

Farm to Families: Understanding the Impact of Subsidized Produce Boxes for Families in the Clinical Setting

Statement of Problem

The COVID-19 pandemic has only deepened challenges for the nearly 1 in 4 children who were already food insecure in Philadelphia, and has created new barriers to food access for families who never previously struggled. From rising unemployment rates that disproportionately affect low-income families, to school closures that curtail access to lunch programs for the [30 million children](#) they served each day, COVID-19 has impacted nearly every aspect of the systems that food insecure families depend on. As a result, food insecurity rates have reached staggering new heights and continue to rise: as of May 2020, more than [40% of mothers with children under age 12](#) reported household food insecurity since the pandemic began, compared to [15%](#) in 2018.

Access to produce has proven to be particularly difficult for food insecure families, a population that has historically reported rates of fruit and vegetable consumption [below the national average](#). Rising costs, low stock and strained budgets due to COVID-19 have pushed produce even farther down on the shopping list. Furthermore, due to factors including risk of contracting the virus and reduced availability of child care, families are prioritizing foods with a longer shelf life than fruits and vegetables to stretch groceries as far as possible.

Description

Farm to Families: Understanding the Impact of Subsidized Produce Boxes for Families in the Clinical Setting

Access to school lunch programs for daily

Children under 12 reported household food insecurity since the pandemic began.

Program provides families with a free box of fresh fruits and vegetables, regardless of income level.

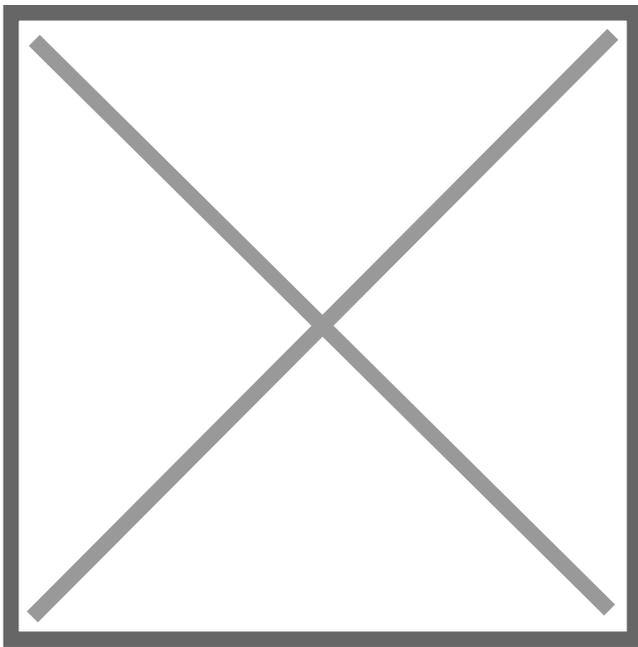
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We're conducting a qualitative evaluation of a clinically-based produce program to advance our understanding of COVID-19's impact on food insecurity and inform preferences for future programming.

To assess families' food access needs and translate findings into programs that meet them, our team has focused in on one of the few places families are still going: the doctor's office. In July 2020, we partnered with the St. Christopher's Foundation for Children, Lancaster Farm Fresh Cooperative and the Garden at Karabots to launch Farm to Families, a cost-subsidized community-supported agriculture program (CSA). In addition to alleviating some of the immediate burden of food insecurity, the goals of Farm to Families include understanding the unprecedented food access challenges that families are facing in real-time, and evaluating whether clinical care sites are feasible and acceptable locations for a cost-subsidized CSA.



We conducted a 12-week pilot in the summer of 2020, distributing free boxes of produce at Children's Hospital of Philadelphia's (CHOP) Karabots Pediatric Care Center and the Buerger Center for Advanced Pediatric Care. Before receiving a produce box, participants completed a brief demographic and food insecurity survey and could opt-in to a follow-up phone interview. During the interview, participants were asked to share their experience with Farm to Families as well as provide feedback on how a CSA program based in a health care setting could better meet their needs. The interview also assessed how the pandemic affected caregivers' ability to obtain enough food for their families, changes to benefits and how families engage with community resources during this time.

