

From evidence to action: How can we build systems to promote children's nutritional health with a focus on equity?

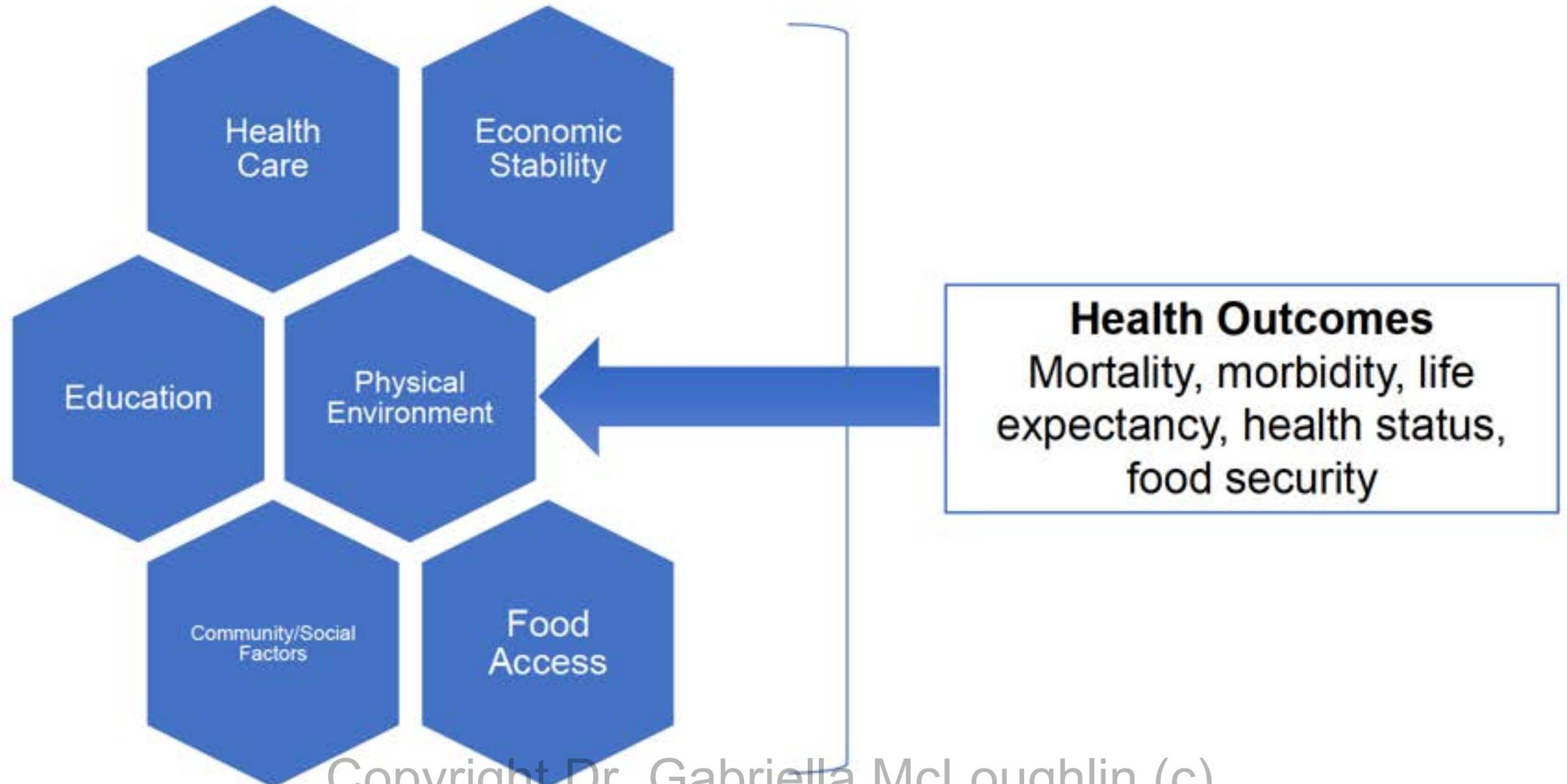


Dr. Gabriella McLoughlin

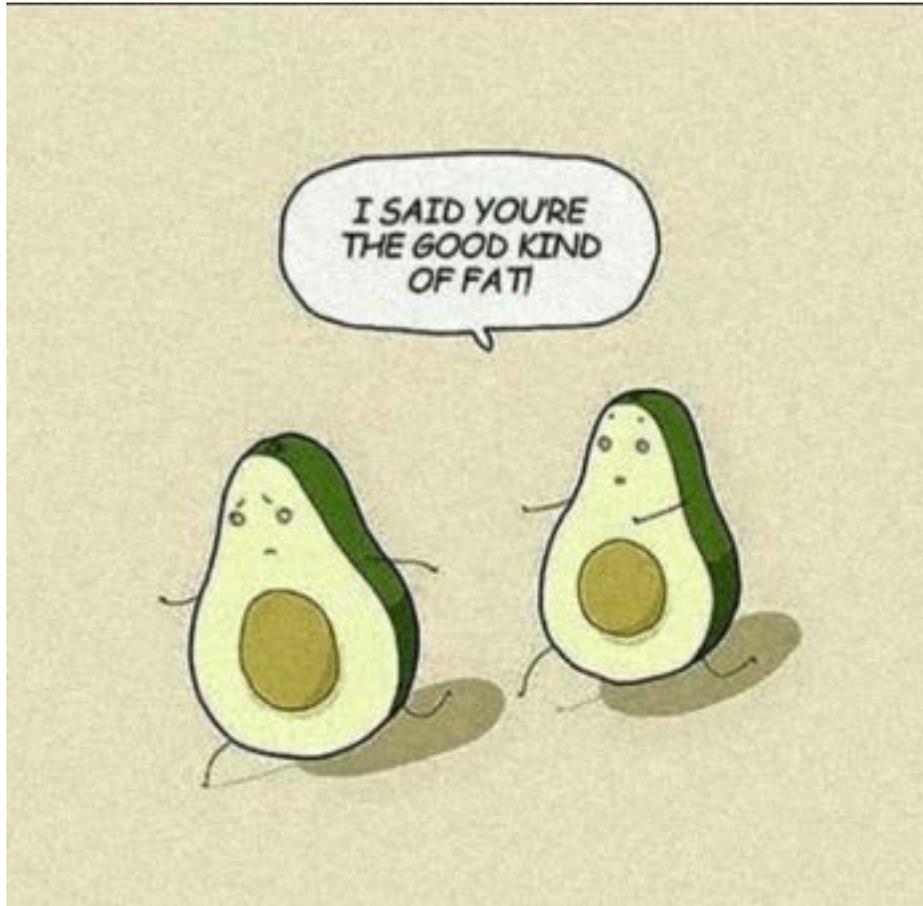
Assistant Professor

College of Public Health, Temple University

The Case for Equity



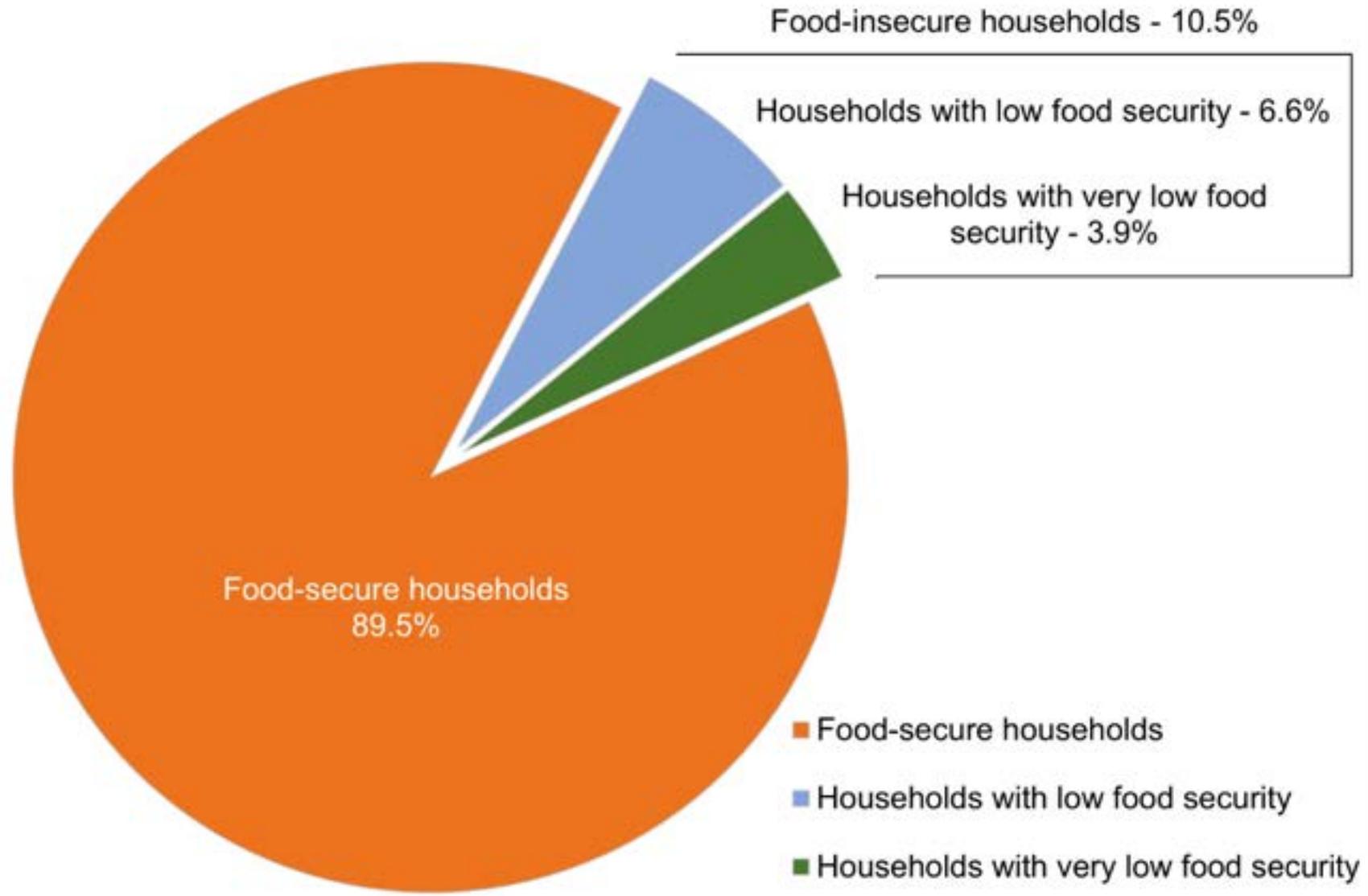
Food Insecurity



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

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

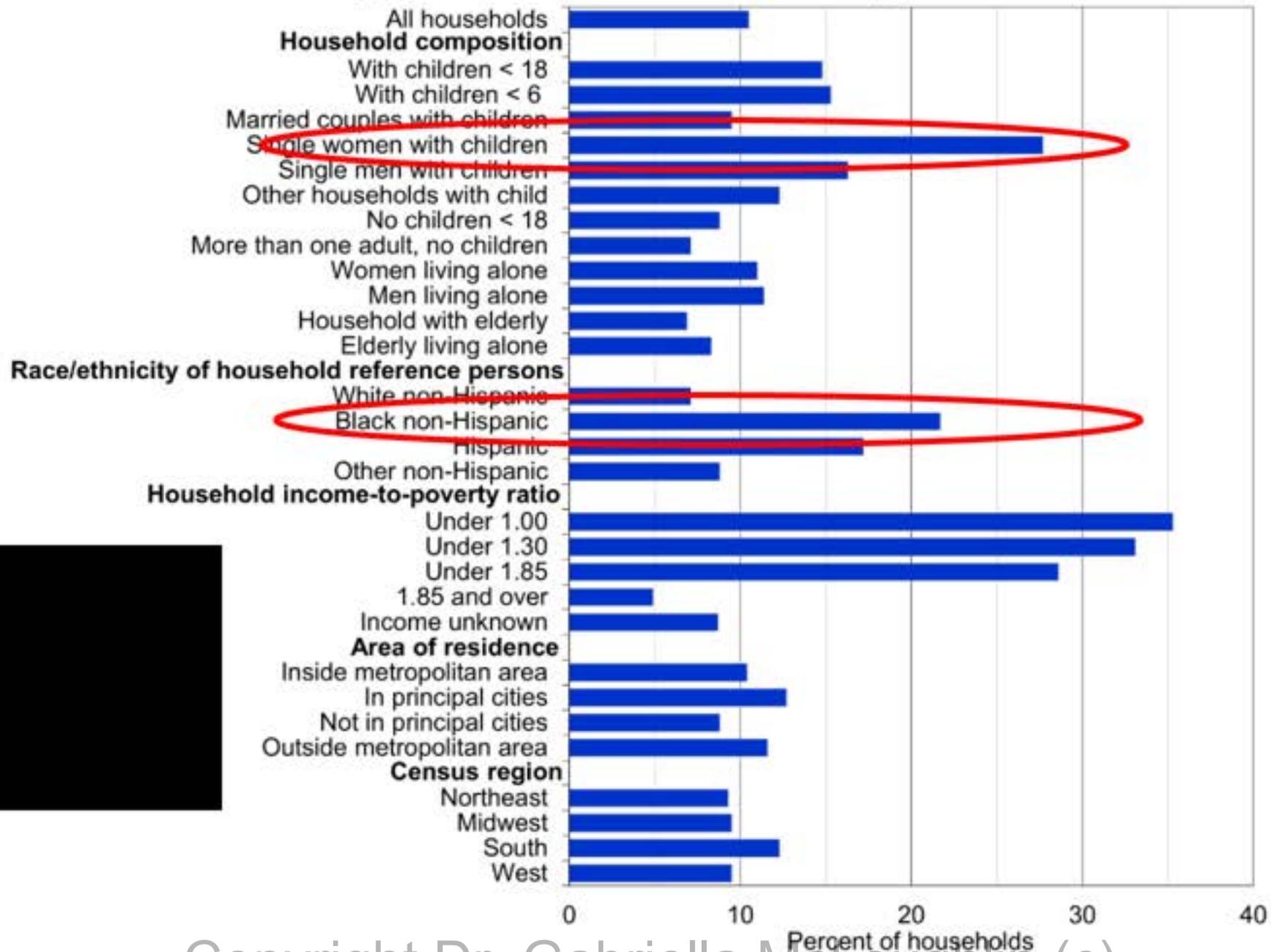
