

BUILDING RESILIENCE THROUGH DISASTER RELIEF AND RECOVERY

**REIMAGINING
RURAL**
THE RURAL
CHILD HUNGER
SUMMIT 2023



Save the Children.



**NO KID
HUNGRY**

SPEAKERS



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Save the Children.



Building Food Security in Disasters: Rural Considerations

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Who We Are

- Established in 2003, the National Center for Disaster Preparedness, Columbia Climate School, Columbia University works to understand and improve the nation's capacity to **prepare** for, **respond** to and **recover** from disasters.
- NCDP carries out **research** and **policy analysis** in these areas, and provides **education, training and technical support** to public health workers, local and regional governments, public health agencies, hospital, and community partners.
- NCDP focuses on the readiness of governmental and non-governmental systems; the complexities of population recovery; the power of community engagement; and the risks of human vulnerability, with a particular focus on children.
- Substantial research in post-disaster recovery settings and community engagement
- History of working with Save the Children – Resilient Children/Resilient Communities (RCRC) Initiative (<https://ncdp.columbia.edu/rcrc>)
 - RCRC Toolbox (<https://rcrctoolbox.org>)

NCDP/STC Rural Disasters & Children Project

- Aims
 - Summarize the state of the literature which present evidence for, or increased understanding, of the following relationships within a rural US context: disasters and **child care, food security, psychosocial support, child protection, education, housing security** in rural United States areas.
- Research Question(s)
 - How does rural residency affect access to food security, child care, access to mental health and psychosocial support services, education, child protection, and housing security in “blue sky” times?
 - How does being a rural household with children lead to differential health and well-being outcomes and access to resources during or after any type of disaster?
 - Implicit to these questions: What is rurality and its relevance to child-focused preparedness, response, and recovery. What definition(s) should be operationalized?

Outline

1. Review of rural definitions and their implications
2. Dimensions of food security
3. Rural context of food security
4. Food security and disasters
5. Key takeaways and recommendations

Rural Definitions and How They Matter

- **There is no generally agreed upon definition of rural that exists across U.S. government agencies and actors in the United States**
- The most used definitions –including OMB’s definition of “non-metro areas” or the Census Bureau’s definition of rural areas with a population of <5,000 people – leave out significant swathes of rural communities that can be the most vulnerable or in-need
- Correctly identifying a community as “rural” can ensure that these communities are eligible for effective policies and programs aimed to mitigate inequities across rural areas.
- NCDP and STC settled on utilizing the HRSA definition from the Health Resources and Service Administration’s Federal Office of Rural Health Policy (HRSA FORHP), which captures a significantly larger number of children living in poverty in rural areas – 2.9 million – compared to the Census Bureau, USDA, and other definitions.
- Recommended Reading:
 - NCDP/STC Rural Definitions Brief: (<https://resourcecentre.savethechildren.net/document/rural-definitions-primer-children-in-rural-america/>)
 - CORI’s Rural Aperture Project (<https://ruralinnovation.us/resources/mapping-and-data-analytics/the-rural-aperture-project/>)

Rural Classification Systems: Integration vs Separation

Definitional Concept: Integration versus Separation (Isserman, 2005)

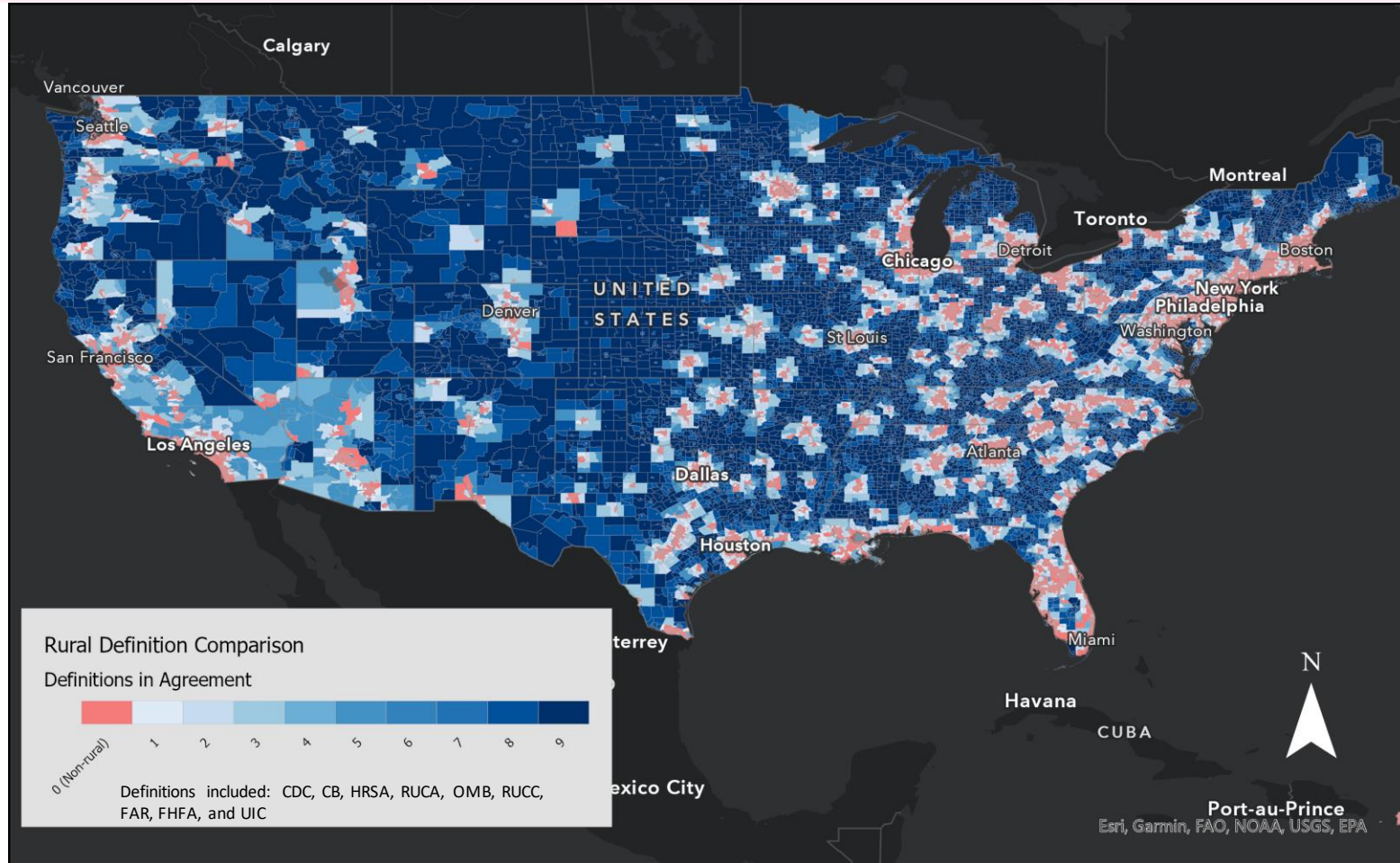
- Census Bureau identifies the **separation** of urban and rural areas: rural is simply what is not urban. Assumes homogeneity.
- OMB measures the **integration** of urban and rural areas leading to metropolitan areas which consist of both urban and rural that are functionally related. Assumes dependency.
- Using them interchangeably results in using “rural” being used in two different **“overlapping and contradictory ways”**.

