# Interactions between COVID-19 and Childhood Obesity: Setting a Research Agenda

October 23, 2020 | 1:00 p.m. – 2:30 p.m. ET

Having audio issues? Try dialing in.

Call In: 888-788-0099

Enter the Meeting ID: 976 4566 4883

We will begin promptly at 1:00 p.m. ET

This meeting will be recorded.





### Workshop Purpose

 To help NCCOR develop a research agenda on the interactions between COVID-19 and Childhood Obesity



# Agenda

1:00-1:05	Introductions and Purpose – Heather Hamner, CDC
1:05–1:20	The Effects of COVID-19 on Childhood Obesity in Early Care and Education – Caree Cotwright, University of Georgia
1:20–1:35	The Effects of COVID-19 on Childhood Obesity in Schools – Lindsey Turner, Boise State University
1:35–1:50	Determinants of Childhood Obesity and Interactions with COVID-19 – Punam Ohri-Vachaspati, Arizona State University, Michael Yedidia, Rutgers University
1:50–2:10	<b>Discussants</b> – Mary Story, Duke University and William Dietz, The George Washington University
2:10-2:25	Discussion – Andrew Bremer, NIH
2:25–2:30	Wrap-up and Next Steps - Andrew Bremer, NIH



# Acronyms

CACFP	Child and Adult Care Food Program
ECE	Early Care & Education
FNAP	Food & Nutrition Assistance Program
NSLP	National School Lunch Program
P-EBT	Pandemic-Electronic Benefits Transfer
SFSP	Summer Food Service Program
SNAP	Supplemental Nutrition Assistance Programs
WIC	Special Supplemental Nutrition Program for Women Infants and Children



### **PRESENTERS**



Caree Jackson Cotwright PhD, RDN, LD Assistant Professor Foods and Nutrition University of Georgia



Lindsey Turner, PhD
Research Professor
Director
Initiative for Healthy
Schools
Boise State University



Punam Ohri-Vachaspati PhD, RD Professor of Nutrition College of Health Solutions Arizona State University



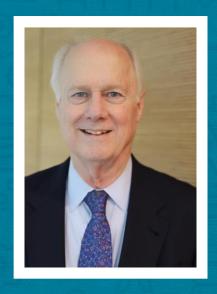
Michael Yedidia, PhD
Professor
Center for State Health
Policy
Rutgers University



### **DISCUSSANTS**



Mary Story, PhD, RD
Professor, Duke University
Director, Healthy Eating Research



William Dietz, MD, PhD
Redstone Global Center for
Prevention and Wellness
Milken Institute School of Public
Health
George Washington University





Interactions between COVID-19 and Childhood Obesity

# The Effects of COVID-19 on Childhood Obesity in Early Care and Education

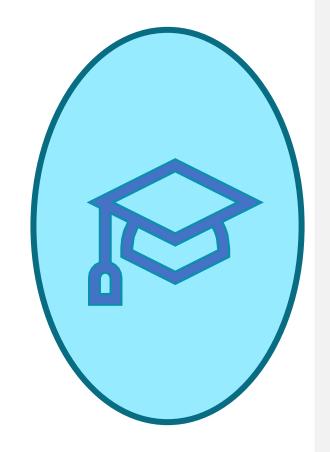
Caree J. Cotwright, PhD, RDN
Assistant Professor
Department of Foods and Nutrition
University of Georgia

October 23, 2020





"Early care and education providers are the backbone of the education workforce laying the foundation for lifelong learning. When we recognize, value, and support the vital work they do with our youngest learners, we invest in the betterment of our children, our families, and our communities."



BEING BLACK IS NOT A RISK FACTOR: Statistics and Strengths-Based Solutions in the State of Georgia, National Black Child Development Institute, 2017



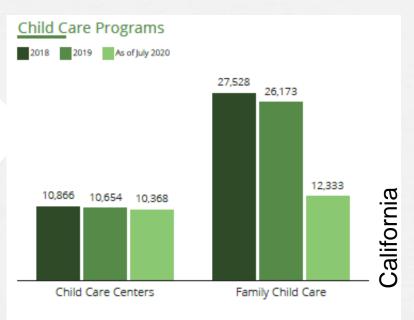
# Early Care & Education (ECE): An Eroding Landscape

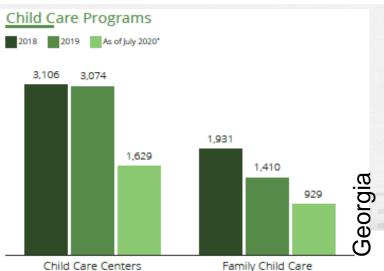


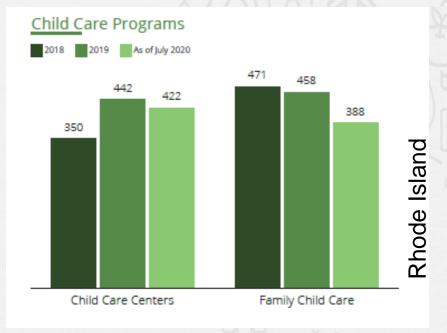
Picking Up the Pieces, Child Care Aware, 2020