U.S. households by food security status, 2020



Source: USDA, Economic Research Service, using data from the December 2020 Current Population Survey Food Security Supplement, U.S. Census Bureau.

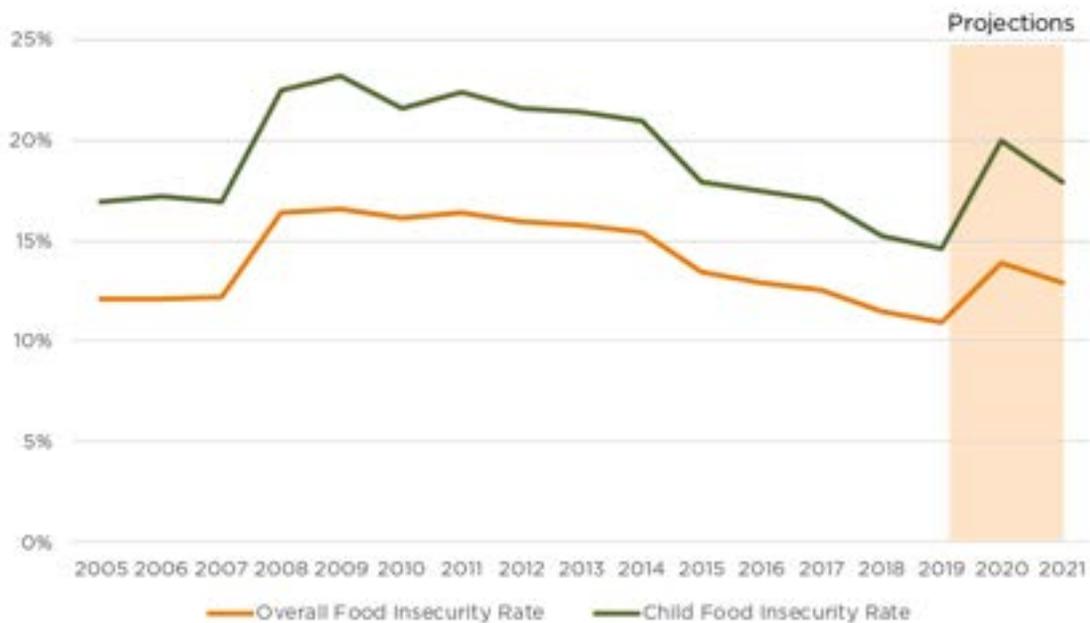
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Prevalence of food insecurity by selected household characteristics, 2020



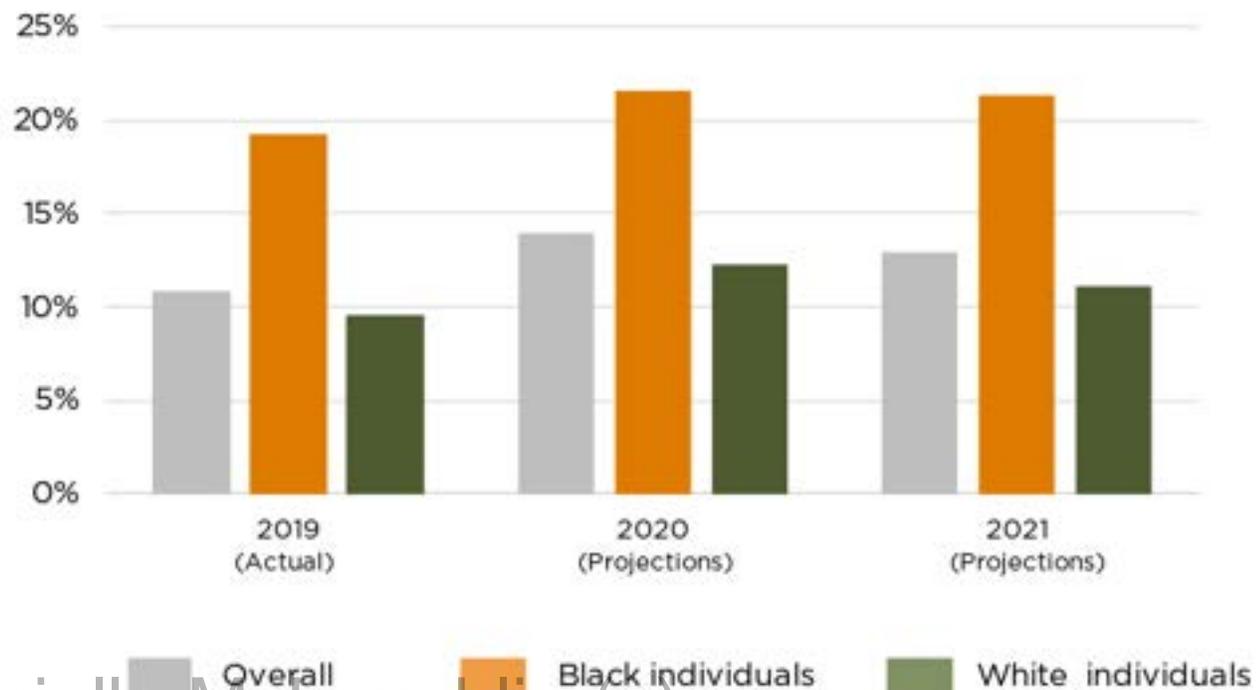
Source: USDA, Economic Research Service, using data from the December 2020 Current Population Survey Food Security Supplement, U.S. Census Bureau.