Rural Classification Systems: Integration vs Separation

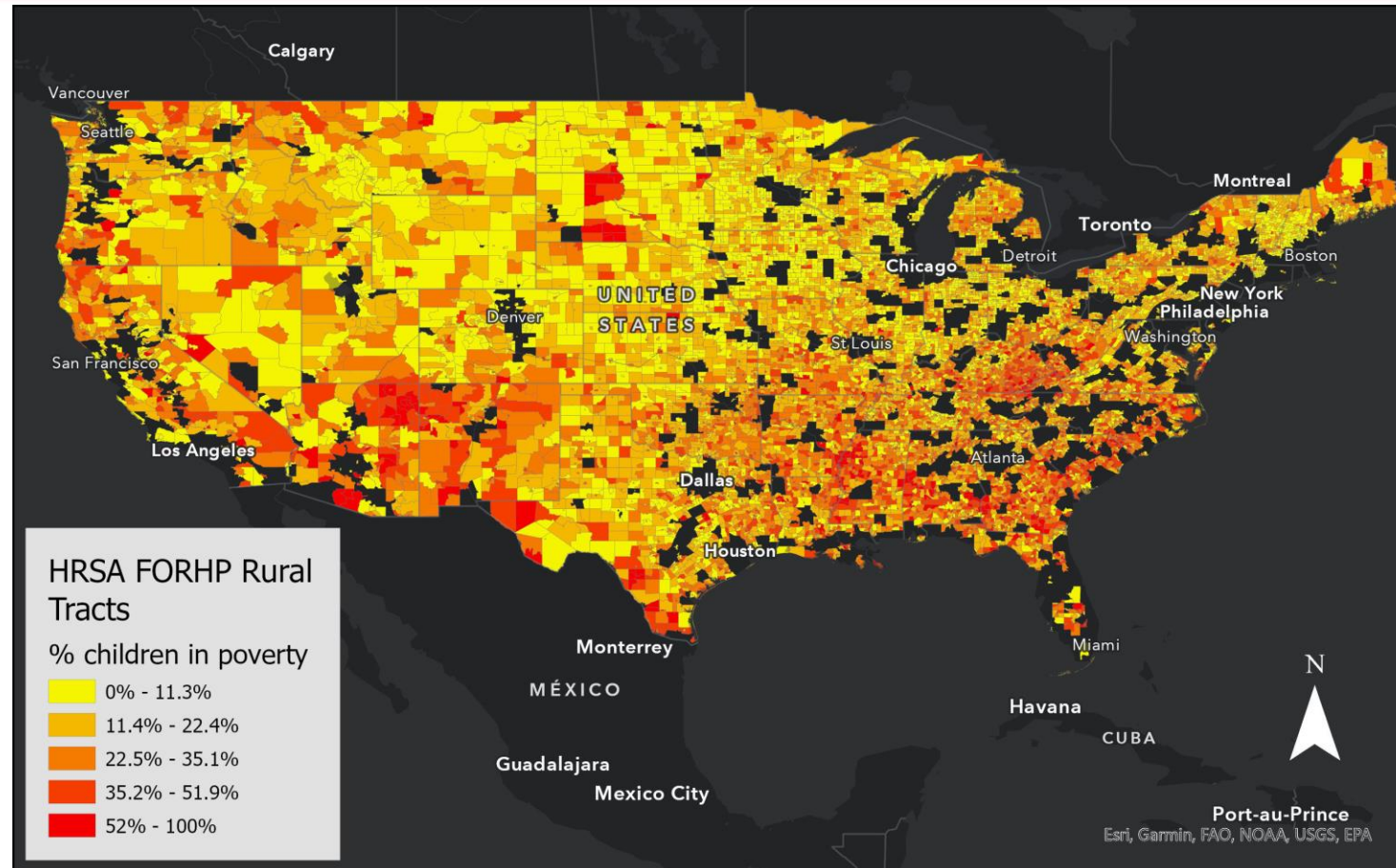
Using 'non-metro' to identify rural communities leaves out half of the rural population – **excludes rural populations in metro areas**

- Majority of rural residents live in Metropolitan counties
 - 30 million, or 55% of the total rural population, live in rural areas within Metropolitan counties