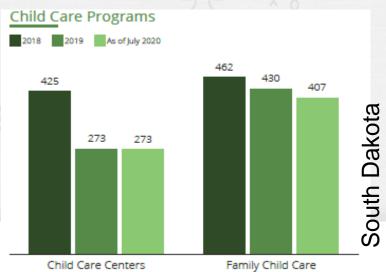


### ECE Closures in the United States (2018-2020)









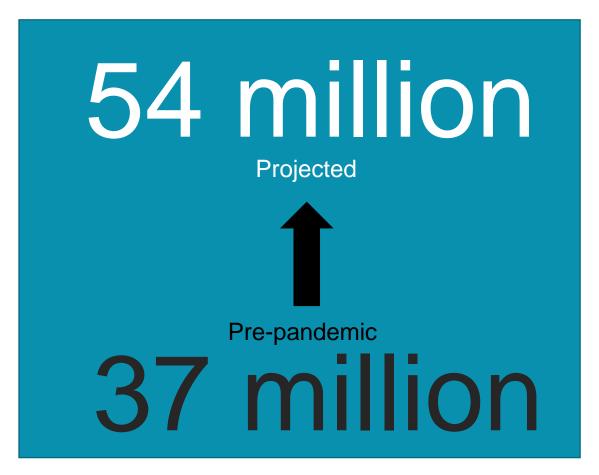
<sup>\*</sup>July 2020 numbers do not capture COVID-19 temporary child care closures



# From ECE Setting to Home Setting: Parents need assistance



### Food Insecurity & COVID-19



The Impact of Coronavirus on Food Insecurity, Feeding America, May 2020



### Food Insecurity & COVID-19

# States with the highest rates of projected child food insecurity (CFI) in 2020 versus 2018

	2020 P	2018			
Ranking	State	CFI Rate	Number of FI children	Ranking	CFI Rate
1	Louisiana	34.5%	378,730	1	24.6%
2	New Mexico	33.9%	162,960	2	23.8%
3	Nevada	32.9%	226,520	9	19.5%
4	Mississippi	32.6%	229,890	5	23.0%
5	Alabama	32.4%	352,450	3	23.1%
6	Arkansas	32.3%	227,540	3	23.1%
7	Oklahoma	31.5%	301,660	6	21.8%
8	Texas	30.9%	2,290,070	7	21.6%
9	West Virginia	30.0%	108,870	8	20.3%
10	Hawaii	29.9%	90,680	19	18.4%

The Impact of Coronavirus on Food Insecurity, Feeding America, May 2020



# Food Insecurity, COVID-19 & Health Disparities

- Increased risk of contracting COVID-19
- High rates of unemployment and food insecurity in Black, Latinx, and Tribal communities
- Pre pandemic: Food insecurity is disproportionately higher among Black families 21% vs 11% national rates (2018)
- 2020: Highest rates of food insecurity among Black households

Gundersen, C., Dewey, A., Engelhard, E., Strayer, M., & Lapinski, L. (2020). Map the Meal Gap 2020: A Report on County and Congressional District Food Insecurity and County Food Cost in the United States in 2018. Produced by Feeding America.



# FOOD JUSTICE /S RACIAL JUSTICE





## Healthy Eating Research (RWJF) Early Childhood (EC) Working Group

EC Working Group Co-Chairs: Dipti Dev, PhD, University of Nebraska-Lincoln and Alison Tovar, PhD, MPH, University of Rhode Island

The EC working group is a team of EC researchers and leaders committed to improving the health of young children through improved research and practice in setting where children spend time

Bauer, K, Chriqui, J, Andreyeva, T, Kenney, E, Stage, V, Dev, D, Lessard, L, Cotwright, CJ, Tovar, A. (2020). **A Safety Net Unraveling: Feeding Young Children during COVID-19.** American Journal of Public
Health. *Accepted* 



### Food Insecurity & ECE

- ECE Workforce: Black, older adults, and high prevalence of chronic health conditions leading to closures during pandemic
- Millions of children receive 2/3 or more of meals from ECE programs
- Healthier foods and beverages associated with participation in Child and Adult Care Food Program (CACFP)





### Families First Coronavirus Response Act

- Authorized waivers for CACFP implementation
- Provided food direct to families: Grab & Go options
- Increased flexibility in monitoring compliance and claiming reimbursements
- 35% decrease in CACFP-reimbursed meals
- Distributed benefit called Pandemic-EBT (P-EBT) for children who received free or reduced-price school meals
- Low number of children enrolled in ECE programs received P-EBT (CACFP vs NSLP)



# Approaches to Improve Food Justice in the ECE Setting



Photo: National Black Child Development Institute

#### **Serving Their Needs**

- Explore ways to raise funds to subsidize costs of healthy foods
- Create helpful solutions to decrease the cost of healthy foods
- Implement policy changes in increments to gain support from parents, teachers, and children

Cotwright, CJ, Hall, J, Arrington, NM, Celestin, N, Sanders, H,; Ragan, T, Stotz, S, and Birch, LB (2020). Serving Their Needs: A Qualitative Examination of Nutrition Policy Implementation in the Early Care and Education Setting. *Journal of the Georgia Public Health Association*: Vol. 8: No. 1, Article 10. DOI: 10.20429/jgpha.2020.080110



Forest Park preschool farm stand clears final hurdle to sell produce





Student farmers show off the lettuce they've grown. Linden Tree Photography / Little Ones Learning Center





SOFT OPENING OCTOBER 7TH

1st + 3rd Wednesdays of Every Month 1pm~5pm



SUPPORTED BY





Your source for locally grown, fresh, and organic produce

993 Forest Avenue Forest Park, GA 30297

FOR MORE INFO, VISIT:

| @LITTLELIONSFARMSTAND |
| @HANDHEARTSOULPROJECT

FOR MORE DIRT: outreach@handheartsoulproject.org









### **Future Policy Considerations**

- Stabilize and support ECE field with funding
- Increase access to CACFP
- Create policies to support age appropriate and high-quality food for children and ECE providers (reimbursement)
- Design mixed-methods studies to examine challenges for use of CACFP to increase food access for young children during pandemic





