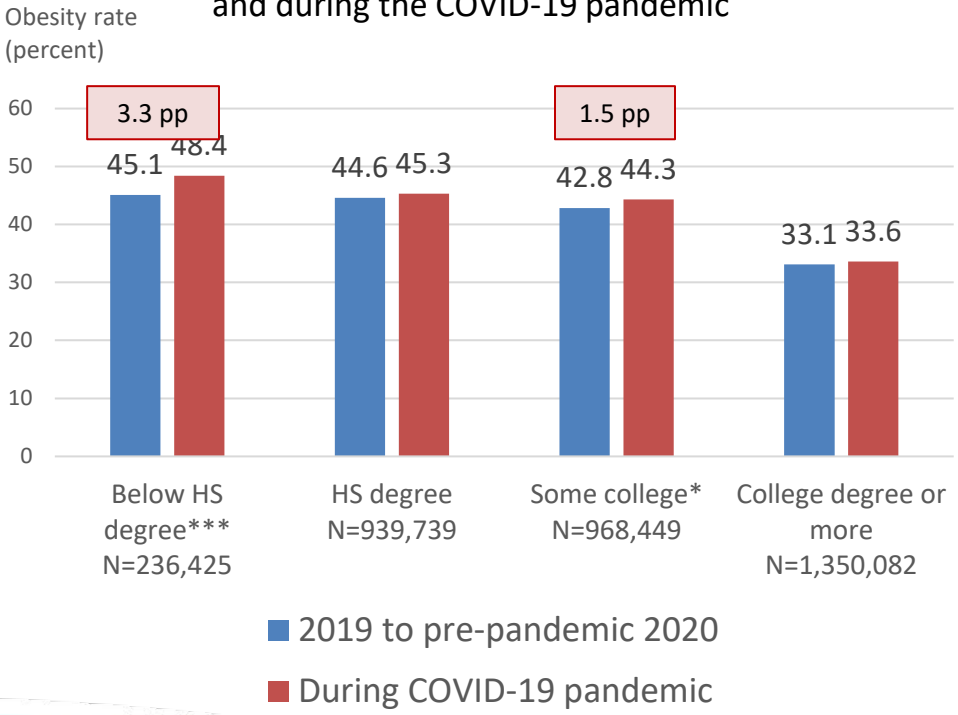


Note: Statistical significance is indicated by *p<0.10, **p<0.05, or ***p<0.001

Source: Ehmke and Restrepo (2023)

Educational Attainment

Obesity prevalence by education attainment before and during the COVID-19 pandemic



Note: Statistical significance is indicated by *$p<0.10$, **$p<0.05$, or ***$p<0.001$

Source: Ehmke and Restrepo (2023)

Conclusions

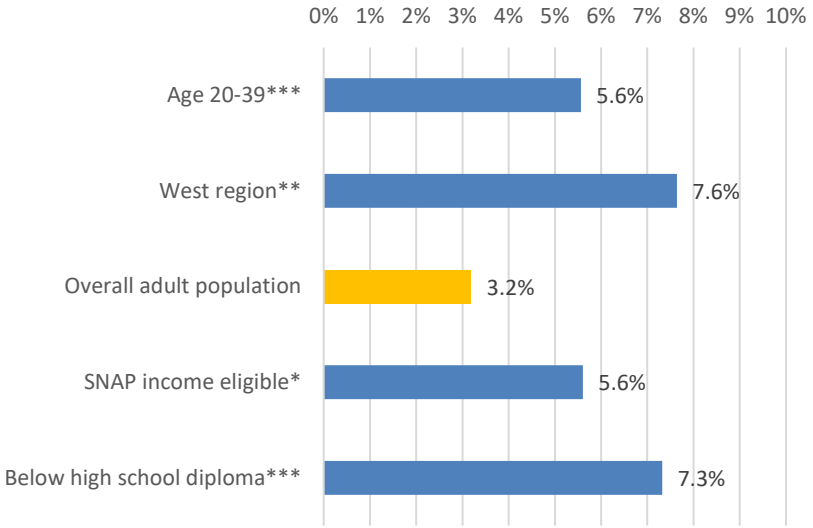
Findings

- Adults entering prime working ages have higher obesity prevalence
- West Census region gaining on other Census regions
- Income and education may have mitigated effects of pandemic on obesity incidence