Rural Definitions: Agreement



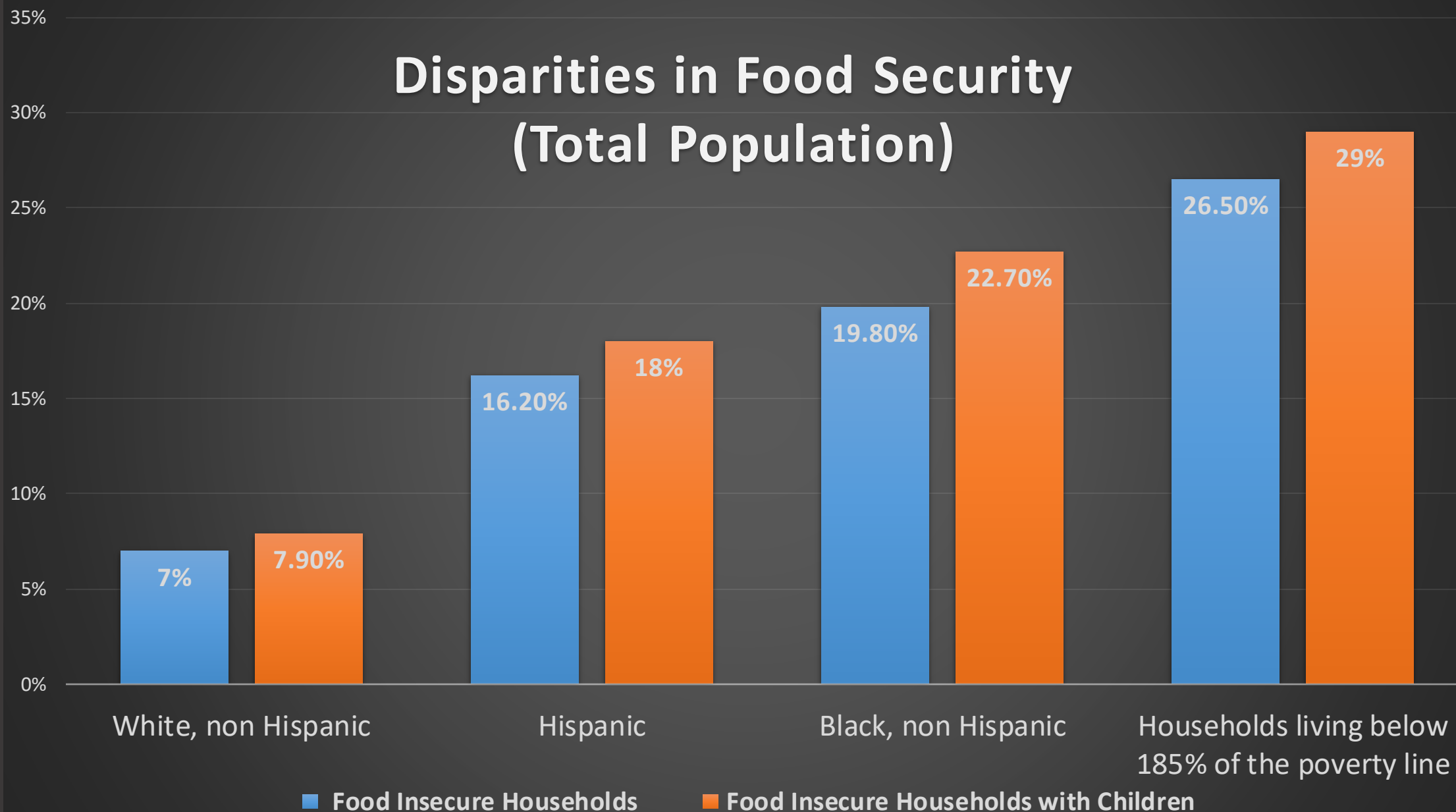
Children in Poverty: HRSA FORHP Rural Definition



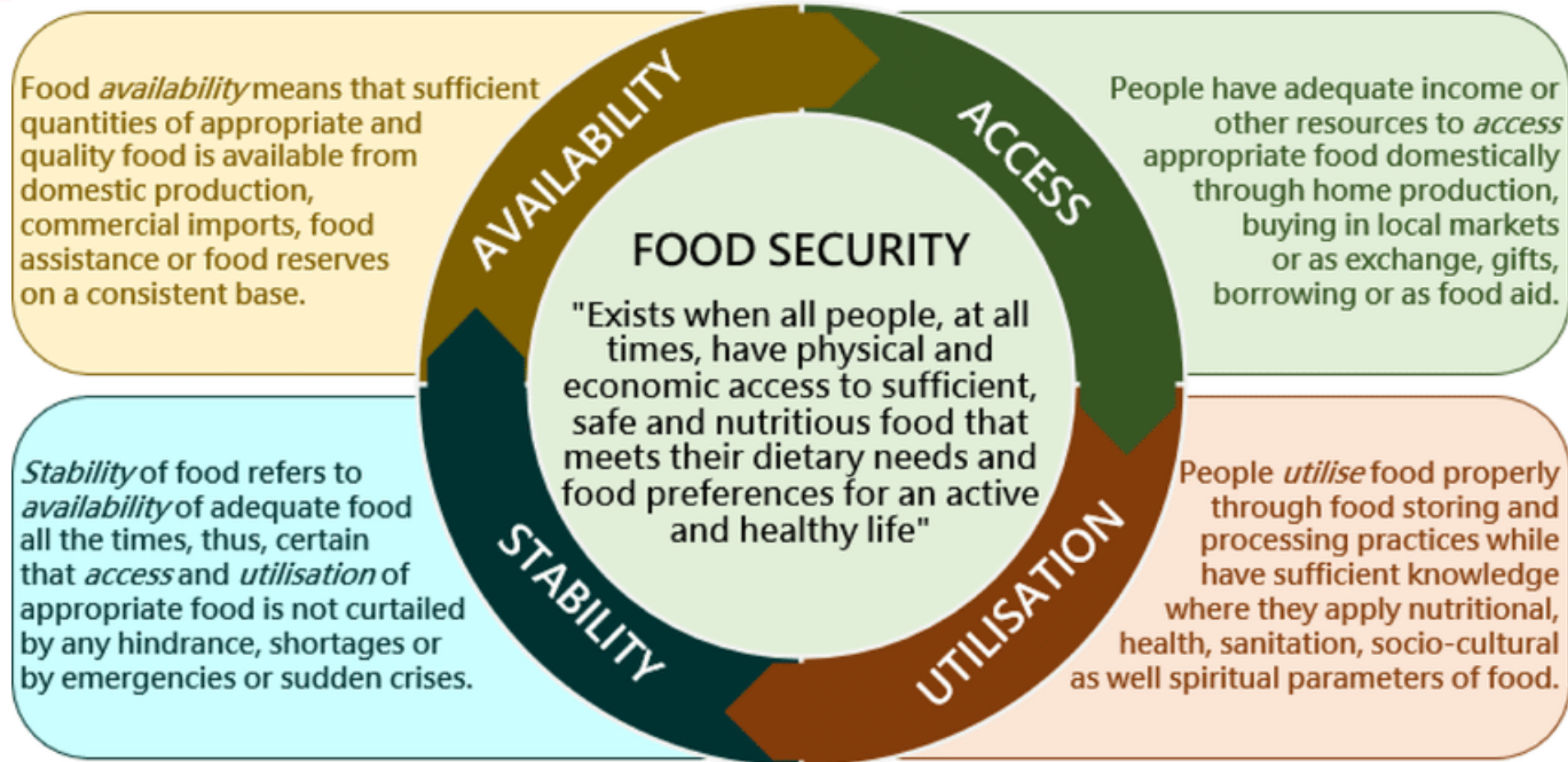
Food Security in America: Blue Sky Times

- Approximately one in ten of all Americans were at least partially food insecure in 2021
 - Including 9.3 million children
- 12.9% of all *households with children* under the age of 6 experienced food insecurity in 2021
- **In rural areas, food insecurity is slightly higher than the national average (10.2%) with 10.8% of *households* food insecure (1,961,000 households)**
- **But among rural households with children, *household* food insecurity increases to 13.7% (667,000) from 12.5% of all households**
- Additionally, 6.4% of rural households have *children* that are food-insecure (314,000 children)
 - Another .8% of households have children with very low food security (41,000 children)

Disparities in Food Security (Total Population)