During this pilot, the team distributed boxes to reach more than 6,400 individuals. Without preceding eligibility criteria, the program reached families with nearly a 50% rate of reported food insecurity, highlighting that screening is not imperative to reach food insecure families. Interviews revealed that while many caregivers were initially “surprised” by the program setting within the clinic, they ultimately felt that it reinforced the hospital’s commitment to “whole health” and perceived it to be safer than other food program settings during the pandemic. Several programmatic features emerged as particularly important: ease and efficiency of use, kindness of staff, and confidentiality.

Participants reported that engagement with the Farm to Families program helped mitigate barriers to food access by reducing the frequency of shopping trips, and enabled the reallocation of finances to needs other than food. Further, the program cultivated caregivers’ and children’s’ favorable attitudes toward fresh produce, increased interest in purchasing produce, and developed confidence in preparing produce for family through exploration of recipes and exposure to new ingredients.

Source: Pediatrics

Next Steps

Informed by participant interviews, we have transitioned the program to a sliding-scale fee-for-service model that is available to any community member or clinical staff. Participants are able to [shop online](#) for produce, and add on items like eggs, meat, cheese and yogurt. Pricing structures are determined by income, food security status and participation in federal benefit programs, with all products priced far below market value. Additionally, there is a pay-it-forward feature allowing the highest earners to help subsidize boxes for those who qualify for assistance. Families can also purchase boxes using Supplemental Nutrition Assistance Program (SNAP) Electronic Benefits Transfer (EBT).

Upcoming studies are planned to pilot a delivery option, and to optimize the pricing structure to meet the needs of families. Our hope is that our findings will advance understanding of COVID-19’s impact on food insecurity among vulnerable populations and inform the long-term sustainability and impact of a cost-subsidized CSA at CHOP to provide healthy food for families.

This project page was last updated in October 2022.

Suggested Citation

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PolicyLab Leads

Danielle Cullen

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Faculty Member

Danielle Cullen (she/her) is a faculty member at PolicyLab at Children's Hospital of Philadelphia (CHOP) and assistant professor of pediatrics and pediatric emergency medicine at CHOP and the Perelman School of Medicine at the University of Pennsylvania. She is also a senior fellow of the University of Pennsylvania Leonard Davis Institute of Health Economics and co-course director for Master Level Introduction to Implementation Science at the University of Pennsylvania.

Dr. Cullen's research focuses on socio-economic health disparities, in particular childhood food insecurity. Her long-term goal is to improve health equity among socially disadvantaged children through the development of effective, acceptable, and feasible strategies to identify social risk and improve family engagement with resources. She is dedicated to community involvement in research and programmatic design, and leveraging methods from Community-Based Participatory Research and Implementation Science to enhance reach and sustainability of developed programs. Her current interdisciplinary research portfolio includes: mixed-methods evaluations of social determinant screening modalities, locations and referral processes; a hybrid implementation-effectiveness study of the USDA's summer food service program across five CHOP clinical settings; and a qualitative evaluation of low-income families' experiences with a clinically-based subsidized organic produce box program.

In addition to her research, Dr. Cullen is a member of the advisory board for the hunger pillar of CHOP's Healthier Together initiative and CHOP's social risk screening and resource map sponsorship board. She serves on multiple city-wide committees, including as co-chair of the food insecurity workgroup for the multi-institutional COACH (Collaborative Opportunities to Advance Community Health) initiative to address social determinants of health in southeastern Pennsylvania.

Dr. Cullen earned her Master of Public Health in Maternal and Child Health at the Johns Hopkins Bloomberg School of Public Health and her medical degree from Jefferson Medical College. She completed residency in General Pediatrics at the Children's Hospital of Pittsburgh of UPMC. There, with support from the American Academy of Pediatrics, she developed a screening and intervention protocol for food insecurity in the Children's Hospital of Pittsburgh Emergency Department. This protocol was integrated into the electronic medical record system as the standard of care and has now been expanded to the hospital's inpatient and outpatient settings. She completed Pediatric Emergency Medicine fellowship at CHOP while also serving as a T32 research scholar, earning her Master of Health Policy Research from the University of Pennsylvania.



