



# Table of Contents

Executive Summary	3
I. Introduction	4
II. Identifying Food Insecurity in Jefferson County	5
III. COVID-19 and Food Security	6
IV. Jefferson County's Emergency COVID-19 Response	7
V. Affordability	8
VI. Proximity	9
VII. Supply and Distribution	10
VIII. Education and Cultural Awareness	11
IX. Funding	12
X. Cross-Cutting Challenges During the Emergency Response	12
XI. A Food Systems Approach to Long-Term Recovery	14
XII. Recommendations	16
References	23
Appendices	
Appendix A	24
Appendix B	29



# **Executive Summary**

The COVID-19 pandemic has amplified health and economic issues in Colorado and Jefferson County. Significant job losses during the pandemic have led to increased economic insecurity,<sup>1</sup> which has contributed to a more than 400% increase in the number of Coloradans experiencing food insecurity.<sup>2</sup> The issue of food insecurity has further exacerbated disparities among under-resourced populations, as recent reports indicate that more than 50% of non-white and Latinx individuals and households with children are struggling to put food on the table. <sup>2,3</sup>

As with any crisis, urgent needs have been prioritized, and Jefferson County was quick to respond to residents' food needs during COVID-19. The County's emergency response to addressing the rise in food insecurity leveraged the leadership of food pantries and programs, local government, and philanthropic partners, including new funding, policy adjustments, and organizational adaptations. While the emergency food response of these groups continues to be remarkable, it must be noted that food insecurity in Jefferson County is not an issue unique to the pandemic. Barriers to food access have been a longstanding challenge for many residents of Jefferson County. Moreover, these barriers continue to persist with the ongoing economic challenges presented by COVID-19.

Even with the pandemic as a backdrop, Jefferson County should not settle for a food system that fails to serve all residents. Now more than ever, the County should prioritize a collective shift from an emergency food response to a systems-level approach that centers community to build a more resilient local food system to effectively meet all residents' needs. As a first step towards this goal, this report synthesizes data collected from more than two years of community engagement and research conducted through the Jefferson County Food Policy Council, the Food in Communities project, and COVID-19 stakeholder outreach to understand the evolving conditions of food security in Jefferson County. By examining five core variables related to food security, including affordability, proximity, supply and distribution, education and cultural awareness, and funding, we illustrate the key systemic challenges to addressing food security across communities in Jefferson County.

Rooted in this data, this report then presents a community-centered food systems approach to long-term recovery and resilience. Recommendations to address gaps and challenges related to the five core variables are provided via four different levers: policy, program, funding, and capacity building. Through this approach, the County can both address the residents' urgent needs during the pandemic and move towards a resilient food system.

#### Jefferson County Public Health Food Systems Team

Marissa Silverberg Food Systems & Policy Administrator msilver@jeffco.us David LaRocca COVID-19 Food Systems Researcher dlarocca@jeffco.us

Allyson Goto Special Projects Coordinator argoto@jeffco.us

<sup>1</sup> U.S. Bureau of Labor Statistics. Labor Force Statistics from the Current Population Survey.; 2020. https://www.bls.gov/cps

<sup>2</sup> Hunger Free Colorado. COVID Survey: Hunger Remains a Top Priority.; 2020. https://www.hungerfreecolorado.org/covid-hunger-survey

<sup>3</sup> Wolfson JA, Leung CW. Food Insecurity and COVID-19: Disparities in Early Effects for US Adults. Nutrients. 2020;12(6):1648. doi:10.3390/nu12061648



# I. Introduction

The staggering economic and cross-system disturbances of the COVID-19 pandemic further unveiled the fractured nature of our local, regional, and national food systems.<sup>4</sup> Participants across the food system, from producer to consumer, were impacted by a vulnerable and unreliable system that led to and continues to amplify devastating consequences for communities across Jefferson County and the State. The inflexibility and lack of diverse supply chains and supply chain partners left producers nationwide with abundant but immoveable product and dramatic market losses. At the same time, there continues to be an unprecedented spike in the number of households experiencing nutrition insecurity and reduced access to food with shocking numbers of new individuals seeking food assistance.

The many structures and multi-sector partners influencing the food system, both nonprofit and for-profit across the supply chain, and the potential for unintended consequences systemwide illustrate a need for a community centered, systems-based approach when it comes to COVID-19 long-term recovery and resilience of the food system. A community centered approach will ensure the needs of those most impacted by food and nutrition security<sup>5</sup> can utilize their capabilities and assets in leading solutions to food access at a local level.<sup>6</sup> A systems thinking approach will allow for strategic identification and assessment of lever points from producer to consumer that will ultimately address the challenge of food insecurity while reducing unintended negative repercussions.<sup>7</sup> As the COVID-19 emergency elevated the long-term challenges Jefferson County residents face within the food system, examining and addressing the system within this context creates an opportunity to build a more resilient system that will better serve the Jefferson County community well beyond the COVID-19 crisis.