FAO Traditional Dimensions of Food Security



Food Security Overview

- The four traditional pillars of food security are **Availability, Access, Stability,** and **Utilization** (FAO United Nations)
- The USDA defines **food security** as *“a household having consistent access to the quantities and types of foods necessary for an active and healthy lifestyle”*
- **Food access** reflects the extent and availability of various sources of foods (including from supermarkets, grocery stores, or other healthy food sources), and can include individual-level resources that affect accessibility (i.e., family income, vehicle/transportation access, etc.)
- However, our understanding of food security and food access have evolved in recent decades – new emphasis on **Sustainability** and **Agency** in food assistance efforts (Clapp et. al., 2022)
 - These new focus areas stand to shift the ways in which response organizations operate

Rural Context and Barriers to Food Security

- Structural challenges:
 - Lower access to urban centers, and therefore higher travel times for many social services and food providers
 - Rural communities are more likely to be located in “food deserts” than urban areas
 - Reduced population density can contribute to reduced economic opportunities (e.g. small tax base), and often under-resourced schools
 - Limited public transportation options to or from food providers
- Economic challenges:
- Poverty rates are significantly higher in many rural communities (16.1% in 2018 in rural areas vs. 12.6% in urban areas)
 - 90% of U.S. counties experiencing persistent poverty are rural
- Poverty rates and food security are closely intertwined, with 32% of households that are below the poverty line facing food insecurity

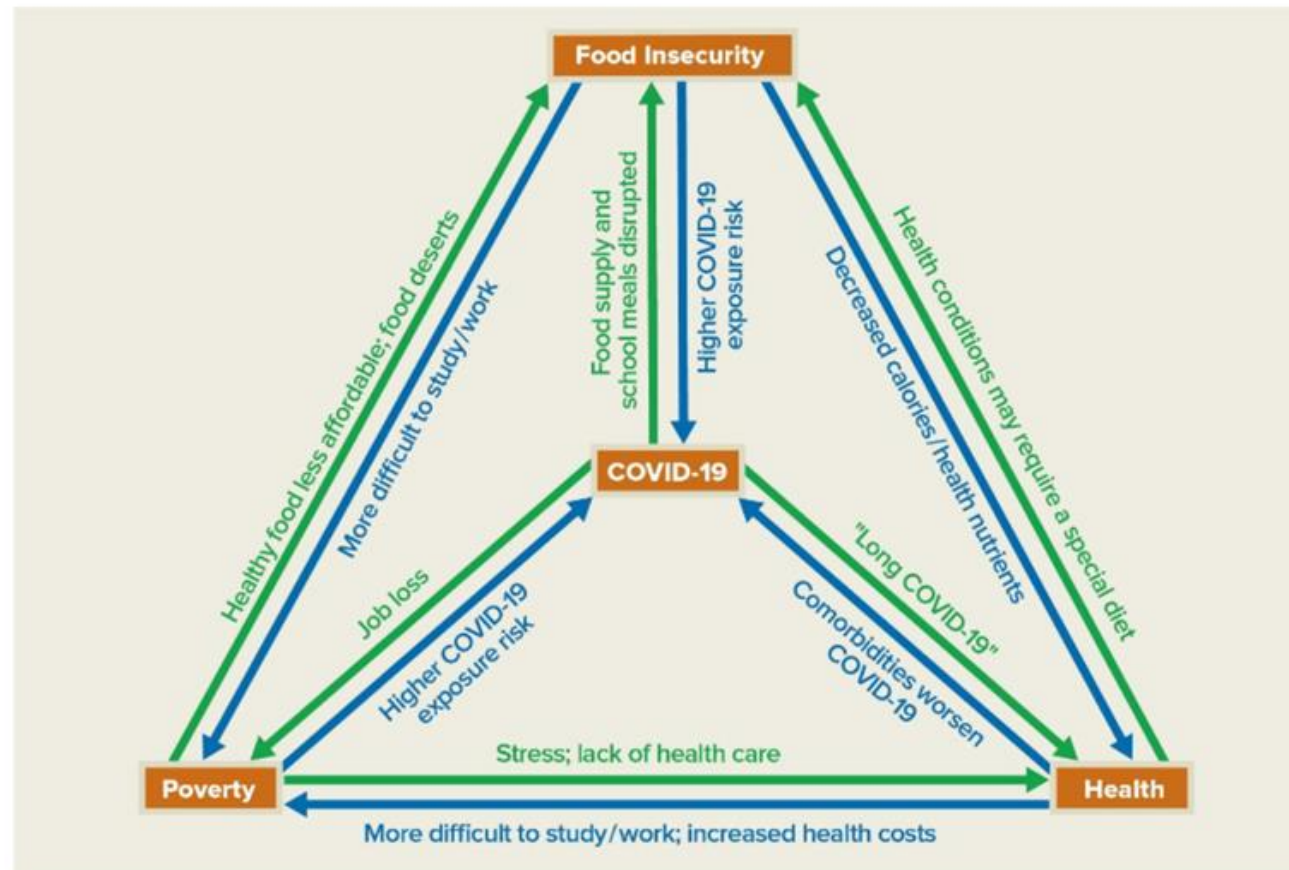
COVID-19, Rural America, and Food

Immediate impacts of COVID-19 included record unemployment and school closures, both of which greatly disrupted food security for children in rural America

- In 2020, rural households with children faced higher rates of food insecurity (16.1%) compared to suburban areas (12.4%)
- School closures led to a significant reduction in meals provided to vulnerable children through school breakfast, lunch, and afterschool programs -- over the first 7 months of the pandemic, there was a reduction in 480 million meals provided through the Child and Adult Care Food Program for children
- Household applications for the Supplemental Nutrition Assistance Program (SNAP) also surged, with participation increasing by 111% during the pandemic compared to the previous year
 - Rural communities have historically utilized SNAP at a higher rate (16%) than metropolitan areas (13%).
- Supply chain disruptions also led to price increases in essential food staples such as meat and eggs
 - On average, prices increased 2.6% in April 2020 for all groceries, the largest increase in nearly 50 years, disproportionately impacting low-income households

