



INTEGRATING HEALTHY EATING & HEALTHCARE IN THE GREATER CINCINNATI REGION

FEBRUARY 2020



Executive Summary

The Greater Cincinnati region – including Southwestern Ohio, Southeastern Indiana, and Northern Kentucky – faces pressing challenges in population health, healthcare spending, and healthy food access. Yet, the people and institutions of the region also bring incredible, diverse assets to efforts addressing these intersecting issues. The purpose of this whitepaper is to better understand the potential of integrating healthy food and healthcare in the region, to assess the landscape of stakeholders, their needs, priorities, goals, and assets, and to chart a coordinated path forward for all of us.

History

On October 10, 2019 the Greater Cincinnati Regional Food Policy Council’s Healthy Food Access and Consumption Workgroup and The Health Collaborative’s Gen-H held the “Integrating Healthy Eating and Healthcare Summit.” This event gathered leaders from food access, affordability, and education organizations throughout the region with representatives from the healthcare sector to discuss healthy food access and its role in our healthcare system. Physicians, insurers, gardeners, and grocers networked and shared the successes and challenges of their work with healthy food. A

working session following the summit revealed enthusiasm for a few key collaborations moving forward.

Following the summit, we conducted interviews with over 50 individuals¹ passionate about the integration of healthy eating and healthcare in our region. These semi-structured interviews asked about the work people have been doing on the issue, and their needs and goals moving forward.² We then analyzed the emerging patterns and gaps of healthy eating and healthcare work in our region.³

Vision

Our vision is to create a coordinated system that seamlessly integrates healthy eating with healthcare, supporting the universal and equitable distribution of resources for food access, affordability, and nutrition education throughout the region.

Regardless of the neighborhood someone lives in, it should be convenient to purchase fresh produce and other healthy foods. Whether at a nearby corner store, a full-service grocery, or a farmer’s market, people

¹ List of interviewees available in Appendix 3.

² Interview guide available in Appendix 2.

³ Methodology available in Appendix 1.

should be able to afford healthy foods. Those on SNAP should be given additional financial support in the purchase of these healthy foods through Produce Perks, which should be redeemable anywhere you can buy produce.

healthy emergency food assistance to food insecure patients, and should be equipped with the materials and knowledge to refer their patients to specialized resources to address their social barriers to health.

People at particular risk for diet-related chronic disease, as well as those already living with a variety of chronic conditions with dietary impacts, should be supported as they explore and learn about medically-appropriate meals. Not only should they be able to access prepared medically-tailored meals, but hospital teaching kitchens throughout the region should provide culinary and nutritional education to support people as they develop new skills of their own.

Continually investing in the integration of healthy food and healthcare, stakeholders from throughout the region should have regular forums and means of sharing learnings and insights. Through this network, stakeholders interested in expanding their own work should know where to go for support, and should be able to collaborate effectively with new partners.

Key Findings

Food insecurity is a major health-related social need influencing both the healthcare

Every time a patient interacts with healthcare providers, they should be screened for food insecurity. All providers should be able to provide immediate,

spending and health outcomes and disparities of our region. A variety of evidence based methods have proven successful in integrating healthy eating and healthcare across the country, including food insecurity screenings, emergency food provision at the point of clinical care, nutrition incentive programs, nutritional and culinary education, and encouraging healthy food within healthcare institutions.

In-depth interviews with stakeholders throughout the healthcare and healthy food access, education, and affordability sectors provided key insight into the landscape of healthy food and healthcare collaboration in the Greater Cincinnati region.

The majority of current work to integrate healthy eating and healthcare in a hospital setting is driven by the personal passion of medical professionals, and is happening at a small, project-by-project scale. These hospital and clinic-based healthy food interventions have positive impacts beyond increased nutrition and better health outcomes; they lead to more trusting patient-provider relationships, thus leading to better healthcare.

While individual healthcare professionals from hospitals across the region have taken important steps to increase the integration

of healthy eating and healthcare, most projects have not yet risen to hospital-wide strategies and investments. Instead, many have been funded through doctors' substantial personal efforts, including grant writing and/or fundraising activities. Moving towards more sustainable funding methods for these programs has been a challenge.

Not all health institutions face these same challenges, though. As smaller and more population-health focused entities, health centers face fewer bureaucratic challenges than hospitals do. Ideas and passion projects can thus become institutional strategy much more quickly and easily.

Health departments, yet another healthcare stakeholder, have found strength in convening community leaders and providing them support towards self-identified healthy food and healthcare goals. Community goals often include increasing healthy food access, affordability, or education. Health departments also have developed expertise in navigating the varied local politics of community governments within their jurisdiction, and adapting programming to fit the unique political, social, and geographic requirements of each community.

Working to bring together these varied players across the healthcare system, regional collaboratives like Gen-H and All-In Cincinnati facilitate discussions and support institutions as they pursue progress

in health equity and population health. These organizations will be essential conveners as the region integrates healthy eating and healthcare.

Outside of the healthcare sector, many organizations across the region are seeking to address healthy food access, education, and affordability. While most food access organizations provide at least emergency food access, some are doing more than others to provide access to *healthy* foods in particular. Community gardens, hydroponic farms, mobile markets, produce prescriptions, and in-clinic pantries are all efforts within the community to increase consumption of healthy foods. Although these types of interventions increase access to healthy foods, many are not yet directly partnering with healthcare institutions.

Food access efforts would not be successful without engaging with efforts to address food affordability and education. To increase the affordability of healthy food, Produce Perks provides a \$1 for \$1 match on produce for SNAP customers at participating retailers and farmers markets across the state. Its PRx program provides fresh produce to patients experiencing food insecurity and chronic disease. These programs aim not only to make healthy foods more affordable, but to support local agricultural systems.

It is not enough to just provide access to healthy, affordable foods, or to make them

affordable – educating individuals and families about the importance of incorporating these foods into their diets (and how to do so) is essential to making a lasting change. Some organizations in the region provide food education throughout the community, while others try to bring nutrition and cooking education programs back to the schools. Much like the healthy food projects at hospitals, passionate teachers at the schools lead nutrition and gardening projects, and once these teachers leave, their curriculum usually leaves with them.

Successfully shifting the region’s food system towards one that makes healthy food equitably accessible for all people in the region will require institutional investments and system-level change. The personal relationships, partnerships, and projects already growing across the healthcare and healthy food sectors are the essential first steps towards this change. Deepening such collaboration will prepare the region to overcome traditional silos, and instead work cohesively towards an integrated healthy eating and healthcare system.

Recommendations

The following is a set of regional recommendations based on the shared goals, needs, and assets that emerged in stakeholder interviews.

1. Screen all patients in the region for food insecurity.
2. Refer food insecure patients to appropriate food access, education, and affordability resources.
3. Establish a healthy point-of-care food pantry in all major hospital divisions and health centers.
4. Provide access to prepared, medically-tailored meals for patients with chronic diet-related disease.
5. Incentivize healthy food purchases year-round, at conveniently accessible vendors.
6. Increase availability of fresh produce (and/or healthy foods like skim milk and whole wheat bread) to corner

stores who want to participate and accept SNAP.

7. Recover surplus food from hospital cafeterias and food service to provide to patients and families.
8. Use hospital-based teaching kitchens as a point-of-care focal point for nutrition and food-as-medicine education.
9. Encourage hospitals to model sustainable, local, and healthy foods in their cafeterias.
10. Create a collaborative and integrated system of nutrition education in the region.
11. Coordinate and integrate each of the above objectives into a seamless and unified effort.

Acknowledgements

Green Umbrella is the regional sustainability alliance of Greater Cincinnati, with over 200 member organizations and over 200 individual members passionate about enhancing the environmental health and vitality of our region. Green Umbrella serves as a backbone organization for collective impact. Green Umbrella's regional footprint serves 10 counties: Butler, Clermont, Hamilton, and Warren (in Ohio); Boone, Campbell, Grant, and Kenton (in Kentucky); and Dearborn and Franklin (in Indiana).

The **Greater Cincinnati Regional Food Policy Council** is a cross-sector coalition advocating for policies and systems change to create a healthy, equitable, and sustainable food system for all within the 10 county region of Greater Cincinnati.

The **Bill Emerson National Hunger Fellowship**, a program of the **Congressional Hunger Center**, trains and inspires new leaders in the movement to end hunger and poverty in the United States. Fellows gain vital first-hand experience through placements with community-based organizations across the country as well as policy-focused organizations in Washington, D.C. The program bridges gaps between local efforts and national public policy, as fellows support partner organizations with program development, research, evaluation, outreach, organizing, and advocacy projects.

Thanks to the members of the Greater Cincinnati Regional Food Policy Council's Healthy Food Access and Consumption Workgroup, whose passion drove this project forward, and whose input shaped our understanding of the region's food system. Thank you to Rosie Allen and Angelica Hardee for their leadership of this group and their support of this project.

We are also thankful for the thoughtful conversations many of our region's leading healthy food advocates shared with us and for the time they took out of their busy schedule to share their work and passion.

Special thanks to those who reviewed drafts and provided feedback throughout the process: Annabelle Arbogast, Andrew Beck, Jackie Bouvette, Ashley Clos, Kathy Cooley, Tevis Foreman, Adrienne Henize, Margaret Jenkins, Susan Jorgensen, Laura Olexa, Domonique Peebles, Anne Klapheke, Emmy Schroder, Anne Schneider, Kiana Trabue, and Alan Wight.

Special thanks to the **Kroger Co. Foundation, Plus 1, Beck and Cage the Elephant** for making this work possible through generous funding.

Authors:

Alexa Angelo, Healthy Food Organizations & Communities Fellow for Greater Cincinnati

Regional Food Policy Council, Bill Emerson
National Hunger Fellowship

Caroline George, Healthy Food in Healthcare
Fellow for Greater Cincinnati Regional Food
Policy Council, Bill Emerson National
Hunger Fellowship

Michaela Oldfield, JD, PhD, Director of the
Greater Cincinnati Regional Food Policy
Council

Table of Contents

| | |
|--|-------------------------------------|
| Executive Summary | 1 |
| History | 1 |
| Vision | 1 |
| Key Findings | 2 |
| Recommendations | 4 |
| Acknowledgements | 6 |
| Table of Contents | 8 |
| Literature Review | 10 |
| Health Value: Population Health and Healthcare Spending | 10 |
| Food Insecurity: a Health-Related Social Need | 12 |
| Food Insecurity and Health in Greater Cincinnati | 15 |
| Investing in Food as Preventative Medicine | 16 |
| Strategy 1: Food Insecurity Screening | 18 |
| Strategy 2: Emergency Food Provision at the Point of Care | 19 |
| Strategy 3: Nutrition Incentive Programs | 20 |
| Strategy 4: Nutritional and Culinary Education | 22 |
| Strategy 4: Encouraging Healthy Food Within Healthcare Institutions | 23 |
| Integrating Healthy Food and Healthcare in Greater Cincinnati: Emerging Patterns and Gaps | 25 |
| Healthcare | 25 |
| Hospitals | 25 |
| Health Centers | 38 |
| Health Departments | 38 |
| Collaboratives | 38 |
| Managed Care Organizations | 39 |
| Community Food Organizations | 41 |
| Food Access | 41 |
| Food Education | 44 |
| Pathways Forward | 47 |
| Recommendations | 47 |
| Appendices | Error! Bookmark not defined. |
| Appendix 1: Methodology | 48 |

Appendix 2: Interview Guide

50

Appendix 3: List of Interviewees

51

Literature Review

The Greater Cincinnati region faces pressing challenges in population health, healthcare spending, and healthy food access. Integrating healthy eating and healthcare is a cross-sector strategy that can address all three of these issues simultaneously, and research from across the country has proven the efficacy of a variety of interventions to this end. By increasing strategic collaboration between regional institutions and supporting hospitals as they work to become true anchor institutions in their communities, we hope to address the root causes of the region's population health challenges.