Food Insecurity Trends & Projections



What happened as a result of COVID-19?

Food insecurity among Black and white individuals

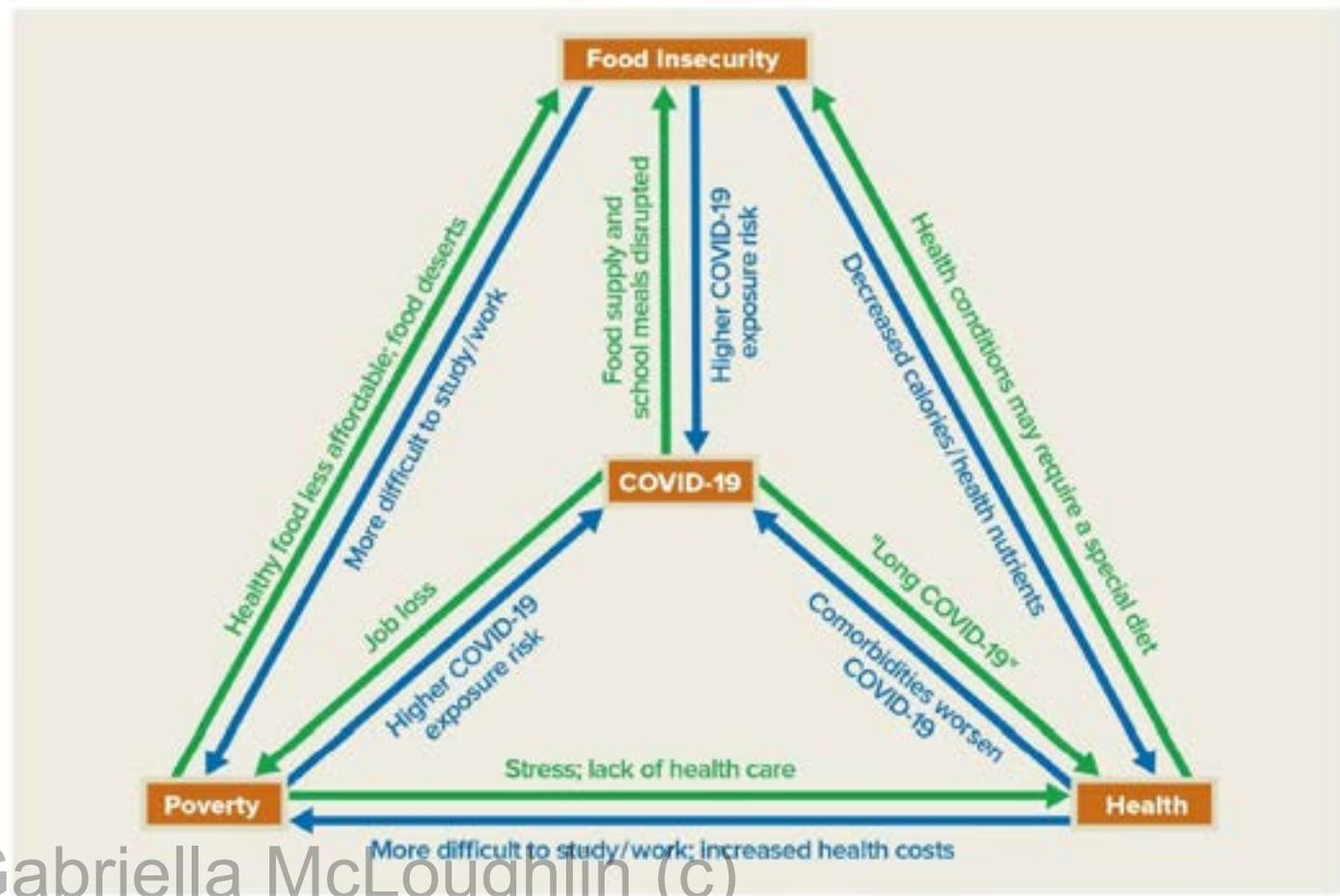


Childhood Obesity Disparities and Food Insecurity

A Conceptual Framework:
Cycle of Food Insecurity & Chronic Disease



Adapted: Seligman HK, Schlinger D. N Engl J Med. 2010;363:6-9



Getting To Equity (GTE) Framework



COVID-19 Emergency School Meal Distribution

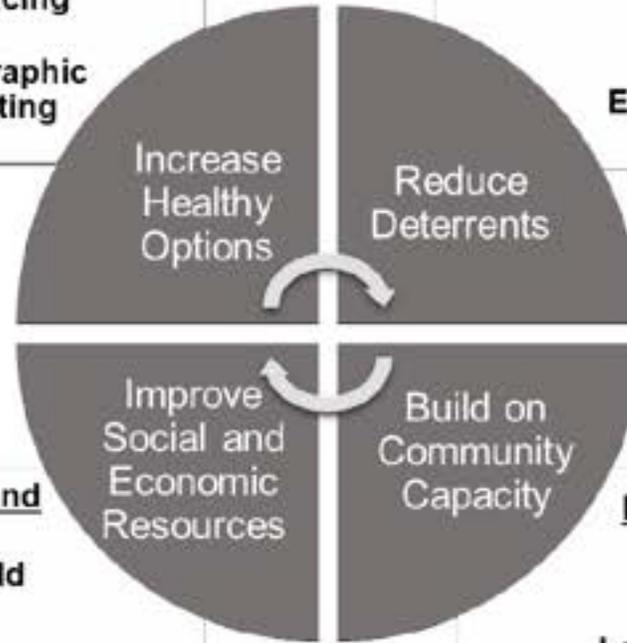


Emergency school meals provision during COVID-19

Distribution of free meals
Provide menu & nutrition facts
Give social distancing guidance
Offer broad geographic eligibility & operating hours

Address barriers to accessing meals
Address fear of discrimination
Provide multilingual communications
Empower Households
Accessible locations

<p>Since March 17, we've provided 12,534,573 grab-and-go meals across the district.</p>	<p>Desde el 17 de marzo, hemos proporcionado 12,534,573 cajas de comidas en todo el distrito.</p>
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Assist with child and family needs
Increase household minimum wage
Access to food assistance programs
Access to federal stimulus funds

Facilitate Maximum Benefit
Build community partnerships
Leverage community resources
Promote healthy behaviors

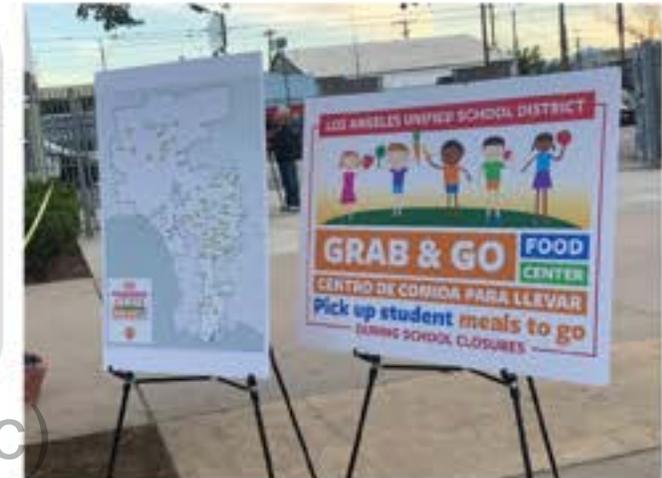
Individual and household resources and capacity



Facility tour showcases how Nutrition Services is mobilizing to safely feed families

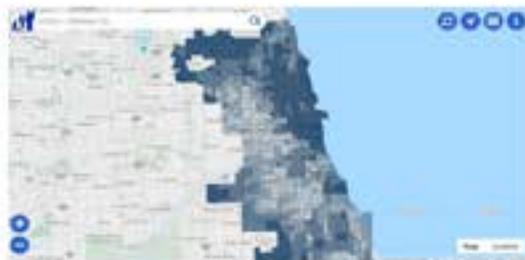


When nutrition superintendent Cynthia Lathan arrived at the food respite center, she was eager to tour facility operations, but pre-arranged food to be taken first. When entering the facility, her temperature was taken and she wore a face shield and clear sign of the times as she walked through the COVID-19 pandemic. "In the weeks since our district closed, we've worked hard to meet the needs of our community," Lathan said.