Limitations

- Self-reported data
- No intersectional comparisons (e.g., low-income female vs. high-income female)
- No linkages to retail food data

Estimated Percentage Changes in Obesity in the U.S. During the COVID-19 pandemic



Source: Ehmke and Restrepo (2023)

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Ehmke, Mariah D. and Brandon J. Restrepo. 2023. COVID-19 Working Paper: Obesity Prevalence Among U.S. Adult Subpopulations During the First Year of the Coronavirus Pandemic. Economic Research Service, United States Department of Agriculture. https://www.ers.usda.gov/publications/pub-details/?pubid=106829

Food Security, Food Sovereignty, Food Flourishing:

Lessons Learned from and with Urban AI/AN Communities

Tara L. Maudrie, PhD Candidate, MSPH

Sault Ste Marie Tribe of Chippewa Indians--Snapping Turtle Clan

Johns Hopkins Bloomberg School of Public Health

Tara Maudrie
PhD Candidate, MSPH, BS
Sault Ste Marie Ojibwe

- Snapping Turtle Clan
- Language learner
- MSPH in Human Nutrition
- Pronouns: She/Her/Hers
- PhD Student in the Social and Behavioral Interventions Program at the Johns Hopkins School of Public Health

“The stories of our foodways are one of the greatest testaments of **Indigenous brilliance** and **beauty of spirit**. Before we can talk about Indigenous peoples’ food traditions, and contemporary efforts to revitalize their food systems, we have to **understand the history of disruption that makes this work necessary**.”–Shiloh Maples[1]

1. Maples, S. (Host). (2022). She Makes an Offering (No. 1) [Audio podcast episode]. In *Spirit Plate*. Whetstone Radio Collective. https://podcasts.apple.com/us/podcast/she-makes-an-offering/id1606238592?i=1000548819749

Settler Colonialism and Indigenous Foodways

- Belief in inferiority of Indigenous peoples and their foods[1]
- Damage to lands and waterways[2,3]
- Federal Indian Policy[4,5]
- Weaponization of food against Indigenous Peoples[6-8]

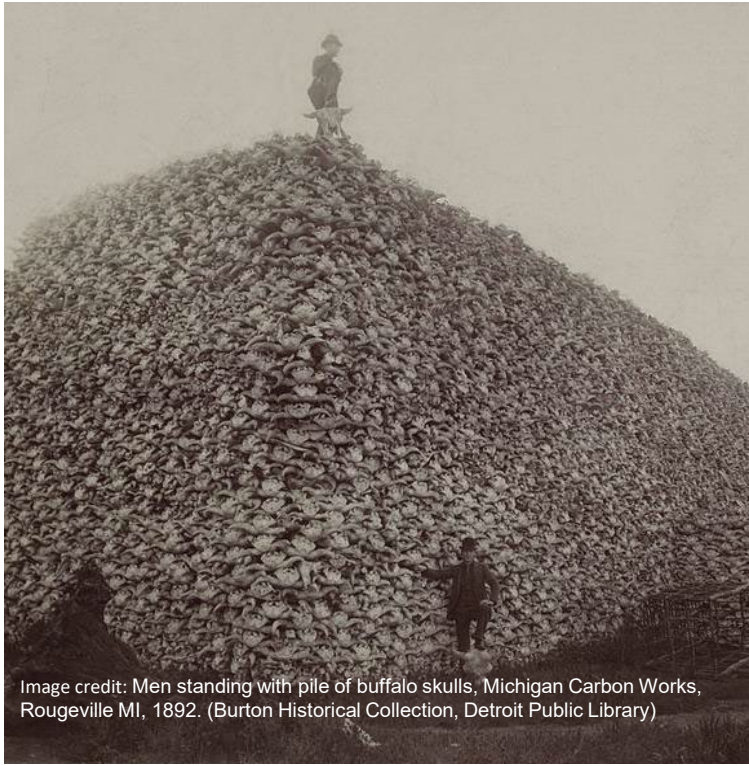


Image credit: Men standing with pile of buffalo skulls, Michigan Carbon Works, Rougeville MI, 1892. (Burton Historical Collection, Detroit Public Library)