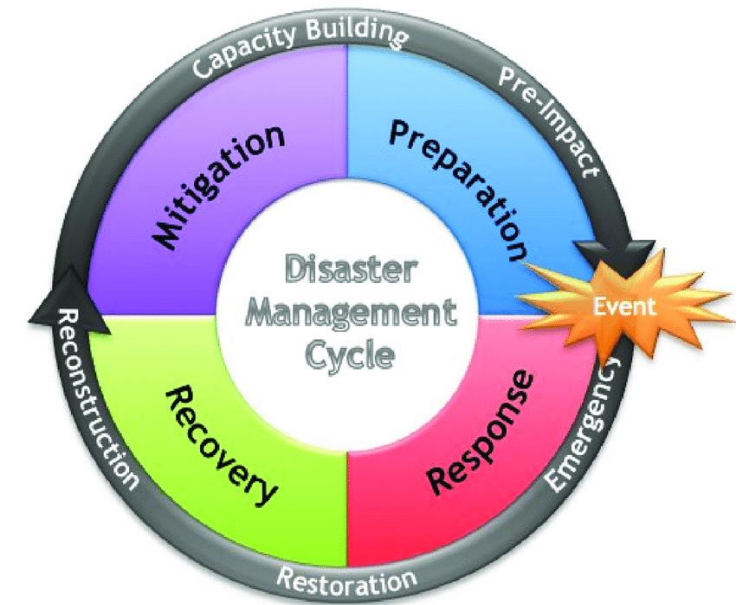
COVID-19, Food, Health, and Poverty

Figure 2: Linkages Between Hunger, Poverty, and Health During COVID-19



Inequities in Disaster Response and Recovery

- Despite an **increase in federal disaster recovery funding** that there has been an unanticipated consequence of **increased inequality** in recipient regions. Federal recovery dollars are being inequitably distributed resulting in a further deepening of pre-existing inequalities (Howell & Elliott, 2019).
 - Communities marginalized through structural factors and social determinants of health, often communities of color or low socioeconomic status, experience the opposite and are often driven further into a “poverty trap” essentially a “poverty penalty” (Abramson et al., 2015).
- (in)Equity in Disaster Response and Recovery
 - “inverse equity hypothesis” - those who have the greatest need get resources last (Victora et al, 2000)



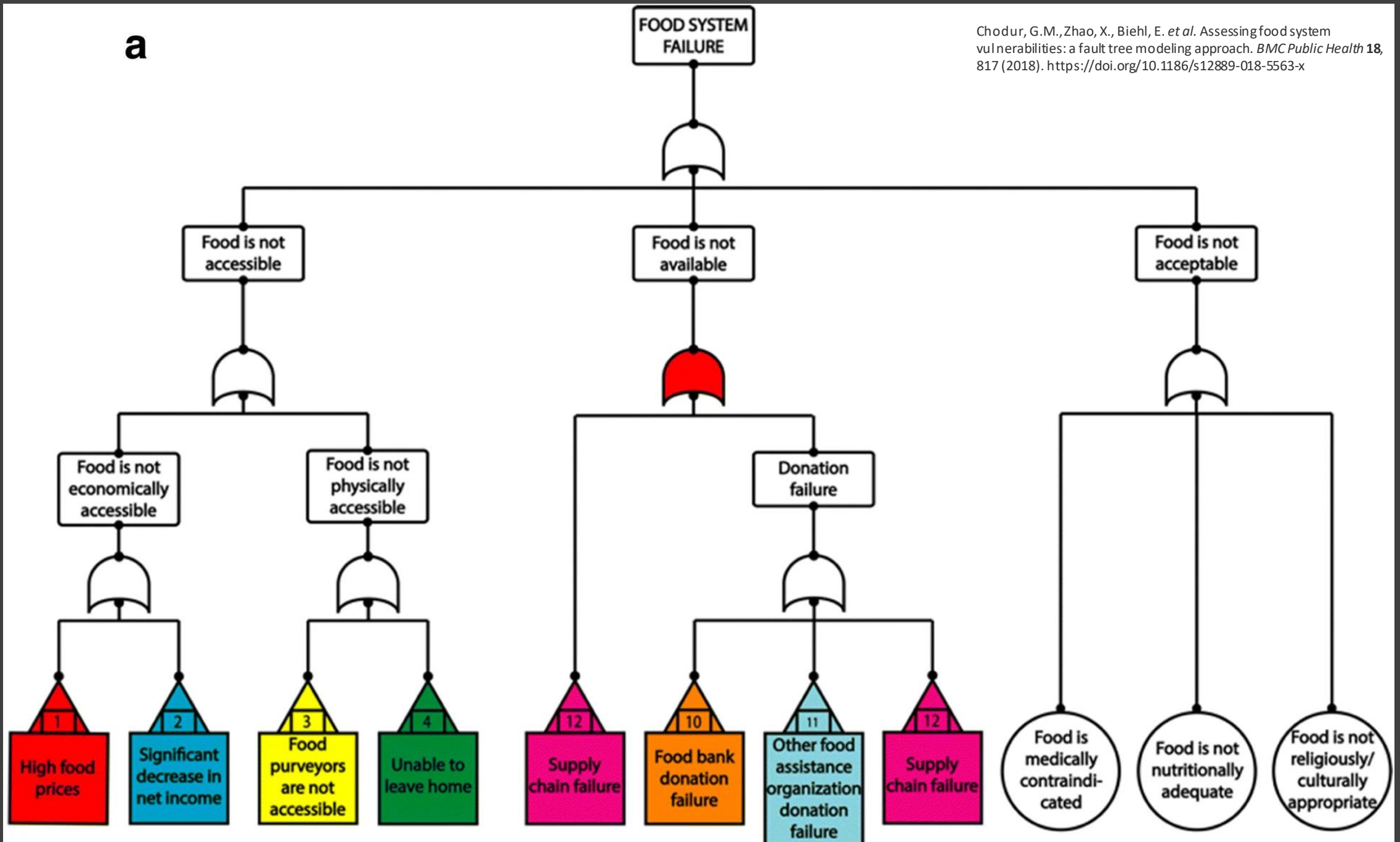
How Disasters Impact Food Security in Rural Areas