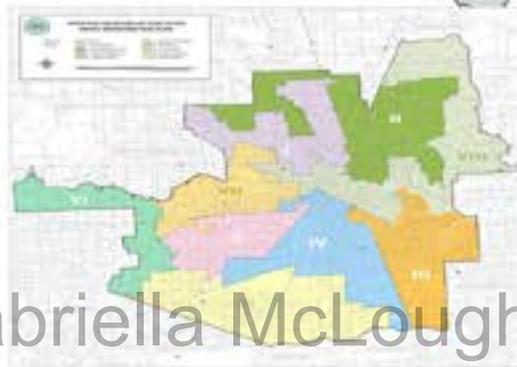
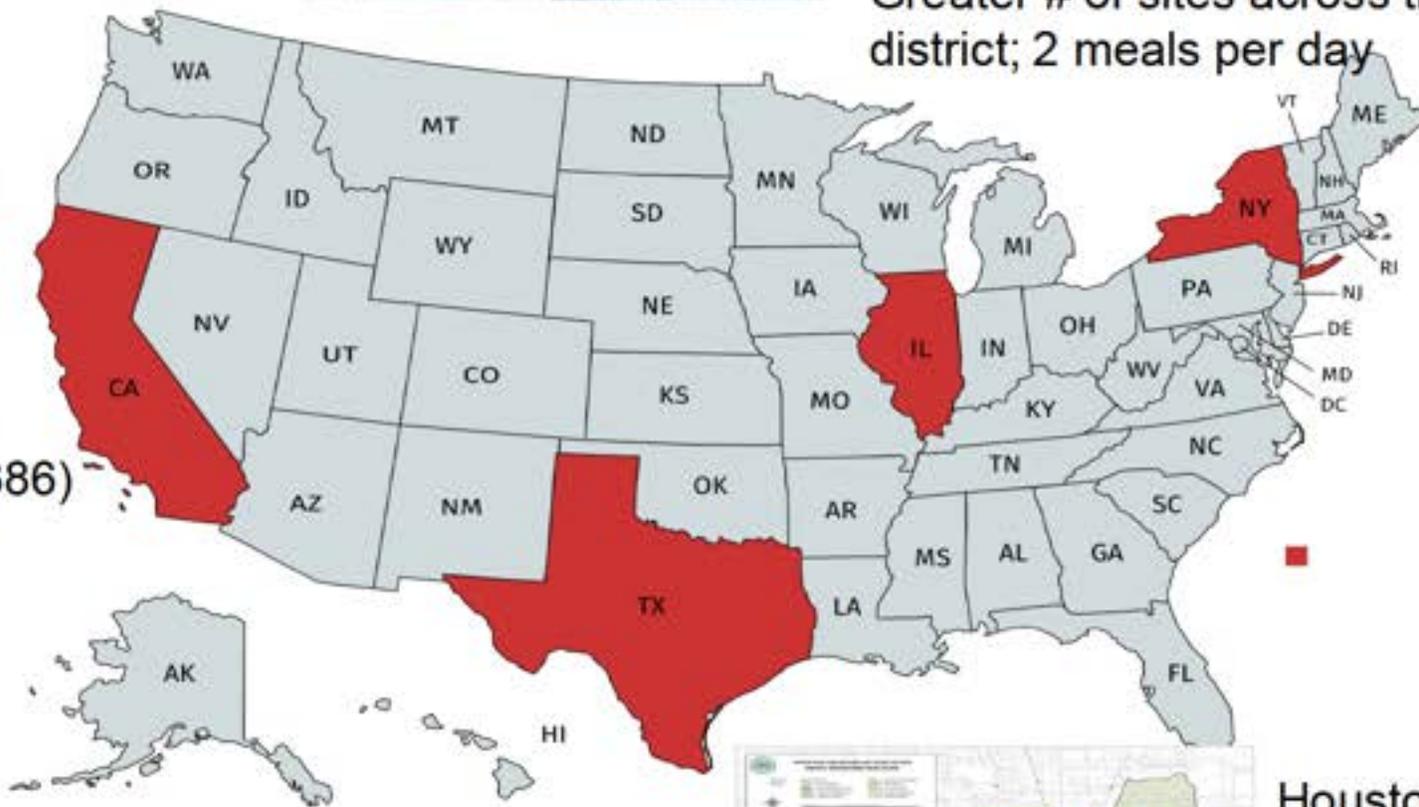
Los Angeles Unified School District (N=1386)
 577,560 enrollment
 80% FARM Eligible
 Fewer sites- more centralized
 2 meals per day



Chicago Public Schools (N=642)
 377,644 enrollment
 76.4% FARM Eligible
 Greater # of sites across the district; 2 meals per day



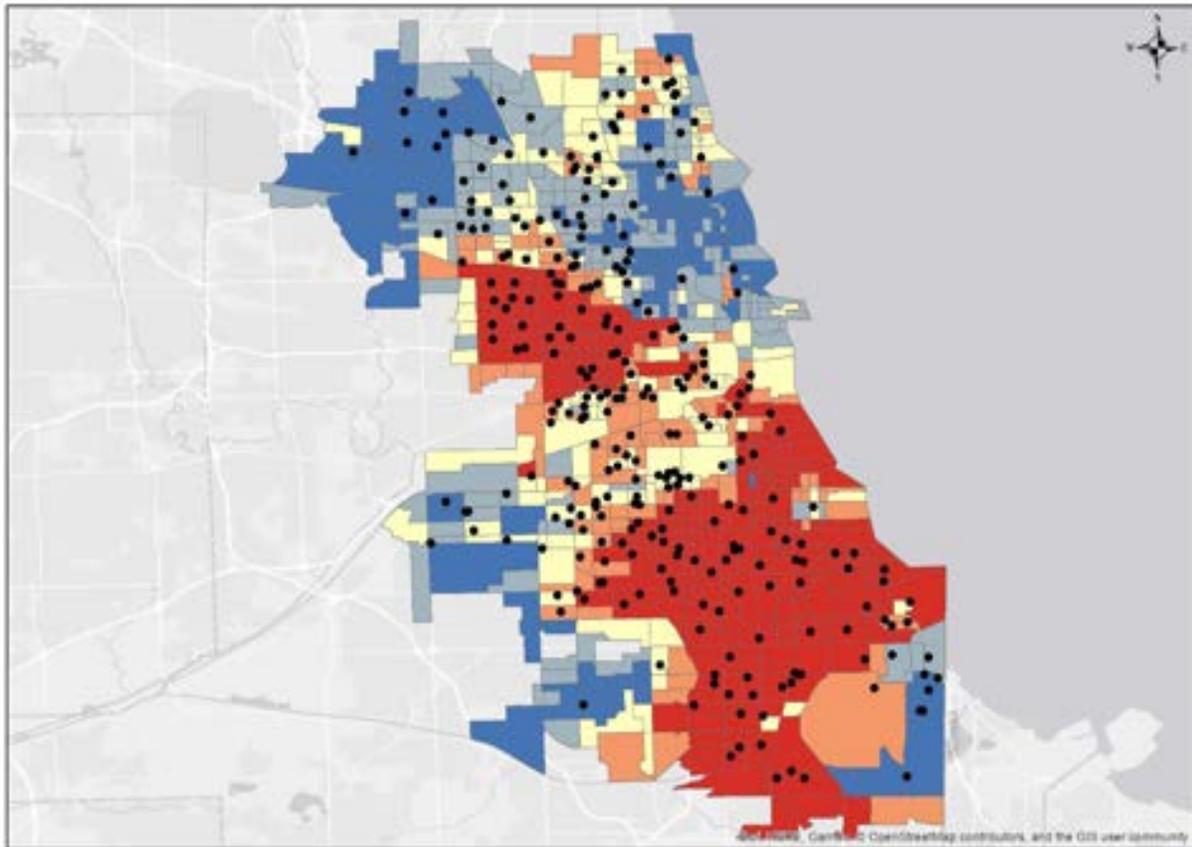
New York City Department of Education (N=1866)
 1,126,501 enrollment
 72.8% FARM Eligible
 Greater # of sites across the district; 3 meals per day



Houston Independent School District (N=280)
 209,772 enrollment
 74.9% FARM Eligible
 Fewer sites- food bank-style distribution; 1 week of food per visit