### **Future Policy Considerations**

- Bolster distribution of healthy food through CACFP at practical sites for families
- Issue clear guidance on use P-EBT with CACFP for ECE stakeholders
- Increase funding to support emergency response feeding efforts (e.g., Summer Feeding Sites, Fresh Food Box Delivery)



# Thank you for your time! Caree J. Cotwright

cjcot@uga.edu



# College of Family and Consumer Sciences

Foods & Nutrition

Childhood Obesity Prevention Laboratory

UNIVERSITY OF GEORGIA













Interactions between COVID-19 and Childhood Obesity

# The Effects of COVID-19 on Childhood Obesity in Schools

#### **Lindsey Turner, PhD**

Research Professor, College of Education

Director, Initiative for Healthy Schools

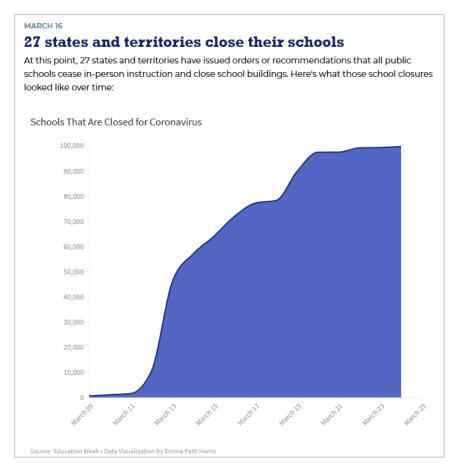
Director, Center for School Improvement & Policy Studies

October 23, 2020





### School Closures in Spring 2020



Feb 11: Teachers' unions request federal guidance

**Feb 25:** CDC issues guidance to schools to prepare for coronavirus

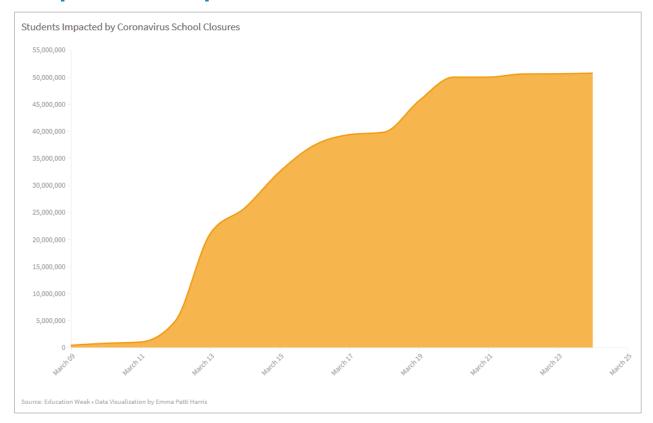
March 12: Ohio first state to issue statewide closure order

March 25: Idaho and DoDEA last to issue closure order, all US school buildings now closed

SOURCE: https://www.edweek.org/ew/section/multimedia/the-coronavirus-spring-the-historic-closing-of.html



### Scope of Impact: # students not at school



Total of ~ 56.4 million students (50.7m in public schools + 5.7m in private schools)

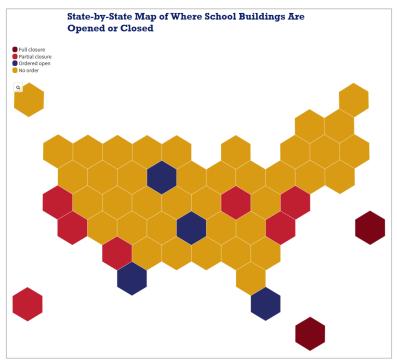
SOURCE: https://www.edweek.org/ew/section/multimedia/the-coronavirus-spring-the-historic-closing-of.html



### A "normal" summer break

Typically 10 – 11 weeks, May – August or June – September

2020: at least 18 weeks



Source: Education Week, map updated October 12, 2020

https://www.edweek.org/ew/section/multimedia/map-covid-19-schools-open-closed.html

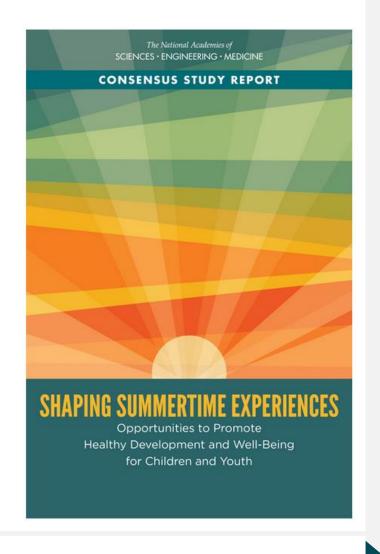


### Impacts of summer on students

#### **Conclusions:**

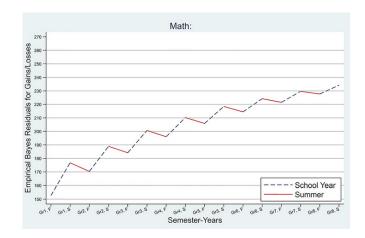
- 1: "Summertime experiences can affect academic, health, social and emotional, and safety outcomes for children and youth, with those in disadvantaged communities at risk for worse outcomes."
- 2: "There are opportunities for systems and agents to implement innovative new programs and extend effective practices that already exist during the school year into the summer period."