Anchor Institutions

The term Anchor Institutions usually refers to the nonprofit “eds and meds” in a community. Large institutions like universities and hospitals are often the largest employers in a community and are place-based, unlikely to relocate somewhere else. With significant economic power and human / intellectual resources, anchor institutions are well placed to lead investment towards the long term wellbeing of their communities. In the case of hospitals, investments to better the social, economic, and environmental conditions

of the community create a more positive relationship with community members, while also improving health outcomes and improving the efficiency of the healthcare institution.⁴

Health Value: Population Health and Healthcare Spending

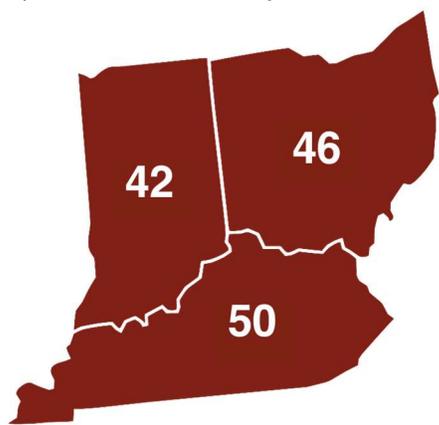
In 2019, the Health Policy Institute of Ohio ranked all states and the District of Columbia based on their health value, a composite measure of both population health and healthcare spending. The Greater Cincinnati region did poorly in the ranking: Kentucky ranked 50th, Ohio ranked 46th, and Indiana ranked 42nd.⁵ This means that the region has a troubling combination of poor

⁴ Norris, T., & Howard, T. *Can Hospitals Heal America's Communities? "All in for Mission" is the Emerging Model for Impact*. Democracy Collaborative. Retrieved January 31, 2020, from <https://democracycollaborative.org/content/can-hospitals-heal-americas-communities-0>

⁵ *2019 Health Value Dashboard*. (2019). Health Policy Institute of Ohio. https://www.healthpolicyohio.org/wp-content/uploads/2019/04/2019_HealthValueDashboard_WithAppendix.pdf

population health outcomes and high healthcare spending.

The Health Policy Institute of Ohio identified inequity and resource imbalances as key drivers of Ohio's poor health value ranking.⁶ These also emerged as challenges in the The Health Collaborative's 2019 regional⁷ Community Health Needs Assessment (CHNA), which included parts of Kentucky



and Indiana. Using the Community Needs Index, a validated assessment of healthcare disparities, the CHNA found that 26% of zip codes in the region have high levels of healthcare disparity.⁸

Healthcare disparities are rooted in a combination of factors known as the Social Determinants of Health (SDoH), which include: economic stability, education, social and community context, health literacy, healthcare access, and the built environment.⁹ As shown in the figure¹⁰ to the right, 80% of an individual's overall health is determined by these upstream factors, not in the doctor's office.¹¹ Inequity in the social and physical conditions of one's surroundings leads to inequity in health and healthcare.

The Social Determinants of Health are interconnected; a healthy physical environment is not only free of toxins and pollutants, but promotes healthy behaviors, and makes them socioeconomically accessible. Not only does one SDoH lead to ripple effects among the others, the barriers faced by a parent are felt by the child, perpetuating health inequities across generations. 49% of children in poverty in Ohio and Indiana, and 47% in Kentucky, live in households spending over half of their

⁶ 2019 Health Value Dashboard. (2019). Health Policy Institute of Ohio. https://www.healthpolicyohio.org/wp-content/uploads/2019/04/2019_HealthValueDashboard_WithAppendix.pdf

⁷ The Health Collaborative's CHNA defines the "Greater Cincinnati Region" as 25 counties. In Ohio: Hamilton, Butler, Warren, Clermont, Brown, Adams, Highland, Clinton, Fayette, Greene, Montgomery, Preble, Darke, Miami, Clark, Champaign, and Shelby Counties. In Indiana: Union, Franklin, Dearborn, Ohio, and Switzerland Counties. In Kentucky: Boone, Kenton, and Campbell.

⁸ SW Ohio, N Kentucky, SE Indiana: Community Health Needs Assessment 2019 Report (p. 68). (n.d.). The Health Collaborative, Greater Dayton Area Hospital Association. Retrieved January 31, 2020, from

<https://healthcollab.org/wp-content/uploads/2019/02/2019-CHNA-Report-2-7-19.pdf>

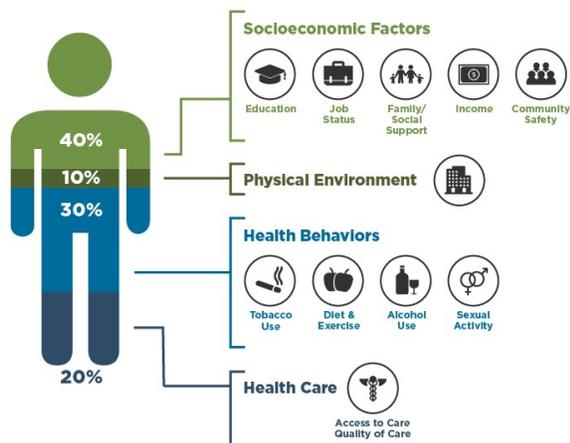
⁹ Social Determinants of Health. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>

¹⁰ Image from: *Community and Health Care Partnerships: Why Should We Think About Food Insecurity and Health?* (n.d.). Hunger and Health. Retrieved February 6, 2020, from <https://hungerandhealth.feedingamerica.org/explore-our-work/community-health-care-partnerships/>

¹¹ Norris, T., & Howard, T. *Can Hospitals Heal America's Communities? "All in for Mission" is the Emerging Model for Impact.* Democracy Collaborative. Retrieved January 31, 2020, from <https://democracycollaborative.org/content/can-hospitals-heal-americas-communities-0>

income on housing.¹² When housing is unaffordable, families are forced to make budgetary tradeoffs on other health-influencing factors like transportation, medical care, and healthy food.

The region has the wonderful asset of thriving healthcare systems; Ohio, Indiana, and Kentucky all rank relatively well in measures of access to and quality of care. Yet, regional performance on upstream factors and SDoH is relatively poor. Regional resources are in a state of imbalance, with high downstream healthcare spending for intensive, costly clinical encounters and procedures that could be prevented by addressing key



Source: Institute for Clinical Systems Improvement, *Going Beyond Clinical Walls: Solving Complex Problems* (October 2014)

Adapted from The Bridgespan Group

upstream social determinants of health.

Food Insecurity: a Health-Related Social Need

Food insecurity is a health-related social need at the nexus of several social determinants of health – the physical environment (food access), health behaviors (nutrition education), and socioeconomic factors (food affordability). Food insecurity can lead to troubling health outcomes.

The relationship between food insecurity and health is best described as a vicious cycle. While only households defined as having *very low food security* actually reduce their food intake, even marginal levels of food insecurity can lead to poorer health outcomes. *Marginal food security* is defined by “anxiety over food sufficiency.” Increased anxiety levels, and especially chronic stress, negatively impact both mental and physical health.¹³ This may infringe on an individual’s ability to focus at work or during other activities, potentially influencing job performance and income. To deal with stress, people naturally develop a variety of coping behaviors, many of which may be unhealthy. Seeking out comfort foods and developing unhealthy eating patterns like bingeing are two common coping behaviors, and can have negative impacts on individuals’ health.¹⁴ With

¹² *State Health Reports. County Health Rankings & Roadmaps*. Retrieved January 31, 2020, from <https://www.countyhealthrankings.org/reports/state-reports>

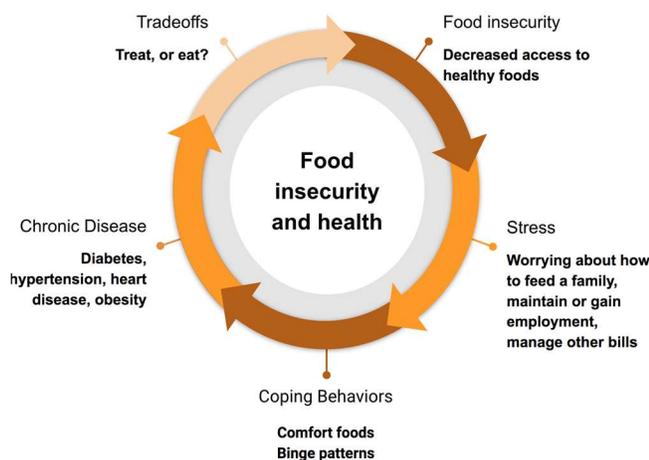
¹³ Melchior, M., Caspi, A., Howard, L. M., Ambler, A. P., Bolton, H., Mountain, N., & Moffitt, T. E. (2009). Mental

Health Context of Food Insecurity: a Representative Cohort of Families With Young Children. *Pediatrics*, 124(4), e564–e572. <https://doi.org/10.1542/peds.2009-0583>

¹⁴ Hemmingsson, E. (2018). Early Childhood Obesity Risk Factors: Socioeconomic Adversity, Family Dysfunction, Offspring Distress, and Junk Food Self-Medication. *Current*

decreased access to healthy foods, and maybe even a new craving for unhealthy foods, an individual's diet is likely to become less healthy.

Diet-related chronic diseases like diabetes, hypertension, heart disease, and obesity are much more likely to emerge under these conditions.¹⁵ Now facing increased healthcare costs and stricter diet requirements to manage these difficult conditions, individuals are often forced to make the awful choice between feeding themselves and their household, or purchasing essential medications.



In 2014, a Feeding America study found that 66% of foodbank patrons chose between

medication and food at least once in the previous year, and 31% faced this decision on a monthly basis.¹⁶ Medication adherence and healthy diets are both essential for the healthy management of diet-related chronic disease, and without them, patients are likely to experience complications and critical events that send them on a costly and dangerous visit to the emergency room.¹⁷ This increases healthcare spending and patient debt, making it even more difficult to put food on the table moving forward.

While most studies of food insecurity and healthcare emphasize negative impacts at a household level, or track the health of adults facing food insecurity, children are particularly vulnerable to these challenges. Parents try to protect their children from food insecurity by feeding their children before themselves, but children feel their parents' financial stress, and often choose to skip meals or reduce their own food intake in an attempt to alleviate the household challenge of food insecurity.¹⁸ Experiencing this chronic stress when living in food insecure households, children are at significantly greater risk of developing behavioral problems.¹⁹ When children are

Obesity Reports, 7(2), 204–209.
<https://doi.org/10.1007/s13679-018-0310-2>

¹⁵ Seligman, H. K., Laraia, B. A., & Kushel, M. B. (2009). Food insecurity is associated with chronic disease among low-income NHANES participants. *The Journal of nutrition*, 140(2), 304-310.

¹⁶ *Hunger in America 2014* (p. 12). (n.d.). Feeding America. Retrieved January 31, 2020, from <http://help.feedingamerica.org/HungerInAmerica/hunger-in-america-2014-summary.pdf>

¹⁷ Campbell, R. K., & Martin, T. M. (2009). The chronic burden of diabetes. *American Journal of Managed Care*, 15(9), S248.

¹⁸ Nargi, L. (2018, March 26). What Children Understand About Food Insecurity. *Civil Eats*. <https://civileats.com/2018/03/26/what-children-understand-about-food-insecurity/>

¹⁹ Althoff, R., Ametti, M., & Bertmann, F. (2016). The Role of Food Insecurity in Developmental Psychopathology. *Preventive Medicine*, 92, 106–109. <https://doi.org/10.1016/j.ypmed.2016.08.012>

hungry during the school day, they often have trouble concentrating and behaving during class, also impacting their learning outcomes.²⁰

“Food insecurity is associated with higher healthcare use and costs, even accounting for other socioeconomic factors.”²¹

The vicious, intergenerational cycle of food insecurity and poor health outcomes is impacting this health system at a macroeconomic scale. In 2016, \$52.9 billion in national healthcare costs were

associated with food insecurity in children and adults.²² Healthcare costs for food insecure adults are on average \$1,834 higher than for food secure adults in the country. Due to the nature of the nation’s healthcare system, increased spending related to food insecurity varies by state. Each year, food insecurity costs Ohio over \$2.2 billion in healthcare. Indiana spends nearly an extra \$1.1 billion, and Kentucky spends nearly \$855 million on healthcare that could have been prevented by eliminating food insecurity.²³ Reducing and eliminating food insecurity could have a profound effect on our region’s high healthcare spending.

²⁰ Council on Community Pediatrics (2015). Promoting Food Security for All Children. *Pediatrics*, 136(5), e1431.

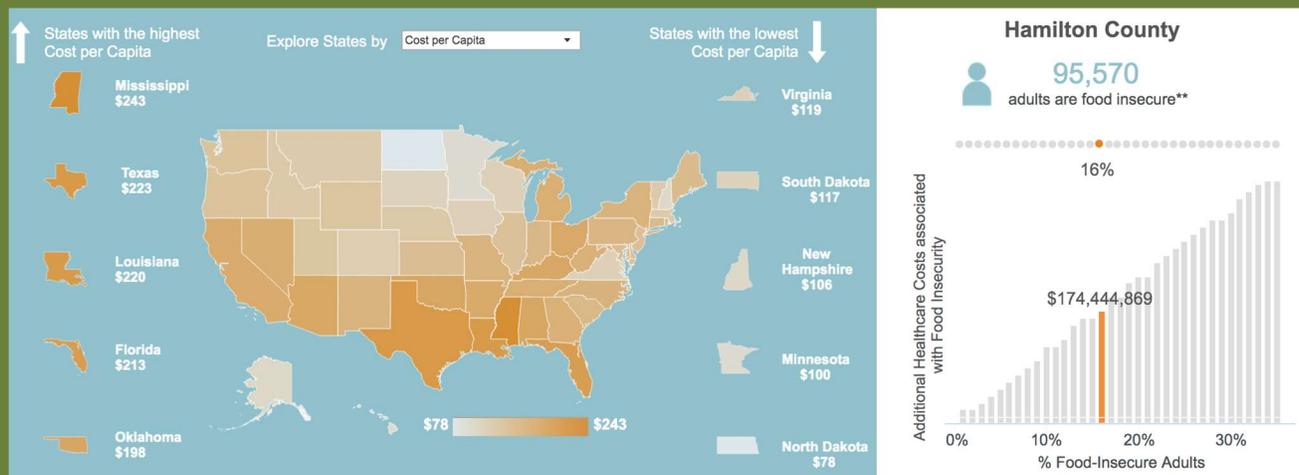
²¹ Berkowitz, S. A., Seligman, H. K., Meigs, J. B., & Basu, S. (2018). Food insecurity, healthcare utilization, and high cost: a longitudinal cohort study. *The American journal of managed care*, 24(9), 399.