Created with mapchart.net

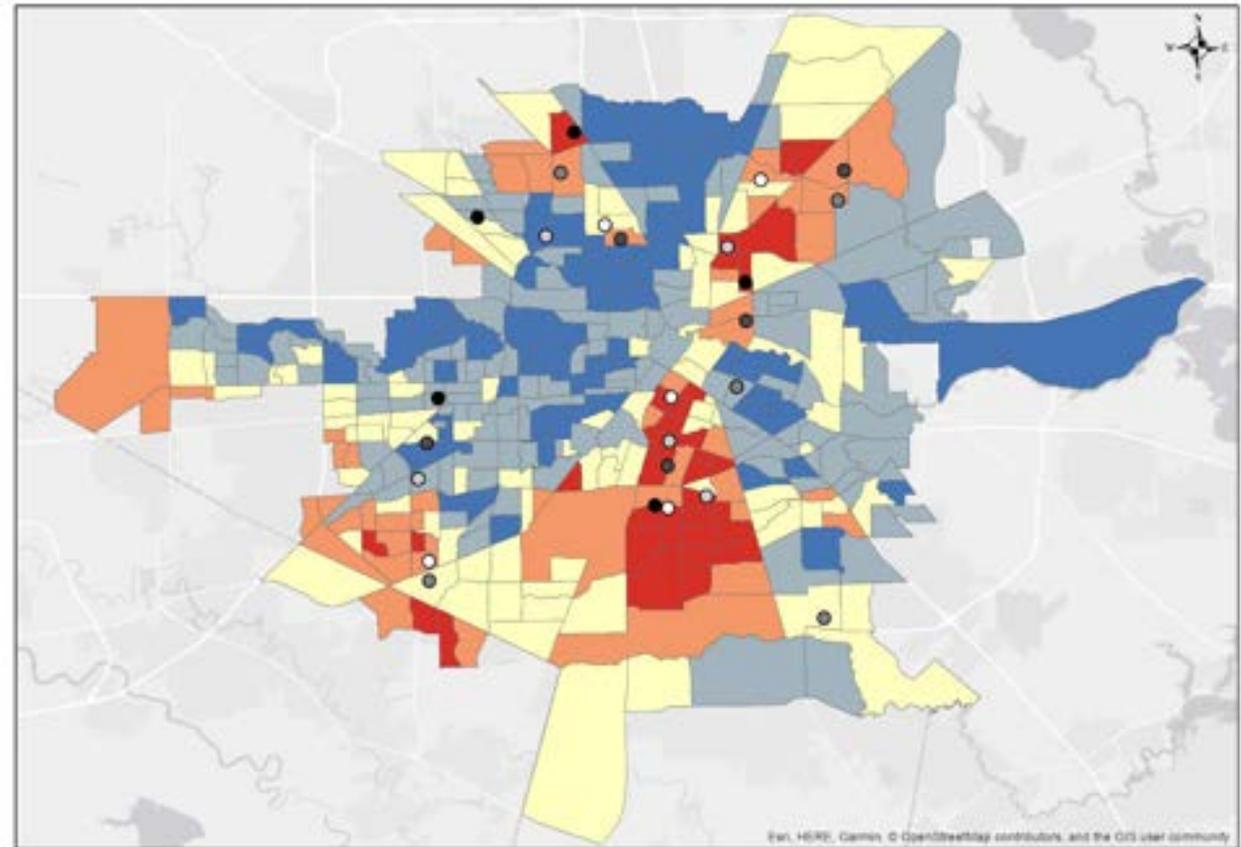
GIS Data Snapshot – Racial/Ethnic Minority



CHI Meal Sites *

CHI Census Tracts Percent Minority (Geometric Interval) 0% - 17.8% 17.9% - 32% 32.1% - 49.8% 49.9% - 72.1% 72.2% - 100%

Chicago placed 40% of sites in census tracts above median %ethnic minority



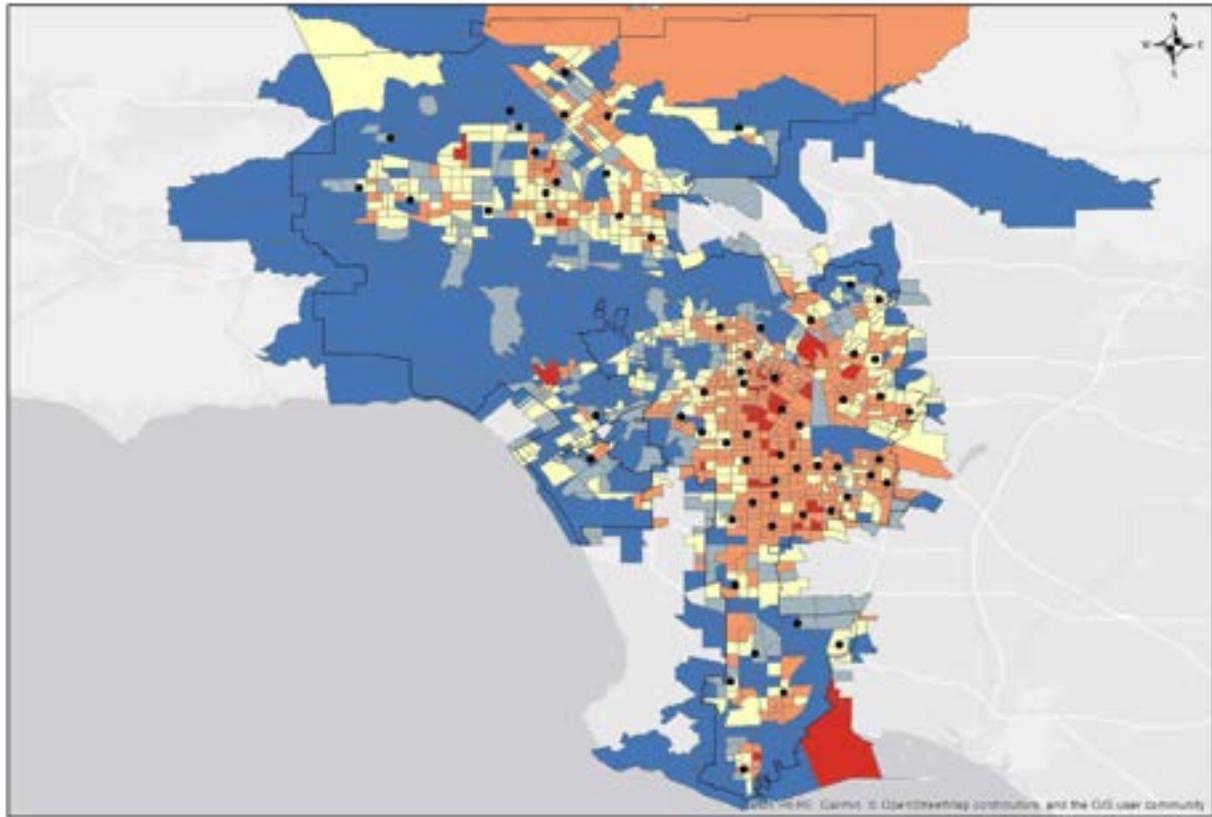
Houston Meal Sites - OpenDay ○ Monday ○ Tuesday ● Wednesday ● Thursday ● Friday

HOU Census Tracts Percent Minority (Equal Interval) 0% - 20% 20.1% - 40% 40.1% - 60% 60.1% - 80% 80.1% - 100%

Houston placed 76% of sites in census tracts above median %ethnic minority

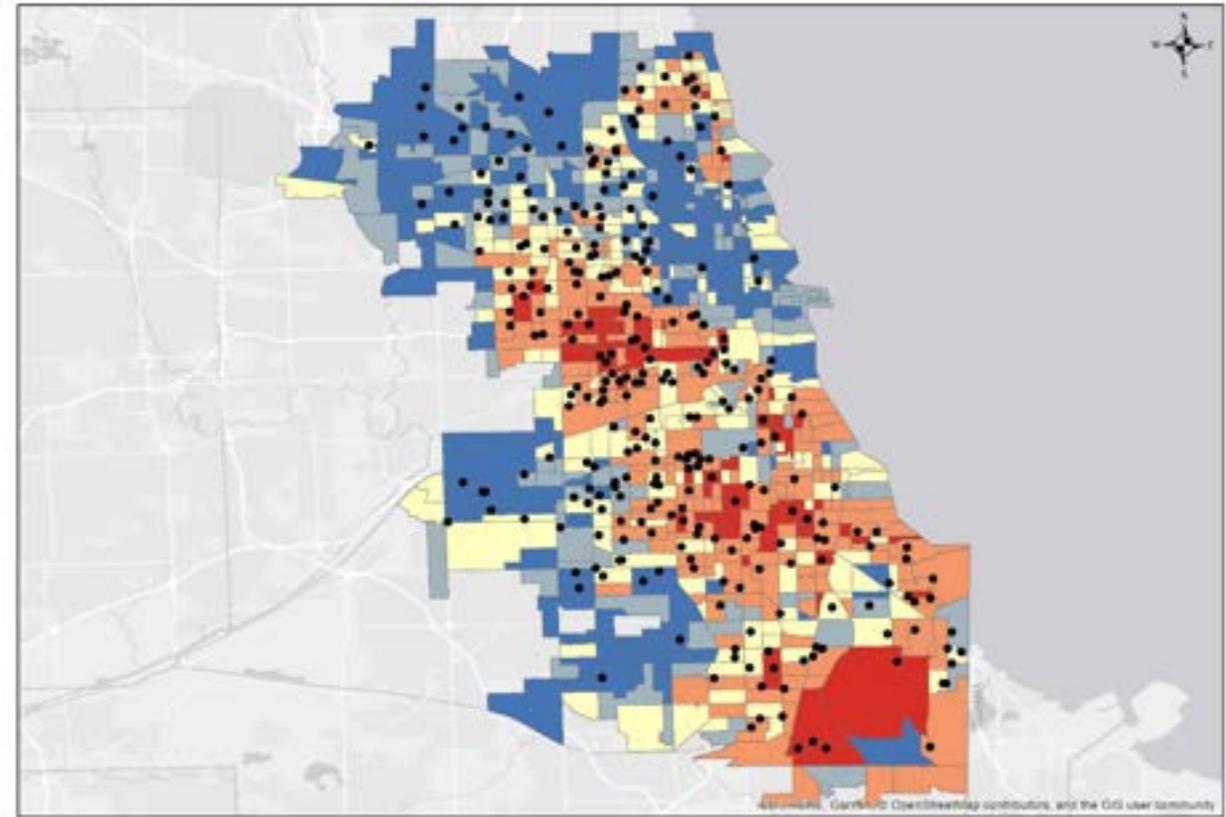
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GIS Data Snapshot – Poverty