1. Earle, R. (2010). "If you eat their food…": diets and bodies in early colonial Spanish America. The American Historical Review, 115(3), 688-713.
2. Griffith, J. (2017). Hoover Damn: Land, labor, and settler colonial cultural production. *Cultural Studies↔ Critical Methodologies*, *17*(1), 30-40.
3. Hicks, E., & Stein, M. R. (2021). Wild Rice Waters. *Places Journal*.
4. Kuhnlein HV, Receveur O. Dietary change and traditional food systems of indigenous peoples. *Annual review of nutrition*. 1996;16(1):417-442.
5. Warne D, Wescott S. Social determinants of American Indian nutritional health. Current developments in nutrition. 2019;3(Supplement_2):12-18
6. Mann, B. A. (2005). George Washington's War on Native America. Greenwood Publishing Group.
7. Phillips, N. (2018). Skin and bones: The decimation of the plains buffalo. Mount Royal Undergraduate Humanities Review (MRUHR), 5. https://doi.org/10.29173/mruhr463
8. Griffith, J. (2018). Do some work for me: Settler colonialism, professional communication, and representations of Indigenous water. Decolonization: Indigeneity, Education & Society, 7(1), 132-157

Impacts of Indigenous Foodways Disruption

- Decreased access to traditional foods and food practices[1,2]
- Disruption of intergenerational food knowledge[1]
- Reduced diet quality and physical activity opportunities[3]
- Increase in dietary related chronic diseases[1,3]
- High rates of food insecurity[4]
- Dominant society food ideals and standards

1. Kuhnlein HV, Receveur O. Dietary change and traditional food systems of indigenous peoples. *Annual review of nutrition*. 1996;16(1):417-442.
2. Warne D, Wescott S. Social determinants of American Indian nutritional health. Current developments in nutrition. 2019;3(Supplement_2):12-18
3. Joos SK. Economic, social, and cultural factors in the analysis of disease: dietary change and diabetes mellitus among the Florida Seminole Indians. Knoxville, Tenn., University of Tennessee Press; 1984. p. 217-237.
4. Nikolaus, C. J., Johnson, S., Benally, T., Maudrie, T., Henderson, A., Nelson, K., ... & Sinclair, K. (2022). Food insecurity among American Indian and Alaska Native people: a scoping review to inform future research and policy needs. Advances in Nutrition, 13(5), 1566-1583.

Food Security in Native Communities

- A systematic review[1] found food insecurity prevalence estimates ranging from 25%-80%
- Analyses of the Current Population Survey Food Security Supplement found that from between 2000-2010, 25% of AI/ANs remained consistently food insecure[2]
  - Urban AI/AN were more likely to be food insecure than rural or reservation-based AI/AN

1. Nikolaus, C. J., Johnson, S., Benally, T., **Maudrie, T.L**. , Henderson, A., Nelson, K., ... & Sinclair, K. (2022). Food Insecurity Among American Indian and Alaska Native People: A Scoping Review to Inform Future Research and Policy Needs. *Advances in Nutrition*.
2. Blue Bird Jernigan, V., Salvatore, A. L., Styne, D. M., & Winkleby, M. (2012). Addressing food insecurity in a Native American reservation using community-based participatory research. Health education research, 27(4), 645-655.

Baltimore Native Food Study

- **Sequential Explanatory Mixed Methods** CBPR Study with NAL
- **Phase 1:** Quantitative Survey including 10-item USDA Food Security Module, Demographics, Food Stress, COVID-19 hardships
  - N=250 AI/AN Adults
- **Phase 2:** In-Depth Interviews with participants purposively selected on food security status
  - N=11 AI/AN Adults
- **Funders:** Johns Hopkins Urban Health Institute, Inter-Tribal Agriculture Council, Johns Hopkins Center for Indigenous Health

Maudrie, T. L., Nguyen, C. J., Jernigan, V. B. B., Lessard, K. H., Richardson, D., Gittelsohn, J., & O'Keefe, V. M. (2022). Impacts of COVID-19 on a Food Security Study with the Baltimore Native Community. *American Indian and Alaska native mental health research (Online)*, *29*(2), 8.