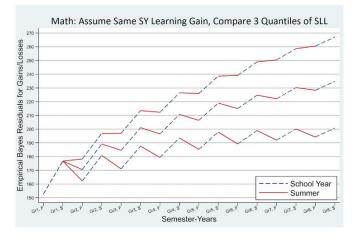
Shaping Summertime Experiences (2019)
<a href="https://www.nap.edu/catalog/25546/shaping-summertime-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-to-promote-healthy-development-and-well-experiences-opportunities-development-and-well-experiences-opportunities-development-and-well-experiences-opportunities-





### Growth trajectories: academics



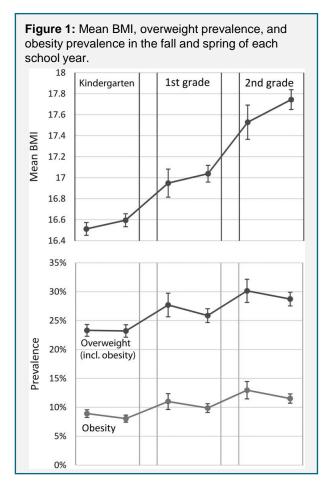


- Summers contribute more to achievement disparities (as compared to school years)
- Much variability: many students experience loss, some improve
- Only 13% of variance explained by gender, race, socioeconomic status

Atteberry A & McEachin A. **School's out: the role of summers in understanding achievement disparities**. *American Education Research Journal*. July 2020. <a href="https://journals.sagepub.com/doi/10.3102/0002831220937285">https://journals.sagepub.com/doi/10.3102/0002831220937285</a>



### Growth trajectories: body mass index



- >18,000 US students (ECLS-K dataset)
- BMI ↑ faster in summer than school years
- BMI growth more variable during summer than school year: pattern of variance suggests that school environments reduce differences in BMI increases

von Hippel PT, Workman J. From Kindergarten through second grade, U.S. children's obesity prevalence grows only during summer vacations. *Obesity*. 2016:24(11);2296-2300. https://onlinelibrary.wiley.com/doi/full/10.1002/oby.21613



### Protective and risk factors

#### **Mechanisms:**

↓ physical activity

↑ sedentary behaviors irregular sleep patterns

↑ access to unhealthy snacks

7 studies examining summer weight gain: accelerated weight gain among children who were already overweight or obese

Frankle R, Adler R, Davison K. Accelerated weight gain among children during summer versus school year and related racial/ethnic disparities: a systematic review. *Preventing Chronic Disease*. 2014. https://www.cdc.gov/pcd/issues/2014/pdf/13 0355.pdf

↓ access to healthier meals through school breakfast and lunch unstructured schedules and boredom

### "Structured Days Hypothesis"

Brazendale, K., Beets, M.W., Weaver, R.G. et al. **Understanding differences between summer vs. school obesogenic behaviors of children: the structured days hypothesis.** *Int J Behav Nutr Phys Act.* 2017:14;100 <a href="https://doi.org/10.1186/s12966-017-0555-2">https://doi.org/10.1186/s12966-017-0555-2</a>

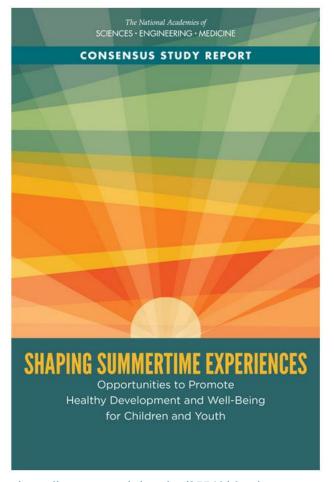


### Impacts of summer on students

#### **Conclusions:**

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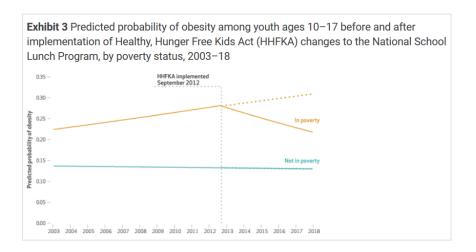


https://www.nap.edu/catalog/25546/shapingsummertime-experiences-opportunities-topromote-healthy-development-and-well



### How are schools adapting during COVID?

- Schools normally serve 30 million lunches daily, 22 million at free/reduced-price.
- Third-largest nutrition-assistance program in the US
- 14.7 million breakfasts, 12 million at free/reduced-price



Kenney EL et al. Impact Of The Healthy, Hunger-Free Kids Act on obesity trends. *Health Affairs*. July 2020. <a href="https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2020.00133">https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2020.00133</a>



### Missed meals:

Breakfast/Lunch for students eligible for free/reduced-priced meals

- 169 million missed meals each week, last 6 weeks of spring term
- Cumulative loss of 1.15 billion meals missed

Kinsey EW et al. **School closures during COVID-19: opportunities for innovation in meal service.** *American Journal of Public Health.* July 2020. <a href="https://doi.org/10.2105/AJPH.2020.305875">https://doi.org/10.2105/AJPH.2020.305875</a>

#### Innovations: Flexibilities, waivers, adaptation

>20 waivers from USDA about meal service between March-May

"We've been providing food bags every week, breakfast and lunch. We do a week supply. We distribute every Monday...families drive through and we hand them five breakfasts and five lunches for their kids."

- Principal (Rural Elementary School)

"Buses carry food daily to them and for parents who are not able to physically drive to the school to pick up."