²² *The Healthcare Costs of Food Insecurity: Exploring Geographic Variation by State and County*. (2019). Feeding America.

https://www.feedingamerica.org/sites/default/files/2019-07/The%20Healthcare%20Costs%20of%20Food%20Insecurity%20Brief_July%202019.pdf

²³ *The Healthcare Costs of Food Insecurity: Tableau Data Exploration Tool*. (2019). Feeding America. <https://public.tableau.com/profile/feeding.america.research#!/vizhome/TheHealthcareCostsofFoodInsecurity/HealthcareCosts>

Resource Highlight: “The Healthcare Costs of Food Insecurity”



Feeding America created an interactive data visualization tool on Tableau that allows users to explore the healthcare costs of food insecurity at a county, state, and national level. The resource highlights the correlation between food insecurity and health, showing projected healthcare costs based on the percentage of the adult population that is food insecure. This is a potentially useful tool for advocates who want to quantify the healthcare costs of food insecurity for a particular population.

<https://public.tableau.com/profile/feeding.america.research#!/vizhome/TheHealthcareCostsofFoodInsecurity/HealthcareCosts>

Food Insecurity and Health in Greater Cincinnati

The Patient Protection and Affordable Care Act of 2010 requires that nonprofit hospitals conduct Community Health Needs Assessments (CHNA) every three years, using the input of community stakeholders to determine priority health needs in the community surrounding the institution.²⁴ They must also create implementation

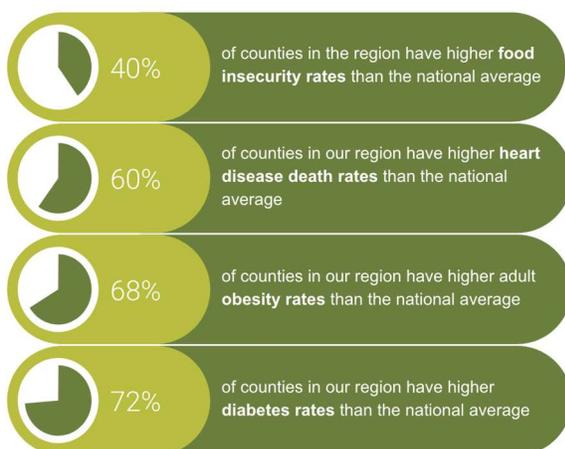
plans according to these assessments, and invest Community Benefit funds in achieving those plans. The Health Collaborative worked with 35 regional hospitals to conduct a Greater Cincinnati regional CHNA in 2019.

While healthy food access and consumption was not identified as one of the top five priority needs in this CHNA, it is an upstream determinant of many of the most pressing health issues identified in the report.

²⁴ *Requirements for 501(c)(3) Hospitals Under the Affordable Care Act – Section 501(r) | Internal Revenue Service.* (n.d.). Retrieved January 31, 2020, from

<https://www.irs.gov/charities-non-profits/charitable-organizations/requirements-for-501-c3-hospitals-under-the-affordable-care-act-section-501r>

Chronic diseases and healthy behaviors were both priorities identified by The Health Collaborative,²⁵ and healthy eating is a major factor contributing to both. A total of 40% of the region's counties have higher food insecurity rates than the national average, and a disproportionate number of counties in the region face health issues attributable to healthy food access, including diabetes, heart disease, and obesity.



The issue of food insecurity and health is not just a reflection of health statistics and healthcare costs, but a need that the region's communities have identified as a priority towards their own health. The CHNA involved qualitative engagement with communities to identify what community members really saw as a health need, including questions like: "What can you do to improve your health?" and "What can people, whom your organization serves, do

²⁵ *SW Ohio, N Kentucky, SE Indiana: Community Health Needs Assessment 2019 Report* (p. 11). (n.d.). The Health Collaborative, Greater Dayton Area Hospital Association. Retrieved January 31, 2020, from <https://healthcollab.org/wp-content/uploads/2019/02/2019-CHNA-Report-2-7-19.pdf>

to improve their health?" Communities self-identified healthy eating as their priority need when responding to these questions.²⁶ Stakeholders also self-identified related strategies, like preventative care, health education, and exercise as key steps to a healthier region.

Investing in Food as Preventative Medicine

As seen above, lack of access to nutritious food leads to poorer health outcomes, and an increased cost burden for the healthcare system. The Greater Cincinnati region has poor health value ratings, and healthy eating emerged as a need in the regional CHNA; healthcare institutions should have a vested interest in incorporating healthy food access and consumption programming into their work as anchor institutions.

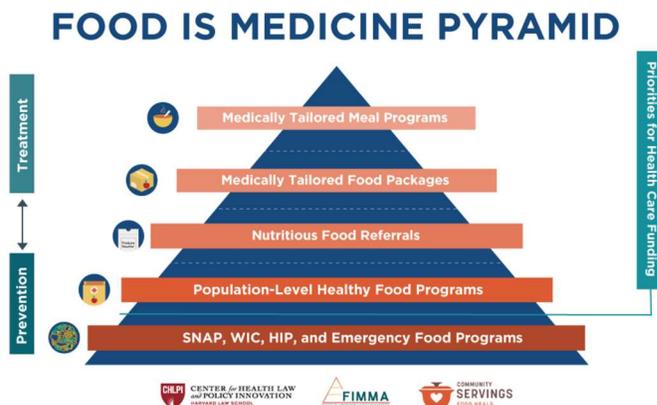
Food can be used as medicine in a range of interventions, from primary prevention all the way to more acute treatment and disease management. In their State Plan, Food is Medicine Massachusetts sets forward a useful framework for understanding this spectrum of care. At the most basic level, federal nutrition assistance programs – like the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental

²⁶ *SW Ohio, N Kentucky, SE Indiana: Community Health Needs Assessment 2019 Report* (p. 61). (n.d.). The Health Collaborative, Greater Dayton Area Hospital Association. Retrieved January 31, 2020, from <https://healthcollab.org/wp-content/uploads/2019/02/2019-CHNA-Report-2-7-19.pdf>

Nutrition Program for Women, Infants, and Children (WIC) – supplement grocery budgets for low income individuals and households. Food banks and food pantries also provide emergency food access to people facing food insecurity.

Initiatives using food as medicine, while often targeting these same food insecure populations, go further than “broader hunger safety net programs ... because of their focus on nutrition for chronic disease prevention, management, and treatment.”²⁷ Population-level nutrition incentive programs, like those administered by Produce Perks Midwest,²⁸ support healthy food access for those at risk of diet-related chronic disease and/or food insecurity. Nutritious food referrals from doctors or healthcare providers are more specifically targeted towards individuals with identified risk or diagnosis of diet-related chronic disease. Some initiatives go even further, selecting a medically-appropriate assortment of foods for patients already diagnosed with particular diet-related chronic diseases. Finally, the most narrowly targeted food as medicine interventions tailor individually prepared meals to the specific medical needs of each patient. Each of these interventions works best when paired with appropriate nutrition and

culinary education, building not just access and affordability, but skills and habits that will lead to long term behavior change.



Moving up the Food is Medicine Pyramid²⁹ from more population-based preventative programming to individually tailored treatment and management plans involves an increase in the amount of resources and time dedicated on an individual basis. Investments in programs that fall closer to the base of the pyramid have the largest population health impacts and reach further beyond clinical settings. Research shows that interventions at any level can have measurable impacts on behavior and health.

²⁷ *Massachusetts Food is Medicine State Plan* (p. 1). (2019). Harvard Law School Center for Health Law and Policy Innovation, Community Servings. <https://static1.squarespace.com/static/5c82ced1a56827591142c3df/t/5d083d61a02ad90001121ce4/1560821124217/MA+Food+is+Medicine+State+Plan+2019.pdf>

²⁸ *Produce Perks Midwest, Inc.*. An Ohio 501c3 headquartered in Cincinnati, OH. www.produceperks.org.

²⁹ *Massachusetts Food is Medicine State Plan* (p. 2). (2019). Harvard Law School Center for Health Law and Policy Innovation, Community Servings. <https://static1.squarespace.com/static/5c82ced1a56827591142c3df/t/5d083d61a02ad90001121ce4/1560821124217/MA+Food+is+Medicine+State+Plan+2019.pdf>

Strategy 1: Food Insecurity Screening

While food insecurity has a litany of well-documented poor health outcomes, it is often described as an invisible problem. Research has found that it is harmful to selectively discuss social determinants of health based on physical appearance or patient background: “targeting families based on such characteristics as residence, age, education, or underrepresented minority status may only reinforce stereotypes and prejudicial presumptions.”³⁰ Without asking *every* patient about their food security status, many may pass through a healthcare provider’s office with invisible, unhealthy, and unaddressed hunger.³¹

A two-question validated screening tool, called the Hunger Vital Sign,³² is available to doctors to assess patient food security status. With this information, healthcare providers are better able to understand the challenges their patients are facing, tailor their care to unique patient circumstances, and link patients to other resources supporting access to healthy foods.

Families with young children are at risk

³⁰ Garg, A., Boynton-Jarrett, R., & Dworkin, P. H. (2016). Avoiding the unintended consequences of screening for social determinants of health. *Jama*, 316(8), 813-814.

³¹ Black, M. (2014). Household food insecurities: Threats to children’s well-being.

³² Hager, E. R., Quigg, A. M., Black, M. M., Coleman, S. M., Heeren, T., Rose-Jacobs, R., ... & Cutts, D. B. (2010). Development and validity of a 2-item screen to identify



for food insecurity if they answer ‘often true’ or ‘sometimes true’ (vs. ‘never true’) for one or both of the following two statements:

1. “Within the past 12 months we worried whether our food would run out before we got money to buy more.”
2. “Within the past 12 months the food we bought just didn’t last and we didn’t have money to get more.”

Food insecurity screening, assessment, and intervention can be coded into the patient’s Electronic Health Record (EHR), integrating food security status with the rest of the patient’s health record.³³ Thus, awareness of – and sensitivity to – a patient’s food security status can move with their health record as they see different healthcare professionals.

The integration of food insecurity and social determinant of health screenings into

families at risk for food insecurity. *Pediatrics*, 126(1), e26-e32.

³³ DeSilvey, S., Ashbrook, A., Sheward, R., Hartline-Grafton, H., Ettinger de Cuba, S., & Gottlieb, L. (2018). An Overview of Food Insecurity Coding in Health Care Settings: Existing and Emerging Opportunities. Boston, MA: Hunger Vital Sign™ National Community of Practice.

electronic health records will increase the quantity and quality of research linking food insecurity to health outcomes, and will set up the infrastructure within health systems for future insurance reimbursement policy innovation. For instance, the Food is Medicine Coalition successfully advocated for medically-tailored, home delivered meals to be considered reimbursable medical interventions for critical, chronic patients. Other advocacy organizations are pushing for policy reforms that will allow reimbursement of additional preventative food access strategies.^{34,35} Establishing recordkeeping is an important first step to being able to establish health insurance reimbursement to help cover the costs of this kind of work.

While food insecurity screening is an essential first step to integrating healthy eating and healthcare, it is insufficient on its own. Simply asking patients to reveal sensitive personal information, and recording that information in their health record, does nothing to help the patient. Extracting the information without providing support is not good practice: "screening for any condition in isolation without the

capacity to ensure referral and linkage to appropriate treatment is ineffective and, arguably, unethical."³⁶ Below are several strategies that healthcare providers can use to offer support to their patients who screen positive for food insecurity.

Strategy 2: Emergency Food Provision at the Point of Care

Emergency food provision at the point of clinical care is meant to provide immediate emergency food assistance for patients who are identified as food insecure during their appointment or clinical encounter, either through screening, self-identification, or other methods. This kind of programming often manifests as a partnership between local food banks and healthcare institutions to create a "clinic pantry".³⁷ Other methods involve the distribution of pre-bundled foods to patients.