Food Insecurity for the Baltimore Native Community

Table 1. Prevalence of food insecurity

Food Insecure, n (%) 70 (28.0)		Food Secure, n (%) 180 (72.0)	
Very Low Food Security	Low Food Security	Marginal Food Security	High Food Security
24 (9.60)	46 (18.40)	7 (2.80)	173 (69.20)

- 28% prevalence of food insecurity
- Statistically **increased** odds of food insecurity:
  - COVID-19 hardships
  - Food Stress
- Statistically **decreased** odds of food insecurity:
  - Increased age
  - Subsistence practices

Table 2. Predictors of food insecurity (adjusted and unadjusted models)

Variable		Model 1: Unadjusted Odds Ratio (95% CI)	P-value	Model 2: Adjusted for Demographics (N=238)	P-Value	Model 3: Adjusted for demographics, COVID hardships (N=238)	P-value	Model 4: Adjusted Odds Ratio[a] demographics, COVID hardships, food stress, food sources (N=238)	P-value
Age		**0.78 (0.72-0.83)**	**0.00****	**0.72 (0.66-0.79)**	**0.00****	**0.71 (0.64-0.79)**	**0.00****	**0.87 (0.80-0.95)**	**0.00***
Gender[a]	Male	1.21(0.68-2.15)	0.51	1.80 (0.82-3.95)	0.14	**2.95 (1.14-7.61)**	**0.04***	3.47 (0.88-13.71)	0.08
Income[b]		1.09 (0.90-1.33)	0.39	**1.41 (1.08-1.84)**	**0.01***	1.00 (0.74-1.37)	0.99	0.99 (0.62-1.57)	0.95
Education[c]	Some college	0.47 (0.22-1.02)	0.06	**0.22 (0.08-0.66)**	**0.00****	0.44 (0.13-1.57)	0.21	3.61 (0.44-29.22)	0.23
	College graduate or more	0.78 (0.41-1.49)	0.46	0.41 (0.17-1.01)	0.05	1.36 (0.46-3.98)	0.58	3.76 (0.58-24.49)	0.17
COVID-19 Hardships		**3.47 (2.28-5.27)**	**0.00****			**5.52 (2.92-10.39)**	**0.00****	**4.15 (2.13-8.09)**	**0.00***
Food Stress		**4.25 (2.98-6.07)**	**0.00****					**7.96 (3.50-18.12)**	**0.00***`
Food Sources	Subsistence Practices	**0.43 (0.20-0.90)**	**0.02***					**0.09 (0.01-0.87)**	**0.04***
	Nutrition Support Programs	1.20 (0.68-2.12)	0.53					0.30 (0.00-16.95)	0.49

Food Security Qualitative Results

Perspectives on definitions of food security:

*"It would not be **socially acceptable** if I were to stop somewhere in Maryland on the side of the road or the street and pick stuff, or, you know, I would go as far as saying if you've run over a deer there's no point in wasting it."*

*"The whole **cultural aspect** is, like we [my people] have creation stories for certain crops and things, so making sure that our food is safe for the sake of the food and not just for our sake is important. Whereas I don't know if a lot of people believe that."*

Impacts of food insecurity:

*"When I was in middle school [and experiencing intense food insecurity], I simply, I was not eating at all. . . When I got the opportunity to eat [during times when others would provide them food] I would do it more probably than I should. . . I probably had like some sort of **eating disorder**, where I just did not eat for a while at a time. So currently, so **that used to be the value that I had back then, just don't eat because I'm eating all these unhealthy foods, I need to counteract that by not eating at all**."*

*"I have **a tendency to want to finish everything on my plate**, regardless of whether I'm full. . . because like my family would always say, you know, we, you have to be thankful for this food, so you have to eat it. . . It's something that I've actually been like struggling to try to acknowledge and address in myself because I don't want to overeat, it hurts. It doesn't feel good, but I just have it **ingrained in my mind**. I'm like, you're being wasteful. Like this is not good for the environment."*