LA Meal Sites •
LA Census Tracts Percent Poverty (Geometric Interval) 0% - 8.84% 8.85% - 12% 12.01% - 20.84% 20.85% - 42.86% 42.87% - 100%
LA Unified District Boundary

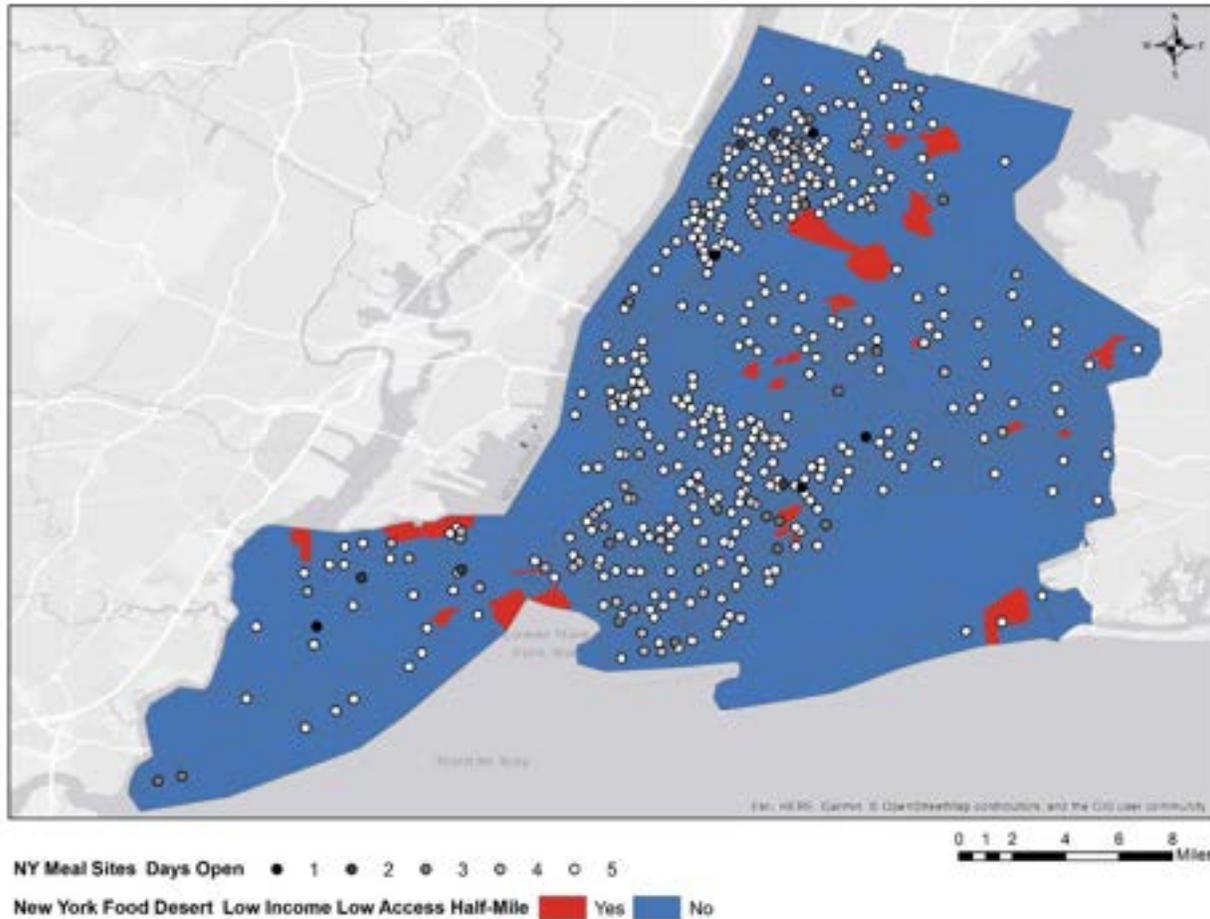
Los Angeles placed 67% of sites in census tracts above median %low-income



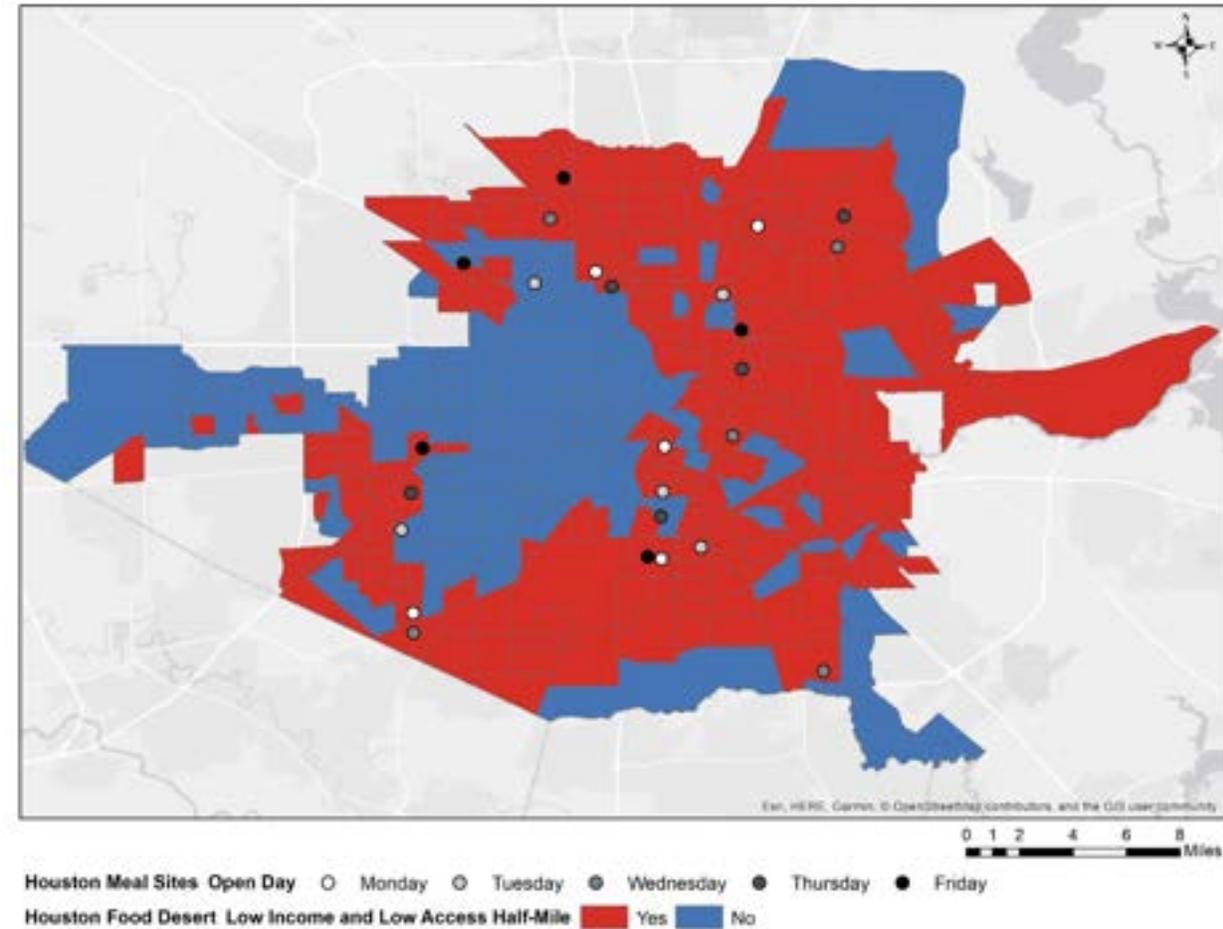
CHI Meal Sites •
CHI Census Tracts Percent Poverty (Geometric Interval) 0% - 9.3% 9.4% - 14% 14.1% - 23.2% 23.3% - 41.4% 41.5% - 77.1%

Chicago placed 62% of sites in census tracts above median %low-income

GIS Data Snapshot – Food Deserts (USDA Classification 1/2 mile)



New York City placed 1.1% of sites in census tracts classed as low income/low access (food desert)



Houston placed 80.7% of sites in census tracts classed as low income/low access (food desert)

Document Analysis – Common Practices to Facilitate Equity

Distribute School Meals

Emphasize healthy eating as a priority
Greater # of free meals (2 or 3 each day)
No limit on visits to sites
Ensuring social distance guidelines

Address Barriers to Accessing Meals

“Find your meal site” interactive maps
Partnerships with food banks- increased supply
Announcements in multiple languages
Images promoting racial/ethnic diversity

School Meal Service
During COVID-19

Assist with Child/Family Needs

Communication of access time slots
Weekend/evening meal pick-ups
Technology/WIFI support for e-learning

Facilitate Maximum Benefit

Community fundraisers
Partnering with local authorities
Childcare for first responders
Promotion of local wellness centers

Dissemination

J Urban Health
<https://doi.org/10.1007/s11524-020-00476-0>

Addressing Food Insecurity through a Health Equity Lens: a Case Study of Large Urban School Districts during the COVID-19 Pandemic

Gabriella M. McLoughlin  • Julia A. McCarthy • Jared T. McGuirt • Chelsea R. Singleton • Caroline G. Dunn • Preeti Gadhoke



- Article published
- Presentations at NOPREN, HER, SNA, and local stakeholder meetings
- Press Release → policy implications
- Localized efforts to replicate GTE document analysis coding (i.e., Maryland)

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Food insecurity and schools during the pandemic

By [Neil Schoenherr](#) • August 11, 2020



The coronavirus pandemic has brought a number of challenges to schools, which were forced to close in the spring to help slow the spread of infection. One major challenge for schools was ensuring that students' nutritional supplementation needs were met when they were not attending school in person.