One study collected qualitative feedback from 30 patients and 89 providers in an academic urban safety-net hospital in New England, and found the clinic pantry to be a "convenient" and "destigmatized" way to increase patients' fruit and vegetable

³⁴ Greenwald, R. (2015, January). *Food As Medicine: The Case for Insurance Coverage for Medically-Tailored Food Under the Affordable Care Act*. <http://www.chlpi.org/wp-content/uploads/2013/12/CA-Greenwald-Hunger-Summit-1-26-15.pdf>

³⁵ *Policy Position Statement: Expanding Access to Healthy Food for Medicaid Beneficiaries*. (2019). American Heart Association. <https://www.heart.org/-/media/files/about-us/policy-research/policy-positions/access-to-healthy-food/expanding-access-to-healthy-food-for-medicaid-beneficiaries-policy-statement-2019.pdf?la=en&hash=6D5AFE2F1040D1EA29BA9766512EB41855514832>

³⁶ Garg, A., Boynton-Jarrett, R., & Dworkin, P. H. (2016). Avoiding the unintended consequences of screening for social determinants of health. *Jama*, *316*(8), 813-814.

³⁷ *Food Banks as Partners in Health Promotion: Creating Connections for Client & Community Health*. (n.d.). Feeding America, Harvard Law School Center for Health Law & Policy Innovation. Retrieved January 31, 2020, from http://hungerandhealth.feedingamerica.org/wp-content/uploads/legacy/mp/files/tool_and_resources/files/food-banks-as-partners-in-health-promotion-creating-connections-for-client-community-health.pdf

intake.³⁸ The same study found that patients were more trusting of the health and quality of food provided at the clinic based pantry. Patients shared that they did not place the same levels of trust in non clinic-based pantries, citing bad experiences with expired or unhealthy food distribution. Trust is valuable and powerful, and clinic pantries should work hard to meet their patients' higher expectations: "since patients must be referred [to the clinic pantry] by their healthcare providers, they may believe all food received at the pantry has their provider's endorsement. Receiving unhealthy food at a hospital-based food pantry sends contradictory messages to patients about how to eat healthy and manage their disease."³⁹ If clinic pantries set nutritional standards for the items they will accept from partnering food banks, they may be able to leverage their partnership to create systems level change in the food environment.

While most food banks report a commitment to providing healthy foods, only 39% of food banks across the country actually have written nutritional standards.⁴⁰ Establishing these concrete nutrition standards is a broadly-accepted best practice, and does not jeopardize the

quantity of food donated. By implementing nutritional standards, the Capital Area Food Bank in Washington, DC was actually able to influence the broader food system: in response to the new standards, Giant Food created its own "Retailers for Wellness" program to ensure all donated food was healthy.⁴¹ The push for healthier clinic pantries could lead other food banks to adopt similar policies.

Strategy 3: Nutrition Incentive Programs

The Food Insecurity Nutrition Incentive (FINI) program, administered by the USDA's Food and Nutrition Service and the National Institute of Food and Agriculture, awarded 82 grants between 2015 and 2017. Grantees incentivized healthy food consumption by providing financial incentives to SNAP recipients, offsetting the financial barrier to accessing healthy food. Incentives were delivered in a variety of models, including rebates, discounts, and prescriptions for produce.

Pulling together evaluations from the 82 FINI grantees, the FNS Office of Policy Support published an interim report on the program in May of 2019. The report found that FINI programs led to a significant

³⁸ Greenthal, E., Jia, J., Poblacion, A., & James, T. (2019). Patient experiences and provider perspectives on a hospital-based food pantry: a mixed methods evaluation study. *Public health nutrition, 22*(17), 3261-3269.

³⁹ Greenthal, E., Jia, J., Poblacion, A., & James, T. (2019). Patient experiences and provider perspectives on a hospital-based food pantry: a mixed methods evaluation study. *Public health nutrition, 22*(17), 3261-3269.

⁴⁰ Campbell, E. C., Ross, M., & Webb, K. L. (2013). Improving the nutritional quality of emergency food: a study of food bank organizational culture, capacity, and practices. *Journal of hunger & environmental nutrition, 8*(3), 261-280.

⁴¹ *Program: Food banks and pantries | Healthy food playbook*. (n.d.). Delivering Community Benefit. Retrieved January 31, 2020, from <https://foodcommunitybenefit.noharm.org/resources/implementation-strategy/program-food-banks-and-pantries>

increase in spending on fruits and vegetables at a household level. Retailers also experienced a variety of benefits including increased foot traffic and business, and an 82% incentive redemption rate. Programming had a “modest” effect on where people shopped for their food, but the study did not find a significant increase in self-reported behavior change measures like consumption or preference for healthier foods. These results are likely conservatively biased based on a variety of methodological choices: mainly, not all SNAP beneficiaries in the study participated in or were aware of incentive programming, so it is unreasonable to expect to see major results in that population.⁴² Nutrition incentive programs are a relatively new concept, and other than the broad FINI grant evaluation, there are few comprehensive evaluations of such programming.

As a clinically-based intervention, produce prescription programs tend to track health outcomes more closely and accurately than other programming. Produce prescription programs usually are cohort-based; a group of patients is identified by physicians in the beginning using a combination of selection criteria from food insecurity to risk or diagnosis of diet-related chronic disease. That same group of patients is tracked throughout the program, participating in follow-up appointments and repeated

biometric measurements as they receive vouchers to buy produce, participate in cooking classes, and sometimes even fitness classes. Produce prescription programs can produce studies that track patient health outcomes from program start to end. Several case studies on produce prescription programming have shown significant beneficial health outcomes.

One VeggieRx program in an urban low income neighborhood of upstate New York aimed to increase access to fresh produce for low-income community health clinic patients diagnosed with obesity, hypertension, and/or diabetes. The adults who participated in the program for at least 5 non-consecutive weeks experienced a mean decrease in BMI of 0.74kg/m², a statistically significant difference from the control group’s mean increase in BMI of 0.35kg/m².⁴³ Produce prescription programming also has been shown to decrease HbA1C levels, which are commonly used to determine how well diabetes is controlled. A program based out of a Federally Qualified Health Center (FQHC) in Detroit found that prescribing produce and providing a monetary incentive to purchase it lead to a statistically significant decrease in the HbA1C mean for

⁴² *The Evaluation of Food Insecurity Nutrition Incentives (FINI) Interim Report.* (2019). USDA Food and Nutrition Service Office of Policy Support. https://fns-prod.azureedge.net/sites/default/files/resource-files/FINI-InterimReport_1.pdf

⁴³ Cavanagh, M., Jurkowski, J., Bozlak, C., Hastings, J., & Klein, A. (2017). Veggie Rx: an outcome evaluation of a healthy food incentive programme. *Public health nutrition*, 20(14), 2636-2641.

uncontrolled diabetics throughout the course of the program.⁴⁴

By writing prescriptions for produce, counseling on nutritional choices, and showing awareness and sensitivity to the challenges of food access, doctors can forge more trusting and communicative relationships with their patients. A program run by Health Improvement Partnership – Cuyahoga led to “increases in provider communication related to diet, and ... significant changes in dietary behavior.”⁴⁵ As patient-provider communication increases and trust builds, healthcare professionals also experience benefits. A study on the ethics of produce prescription programming actually found that the increased interaction between doctor and patient over the course of several prescription follow up appointments “tend to enhance physician’s emotional intelligence, communication skills, and patient trust.”⁴⁶ Building positive patient-provider relationships will have long term impacts on patient health and satisfaction.⁴⁷

⁴⁴ Bryce, R., Guajardo, C., Ilaraza, D., Milgrom, N., Pike, D., Savoie, K., ... & Miller-Matero, L. R. (2017). Participation in a farmers' market fruit and vegetable prescription program at a federally qualified health center improves hemoglobin A1C in low income uncontrolled diabetics. *Preventive medicine reports*, 7, 176-179.

⁴⁵ Trapl, E. S., Smith, S., Joshi, K., Osborne, A., Benko, M., Matos, A. T., & Bolen, S. (2018). Peer Reviewed: Dietary Impact of Produce Prescriptions for Patients With Hypertension. *Preventing chronic disease*, 15.

⁴⁶ Swartz, H. (2018). Produce Rx Programs for Diet-Based Chronic Disease Prevention. *AMA journal of ethics*, 20(10), 960-973.

Strategy 4: Nutritional and Culinary Education

State and federal funded programs such as EFNEP seek to improve the lives of low-income families by providing basic nutrition, cooking and food safety education. EFNEP was created by the USDA under Johnson in 1969 to address malnutrition and hunger in families living at or below the poverty line. The program uses a series of lessons to help families and children learn how to stretch their food dollars, engage in physical activity, prepare healthy food recipes, and more. In 2015, EFNEP reached a total of 15,058 family members in Ohio. Adults who completed the program showed a 91% improvement in their nutrition practices, while 85% of children showed improvement in their diet quality.⁴⁸

Not only is nutritional education effective at improving healthy eating behavior, it saves money. A cost-benefit analysis study of EFNEP by Virginia Tech showed that for every \$1 spent on EFNEP, there is a potential healthcare savings of up to \$17 due to the prevention of nutrition-related chronic disease.⁴⁹

⁴⁷ Weng, H. C. (2008). Does the physician's emotional intelligence matter?: Impacts of the physician's emotional intelligence on the trust, patient-physician relationship, and satisfaction. *Health care management review*, 33(4), 280-288.

⁴⁸ Impacts and Successes | Family and Consumer Sciences. Retrieved February 6, 2020, from <https://fcs.osu.edu/programs/nutrition/efnep-0/impacts-and-successes>

⁴⁹ Virginia Cooperative Extension. (1999). *Applying Cost Benefit Analysis to Nutrition Education Programs: Focus on the Virginia Expanded Food and Nutrition Education Program*.

Other community based programs have also shown to have similar effects on families and their eating habits. A 10-week after school nutrition and education program taught by professional chefs to elementary and middle school students in Chicago was analyzed to see its impact on the children's eating habits. Pre and post-surveys were given to both parents and their children participating in the study to analyze both the child and parent's eating patterns after the program. According to the surveys, course participation increased students' vegetable and fruit consumption, overall nutrition knowledge, exposure to new foods, as well as students' cooking self-efficacy score. Parents whose children participated in the program indicated an increase in family discussions over healthy foods, how often their children prepared dinner, as well as an increase in how the parent perceived their own ability to prepare a healthy meal.⁵⁰

Strategy 4: Encouraging Healthy Food Within Healthcare Institutions

Employing about 4% of the national workforce and procuring about \$320 billion in goods and services annually, hospitals hold a huge amount of economic power in

their communities.⁵¹ Those that embrace an “anchor mission” to invest in the long term wellbeing of their communities can direct this economic power towards a variety of efforts. One path that many hospitals have chosen to pursue is modelling healthy food and value-based food purchasing in their institution, from the cafeteria to vending machines. Such investments touch the community at multiple levels: in-building employees, patients, and visitors have access to better food, and producers of healthy, ethical food are able to grow their enterprise, reshaping the food system.

Patients, families, doctors, nurses, technicians, and hospital building staff all have a few things in common: they spend a lot of time in hospitals, and they likely don't have the ability to spend much of that time preparing healthy meals and snacks. The Center for Science in the Public Interest found over 75% of the contents of vending machines in public buildings are unhealthy snacks like candy, chips, and cookies.⁵² Simply changing the contents of vending machines to be healthier can have quick positive impacts on consumer diets: “a healthy vending environment change consisting of point-of-purchase information in 14 vending machines in 2 hospitals resulted in reductions of 24% in calories,

https://vtechworks.lib.vt.edu/bitstream/handle/10919/24691/VCE490_403_1999.pdf?sequence=1&isAllowed=y

⁵⁰ Jarpe-Ratner, E., Folkens, S., Sharma, S., Daro, D., & Edens, N. K. (2016). An Experiential Cooking and Nutrition Education Program Increases Cooking Self-Efficacy and Vegetable Consumption in Children in Grades 3–8. *Journal of Nutrition Education and Behavior*, 48(10), 697–705.e1. <https://doi.org/10.1016/j.jneb.2016.07.021>

⁵¹ Norris, T., & Howard, T. *Can Hospitals Heal America's Communities? "All in for Mission" is the Emerging Model for Impact*. Democracy Collaborative. Retrieved January 31, 2020, from <https://democracycollaborative.org/content/can-hospitals-heal-americas-communities-0>

⁵² Erica Friedman, M. S. W., & Wootan, M. G. (2014). *Vending Contradictions*.