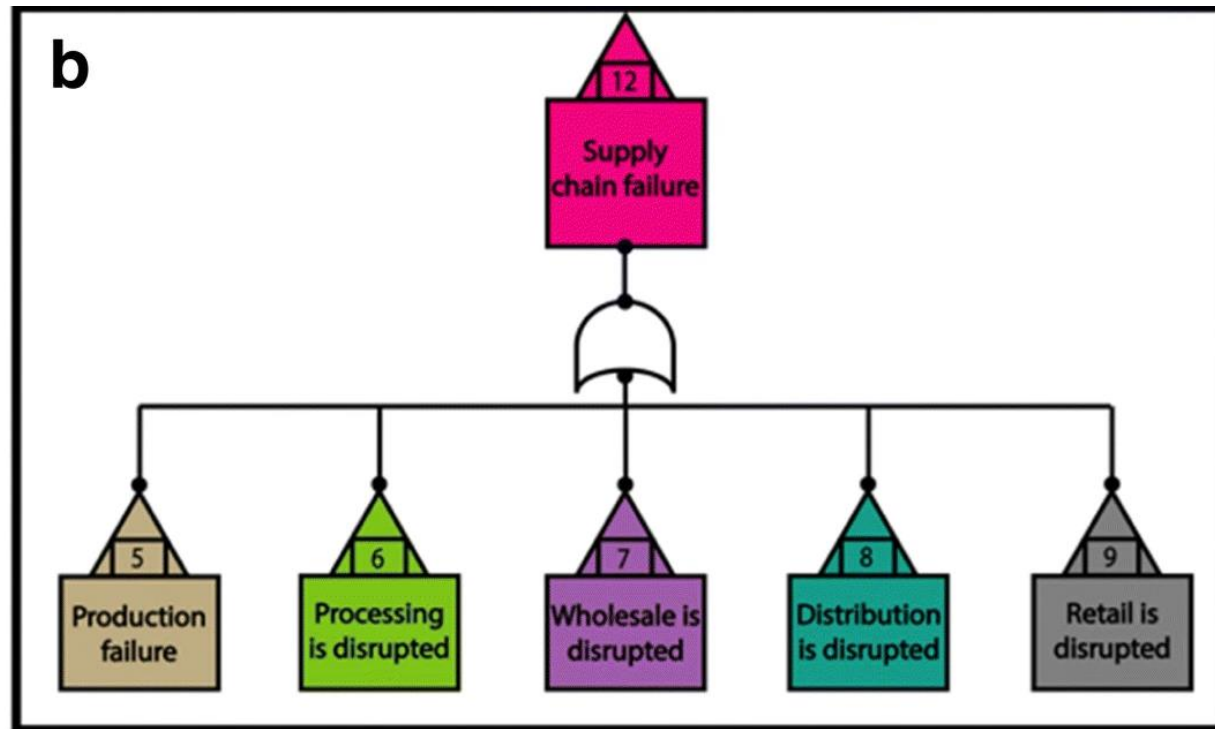
Food System Failure: A significant disruption in the provisioning of food such that the food security of the community is threatened.		
Inaccessibility: Food is present but barriers exist to prevent its acquisition by the community.	Unavailability: Food is not present at provisioning points.	Unacceptability: Food is not safe, nutritious to meet dietary needs, or culturally/religiously acceptable.

- Access (Physical)
 - Rural communities are typically geographically spread out, meaning that disasters such as severe weather can geographically isolate many households
 - Damage to infrastructure such as roads, bridges, electrical lines, or other critical infrastructure (i.e. grocery stores) can disrupt access and availability of food in a crisis – repair and restoration can be slow and protracted
 - School closures can also reduce food access for households that rely on schools for essential meal programs
- Affordability (Economic component of Access)
 - Disasters exacerbate financial hardship that is intertwined with food security (poverty penalty)
 - Rural communities tend to have limited financial resources to respond to crises, with disaster events push families into poverty and unable to afford basic food needs
 - Supply chain disruptions can further drive up the costs of basic food items, putting them out of reach for struggling families

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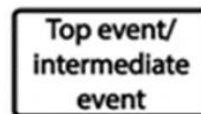
Chodur, G.M., Zhao, X., Biehl, E. *et al.* Assessing food system vulnerabilities: a fault tree modeling approach. *BMC Public Health* 18, 817 (2018). <https://doi.org/10.1186/s12889-018-5563-x>