As schools across the country begin to welcome students back in person or for virtual learning, equity must be at the forefront of decisions pertaining to school emergency food services, finds a new study from the Brown School at Washington University in St. Louis.

"Ensuring access to food during these critical times is of paramount importance to meeting the public health needs of vulnerable populations at greatest risk for food security.

Further, as schools contemplate reopening plans, a greater emphasis should be placed on ways to maintain operations



McLoughlin

POPULAR STORIES

-  Obituary: Natalie Sorenson, engineering student, 18
-  Washington University develops COVID-19 saliva test
-  Itching for no reason? Immune system may be at fault
-  Nasal vaccine against COVID-19 prevents infection in mice

Brown School
brownschool.wustl.edu

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Dissemination and Implementation Science (D&I)

- The processes by which evidence-based interventions are implemented and disseminated into practice
- Adoption of rigorous dissemination and implementation science (D&I) techniques can enhance program adoption and adherence



NATIONAL CANCER INSTITUTE

Division of Cancer Control & Population Sciences



Implementation Science

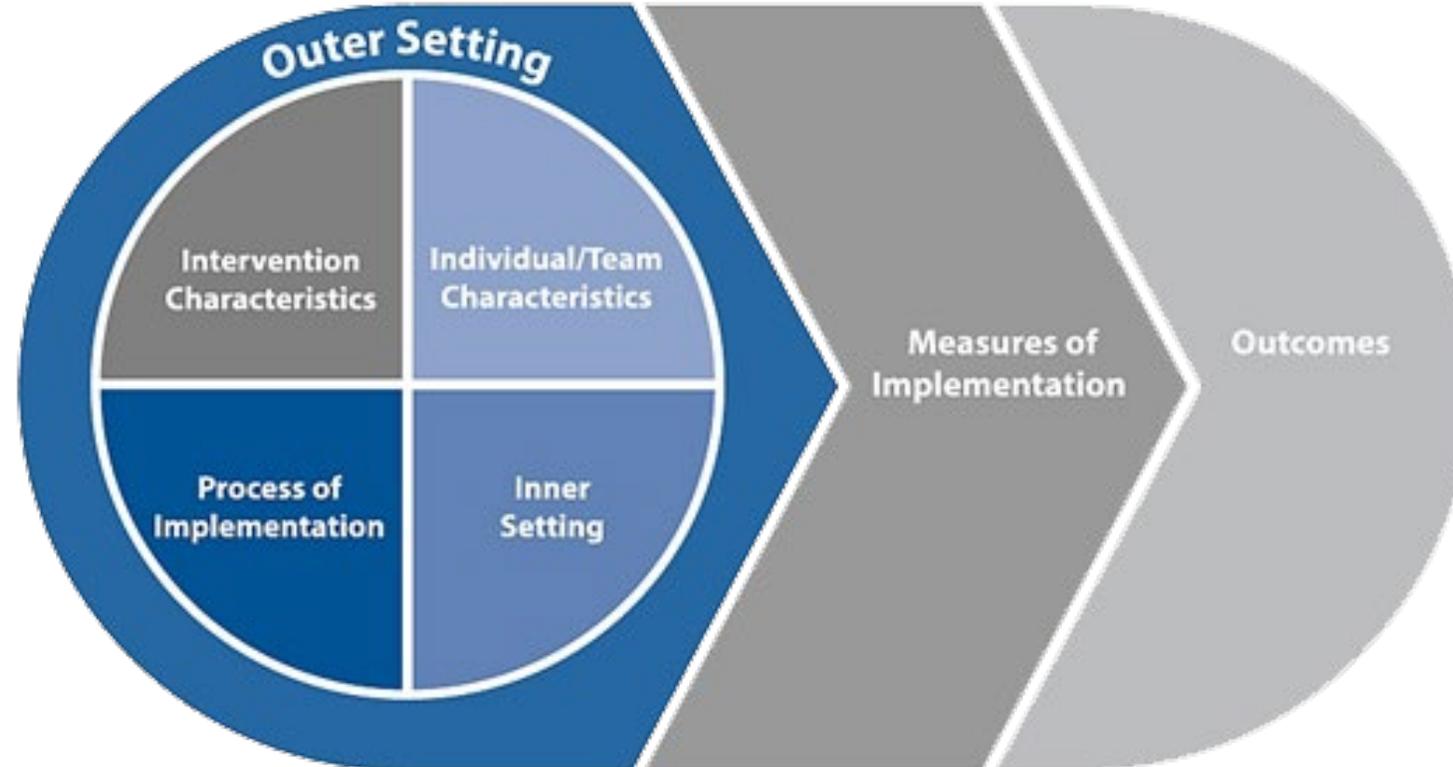
Implementation Outcomes

Acceptability	<ul style="list-style-type: none">• Degree to which intervention/practice is agreeable/satisfactory
Adoption	<ul style="list-style-type: none">• Intention to act/initial actions of implementing stakeholders
Appropriateness	<ul style="list-style-type: none">• Perceived fit/relevance
Feasibility	<ul style="list-style-type: none">• How easy/hard it will be for agency staff to adopt/implement
Fidelity/Compliance	<ul style="list-style-type: none">• Degree to which EBP is implemented as planned
Penetration	<ul style="list-style-type: none">• Number/percent of sites implementing EBP
Sustainability	<ul style="list-style-type: none">• Extent EBP/policy is maintained within a setting
Cost	<ul style="list-style-type: none">• Cost impact of implementation effort

Implementation Determinants



Consolidated Framework for Implementation Research



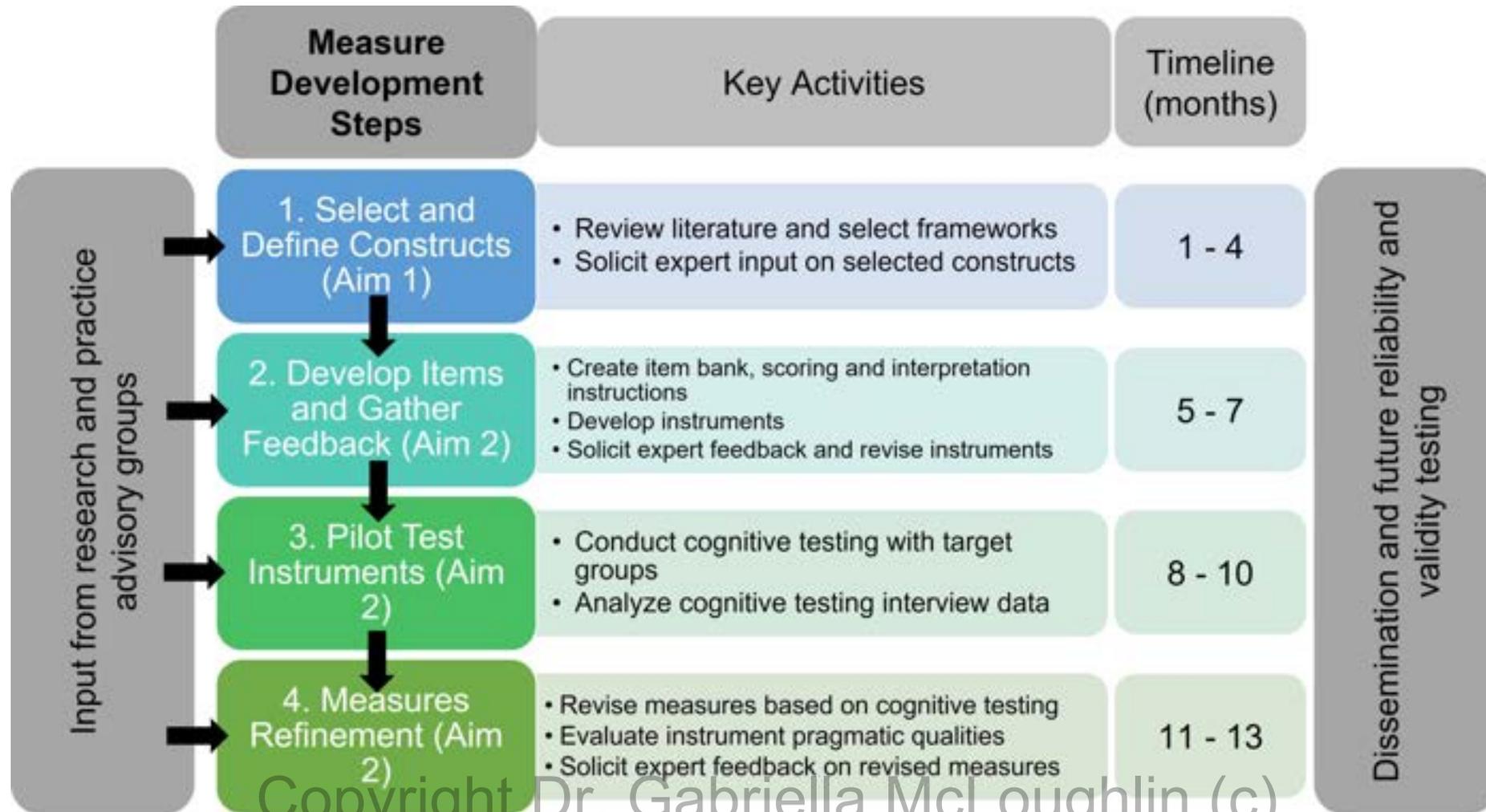
When defining implementation science, some very non-scientific language can be helpful...