33% in fat, and 30% in sugar purchased per 100g of product.”⁵³ It’s good business too; when the Missouri Department of Health and Senior Services stocked 50-60% of vending machine slots with healthier options, revenue increased.⁵⁴

Hospital cafeterias are another compelling place to model healthy food options. Simply by labelling unhealthy options as red, moderately healthy options as yellow, and healthy options as green, hospitals have been able to measurably improve the choices their employees make on food and beverages.⁵⁵ This behavior change was seen both in employees who already had relatively healthy eating habits, and in those who tended to choose unhealthy options. Cafeterias can go beyond just changing their labelling systems. Other successful interventions involve making the healthier choice the easier choice by displaying healthy options near the checkout register, and by moving less healthy options further back. Going a step further, hospitals may choose to invest in value-based purchasing for their food. Programs like Healthcare Without Harm’s Healthy Food in Healthcare Pledge or the Good Food Purchasing Plan encourage institutions to use their purchasing power to support sustainable,

healthy, and ethical food producers. Such choices can reshape the food system, improving the health of the environment, agricultural and food service workers, and surrounding communities in addition to hospital employees and guests.

⁵³ *Creating Healthier Hospital Food, Beverage, and Physical Activity Environment: Forming Teams, Engaging Stakeholders, Conducting Assessments and Evaluations.* (n.d.). Center for Disease Control, National Center for Chronic Disease Prevention and Health Promotion. Retrieved January 31, 2020, from <https://www.cdc.gov/obesity/hospital-toolkit/pdf/creating-healthier-hospital-food-beverage-pa.pdf>

⁵⁴ *Creating Healthier Hospital Food, Beverage, and Physical Activity Environment: Forming Teams, Engaging*

Stakeholders, Conducting Assessments and Evaluations. (n.d.). Center for Disease Control, National Center for Chronic Disease Prevention and Health Promotion. Retrieved January 31, 2020, from <https://www.cdc.gov/obesity/hospital-toolkit/pdf/creating-healthier-hospital-food-beverage-pa.pdf>

⁵⁵ Levy, D. E., Riis, J., Sonnenberg, L. M., Barraclough, S. J., & Thorndike, A. N. (2012). Food choices of minority and low-income employees: a cafeteria intervention. *American journal of preventive medicine, 43*(3), 240-248.

Integrating Healthy Food and Healthcare in Greater Cincinnati: Emerging Patterns and Gaps

In-depth interviews with 50 stakeholders throughout the healthcare and healthy food access, education, and affordability sectors provided key insights into the landscape of healthy food and healthcare collaboration in the Greater Cincinnati region. Within each sector, common themes emerged. The needs and assets of multiple sectors often overlap, and can be better utilized in partnership to build more effective impact in the future. In some cases, there are gaps in the current regional approach that will require new ideas and solutions to fill.

Healthcare

Hospitals

The Greater Cincinnati region has an abundance of hospital systems. In fact, the County Health Rankings ranks Hamilton County, where many of these hospitals are located, as the third-best county in Ohio when it comes to medical care (a composite measure of the ratio of primary care physicians, dentists, and mental health professionals to the population, and the rates of preventable hospital stays, mammography screenings, and flu vaccinations, and the uninsured rate).⁵⁶ This

high concentration of cutting-edge hospitals is a wonderful asset to the region, especially as it moves towards a united effort to integrate healthy eating and healthcare. Individuals from Christ Hospital, Cincinnati Children's Hospital Medical Center, Margaret Mary Health, University of Cincinnati Medical Center, and Mercy Health were interviewed in depth about their work on healthy food access, and individuals from several other hospital systems shared their insights at the Integrating Healthy Eating and Healthcare Summit, and/or via email.

The majority of current work to integrate healthy eating and healthcare in a hospital setting is happening at a small, project-by-project scale. In interviews, passionate physicians, nurses, and other healthcare professionals shared that they saw patterns of disadvantage among their patients. Observing disproportionate numbers of mothers stretching their formula to feed their newborns, hungry children too young to receive meals at school, low income adults struggling with diabetes, or even hospital employees struggling to make ends meet, they sought out solutions on their own.

⁵⁶Clinical Care in Ohio. (n.d.). County Health Rankings & Roadmaps. Retrieved January 31, 2020, from <https://www.countyhealthrankings.org/app>

“Hunger is a symptom, like a fever. As physicians, it is our job to get down to the underlying cause of that symptom, but we can also address the acute need.” –*Dr. Melissa Klein, Cincinnati Children’s Hospital Medical Center*

In their interviews, doctors from multiple hospital systems noted that empathy was a challenge in their work – they felt uncomfortable asking questions about social determinants of health like food insecurity or housing when they were unable to offer any meaningful support in response to a patient’s honesty and vulnerability. The most effective solution to this challenge is two pronged: first, medical students, medical assistants, nurses, social workers, physicians, and other healthcare professionals should be trained on how to empathetically ask sensitive SDoH screening questions, and second, they should be able to provide some form of responsive, coordinated support to patients facing social barriers to health. Implementing these best practices with an initial screening improvement effort and an on-site “clinic pantry”, the primary care clinics at Cincinnati Children’s Hospital Medical Center saw the food insecurity identification rate rise from around 1-2% to 11-12%. Now, the rate rests around 17.6%.

This suggests families are beginning to feel more comfortable sharing important, yet sensitive social information with their healthcare providers.

Increased trust between patient and doctor is an incredibly impactful secondary outcome, but comes with added responsibility. Hospital employees in charge of ordering, stocking, and maintaining the pantries noted the amount of extra work they were expected to do on limited time, and were concerned that they were sometimes unable to provide truly healthy options in the pantry. Studies done on clinic pantries throughout the country have found similar concerns,⁵⁷ and reinforce a learning from the interviews; clinic pantries must maintain high nutritional standards, and their budget must account for additional staff capacity to keep the pantry running smoothly. Sharing his learnings from running one of the nation’s first prevention-focused hospital food pantries, Boston Medical Center’s Food Pantry Manager emphasized the importance of having a full-time staff member “with a dietetic background” manage clinic pantries. From ordering and inventory management to making sure families are provided with medically-appropriate items, the position takes both significant time and expertise.

⁵⁷ Program: Food banks and pantries | Healthy food playbook. (n.d.). Delivering Community Benefit. Retrieved

January 31, 2020, from <https://foodcommunitybenefit.noharm.org/resources/implementation-strategy/program-food-banks-and-pantries>



Clinic Pantry at the Cincinnati Children's Pediatric Primary Care Center

Clinic pantries are not the only solution hospital stakeholders have pursued when it comes to healthy food. Others have developed programs for diabetic and prediabetic patients, educating them on healthy nutrition and exercise habits, and even prescribing produce to their patients through partnerships with Produce Perks Midwest and/or Freestore Foodbank.

| Tuesdays | Wednesdays | Thursdays | Fridays |
|--|---|---|--|
| Clifton 10am-12:30pm Foot Sain Hospital 9 Duemuth Ave Cincinnati, 45220 near Health garage | Evanston 11:30am-1:00pm The Evanston 1820 Rutland Ave Cincinnati, 45207 Dane and Montgomery | Price Hill 10am-12pm Autumn Woods Apt Westmont Ln. Cincinnati, 45205 | West End 10am-12pm Stanley Rowe Towers 1621 Linn St. Cincinnati, 45214 |
| Milvale 10:30am Taylor Academy Alman & Fricks Cincinnati, 45225 near Taylor Academy | Avondale 1:30pm-3:00pm Reading and Forest Cincinnati, 45229 Near the Lincoln Statue | | Walnut Hills 10am-3pm At the Former Kroger 954 E. McMillan Cincinnati, 45206 |
| Sayer Park 10am-5:30pm 970 Greasy Dr Cincinnati, 45233 | | | |

Amount: \$25
Expiration Date: 12-31-19

Follow us @HealthyHarvestMarket
Find our current schedule at HealthyHarvestMobileMarket.com

We accept:
• SNAP/EBT
• Cash
• Credit/Debit

Double your SNAP/EBT with Produce Perks!

Produce Prescription from UC Medical Center, redeemable at the Freestore Foodbank Healthy Harvest Mobile Market

These programs have found some success in creating better health outcomes for their patients, getting diabetes under control, and lowering BMI. However, they require many follow-up appointments over the course of weeks or even months, and doctors have found that they need to adapt their diabetes management programs to be more accessible, convenient, and rewarding to participate in. Produce prescription and diabetes management programs would benefit from partnerships with organizations in the healthy food access sector, who can bring expertise and energy to culinary and nutrition workshops. Despite their measured health outcomes, these programs have not yet achieved sustainable funding from hospital budgets, instead relying on grants.

Other hospitals have begun to explore the power of food and culinary education as medicine, not just for diet-related chronic disease, but for oncology patients. This

patient population faces unique challenges with food: after long stints on feeding tubes, they may struggle to reacquaint themselves with the experience of eating healthy foods, and during chemotherapy and radiation, diet can influence how well the body responds to treatment. Partnering with local farms and teaching kitchens, oncologists from multiple hospitals have created engaging experiences for their patients that center around healthy food. Through the interviews, it became clear that these long term oncology patients were less likely to experience acute food insecurity than some other patient populations, but still had needs for culinary and nutritional education to support their unique circumstances.

Yet another population facing challenges with healthy food access and consumption in the hospital are the employees themselves. The Cincinnati Chamber's Jobs Outlook 2028 report projects that three out of the top five fastest growing occupations in the region are in healthcare support. At the same time, the new jobs in this group will largely pay below the self-sufficiency wage, will be held primarily by women and people of color, and have significant pay disparities based on both race and gender.⁵⁸ With this growing number of low-wage employees, hospitals are already seeing food insecurity among their own staff, and may be in a position to provide some level of

assistance. Several hospitals in the region have started with small changes in the set-up of their cafeteria. Simple things like labelling menu items as green, yellow, or red based on their nutritional content, or putting healthy options on easier-to-access shelves help to highlight healthier choices. One hospital is beginning to address not just healthy food consumption, but access, through a program providing increased training, resources, and benefits to the hospital's lowest-wage workers.

While individual healthcare professionals from hospitals across the region have taken important steps towards increasing the integration of healthy eating and healthcare, their efforts have not yet risen to hospital-wide strategies and investments. At this time, many projects have been funded by doctors themselves, through grant writing and/or fundraising activities such as 5k races. It is also important to acknowledge the complex systems of incentives and priorities hospitals face when making institutional decisions. While the Affordable Care Act does require nonprofit hospitals to contribute some form of Community Benefit based on their community health needs assessment, there are no requirements as to the amount or kind of investment that entails. Most hospitals use a significant amount of this funding to cover the cost of treating uninsured patients,⁵⁹ although

⁵⁸ *Jobs Outlook 2028: Data and insights on job growth in the Cincinnati Region 2018-2028*. (n.d.). UC Economics Center Research and Consulting. Retrieved January 31, 2020, from <https://www.cincinnati-chamber.com/docs/default->

[source/default-document-library/government-affairs-files/jobs-outlook-2028-executive-summary.pdf?sfvrsn=269d1adc_4](https://www.cincinnati-chamber.com/docs/default-files/jobs-outlook-2028-executive-summary.pdf?sfvrsn=269d1adc_4)

⁵⁹ *Community Benefit Insight*. (n.d.). Retrieved January 31, 2020, from <http://www.communitybenefitinsight.org/>

community advocacy groups across the country have been pushing towards more substantive investments that would build up the infrastructure and economies of communities surrounding hospitals.⁶⁰⁶² There is a need for advocacy on this issue in the Greater Cincinnati region.

Resource Highlight: “Community Catalyst”

Community Catalyst has compiled a useful toolkit to help community organizations and advocates understand, and participate in, the Community Benefit process for their local nonprofit hospitals. The toolkit covers a range of topics, from the basic terms and rules of the Community Benefit process and where community can get involved, to in-depth reading guides that tell advocates where to find – and how to analyze – hospital documentation of their process and spending on Community Benefit.

Using this resource, advocates can learn what their local nonprofit hospital is currently doing through the Community Benefit process, where they can plug in, and how they can transform the process to better serve the needs of the community.

<https://www.communitycatalyst.org/initiatives-and-issues/initiatives/hospital-accountability-project/community-benefit-tools-and-resources-for-chna>

investments institutions are prepared to make. Hospitals whose payment structures incentivize population health are more likely to invest in preventative programs and the integration of healthy eating and healthcare than hospitals who simply make more money by conducting more procedures.

Taking these challenges into account, increased communication both within institutions and among institutions will be critical to scale hospital healthy food projects. In interviews, it became apparent that even passionate food access leaders within a single hospital may not be fully aware of the work their counterparts in other divisions or departments are doing. In most cases, the “Community Benefit” team is part of a marketing, community relations, or alternative team that is not always well aligned with SDoH related projects occurring in the clinical setting. Building mutually supportive relationships between Community Benefit teams and the healthcare workers designing and administering community programming will be essential moving forward.