Basic event

Failure in a basic system component



Top event/
intermediate event

Consequences of events after a gate



Transferring to/from another part of the fault tree



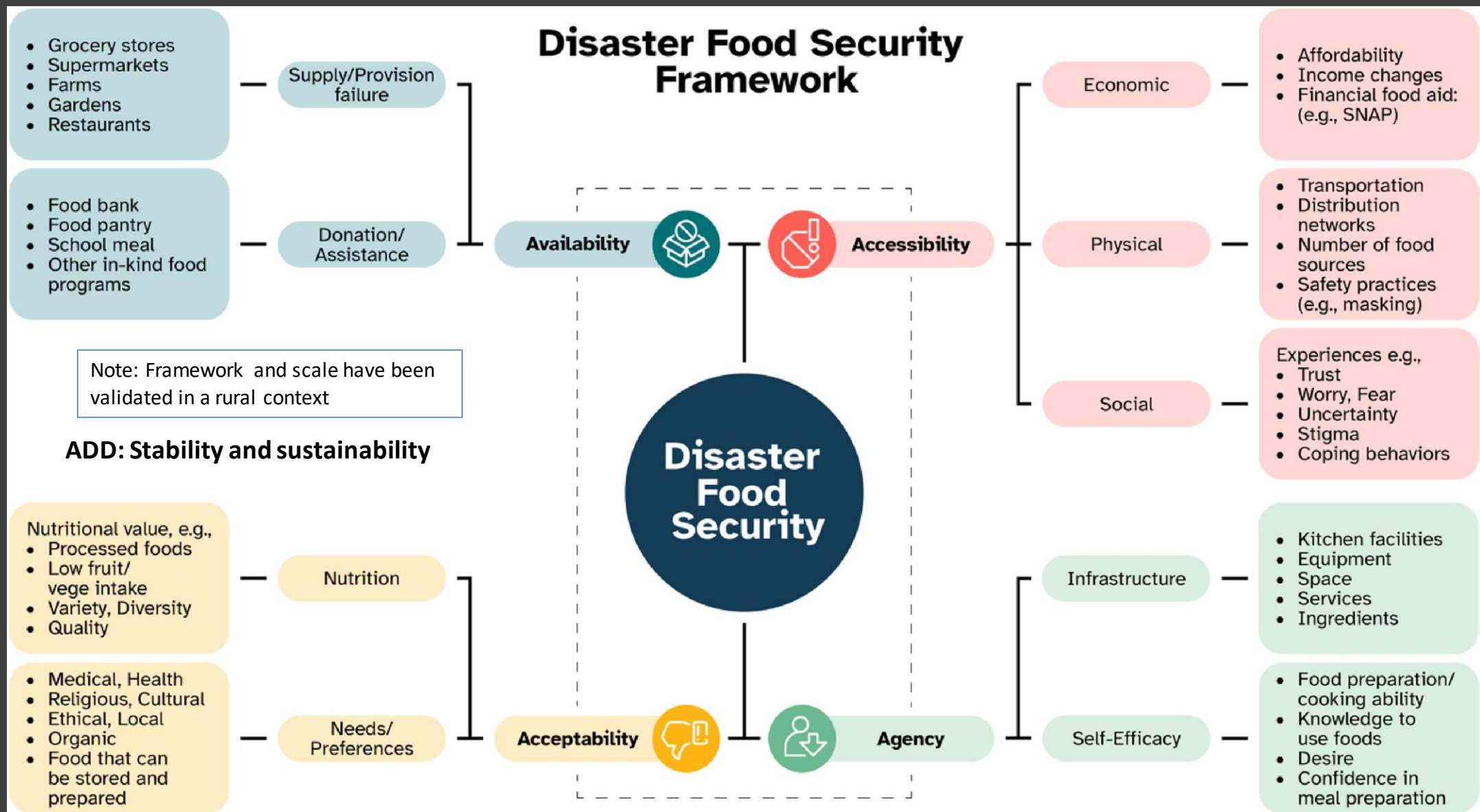
Output occurs if any input occurs



Output occurs only if all inputs occur

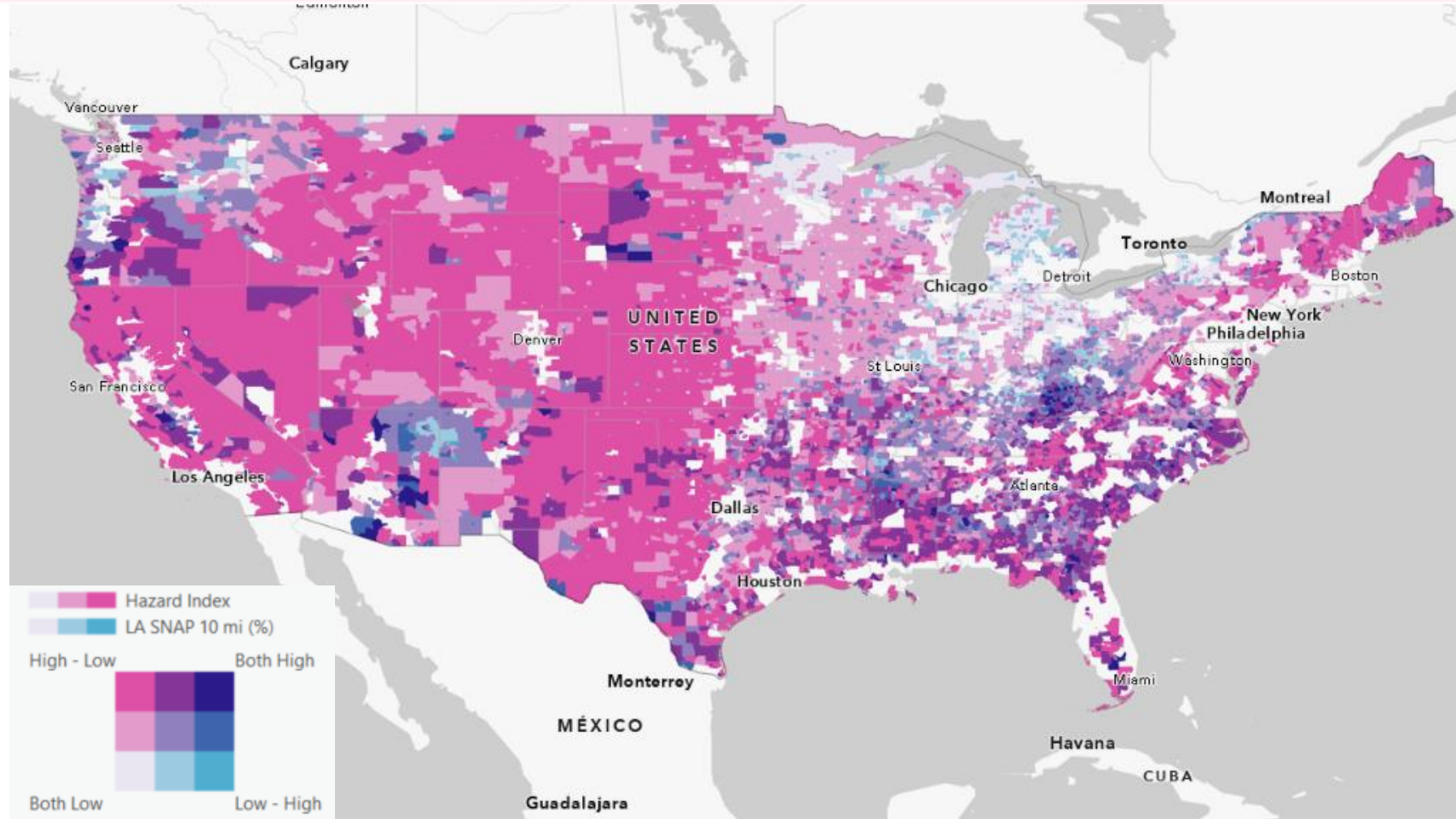


This is an 'or' gate for populations who commonly rely on donated food for part of their food supply, but it changes to an 'and' gate for the rest of populations.