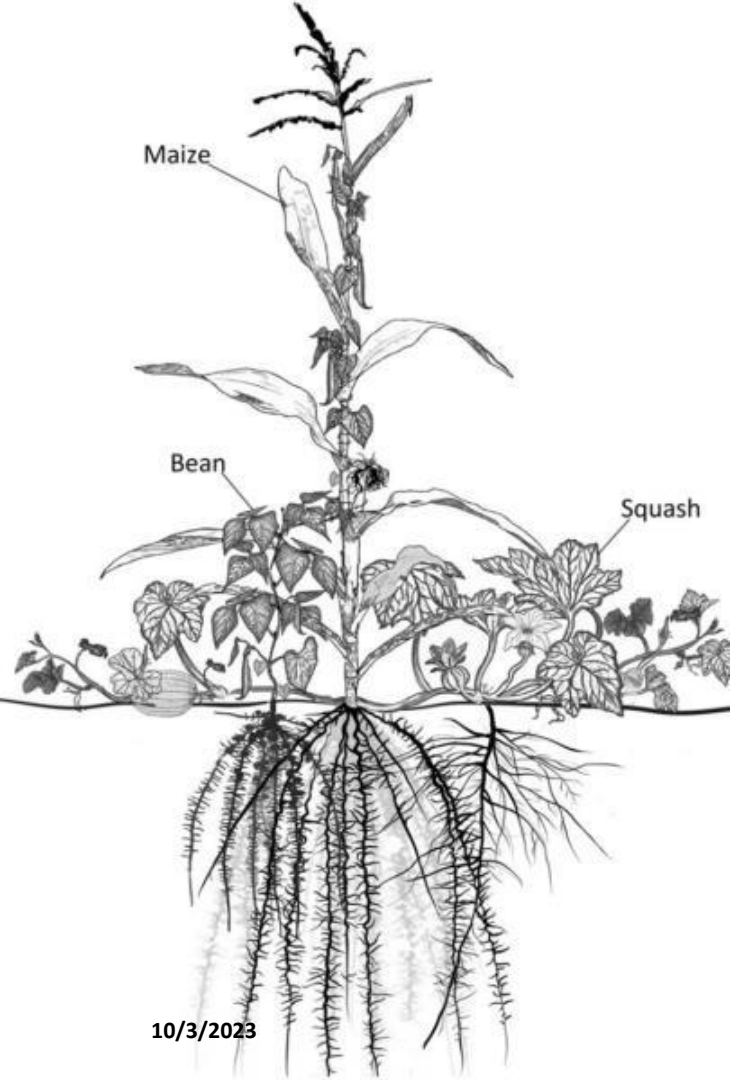
Maudrie, T. (In Progress). Prevalence and Consequences of Food Insecurity: A mixed methods CBPR study with an East Coast American Indian Community.

Food Sovereignty Qualitative Results

*"I think it [food sovereignty] would look **like partnerships with different community organizations**, community neighborhood associations, churches, universities, other businesses, coming together with [the] Indigenous community, where we would have better access to fresh foods, non-perishables, and things like that. On a regular basis, like you know once, twice a week and some places will do that. Like once or twice a year, they'll do something and you'll see the effect of that time**. But then what happens after that? You know?"***

*"So it [the Black Food Security Network] was kind of like **a system that really benefited everybody** and they do super amazing work. I think it would be really cool if like **those farmers could also like re-introduce or introduce some like Indigenous crops into their fields** and then sell those to like the black church food security network. And then we'd have like local traditional foods for anybody around who wants them and for native people."*

Maudrie, T. (In Progress). Prevalence and Consequences of Food Insecurity: A mixed methods CBPR study with an East Coast American Indian Community.