Even among nonprofit hospitals, payment structures vary, influencing the kinds of

⁶⁰Moore, A. (2018). *Partnerships for Health Equity and Opportunity: A Health Care Playbook for Community Developers; Client Report.* (Doctoral dissertation, University of California, Berkeley).

⁶¹ *Delivering community benefit: Healthy food playbook | Healthy food playbook.* (n.d.). Retrieved January 31, 2020, from <https://foodcommunitybenefit.noharm.org/delivering-community-benefit-healthy-food-playbook>

⁶² *Community Benefit: Tools and Resources to Get Involved with Non-profit Hospitals to Address Unmet Community Health Needs.* (n.d.). Community Catalyst. Retrieved January 31, 2020, from <https://www.communitycatalyst.org/initiatives-and-issues/initiatives/hospital-accountability-project/community-benefit-tools-and-resources-for-chna>

Resource Highlight: “Conversations with Hospital and Health System Executives”⁶³

This report, written using insights from successful cross-sector BUILD Health collaborations in the past, offers insight into what hospital and health system executives are looking for in proposals for upstream community investments.

In addition to learnings and highlights from past collaborations, the report offers four “How-To Guides” for community based organizations, which give in-depth guidance on the following topics:

- How to Align Your CBO’s or Health Department’s “Ask” with Hospital Priorities and Community Benefit Dollars
- How to Talk to Hospitals and Health Systems About the Social Determinants of Health and Health Equity
- How to Make Your Partnership Sustainable
- How to Use Data to Articulate Community Health Concerns
- How to Identify a Hospital or Health System Champion

<https://buildhealthchallenge.app.box.com/s/8umuyanxqla1g9wcfq0m6p9mdjt1fja>

Margaret Mary Health: Meeting the Community Where They’re At

⁶³ *Conversations With Hospital and Health System Executives*. (2018, January). Build Health Challenge.

<https://buildhealthchallenge.app.box.com/s/8umuyanxqla1g9wcfq0m6p9mdjt1fja>

Margaret Mary Health has embraced the challenges of being a small (25 bed), nonprofit, critical access hospital in rural Batesville, Indiana. Working for such a small institution, dietitians at Margaret Mary have an unusual amount of input into hospital strategy, even writing sections of the Community Benefit plan. This has enabled them to experiment with unique strategies integrating healthy eating and healthcare.

One of these unique strategies is the creation of a healthy cafeteria (all menu items are labelled red, yellow, or green according to their health) and often feature products that support the local farm economy. Through the personal passion and leadership of a hospital dietitian and diabetes educator, Margaret Mary Health has led investment in local agriculture, supporting local farmers through the Food and Growers Association (FGA) and buying local produce since 2012. While the FGA is a separate entity from the hospital, their work is integrated, and “neither would be doing what they are without the other.”

Recognizing that a small, rural hospital is not necessarily the most convenient location to reach the community on a regular basis, Margaret Mary has sought out hospital-community partnerships around healthy food. Dietitians at the hospital collaborated with the chef at a popular local restaurant, Izzy’s, to create an affordable and healthy quinoa bowl, and have even led the community’s farm to school work. Realizing that “we could see 100 to 200 patients in a year here [in the hospital], but we could see up to 800 at the schools,” the



Margaret Mary employees deliver rich soil to school garden.



A local farmer teaches about sweet potatoes at school garden.



A Chef at Margaret Mary cooks local sweet potato and chard for cafeteria.

hospital now sponsors seven local school gardens, providing soil, seeds, and plants, as well as the in-kind support of their dietitians' time. In addition to mentoring school garden champions, they sponsor an annual "Food Day" featuring local ingredients. Partnering with Purdue extension, Margaret Mary also started an 8-week "Chefs Club" after school cooking course at a local school.

In yet another innovative effort to bring healthy food education into the community, Margaret Mary partners with local food pantries and the Batesville Ministerial Association. Once a month from April to July, hospital dietitians contact the food pantry to learn what items are in stock. They then create a healthy recipe featuring those items, demonstrate preparing the recipe at the pantry, and offer samples to clients. Clients then receive a bundle that includes all the necessary ingredients (some of the fresh produce is generously donated by Hillenbrand Industries), as well as the recipe. Surveys distributed to clients show exciting results – some shared that the program inspired them to cook more with their family, others were excited to have found a new favorite food.

Margaret Mary's innovative and comprehensive approach to integrate healthy eating and healthcare shows the potential for creative cross-sector collaboration in the Greater Cincinnati region.

Cincinnati Children's Hospital Primary Care: Resources, Connection, and Communication

The primary care centers at Cincinnati Children's Hospital Medical Center pursue a variety of efforts to mitigate the effects of food insecurity. They screen for food insecurity using the Hunger Vital Sign, refer patients to their clinic food pantries, offer infant formula to mothers who are struggling to afford it, and host produce pop-ups intermittently. As a research hospital, Cincinnati Children's has published learnings from their work on social determinants of health in a number of peer-reviewed journals. Their research has linked clinic-community partnerships addressing SDoH to improved preventative health outcomes,⁶⁴ as well as positive learning impacts for clinic residents.⁶⁵ Such research builds the case for hospitals to invest in healthy eating strategies. As a teaching hospital, there has also been a focus on educating the next generation of pediatricians in screening and action on the SDoH. This has included how to screen empathically and effectively and how to navigate positive responses.

The most unique aspect of Cincinnati Children's approach to healthy food is not just the quantity of programming, but its connectivity and integration into the clinical flow. At Cincinnati Children's Pediatric Primary Care Center (PPCC), the lobby is not just a waiting room, but a resource. The space features a Community Resource Connections corner, where a community resource liaison works with parents to find resources addressing their social, economic, and environmental health barriers. Hiring a full time staff member, who is constantly curating a bulletin board of community resources, and who works directly with families to help them access these assets, is an innovative new approach connecting clinic and community, and takes advantage of the time and space of the waiting room. Cincinnati Children's researchers have recently published a paper on the impact this has had on patient experience and connectedness to community resources.⁶⁶

The Cincinnati Children's primary care centers also have an embedded medical legal partnership, a collaborative with the local Legal Aid Society. Such partnerships are highly effective at addressing risks related to the SDoH which also have a potential legal basis (e.g., inappropriate public benefit denials or delays). If patients reveal such challenges in their doctor appointment, either through the Family Well-Being Questionnaire or through other conversations that occur during the appointment, they can be referred to a legal advocate often physically present within the clinic space. The advocate then can support families if

⁶⁴ Beck, A. F., Henize, A. W., Kahn, R. S., Reiber, K. L., Young, J. J., & Klein, M. D. (2014). Forging a pediatric primary care–community partnership to support food-insecure families. *Pediatrics*, *134*(2), e564-e571.

⁶⁵ O'Toole, J. K., Burkhardt, M. C., Solan, L. G., Vaughn, L., & Klein, M. D. (2012). Resident confidence addressing social history: is it influenced by availability of social and legal resources?. *Clinical pediatrics*, *51*(7), 625-631.

⁶⁶ Hickey, E., Phan, M., Beck, A. F., Burkhardt, M. C., & Klein, M. D. (2020). A Mixed-Methods Evaluation of a Novel Food Pantry in a Pediatric Primary Care Center. *Clinical Pediatrics*, 0009922819900960.

there are challenges related to SNAP or WIC. They also play an important advocacy role. Bringing legal support into the Cincinnati Children's primary care space has helped lawyers and physicians recognize patterns of injustice patients face, bringing about landmark changes to the way social policy works for the region,⁶⁷ as well as finding life changing solutions on a case-by-case basis. For example, the team identified that there was a lag in adding newborns to their mothers' public benefits cases. The collective advocacy enabled a policy change to expedite such access to key benefits, including SNAP.

By bringing a coordinated network of resources, resource navigators, and advocates into the primary care space, Cincinnati Children's has integrated healthy eating, and other social determinants of health, into their healthcare process.

⁶⁷ *Increasing Nutritional Supports for Newborns*. (2018, April 25). <https://medical-legalpartnership.org/increasing-nutritional-supports-for-newborns/>



Community Resource Connections Corner in Cincinnati Children's PPCC lobby

Health Centers

Health centers are “community-based and patient-directed” institutions that are meant to serve vulnerable populations, making comprehensive healthcare and support services accessible and affordable for all who need them, regardless of their

insurance status or ability to pay.⁶⁸ A few key varieties of health centers shaping the region are Federally Qualified Health Centers, School-Based Health Centers, and philanthropically-funded health centers.

Federally Qualified Health Centers (FQHCs) are community health centers serving

⁶⁸ *What is a Health Center?* | Bureau of Primary Health Care. (n.d.). Retrieved January 31, 2020, from <https://bphc.hrsa.gov/about/what-is-a-health-center/index.html>

underserved populations on a sliding income-based payment scale.⁶⁹ Funded through the Health Resources & Services Administration, and required to provide primary care at the price point communities can afford, these institutions have fiscal incentives to keep populations healthy and prevent disease. FQHCs are also eligible for additional funding through Quality Incentives programs that reward good health centers for a variety of health outcome measures; last year HealthSource of Ohio received additional funding through two national quality awards. This funding, in addition to foundation fundraising, helps to cover the costs of the free food kits and cooking classes HealthSource provides. Leveraging their own FQHCs, the Cincinnati Health Department's Community Health Improvement Plan calls for at least 2 FQHCs to offer Produce Prescriptions by December of 2020.

School-Based Health Centers (SBHCs) are unique in that they are located in one of the most universal community hubs – the school.⁷⁰ While some SBHCs only treat students, others offer care to all local community members. SBHCs offer differing ranges of service, with some only covering basic primary care, and others offering truly comprehensive care including dental, eye, and other services.

Mercy Health Center at Saylor Park School collaborated with Produce Perks Midwest, Freestore Foodbank, and La Soupe for a school-based produce prescription pilot. Nineteen students and their families participated in the program, which focused on pediatric obesity. They could redeem prescriptions for produce at a local corner store (Gracely Food Mart) or at Freestore Foodbank's Healthy Harvest Mobile Market. SBHCs are an important stakeholder group to consider in healthy food work moving forward, as they may be able to bridge the gap between healthy eating and healthcare initiatives and farm to school work.

So far, the region's health centers have pursued similar projects to those happening at hospitals, mostly the provision of a few days' worth of emergency food to hungry patients. Individuals from both health centers mentioned in interviews that they provided customized recipes along with the ingredients, an educational resource not consistently provided at hospital pantries.

⁶⁹ *Federally Qualified Health Centers | Bureau of Primary Health Care*. (2017, April 21). <https://www.hrsa.gov/opa/eligibility-and-registration/health-centers/fqhc/index.html>

⁷⁰ Alliance, S.-B. H. (n.d.). *About School-Based Health Care | School-Based Health Alliance About School-Based Health*

Care | Redefining Health for Kids and Teens. Retrieved January 31, 2020, from <https://www.sbh4all.org/school-health-care/aboutsbhcs/>



Kitchen Kits provided to food insecure patients at HealthSource include ingredients, recipes, and resource referrals to local support services.

At Good Samaritan Free Health Center, frozen soups and fresh produce are freely available in a refrigeration/freezer unit in the lobby. While multiple hospital food pantry operators mentioned that their pantries would be healthiest if they could serve refrigerated or frozen produce, they have thus far been unable to get approval to store

"Let food be thy medicine, and let medicine be thy food."
Hippocrates

Food donations are free to patients of the Free Health Center. Enjoy fresh local produce, gourmet soup and other goods. Eat and be well.

Las donaciones de alimentos son gratuitas para los pacientes del Centro de Salud Gratuito. Disfrute de productos locales frescos, sopas gourmet y otros productos. Comer y estar bien.

Thank you to our community partners:

La Soupe rescues perishable foods and transforms them into delicious and nutritious meals.

EarthConnection, a ministry of the Sisters of Charity, offers environmental education and operates an organic garden.

Good Samaritan Free Health Center partners with La Soupe and EarthConnection to provide healthy food to patients who need it.

and distribute this kind of food in the hospital. The continued success of the Good Samaritan Free Health Center's model makes an increasingly strong case for hospitals to invest in refrigerated healthy food options.

As smaller and more population-health focused institutions, health centers face fewer bureaucratic challenges than hospitals do. Ideas and passion projects can thus become institutional strategy much more quickly and easily.

Through conversations with health center employees, one can quickly see that the first barrier they face is limited funding, and the second is limited space. Health centers are often much smaller than hospitals and tend to provide an immense array of services within a small clinic space. Thus, health centers' most immediate needs are partners who can provide additional space for activities promoting healthy food access.