- Teacher (Rural Elementary School)

Source: interviews May 2020, funded by Healthy Eating Research grant 76291



Image by Dylan Slagle/Carroll County Times https://www.baltimoresun.com/maryland/carroll/top/cc-meal-delivery-20200417-4my22vxnlbhkfebxs2qsgmggfm-story.html



### Pandemic EBT

- Builds on successes of summer electronic benefits transfer (S-EBT) program
- \$250-\$450 per student for families to purchase groceries
- Started in March 2020; by August, all states had adopted it
- Early research shows it reduced food insecurity

Bauer et al. The effect of Pandemic EBT on measures of food hardship. July 2020. https://www.hamiltonproject.org/assets/files/P-EBT\_LO\_7.30.pdf

- Need to know:
  - Why eligible families are not applying for it
  - How/where funds are being spent

#### **New Report October 8, 2020:**

Center on Budget and Policy Priorities (CBPP) and Food Research & Action Center (FRAC). Lessons from early implementation of Pandemic EBT: opportunities to strengthen rollout for school year 2020-2021. <a href="https://www.cbpp.org/research/food-assistance/lessons-from-early-implementation-of-pandemic-ebt#\_ftn5">https://www.cbpp.org/research/food-assistance/lessons-from-early-implementation-of-pandemic-ebt#\_ftn5</a>



### Physical Activity / Sedentary Behavior

Survey of parents in April + May 2020: students engage in less physical activity, more sedentary behavior than in February 2020

Dunton G, Do B, Wang S. Early effects of the COVID-19 pandemic on physical activity and sedentary behavior in children living in the U.S. August 2020. *BMC Public Health.* 

Interviews with principals at 39 public elementary schools, spring 2020 (funding from Healthy Eating Research)

Some schools continued to promote physical activity by:

- Building physical activity breaks into schedules for online classes
- Inviting PE teachers to join classroom teachers in virtual lessons
- Developing a virtual wellness center to share physical activity resources with students/families

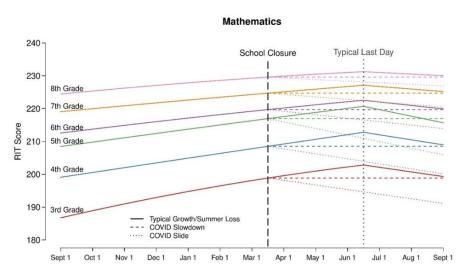
#### Challenges:

- Digital divide (exacerbating socioeconomic and rural disparities)
- Inability to ensure/monitor that students are participating in activity



#### What do we need to know?

1. Empirical modeling of potential impacts of school closures on BMI (similar to the work that has been done on educational impacts...)



https://www.nwea.org/blog/2020/covid-19-school-closures-could-have-devastating-impact-student-achievement/

## Projected loss of between 3 and 8 months of academic gains

Kuhfeld et al. May 2020. Projecting the potential impacts of COVID-19 school closures on academic achievement. (EdWorkingPaper: 20-226. Annenberg Institute at Brown University. https://doi.org/10.26300/cdrv-yw05

Average losses of \$61,000 - \$82,000 in lifetime earnings for students currently in K-12, larger losses for Black and Hispanic students

McKinsey & Company. June 2020. <a href="https://www.mckinsey.com/">https://www.mckinsey.com/</a> industries/public-and-social-sector/our-insights/covid-19-and-student-learning-in-the-united-states-the-hurt-could-last-a-lifetime#



#### What do we need to know?

#### 2. Understanding the mechanism of impacts: student behaviors

- Changes in student diet, physical activity, sedentary behavior
- Needs high-quality objective measures (accelerometry, Food Frequency Questionnaire)
- Look to identify researchers/projects with baseline data where additional data collection can be added, longitudinal designs

## 3. Understanding protective and risk factors in key environments (school, home, neighborhood, community)

- Adaptations to physical education (virtual/hybrid)
- Alternative strategies to promote adequate physical activity
- Nutritional quality of school meals (National School Lunch Program vs. Summer Food Service Program meal patterns)
- Impacts of various child nutrition innovations/waivers on food insecurity, dietary intake



# What do we need to know... about implementation of rapid interventions/innovations?

Lane HG, Turner L, Dunn CG, Hager ER, Fleischhacker S. Leveraging implementation science in the public health response to COVID-19: child food insecurity and federal nutrition assistance programs. *Public Health Reports*. October 2020. https://journals.sagepub.com/doi/pdf/10.1177/0033354920959285

#### **Healthy Eating Research (HER)**

A national program of the Robert Wood Johnson Foundation, Duke University



#### NOPREN Food Insecurity & School Wellness Working Groups

Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity and Obesity (DNPAO)

#### **COVID-19 School Nutrition Implications Working Group**

400+ researchers, advocacy organization representatives and practitioners, and 185+ students

#### Co-Chairs:

Erin Hager, PhD University of Maryland School of Medicine Sheila Fleischhacker, PhD, JD, RDN Georgetown Law Center

#### Fellow:

Caroline Glagola Dunn, PhD, RD Harvard TH Chan School of Public Health

#### Liaisons:

Kirsten Arm, MPH, RDN (HER) Lindsey Miller, MPH (HER) Ronli Levi, MPH, RD (NOPREN)



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**Reach:** number, proportion, and representativeness of eligible students who

participated in programs during COVID-19

**Effectiveness:** impact of programs on participating students, including variability across

subgroups

**Adoption:** number, proportion, and representativeness of local authorities that

operated programs during COVID-19

**Implementation:** local authorities' implementation of program requirements and waiver

changes, including consistency, time, costs, and adaptations/fidelity

**Maintenance:** whether student impact is sustained and whether program operations

during COVID-19 become part of routine practice.