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Team

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Senbagam Virudachalam is a faculty member at PolicyLab, the Division of General Pediatrics and Clinical Futures at Children's Hospital of Philadelphia (CHOP). She is also an assistant professor of pediatrics at the University of Pennsylvania, a primary care pediatrician at CHOP and serves as the faculty lead for PolicyLab's Family & Community Health Portfolio. Dr. Virudachalam's research focuses on food justice, advancing equity in diet quality and health outcomes for all children. She studies cross-sector approaches to ensure that all children have stable access to healthy food environments at home and in their communities, enabling them to grow into healthy adults. Dr. Virudachalam has extensive experience conducting community-engaged research, especially with regard to the evaluation of Home Plate, a food literacy and cooking skills intervention for low-income parents that she developed in close partnership with Early Head Start. Dr. Virudachalam serves as the scientific director of culinary medicine at the Perelman School of Medicine and as the director of sustainable community health partnerships at the Community Health and Literacy Center in South Philadelphia.

Dr. Virudachalam holds a bachelor's degree from the University of California, Berkeley, where she graduated with honors in Molecular and Cell Biology and with distinction in general scholarship. She earned her medical degree from the Pennsylvania State University College of Medicine and completed her pediatric residency at UCSF Benioff Children's Hospital Oakland. She then completed an academic general pediatrics fellowship at CHOP and earned a Master of Science in Health Policy Research from the University of Pennsylvania.



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Rachel Brown

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Clinical Research Program Manager

Rachel Brown (she/her) is a clinical research program manager at PolicyLab at Children's Hospital of Philadelphia. Ms. Brown works with Dr. Danielle Cullen on a mixed-methods research portfolio aimed at reducing health disparities by addressing unmet social need among children and their families. She also supports the implementation and evaluation of several clinically based food programs.

Ms. Brown received her Master of Public Health in Community Health and Prevention from Drexel University. While completing her graduate degree, she was an Urban Health Collaborative fellow in the Policy & Community Engagement Core as well as a graduate intern at PolicyLab. She also worked with Drexel's Center

for Public Health Readiness and Communication as a crisis communications associate, developing strategic outreach plans and content to support the university's pandemic response.

Prior to pursuing her master's degree, Ms. Brown held several communications and community engagement roles at organizations including the Federal Reserve Bank of Philadelphia and SteegeThomson Communications. She earned her bachelor's degree in media & communications from Ursinus College.



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Related Tools & Publications

- [Hungry for Information: Lessons Learned from Food Insecurity Screening in Pediatrics Blog Post](#)
Oct 19, 2017
- [Food for Thought: How We Screen for Food Insecurity Matters Blog Post](#)
May 15, 2019
- [Modernizing WIC Enrollment to Improve Access to Healthy Food for Children and Families Blog Post](#)
Mar 29, 2021

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[Screening for Food Insecurity: Amplifying the Caregiver Perspective](#)
[Blog Post](#)

Sep 21, 2021

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[Increasing Produce Access for Families With Low Incomes: Perspectives From WIC-eligible Caregivers](#)
[Blog Post](#)

Mar 01, 2023

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[Screening for Food Insecurity in Suburban Primary Care Pediatric Practices: Feasibility, Acceptability and Impact](#)

[Research at a Glance](#)

Jun 2017

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[Food for Thought: A Randomized Trial of Food Insecurity Screening in the Emergency Department](#)
[Article](#)

Jan 2019

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[USDA Request for Public Comment: Requirements for National School Lunch and School Breakfast Programs](#)

[Tools and Memos](#)

Mar 2020

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[Food for Thought: A Qualitative Evaluation of Caregiver Preferences for Food Insecurity Screening and Resource Referral](#)

[Article](#)

Apr 2020

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[Exploring the Gap: Food Insecurity and Resource Engagement](#)
[Article](#)

Aug 2020

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[Association of WIC Participation and Electronic Benefits Transfer Implementation](#)
[Article](#)

Mar 2021

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[Perspectives From Urban WIC-Eligible Caregivers to Improve Produce Access](#)
[Article](#)

Jan 2023

Related Projects

[Complete Eats: The USDA Summer Food Service Program at CHOP](#)