Health Departments

Health departments have to balance preventative health programming with their other formal obligations including: "inspections related to food safety, public swimming pools, campgrounds, sewage, and water, as well as other environmental programs such as smoking, lead and asthma."⁷¹ Each local health department works differently, and is funded through

⁷¹ *Local Public Health/ Ohio Department of Health.* Retrieved January 31, 2020, from

<https://odh.ohio.gov/wps/portal/gov/odh/about-us/local-health-departments>

local taxes and government funds. Representatives from Hamilton County Public Health, Cincinnati Department of Health, and Northern Kentucky Health Department participated in interviews discussing their healthy food access work.

The Northern Kentucky Health Department serves a four-county region including Kenton, Campbell, Boone and Grant. Hamilton County Public Health serves all of Hamilton county, excluding the cities of Cincinnati, Norwood, and Springdale, who have their own health departments. The Cincinnati Department of Health is a city-level entity. Each serving different populations, these health departments have differing priorities, and varying degrees of staffing and resources available to work on different public health issues.

While each health department balances resources differently, their healthy food projects share common trends. As institutions on the front lines of population health, they hold some of the most comprehensive knowledge about their communities' health needs, and use this knowledge to tailor their programming to the unique needs and assets of each community.

Community input and investment in projects is essential. Both Hamilton County Public Health and the Northern Kentucky Health Department run preventative health programming (*WeTHRIVE!* in Hamilton County and *Eat Healthy NKY* in Northern

Kentucky) through a network of neighborhood coalitions that identify their own needs and goals, then work in partnership with their health department to achieve them. Major successes from this model include new community gardens, farmers markets, community meals, and partnerships with schools and early childhood education centers. The Cincinnati Department of Health even runs a chronic disease self-management course, training health department staff to teach healthy diabetes lifestyle skills to community members.

Health departments have been successful in convening community leaders and providing them support towards self-identified goals, and have developed expertise in navigating the varied politics of community governments within their jurisdiction.

Due to the model that health departments use in selecting and pursuing projects, they are limited by who shows up to their community and coalition meetings – if people who have passion or expertise about healthy food access are in the room, they can drive a huge amount of change. If not, the health department itself has limited capacity and may instead pursue other community prioritized projects.

Collaboratives

Finally, some organizations are working to create systems-level change in the healthcare sector. These collaboratives do

not provide direct care, nor do they tend to work on programmatic or project-level interventions. Instead, they bring healthcare stakeholders together, facilitate discussions, and support institutions as they pursue progress in health equity and population health. Individuals from The Health Collaborative's Gen-H and the All-In Equity Coalition (All-In Cincinnati) participated in interviews on their work integrating healthy food and healthcare.

One of the biggest barriers collaboratives face in integrating healthy food and healthcare is that the region has a multitude of population health challenges and social barriers to health. Healthy food access is an essential prerequisite to improving many of the region's most pressing health needs, yet it does not explicitly rank as the number one priority.

Collaboratives will benefit from increased regional energy around integrating healthy eating and healthcare, and can lead conversations with leaders in hospital systems. They can serve as connectors between healthy food access, education, and affordability organizations and the healthcare sector, and will be key conveners when building networks and a regional strategy to integrate healthy eating and healthcare.

Managed Care Organizations

Managed Care Organizations provide medical services to patients through a curated network of physicians and hospitals.⁷² State Medicaid programs have begun to contract with MCOs, paying them an annual fixed per-patient "capitation rate", rather than directly paying hospitals and healthcare professionals a fee for each service they provide to Medicaid patients.⁷³ Such programs seek to manage the cost, utilization, and quality of healthcare by incentivizing MCOs to find preventative strategies that will reduce the amount of procedures and services their patients require. Individuals from Buckeye Health Plan and WellCare Health Plans, Inc. (both subsidiaries of the Centene Corporation) participated in interviews about their work integrating healthy eating and healthcare.

These MCOs both hire full-time community relations and engagement staff to form relationships with community members and with organizations working closely with the community. Regularly attending community meetings and events, these staff members develop intimate knowledge of the unique healthcare needs and barriers of each community. They curate catalogues and hotlines that list food, housing, transportation, and other resources for their members. If they identify a gap in

⁷² *Managed Care Explained: Why a Medicaid Innovation is Spreading*. Retrieved January 31, 2020, from <http://pew.org/1LCtQPJ>

⁷³ Spector, J., Studebaker, B., & Menges, E. (2015, October). *Provider Payment Arrangements, Provider Risk, and Their*

Relationship with the Cost of Health Care. <https://www.soa.org/globalassets/assets/Files/Research/Projects/research-2015-10-provider-payment-report.pdf>

community resources that is a barrier to their patient population's health, they may collaborate with local organizations to fill it. Recognizing a lack of access to affordable, healthy food, Buckeye Health Plan partnered with Produce Perks to host "Buckeye Fresh Events," a program providing \$10 farmers market vouchers to Buckeye members for fruit and vegetable purchases, which could be doubled through Produce Perks. Other food access programs and events sponsored by regional MCOs include holiday meal distributions, and classroom nutrition education sessions.

Community Food Organizations

Food Access

Food access organizations all have a common goal: get healthy foods to communities who cannot access them due to numerous factors outside of their control. Many of these communities lack grocery stores or even small retail stores with healthy food options, and because of the lack of reliable public transportation, residents cannot get to stores outside of their communities that would have healthier options. Meals on Wheels, food pantries, and efforts to bring grocery stores into communities are just some of the creative ways organizations are combating the issue of healthy food access.

Community gardens can have a big impact on communities. They help reduce food insecurity, improve dietary intake of healthy foods, and can strengthen family and community relationships⁷⁴. The Civic Garden Center, Turner Farms, Brick Gardens, Veggies via Vespa, and Walnut Hills Redevelopment Foundation are examples of local organizations that have used this method of growing food within their communities to help fight food insecurity. One success story is Turner Farm's East Price Hill Community Garden. This plot, split

between individual, adopted rows and a collaboratively farmed plot, produced over 4,000 pounds of produce last growing season. The 2,000 pounds of produce farmed collaboratively was distributed to 10 to 15 families from Santa Maria's Community Service program volunteers.

"From the months of May to October, some participants explained that they were basically able to skip the entire produce section of the grocery store." – Joshua Jones, Turner Farms

Brick Garden's farm in Roselawn is the only farm in the area with indoor and outdoor growing space, allowing them to produce food year round. Their 12 acres of land and 5,000 square feet of indoor growing space allowed them to produce 800 pounds of leafy greens in 2019.

⁷⁴ Carney, P. A., Hamada, J. L., Rdesinski, R., Sprager, L., Nichols, K. R., Liu, B. Y., ... Shannon, J. (2012). Impact of a community gardening project on vegetable intake, food

security and family relationships: a community-based participatory research study. *Journal of community health*, 37(4), 874–881. doi:10.1007/s10900-011-9522-z



Laura Olexa delivers vegetables to the community via her Vespa scooter.

Smaller organizations, such as Laura Olexa's Veggies via Vespa, may produce less food than other bigger urban farms in the area, but deliver just as much of an impact by building relationships within the community. Laura, a forensic nurse at Cincinnati Children's, started gardening on a plot of donated land, and handed out her produce to people in the community by driving her Vespa.

"Although Veggies via Vespa's mission is to grow and deliver fresh produce to low-income families, what I have discovered is that it's really about building ongoing relationships with the community members." –Laura Olexa, Veggies via Vespa

Pop-up produce stands can also serve as a way to build relationships within

communities. Walnut Hills Redevelopment Foundation provides donation based produce stands once a week with food produced from their seven community gardens. Community members stopping by these produce stands are encouraged to try new foods, ask questions about where it was grown or how to prepare it, and taste recipes prepared from these foods such as kale fruit smoothies. On a larger scale, Freestore Foodbank provides pop-up produce stands throughout various neighborhoods in the region with help from its partnership with Anthem. Last year, Freestore had 600 one-time produce stands, and plans on expanding these this year.

Although these organizations are providing access to healthy foods within their communities, many are not directly engaged with healthcare institutions. Freestore Foodbank is leading the collaboration with hospitals in a unique way, by actually providing food and program support to clinic pantries and infant formula programs.

It became apparent in interviews that while all of the healthy food access organizations shared the same mission of feeding people in their community, they also shared the same struggles of finding funding for their initiatives. Many of these organizations feel that they are competing with one another for the same funding sources, sometimes creating silos within this sector. But by combining efforts and working on grant and other funding proposals together, these organizations could reach more people and

have a bigger impact on hunger in their communities. Collaboration among these organizations would allow for creative placemaking and intentional growth within these communities.

Freestore Foodbank: Fighting Food Insecurity Through Collaboration

Freestore Foodbank spans over a 20 county service area, including Hamilton County, parts of Northern Kentucky, and Southeast Indiana. With help from almost 500 partner agencies, Freestore will distribute close to 30 million pounds of food this year. It is because of this expansive list of partners that Freestore can provide a vast list of programming and services to a wide range of institutions, including healthcare and schools.

Freestore's partnership with multiple healthcare systems and affiliated outpatient clinic networks allows them to address food insecurity in various ways. Once a family is screened positive for food insecurity by their healthcare provider, Freestore's KIND program is able to provide formula to those families in 10 different clinics across 4 healthcare systems (Cincinnati Children's Hospital Medical Center, St. Elizabeth Healthcare, Crossroads Health Center, and Health Department Clinics). Their healthcare provider is also able to assist the families by connecting them to social workers and nutritionists to assist in long term needs.

To address food insecurity in older children and adults, Freestore has partnered with the VA, Cincinnati Children's Pediatric Primary Care Center and Hopple Street Health Center

to incorporate a permanent food pantry within each of those institutions. When screened for food insecurity, families receive non-perishable food items and resources to help with access to social work, legal aid, SNAP, mental health, and transportation.

A recent partnership between Freestore Foodbank and UC Health, funded through a partnership with Feeding America and Anthem Foundation, is providing access to a clinic pantry and Produce Prescriptions to 500 food insecure patients.

In 2016, Freestore collaborated with TriHealth to create the Healthy Harvest Mobile Market. This mobile market currently serves 12 neighborhoods with limited food access, and provides fresh produce and other essential items to help round out a meal such as rice, oats, and eggs. Its partnership with Produce Perks Midwest allows the market to provide up to a \$20 Produce Perks EBT match per day, and redeems Produce Prescriptions.

Food Affordability

SNAP, the nation's leading food assistance program, helped 1.5 million Ohioans put food on their table last year. SNAP improves food insecurity, has been associated with improved current and long-term health outcomes, as well as has been linked to lower healthcare costs. On average, after controlling for factors expected to affect spending on medical care, low-income adults participating in SNAP incur about \$1,400, or nearly 25 percent, less in medical care costs in a year than low-income non-

participants⁷⁵. Produce Perks Midwest increases SNAP benefits, by providing a \$1 for \$1 match on produce at participating retailers and farmers markets throughout the state. In addition to expanding the amount of resources families have to purchase healthy produce, Produce Perks Midwest also aims to support local agricultural systems. In 2018, Produce Perks worked with 508 farmers through approximately 100 farmers markets and farm stands, retail grocery stores, and Community Supported Agriculture programs.

Produce Perks Midwest recently launched Produce Prescription (PRx) programming, which allows patients experiencing food insecurity and chronic disease to receive monthly produce prescriptions that are redeemable at Produce Perks locations. Currently, patients across the state including Cincinnati, Dayton, and Canton are utilizing the program, with hopes to expand in the future. Local healthcare partners participating in this program include Mercy Health and Mercy Healthcare Center at Saylor Park School. Mercy Healthcare Center's patients can also take free grocery tours with nutrition experts at Kroger.

Produce Perks Midwest's programming (Produce Perks, Produce Rx) is designed to directly align with federal and state-level strategies, which allows for operational efficiencies across the state while

magnifying impact on both health and local economies. It also convenes the Ohio Nutrition Incentive Network (OHNIN), a statewide coalition of diverse, multi-sector partners working toward a shared vision of a healthy, equitable Ohio food system. OHNIN members include state agencies and associations, regional program operators, academic institutions, grassroots stakeholders and national experts.

Food Education

Many healthy food access organizations see the need to not only provide access to healthy foods, but to provide education around these healthy foods once they are available to people. Interviews with nutrition and cooking education organizations showed there is a lack of knowledge that healthy foods exist in a community. There is also a lack of knowledge as to what to do with healthy foods if you do have them available to you, and why they are important to incorporate into your diet. Organizations such as SNAP Ed, EFNEP, La Soupe, Brick Gardens, Cincinnati Museum Center, Cooking for the Family, and Soundbites Nutrition are working to increase education around cooking and nutrition in communities, and spread awareness about programs that can increase their access to healthy foods. These organizations also target different demographics, as education for the parent and the child is necessary in order to make

⁷⁵ Carlson, S., & Keith-Jennings, B. (2018). SNAP Is Linked with Improved Nutritional Outcomes and Lower Health Care

Costs. <https://www.cbpp.org/research/food-assistance/snap-is-linked-with-improved-nutritional-outcomes-and-lower-health-care>

a lasting impact on health.