Interactions between COVID-19 and Childhood Obesity

### Determinants of Childhood Obesity and Interactions with COVID-19

Punam Ohri-Vachaspati, PhD, RD

**Professor** 

College of Health Solutions
Arizona State University

Michael Yedidia, PhD

**Professor** 

Center for State Health Policy

**Rutgers University** 

October 23, 2020



# What do we know about community and school environments and childhood obesity?



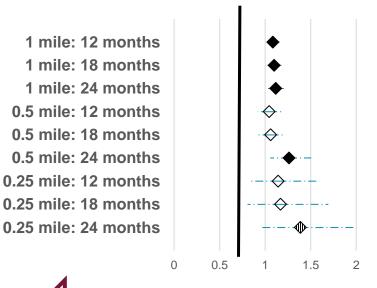




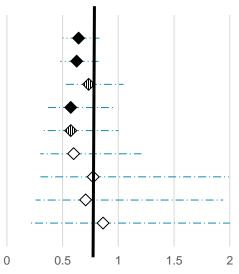
### Longitudinal Impact of Change in Community Food Environments On Change in Children's Weight Status (OR and CI)

#### **Convenience Stores**

Small Grocery Stores



1 mile: 12 months
1 mile: 18 months
1 mile: 24 months
0.5 mile: 12 months
0.5 mile: 18 months
0.5 mile: 24 months
0.25 mile: 12 months
0.25 mile: 12 months
0.25 mile: 18 months



Decreased BMI Z-score

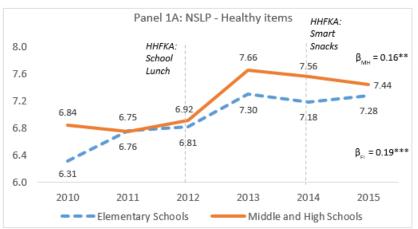
Increased BMI Z-Score

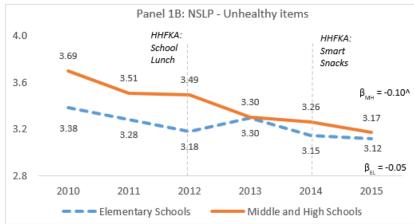
Decreased BMI Z-score

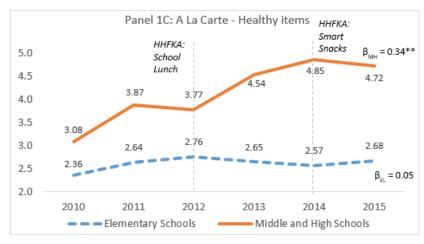
Increased BMI Z-Score

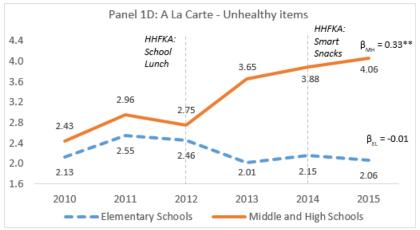


# School Food Environment before and after the Healthy Hunger Free Kids Act









^ p<0.10; \* p<0.05; \*\* p<0.01; \*\*\* p<0.001



# School Food and Physical Environments and Children's Weight Outcomes

Associated with I BMI

Associated with | BMI

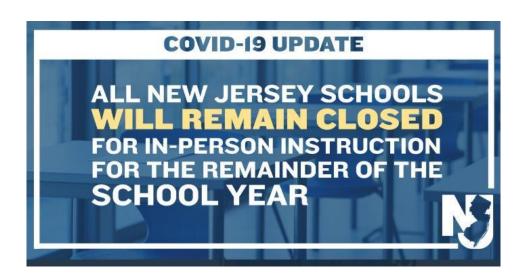
Unhealthy options in vending

- Healthy options in National School Lunch Program
- Indoor PA facilities
- Outdoor PA facilities

Results based on cross-sectional analysis of nurse measured BMI on 20,000+ students. Longitudinal analysis underway.



# What can we learn about the interaction of COVID-19 and childhood obesity?







# Summer weight gain in elementary school age children

- Elementary school children gain weight at higher rate during summer (von Hippel et al., 2007, von Hippel et al., 2016)
- Hispanic, black, and lower-income populations at higher risk (Chen et al., 2015)

But this summer was much longer and accompanied by increases in food insecurity, job loss, stress, and more ...

von Hippel, 2007, Am J Public Health. 97:696–702; von Hippel et al., 2016 Obesity, Vol 24:11; Chen et al., 2015, Pediatric Obesity 11, 88–94



# Will prolonged school closures amplify the impact of the **community** food and PA environments?

- Children spend more time in those environments
- Will small local stores have a greater impact?
- Will the presence of walkable neighborhoods have a more prominent impact?
- Will the role of parks differ?



# What will be the impact of the loss of protective effects of school food and PA programs?

#### Summer weight gain attributed to

- Structured day hypothesis (Brazendale et al., 2017)
- Unhealthy eating patterns (Lee et al.,2019).
- Lack of PA and increased sedentary time (Tanskey et.al., 2018)

Lee, et al., J Acad Nutr Diet. 2019;119(10):1695-1702; Brazendale et al. International Journal of Behavioral Nutrition and Physical Activity (2017) 14:100; Tanskey et.al., 2018, Curr Obes Rep. 2018 June; 7(2): 112–121



# How effective are child-targeted food programs established to mitigate negative impacts of school closures?

#### **COVID-19 INITIATIVES**

- ▶ P-EBT
- Summer Food Service Program Seamless School Option
- ➤ USDA's congregate meal site waiver
- USDA's waiver for meal pattern requirement

#### **ISSUES TO CONSIDER**

- Challenges in how to measure uptake
- Nutritional quality of summer meals
- Shelf stable meals and foods
- Changes in physical activity
- Other confounding / contributing factors



# How can research during COVID-19 inform policy for improving children's weight status?





# Policy Relevance of COVID-19-related Childhood Obesity Research

## Developing strategies for improving food access during disasters and pandemics

- Feasibility and efficacy of mobilizing existing programs
- > Benefits and liabilities of adaptations in program delivery
- > Evidence of the effectiveness of new initiatives
- Basis for targeting and outreach to extend benefits
- Insights into barriers and facilitators to effectiveness relevant to refining future policies



# Policy Relevance of COVID-19-related Childhood Obesity Research

Unique opportunity for assessing the adequacy of the food safety net and the potential of food assistance programs to protect vulnerable populations

- What happens when these protective programs are suddenly withdrawn or become inaccessible?
- Who bears the greatest burden?
- What can be learned from COVID-related mitigation efforts for improving summer food programs during school recesses?