- The intervention/practice/innovation is **THE THING**
- *Effectiveness* research looks at whether **THE THING** works
- *Implementation* research looks at how best to help people/places **DO THE THING**
- Implementation strategies are the stuff we do to try to help people/places **DO THE THING**
- Main implementation outcomes are **HOW MUCH** and **HOW WELL** they **DO THE THING**

Figure 7. Implementation strategy categories and examples™

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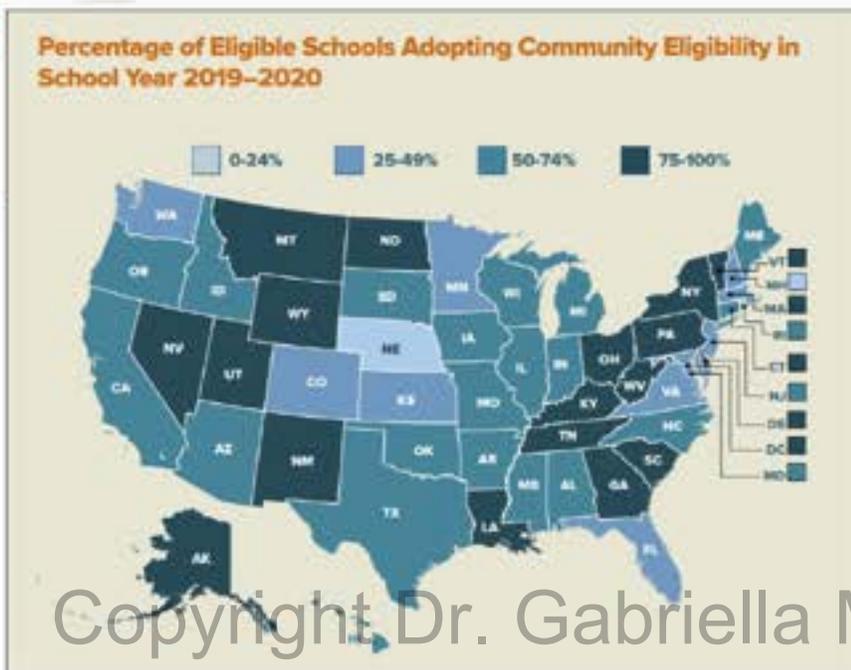
Measures development project Urban School Food Alliance – in progress



How can we better implement policy, systems, and environment (PSE) interventions with a focus on health equity?

Community Eligibility Provision (CEP)

USDA



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Article

Universal School Meals and Associations with Student Participation, Attendance, Academic Performance, Diet Quality, Food Security, and Body Mass Index: A Systematic Review

Juliana F. W. Cohen ^{1,2,*}, Amelie A. Hecht ³, Gabriella M. McLoughlin ^{4,5} , Lindsey Turner ⁶  and Marlene B. Schwartz ⁷ 

“Most studies examining universal free school meals that included free lunch found positive associations with diet quality, food security, and academic performance; however, the findings of studies examining only universal free breakfast were mixed.”

Impact of The Community Eligibility Provision of the Healthy, Hunger-Free Kids Act on Student Nutrition, Behavior, and Academic Outcomes: 2011–2019

The Community Eligibility Pro... Amelie A. Hecht, PhD, Keshia M. Pollack-Peterson, PhD, MPH, and Lindsey Turner, PhD

“Strong evidence of benefits of UFM for meal participation rates; promising evidence for benefits for weight outcomes, food security, disciplinary referrals, and on-time grade promotion; and mixed evidence of impacts for test scores and attendance.”



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Implementation Context and Challenge

- 64% of eligible districts participate; 60.3% in Pennsylvania; 78% of eligible PA schools
- All Philadelphia Schools are adopting CEP, but breakfast participation is ~40% and lunch is ~70% (pre-pandemic)
- Schools need to increase participation # to remain financially solvent
- Need is there, but why is participation so low?

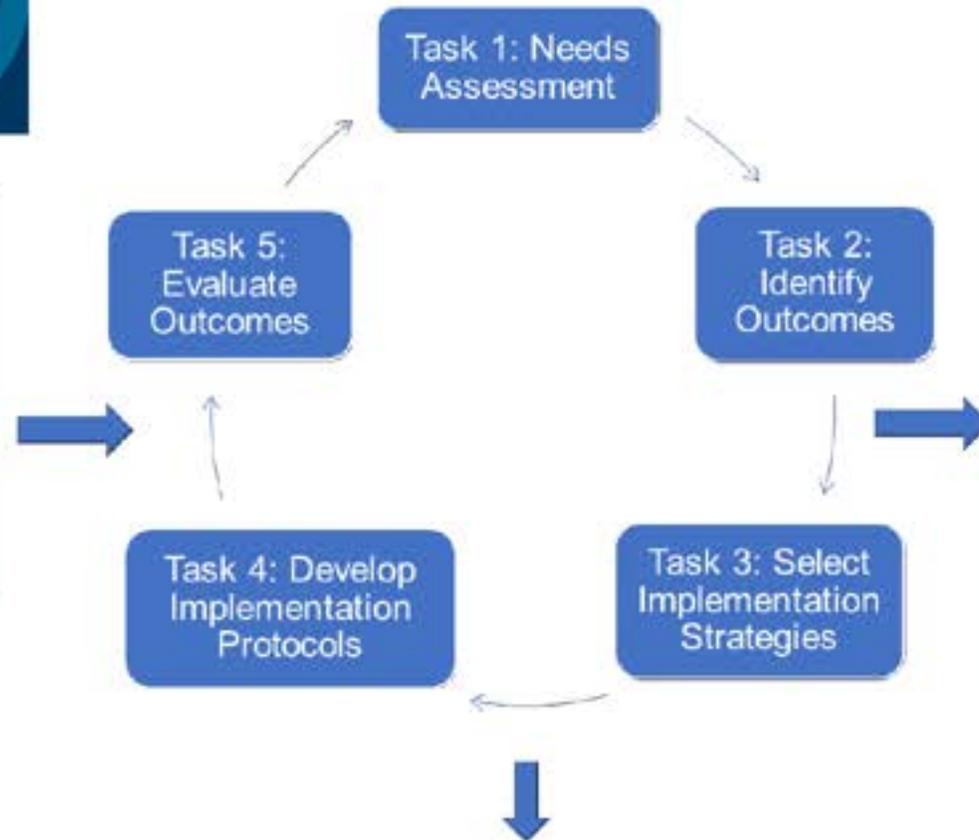
Social determinants of health → social determinants of **IMPLEMENTATION?**



Building Partnerships with Implementation Experts



Implementation Mapping



Implementation Outcomes

Acceptability

- School meal satisfaction
- Implementation mapping acceptability

Cost

- Intended/unintended costs
- Materials/time

Feasibility

- Perceived complexity of implementation mapping

Sustainability

- Sustainability of strategies

Enhanced implementation of USM to facilitate equity in healthy school meals

Future Directions



Better understanding of factors influencing implementation

- Health equity and D&I frameworks
- Robust contextual data from key stakeholders



Tailored interventions which enhance capacity for implementation

- Considerations for context
- Implementation mapping



Appropriate Outcomes

- Need low-cost, sustainable solutions
- Pragmatic tools and metrics grounded in health equity

Pilot Project – Urban School Food Alliance

- Goals:
 - Build diverse stakeholder advisory group within SDP
 - Collaborate with equity coalition
 - Involve students and parents as key stakeholders
 - Adapt existing measures to assess key implementation outcomes for use with SDP collaboration
 - Cost of implementing school meals
 - Feasibility of new strategies
 - Sustainability of innovations in meal service
 - Reach of school meal programs to students



Get involved in our research

Teachers,
Administrators,
students, parents

Scan the QR code to
contact us! >>



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We want your expertise!



Are you currently a teacher, school staff/food service/wellness representative, administrator, student in 6-12th grade, or parent of a student?



Equity-Informed School Health Policy

We are developing measurement tools to understand how policies are equitably implemented in schools to improve children's health!

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30-60 minute interview

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Study Principal Investigator:
Dr. Gabriella M. McLoughlin
Study Contact: Rachel Inman

ri78@drexel.edu

All research approved by Temple University Institutional Review Board (IRB 457001) and School District of Philadelphia Research Review Council (#2022-09-9044)

Thank you!

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