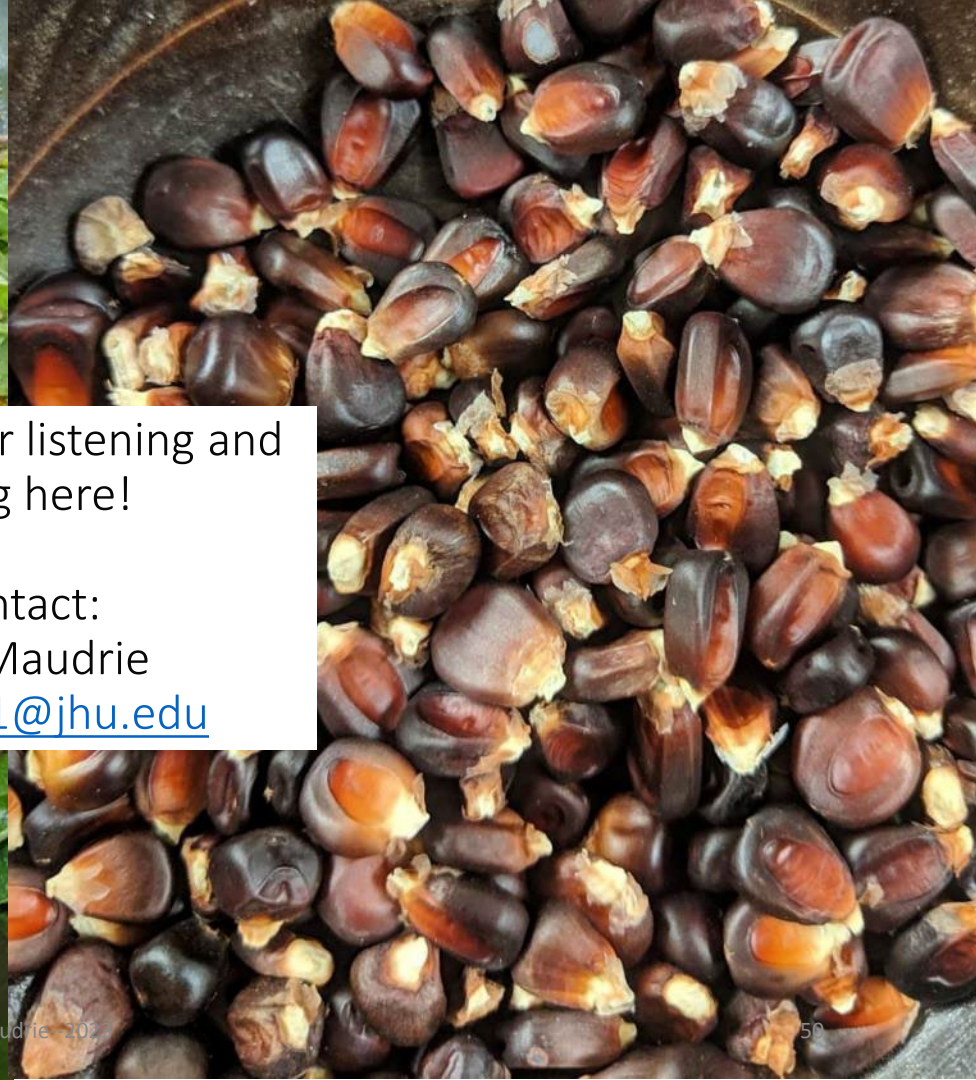
Lessons Learned from Baltimore Native Food Study: Moving beyond Food Security to Flourishing

- Based on my CBPR study with the Baltimore Native community, people had three main suggestions for improving food security and food sovereignty. I present these using a 3 sisters analogy:
  - Corn (our oldest sister; provides structure and strength): **Food Security and Food Access**
    - Needed to ensure our community functions
  - Beans (provide nutrients and feeds the system): **Community Events and Education**
    - Youth education and empowerment
  - Squash (protection for the system): **Partnerships and Kinship with other community organizations**
    - An important part of our relational kinship systems

Image Credit: Lopez-Ridaura, S., Barba-Escoto, L., Reyna-Ramirez, C.A. *et al.* Maize intercropping in the milpa system. Diversity, extent and importance for nutritional security in the Western Highlands of Guatemala. *Sci Rep* **11**, 3696 (2021). https://doi.org/10.1038/s41598-021-82784-2

Future Directions and Applications

- Build **community and culturally specific** approaches for addressing nutrition
- Promote **strengths-based approaches** to nutrition that address **holistic wellbeing**
- Develop nutrition measures that reflect **Indigenous worldviews**



Miigwech for listening and being here!

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Audience Q&A

Resources, Reminders & What’s Next?

Resource Round Up

PRC PREVENTION RESEARCH CENTERS

PAPREN PHYSICAL ACTIVITY POLICY RESEARCH AND EVALUATION NETWORK

NOPREN Nutrition & Obesity POLICY RESEARCH & EVALUATION NETWORK

ASPHN: Updated *Food and Nutrition Security Primer*

Reminder – 1st Anniversary, Share Your Story

Visit the NACDD In Action-National Strategy Webpage

We want to hear from you!

Tell us how you are implementing innovative activities that align with the National Strategy. These stories can serve as inspiration and guidance for other states, territories, and communities as they take action towards ending hunger and increasing healthy eating and physical activity.

Share your story!

Reminder!

Please take a moment to complete the survey at the end of this meeting!

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Session 7

State Successes, Challenges and Lessons Learned: What's Next

October 19, 2023

2:00 – 3:15 PM ET

Thank you!!