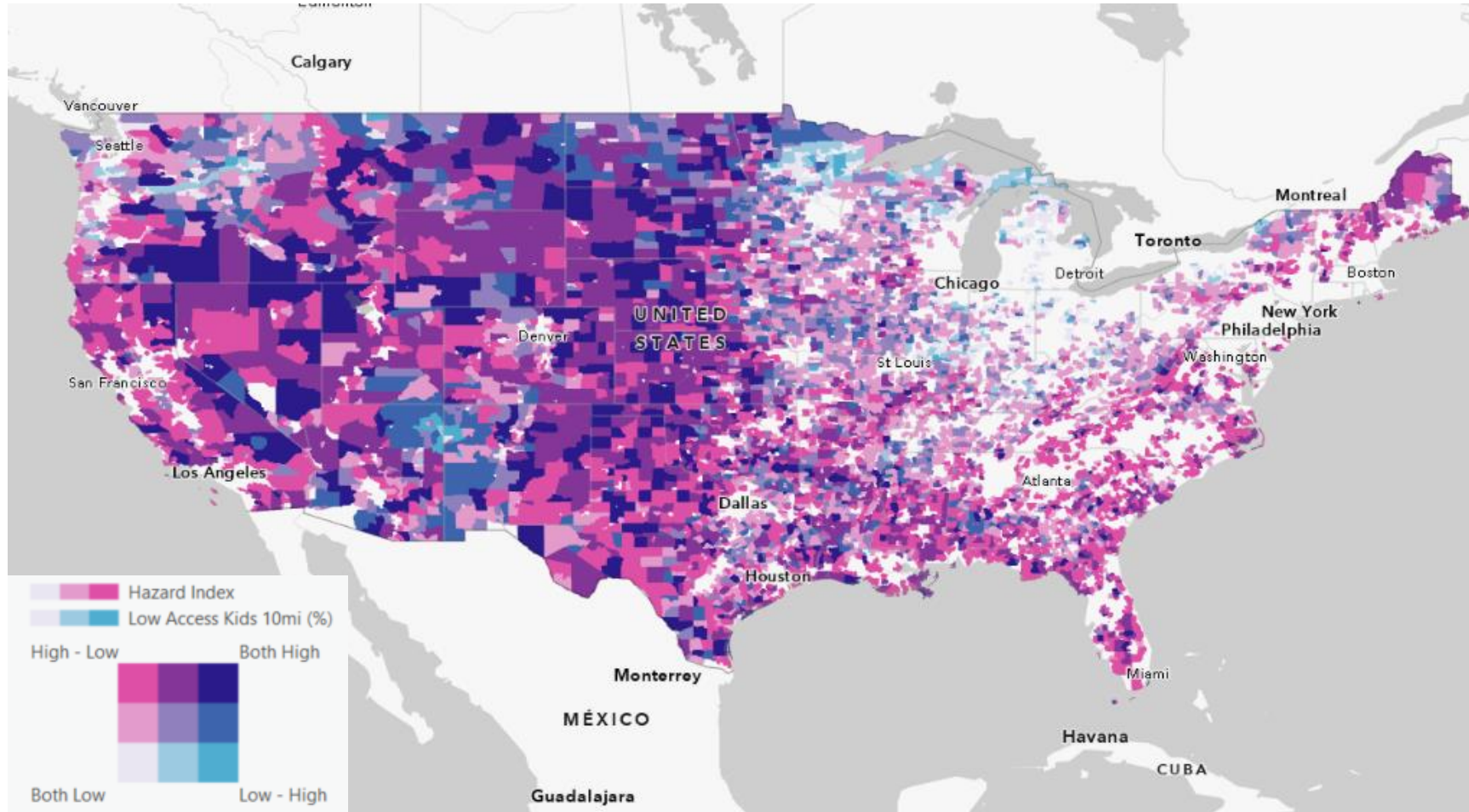


Source: Lauren A. Clay, Nadia Koyratty, Stephanie Rogus, Uriyoán Colón-Ramos, Azmal Hossan, Anna Josephson, Roni Neff, Rachel M. Zack, Sam Bliss, Meredith T. Niles, "A Mixed-Methods Approach to the Development of a Disaster Food Security Framework," *Journal of the Academy of Nutrition and Dietetics*, Volume 123, Issue 10, Supplement, 2023. Pages S46-S58, ISSN 2212-2672. <https://doi.org/10.1016/j.jand.2023.05.005>. <https://www.sciencedirect.com/science/article/pii/S2212267223002368>

Natural Hazard Index X Low Access SNAP (+10 miles to supermarket)



Natural Hazard Index X Low Access Kids (+10 miles to supermarket)



Literature Review Takeaways

- **Stigmatization of Food Assistance:** Harmful stigmas can be associated with food pantries and food banks in some communities, resulting in hesitancy to utilize charities or food banks
- **Equity Issues:** Food security is closely tied to income status and racial background.
- ***“Food Deserts” Can Be Misleading:** Areas that lack access to fresh food retailers tend to predispose populations to food insecurity. However, food deserts can sometimes be a “red herring” for food security (Brookings, 2021). **Access does not equal affordability.**
- **Significance of Income Assistance Programs:** Income assistance programs such as SNAP are a widely utilized in rural communities. These programs are consistently utilized at a higher rate in rural areas (16%) than other parts of the U.S. (13% in metro areas). One study on low-income Latino households in California found that nearly 50% of households surveyed participated in SNAP.
- ***Emergency Food Assistance:** Food needs during a disaster are greatest in the immediate days following the event, with ready-to-eat meals most desirable, as well as other shelf-stable snacks. However, outside of immediate crisis situations, households tend to prefer having the flexibility and option to choose the food they purchase.
 - Programs such as SNAP and WIC that provide vouchers or electronic benefit transfer (EBT) afford greater flexibility in allowing households to choose preferred or culturally appropriate food options (if available).

Ancillary Study: Localization and Disasters

Initial Takeaways

- NCDP Localization Study
 - Study Design: Using a qualitative research approach of semi-structured interviews with local rural partners to better understand dimensions of participation, funding, partnerships, and other elements of emergency response.
- Initial takeaways:
 - **Transportation and physical access** for last mile food delivery can be unfeasible for some rural areas, or underestimated in terms of resources required
 - Challenges of sufficient **food storage and refrigeration** at food bank or other facilities can limit the quantity of perishable food items. Several local partners noted the importance of acquiring larger refrigeration and storage facilities
 - **Local agricultural and livestock** products often do not benefit the local community, but are shipped or processed elsewhere
 - **Shelf-stable food items** are not always utilized by recipients, due to differing cultural backgrounds and cooking / food preferences
 - There is a wide array of food bank **models and food assistance programs**, including federally funded programs, farm-to-table products, school-provided meals, and backpack programs – vary widely = local context is critical for planning
 - Many partner organizations had **little experience in disaster response** and therefore little knowledge or experience with disaster food assistance programs and opportunities
 - **However, most respondents emphasized their own logistics expertise and noted that it is often under-appreciated or un-recognized**

Recommendations

- Engage in organizational level Continuity of Operations Planning (COOP) as one step toward sector-level preparedness which must include all actors along the supply chain
 - COOP Planning Template: <https://bit.ly/rc-tmp-22>
- Utilize the Disaster Food Security Framework as a planning tool and the Disaster Food Security Scale for disaster event data collection to evaluate food security
- Consider and plan for how specific hazards may impact food security after a disaster – examine each component in the food system
- Cannot assume needs are the same across any community – “all responses are local” – and all responses should be locally-led
- Lean on coalitions, build partnerships (utilize MOUs if possible), strengthen relationships, and know who to call on for what
- Reflect on COVID-19 learnings and integrate them into disaster planning
- Recognize your own expertise!

Resources



Preparing for and Responding to
Disasters in Rural America: resources
for child-focused organizations



Rural Child and Family Wellbeing Data
Project + Rural Definitions Primer



Thank You

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Responding to Disasters in Rural Communities

Convoy of Hope

Nick Wiersma


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Rural Disasters:

- Relationships are key
- It may be the first and last disaster that EM will ever see
- Current infrastructure / capacity
- Find your lane
- Get there fast and pace the distribution
- Clean up may go fast, but recovery will take longer
- Be willing to go to the 'forgotten' areas
- Communicate your organizations timelines and capacity



Rural America 2023:

- The pandemic hurt Rural America
- Requests for food in RA are higher than normal
- Surround yourself with organizations that have expertise and experience in areas that your organization does not currently have
- Resilient and tired
- Approach with long term thinking





Bahamas warning...

Just because there is an abundance of farmland, does not mean that nutritious food is available to its community.

2023 Narrative:

As we have seen the needs accelerate in Rural America, we are quickly realizing that every agency needs to maximize their available time and resources. The needs and opportunities are out pacing our capacities. Make changes where necessary and even re-calibrate your expectations for a season, if needed.

- Stick to your strengths
- Stay in the game
- Positive pressure over the course of time



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FOOD CRISIS DISTRIBUTION



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THANK YOU!



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