While some organizations provide programming at community gardens in different neighborhoods, other organizations aim to bring nutrition and cooking education back into the school system. This comes with a list of challenges – each school system runs differently, and a teacher liaison to lead the initiative is usually needed. If the teacher leaves the school, the nutrition and garden education often leaves with them. Another challenge is that garden-based education mostly requires harvesting the vegetables when school is no longer in session. Some organizations choose to work with summer camps to reach the same children, but also give them a chance to see a plant's full life cycle.

Brick gardens recently partnered with Saint Aloysius to create a curriculum that integrates core education and agricultural education. They have also incorporated therapeutic gardening, experiential learning and entrepreneurship into their curriculum. This program will allow students Pre-K through 11th grade to learn small and large scale farming, hydroponic and aquaponic farming, bee keeping, and chicken farming, equipping these students with tools and skills not otherwise available.

Turner Farms, La Soupe, and the Cincinnati Museum Center have taken a community approach to food education, bringing these essential nutrition and cooking lessons

directly to the community. Turner Farms' volunteers learn the ins-and-outs of gardening during their time spent at the community garden, and once they've reached 30 hours of volunteering, Turner Farms will provide them with their own raised garden bed or soil to start their own garden at home. La Soupe and Cincinnati Museum Center have teamed up with Kent State, and together are creating a STEM nutrition education program, aimed at exciting families about science through the use of food.

Collaboration within the food education sector would allow for these organizations to utilize each other's skills and strengths, and prevent these organizations from recreating the wheel. While some organizations focus on cooking, others focus on nutrition, and bringing these two efforts together could create a complete program that would be an incredible asset to a community.

Walnut Hills Redevelopment Foundation: Community-Led Change

Walnut Hills Redevelopment Foundation's Healthy Food Access Coordinator, Gary Dangel, has done an incredible amount of work for his community. His monthly food access meetings convene stakeholders from around the community to work on bringing healthy foods into the Walnut Hills neighborhood. Currently, he is working on implementing a healthy corner store initiative, so that communities without grocery stores in the region will have access to healthy foods right in their neighborhoods.



Gary Dangel, Healthy Food Access Coordinator for the Walnut Hills Redevelopment Foundation

Pathways Forward

Based on stakeholder interviews, it is clear that the region is at an exciting point in its journey toward an equitable and healthy food system. Personal relationships have driven collaborative cross-sector projects, which are beginning to demonstrate the need for, and efficacy of, integrating healthy eating and healthcare.

The region faces several potential pathways forward to build these projects into coordinated, system-level change. Keeping in mind the goals, needs, and assets of the stakeholders currently driving healthy food and healthcare work in the region, we provide a variety of recommendations for the Greater Cincinnati Regional Food Policy Council to consider. These recommendations will be distributed to the Healthy Food Action and Consumption Workgroup, who will pick up this work moving forward.

Recommendations

The following is a set of recommendations based on the shared goals, needs, and assets available in our region:

1. Screen all patients in the region for food insecurity.
2. Refer food insecure patients to appropriate food access, education, and affordability resources.

3. Establish a healthy point-of-care food pantry in all major hospital divisions and health centers.
4. Provide access to prepared, medically-tailored meals for patients with chronic diet-related disease.
5. Incentivize healthy food purchases year-round, at conveniently accessible vendors.
6. Increase availability of fresh produce (and/or healthy foods like skim milk and whole wheat bread) to corner stores who want to participate and accept SNAP.
7. Recover surplus food from cafeterias and food service to provide to patients and families.
8. Use hospital-based teaching kitchens as a point-of-care focal point for nutrition and food-as-medicine education.
9. Encourage hospitals to model sustainable, local, and healthy foods in their cafeterias.
10. Create a collaborative and integrated system of nutrition education in the region.
11. Coordinate and integrate each of the above objectives into a seamless and unified effort.

Appendices

Appendix 1: Methodology

Leading up to the Integrating Healthy Eating and Healthcare Summit, we reviewed the literature on the connections between healthy food access, health, and our healthcare system. We identified five key cross-sector strategies used across the United States, and researched their outcomes for individual health, behavior change, and healthcare spending.

With this framework in mind, we followed up the summit by requesting interviews with key attendees and presenters. We conducted interviews with over 50 individuals passionate about the integration of healthy eating and healthcare in our region. These semi-structured interviews asked about the work people have been doing on the issue, and their needs and goals moving forward.⁷⁶ At the end of each interview, we asked interviewees to connect us to any relevant contacts. Using this snowball sampling method, we discovered more programs and passionate individuals to learn from. We continued to seek out new interviews in this fashion until the referred contacts were people we'd already reached. While some individuals were unavailable for interview, this snowball sampling method

gave us significant insight into the networks that drive change in our region. We summarized the results of these interviews in a spreadsheet, and then grouped organizations by sector. Within the healthcare sector, we categorized organizations as hospitals, health centers, health departments, managed care organizations, and collaboratives. Within the nonprofit and community sector, we grouped organizations according to their focus on healthy food access, affordability, and education. Synthesizing the current projects, priorities, barriers, and needs faced collectively in each grouping, we were able to identify emerging patterns and gaps of work and need in the region.

A universal need for the integration of healthy eating and healthcare is funding – we chose to frame our recommendations for future collaboration and work through this lens. It is our hope that by seeking grants for these projects together, we can begin to realize the vision of a coordinated system that seamlessly integrates healthy eating with healthcare, supporting the universal and equitable distribution of resources for

⁷⁶ Sample interview guide available in Appendix 2.

food access, affordability, and nutrition education throughout the region.

Appendix 2: Interview Guide

Background Information:

| | |
|---|--|
| Name | |
| Title | |
| Organization | |
| Time at Organization | |
| Time in Network | |
| Stakeholder Group (Primary role) | <input type="checkbox"/> Client/Patient <input type="checkbox"/> Nonprofit <input type="checkbox"/> Government <input type="checkbox"/> Funder <input type="checkbox"/> Researcher <input type="checkbox"/> Business/Entrepreneur <input type="checkbox"/> Healthcare professional (Doctor, Nurse, CHW) <input type="checkbox"/> Hospital administrator <input type="checkbox"/> Hospital department director <input type="checkbox"/> Other (please specify) _____ |
| Is there a neighborhood or particular geographic focus that is most important to you? | |

Discussion Questions:

1. How would you describe the healthy food access and consumption issue in the community you work in?
2. What do you think is your institution's goal towards healthy food access and consumption, and what is driving it?
3. What are the other priorities at the institution that are constraints or challenges on increasing healthy food access and consumption?
Follow up: Who would you identify as the power players in setting those priorities?
4. What projects/programs are currently underway at your institution around healthy food access/consumption?
Follow up: How did that project get started, what was the goal?
Follow up: What has been the successes/challenges in the project/program?
5. Do you know of any projects/programs in other regions that you think we should be replicating here?
6. Going forward, what are the biggest challenges/barriers that your institution faces in advancing its goals of promoting healthy food access and consumption?
7. Is there anything else that I haven't covered and you would like to share?

Connecting to Contacts:

1. Who else is your institution working with that I should talk to? Can you connect me to them?
2. Is there anyone else you think I need to talk to? Can you connect me to them?

Appendix 3: List of Interviewees

| | | |
|----------------------------|---|---|
| Adrienne Found | Nutrition Services Manager | Margaret Mary Health |
| Adrienne Henize, JD | Program Manager, Child HeLP and Community Partnership | Cincinnati Children's Hospital Medical Center |
| Amy Hollar | Program Specialist | Hamilton County EFNEP |
| Angelica Hardee, PhD, CHES | Former Senior Manager; Vice President of Health Strategies | Gen-H; American Heart Association |
| Ann Viancourt | Community and Partnership Manager | Freestore Foodbank |
| Anne Klapheke | Registered Dietitian | Good Samaritan Free Health Center |
| Arynn McCandless | Manager of Labs and Makerspaces | Cincinnati Museum Center |
| Ashley Clos | Director of Volunteers, Community & Government Relations | Christ Hospital |
| Aurora Rivendale, MD | Medical Resident (5th year in Family Medicine and Psychiatry) | University of Cincinnati Medical School |
| Babette DeLong | Ambulatory Care Social Worker | University of Cincinnati Medical Center |
| Barb Koehler | Nurse Clinician/Diabetes Nurse Educator for General Internal Medicine Resident Practice | University of Cincinnati Medical Center |
| Denisha Porter | Director | All-In Cincinnati |
| Domonique Peebles | Founder | Brick Gardens |
| Andrew Beck, MD, MPH | Attending Physician, Division of General & Community Pediatrics Attending Physician, Division of Hospital Medicine Associate Professor, UC Department of Pediatrics | Cincinnati Children's Hospital Medical Center |
| Carina Braeutigam, MD | Medical Director, Integrative Care Staff Physician, Division of Oncology | Cincinnati Children's Hospital Medical Center |
| Nick Deblasio, MD | Medical Director Pediatric Primary Care, Division of General and Community Pediatrics | Cincinnati Children's Hospital Medical Center |
| Holly Binnig, MD | Chief Medical Officer, Family Medicine Specialist | HealthSource of Ohio |

| | | |
|-------------------------------------|--|---|
| Mary Burkhardt, MD, MHA | Medical Director, Hopple Street Health Center Associate Division Director, Primary Care, Division of General and Community | Cincinnati Children's Hospital Medical Center |
| Melissa Klein, MD, MEd | HeLP Clinic, Director, Education Section, Division of General and Community Pediatrics Director, General Pediatrics Master Educator Fellowship Director, Primary Care and Community Pediatrics Pathway of the Pediatric Residency Attending Physician, Division of Hospital Medicine Associate Professor, UC Department of Pediatrics | Cincinnati Children's Hospital Medical Center |
| Rekha Chaudhary, MD | Oncologist | University of Cincinnati Center for Integrative Health and Wellness |
| Elizabeth Dobbie | Director of Food and Nutrition Services | Christ Hospital, Sodexo |
| Emily Callen | Community Food Equity Manager | Dayton Children's Hospital |
| Emmy Schroder | Food as Medicine Director | LaSoupe |
| Eric Washington | Men's Health Program Manager | Cincinnati Health Department |
| Gary Dangle | Food Access Coordinator | Walnut Hills Redevelopment Foundation |
| Jackie Bouvett | Director of Community Partners | Freestore Foodbank |
| Jamie Stoneham | Founder | FarmChef |
| Jan Harper-Jackson | Community Relations Representative | Buckeye Health Plan |
| Jenna Amerine, Christian Bennett | Creating Healthy Communities Program Director, Healthy Food Access Coordinator | Trumbull Neighborhood Partnership |
| Jennifer Lake | Nutrition Business Relations Partner | Council on Aging SW Ohio |
| Jennifer Patrick | Community Relations Director | HealthSource of Ohio |
| Jodi Cesene | Population Health: Active Living Healthy Eating Health Educator | NKY Health Department |
| Kathy Cooley | Registered Dietitian and Certified Diabetes Educator | Margaret Mary Health |
| Kelly Schwegman | Livewell Health Educator | NKY Health Department |
| Kim Chelf | Health Educator | Hamilton County Public Health |
| Kristen St. Clair | Director of Education | LaSoupe |

| | | |
|-----------------------------------|--|--|
| Latchman Hiralall | Preventative Pantry Manager | Boston Medical Center |
| Laura Olexa | Founder | Veggies via Vespas |
| Linda Bates | Community Engagement Coordinator | WellCare Health Plans |
| Lisa Andrews | Owner | Soundbites Nutrition |
| Malika Smoot | Healthy Eating Coordinator | Cincinnati Health Department |
| Melynda Iles | Director of Care Management | HealthSource of Ohio |
| Mike Eck | Food Justice Advocate | |
| Monica Smith | Community Dietitian | NKY Health Department |
| Peter Huttinger and Joshua Turner | Turner Farm Community Garden Program | Turner Farms |
| Stephanie White | Chef and Culinary Manager, Turner Farm | Turner Farms |
| Stephen Wilson | Primary Care, Adolescent Medicine, Internal Medicine, Pediatrics | Mercy Health: Forest Park Internal Medicine and Pediatrics |
| Sue Plummer | Hunger Relief Advocate | Society of St. Andrew, Glean and Share |
| Tevis Foreman | Executive Director | Produce Perks Midwest |
| Tonya Smith | Healthy Communities Program Manager | Cincinnati Health Department |