What other questions should be on our research agenda and what are the challenges in addressing them?



### Other Key Questions

## What are the unique contributions of stress, nutrition, and physical activity on childhood obesity?

- ➤ Trade-offs: Rich individual-level data on smaller samples capable of addressing these effects versus population-level data on large samples supporting subgroup analyses and incorporation of covariates and mediators
- Small samples with high validity but more limited generalizability and large samples with ecological shortcomings but broader generalizability



### Other Key Questions

Under what conditions does heightened food insecurity lead to lower weight associated with malnutrition as compared to higher weight due to unhealthy consumption?

- ➤ How to interpret weight loss during COVID-19?
- ➤ How to incorporate necessary person-level data and relevant domains of the social ecological model to isolate effects?

## How can we accelerate adoption of interventions to improve children's weight status?

- Can interventions and policies be aligned with market forces to assure spread and sustainability?
- What can be learned from cross-sector initiatives in order to promote expansion of effective collaborative efforts?



### Thank you!

Punam Ohri-Vachaspati

pohrivac@asu.edu

Michael Yedidia

myedidia@ifh.rutgers.edu

















**Interactions Between COVID-19 And Childhood Obesity** 

# Discussion: Interactions between COVID-19 and Childhood Obesity: Setting a Research Agenda

Mary Story PhD, RD
Professor, Duke University
Director, Healthy Eating Research

October 23, 2020



## HER COVID-19 Funding Opportunity

- We received 140 concept papers in total
  - Primary Area: 31 Food Insecurity, 26 USDA FNAP, 26 Schools, 21 SNAP, 15 WIC, 11 CACFP/ECE, 10 P-EBT
  - Study Type: 15 briefs, 17 papers, 108 small studies
- We invited 30 applicants to submit full proposals
  - Primary Area: 9 WIC, 6 Schools, 6 USDA FNAP, 5 SNAP, 2 CACFP 1 Food Insecurity, and 1 P-EBT
  - Study Type: 6 briefs, 6 papers, 18 small studies
- We recommended 10 projects for funding
  - Primary Area: 4 WIC, 3 SNAP 1 USDA FNAP, 1 Schools, 1 P-EBT
  - Study Type: 3 Briefs, 2 Papers, 5 Small Studies



## New Rapid-Response Grants

WIC	Brief: WIC Online Grocery Ordering: Opportunities and Potential Issues to Consider During COVID-19 (Betsy Anderson Steeves)  Brief: Acceptability, Preference, and No-Show Rates for In-Person and Phone-Based Consultations at Nine WIC Centers in New York City Before and During COVID-19 (Mireille Mclean)  Small Study: Online Ordering and Curbside Pick-up for WIC Participants during the COVID-19 Pandemic (Harry Zhang)  Small Study: Assessing the impact and feasibility of WIC remote services and expanded food options (Jennifer Otten)
SNAP	Brief: Promoting Equitable Expansion of the U.S. Department of Agriculture's Online Purchasing Program (Alyssa Moran)  Paper: A Comprehensive Scoping Review of Interdisciplinary Evidence for Food, Nutrition, Health, Media and Digital Literacy Capacity, Skills and Needs of SNAP Recipients to Inform Policies, Programs and Research in a COVID-19 Era (Vivica Kraak)  Small Study: Strengthening the Supplemental Nutrition Assistance Program (SNAP) through State Waiver Flexibilities: Perspectives from the Nation (Alyssa Moran)
School Meals	Small Study: Feeding Our Children: Comparing Pandemic EBT and School Meals-to-Go (James Krieger)  Small Study: Urban school food infrastructure: Current issues, challenges, and solutions (Sara Bleich)
USDA FNAP	Paper: Dynamics of Macroeconomic Shocks on Food Assistance Programs in the United States (Oral Capps)



## Research Agenda

Developing a national research agenda to reduce consumption of sugar-sweetened beverages and increase safe water access and consumption among 0- to 5-year-olds: a mixed methods approach

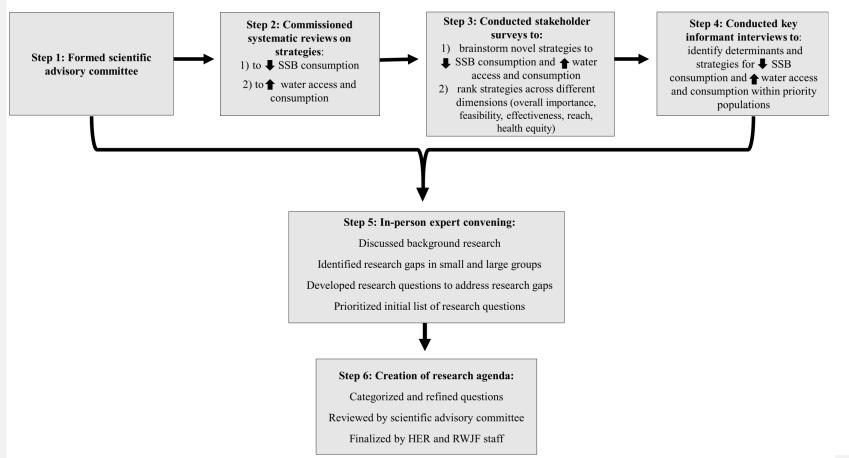
Emily W Duffy<sup>1,\*</sup>, Megan M Lott<sup>1</sup>, Emily J Johnson<sup>1</sup> and Mary T Story<sup>2</sup>

<sup>1</sup>Healthy Eating Research, Duke University, Duke Global Health Institute, 310 Trent Drive, Box 90519, Durham, NC 27708 USA: <sup>2</sup>Healthy Eating Research, Community & Family Medicine and Global Health, Duke University, 310 Trent Drive, Durham NC 27708 USA

Duffy, E., Lott, M., Johnson, E., & Story, M. (2020). Developing a national research agenda to reduce consumption of sugar-sweetened beverages and increase safe water access and consumption among 0- to 5-year-olds: A mixed methods approach. *Public Health Nutrition*, 23(1), 22-33. doi:10.1017/S1368980019002106



## Process for Developing the National Research Agenda to Improve Beverage Intake among Children





#### **Healthy Eating Research (HER)**

A national program of the Robert Wood Johnson Foundation, Duke University



## NOPREN Food Insecurity & School Wellness Working Groups

Centers for Disease Control and Prevention, Division of Nutrition, Physical Activity and Obesity (DNPAO)

#### **COVID-19 School Nutrition Implications Working Group**

400+ researchers, advocacy organization representatives and practitioners, and 185+ students

#### **Practice, Policy Implementation Collaborators**

- Academy of Nutrition and Dietetics
- Alliance for a Healthier Generation
- American Heart Association Voices for Healthy Kids
- American Public Health Services Association
- American Society for Nutrition
- Association of SNAP Nutrition Education Administrators
- Center for Ecoliteracy
- Center for Science in the Public Interest
- Council on Black Health
- Federal Nutrition Research Advisory Coalition
- Feeding America
- Food Research & Action Center
- Healthy Schools Campaign
- Hunger Free America
- Lunch Assist
- National Association for the Advancement of Colored People
- National Conference of State Legislatures
- National Farm to School Network
- National WIC Association
- Notah Begay III Foundation
- School Nutrition Association (SNA)
- Share Our Strength's No Kid Hungry Campaign
- Society of Behavioral Medicine
- Society for Nutrition Education and Behavior
- Trust for America's Health
- Urban School Food Alliance
- Other NOPREN Working Groups & PAPREN (CDC-sponsored Physical Activity Policy Research and Evaluation Network)

#### **Sub-Groups**

#### **Shared Data Collection Methods**

- Survey
- Qualitative
- Implementation processes

#### **Special Impact Topics**

- Accelerated weight gain
- Innovations in meal service
- Pandemic/summer EBT
- Meals during instructional breaks
- Financial/operational health
- Early childhood
- Summer meal programs
- School/early childhood reopening
- State responses assessment

#### Case Studies

Large urban district responses

#### **Products** (as of September 5, 2020)

- Website
- Supported fellowship and co-chairs
- Student internship matchmaking tool
- Student summer seminar series and virtual poster session
- Resource manager, listserv, weekly resource digest
- 2 data collection repositories
- 17 peer-reviewed research articles accepted, under review or development
- 2 HER research briefs (+ one under development)
- 3 fact sheets
- 4 Op-Fds
- 2 News article features
- 9 presentations and webinars

Co-chairs: Sheila Fleishhaker PhD, JD Erin Hager PhD





**Interactions Between COVID-19 And Childhood Obesity** 

# Discussion: Interactions between COVID-19 and Childhood Obesity: Setting a Research Agenda

William H. Dietz MD, PhD
Redstone Global Center for Prevention and Wellness
Milken Institute School of Public Health
George Washington University

October 23, 2020



# How Does Structural Racism Contribute to the Effects of COVID-19 on the Food System?

#### Disparities in COVID-19 pediatric hospitalization rates

- 46% Hispanic, 30% Black, 14% white
- 38% have pre-existing conditions, obesity = 38%

## Undue exposure of the essential and often undocumented workforce

- Low wages, poor housing and lack of medical care
- Prioritization of profits over health
- Fragility of the industrialized food system
- Effects on food costs, availability, and susceptibility

How do we document and mitigate the contribution of these determinants to the adverse outcomes we see?



- What is the relationship of food insecurity to obesity in children?
  - What accounts for the inconsistent findings?
  - Increased reliance on ultra-processed foods?
  - Stress?
- How can we capture the prevalence of food insecurity and its contributors in real time?
- Will the positive effects of the changes in the WIC package and the HHFKA be sustained?
- How can we assess PA in and out of schools?
- Under COVID-19 conditions, how will we measure any of these outcomes?



# Policy Approaches to Food Insecurity during the Pandemic

- Extend all child nutrition program waivers for the duration of the COVID-19 pandemic
- Streamline the state application process for waivers
- USDA should provide guidance for states to overcome barriers
- Continue the P-EBT program through June 2021
- Eliminate requirement for consecutive missed classes
- Create nationwide summer EBT programs
- Extend Emergency Meals-To-You (eMTY) through 2021 and expand summer eMTY for rural or isolated communities

Hetrick RL et al. Pediatrics 2020; 146:e2020006924



#### Discussion

- What are the challenges and opportunities for research during the COVID-19 pandemic and recovery?
  - Consider data collection; programmatic work; technology; behavior change



## **Next Steps**

 Please continue to send questions and additional challenges/opportunities for research during the COVID-19 pandemic and recovery to Amanda Sharfman asharfman@fhi360.org



# Thank you to all our Speakers and Discussants!