The aims of this white paper are (1) to share findings from nearly three years of qualitative assessments, across communities in Jefferson County and through the COVID-19 pandemic, (2) to identify the successes and challenges in the Emergency Response model that was rapidly employed to address rising food insecurity in Jefferson County during the COVID-19 pandemic, (3) to discuss five core variables identified as having the greatest impact when it comes to access to nutritious food both prior to and during the COVID-19 pandemic, and (4) to propose a model for Long-Term Recovery and Resilience of the local food system that leverages the successes of the Emergency Response model while emphasizing community centered and systems thinking approaches to food security. The first sections will discuss Jefferson County Public Health's history of identifying food insecurity in Jefferson County, the data and structure behind the Emergency Response model, including a breakdown of the five variables influencing food and nutrition security and how those variables were addressed through the Emergency Response model. Following this, the Emergency Response model will be discussed in terms of challenges to the model, with a proposed shift to a Long-Term Recovery and Resilience model. The conclusion of the paper will include recommendations to address the five variables through Policy, Programming, Funding, and Capacity Building.

<sup>4</sup> A food system can be defined as "the aggregate of food-related activities," including production, processing and distribution of food, and "the environments (political, socioeconomic, and natural) within which these activities occur." (Pinstrup-Andersen and Watson, 2011).

<sup>5</sup> Committee for World Food Security defined as, "when all people, at all times, have physical, social and economic access to food which is safe and consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life" (Committee for World Food Security, 2012).

<sup>6</sup> A community-centered approach "mobili[zes] assets within communities, promot[es] equity and increase[es] people's control over their health and lives" (NHS England, 2015).

<sup>7</sup> A systems thinking approach can be defined as one that emphasizes "a set of synergistic analytic skills used to improve the capability of identifying and understanding systems, predicting their behaviors, and devising modifications to them in order to produce desired effects. These skills work together as a system" (Arnold & Wade, 2015).



# II. Identifying Food Insecurity in Jefferson County

In 2014, Jefferson County Public Health (JCPH) convened the Jefferson County Food Policy Council (FPC) to influence policy to increase equitable access to healthy, local, and affordable food and to support a sustainable community food system.<sup>8</sup> Since its inception, the FPC has met with community, agency, and government partners on a monthly basis to discuss barriers to healthy food access, gaps in services, and policies to bridge both. In addition to reviewing policy and listening to partners, this process has been data-driven, using socioeconomic and built environment data to identify high-needs areas in Jefferson County. This information has assisted the FPC members to assess if these areas have adequate access to nutritious food.

Specifically, Jefferson County Public Health has utilized a dataset that ranks various social determinants of health and their impact on chronic disease across communities. This dataset includes indicators on poverty rate and median income (as utilized by the U.S. Department of Agriculture) in addition to education, occupation, home value, and home ownership. To address food insecurity within communities, JCPH have added <u>data</u> identifying access to grocery stores based on household behavior as well as density of less healthy food options (e.g., fast food). These indicators led to "ground-truthing" the data across communities in Jefferson County through the Food in Communities Project.

Food in Communities is a collaborative project that engages community members, organizations, and public agencies to identify opportunities to increase equitable access to healthy, affordable, and culturally relevant food at the neighborhood level (Figure 1). By engaging in interviews, focus groups, and community conversations with decision makers, organizational partners, and impacted residents, the Food in Communities team learned that many of the barriers to food and nutrition security have predated the onset of the COVID-19 pandemic. The most significant finding, however, was that communities themselves easily identify these barriers and know what the solutions are to addressing them. As the pandemic continued, communities facing food and nutrition insecurity, who were already struggling with the proper resources and capacity to address their needs, faced the brunt of the economic shock and thus a rapid expansion of these pre-existing community needs.

<sup>8</sup> The Jefferson County Food Policy Council (FPC) is a diverse stakeholder collaborative in Jefferson County, Colorado composed of local governments, nonprofit organizations, food and farm businesses, residents, and policymakers, totaling over 100 committed organizations and almost 70 individual residents. Its operational structure includes paid staff housed in Jefferson County Public Health (JCPH) who facilitate the FPC and a broad membership. The FPC envisions that Jefferson County is a food-secure community with food access for all residents; a robust, equitable farming infrastructure; and a thriving local food economy.

<sup>9</sup> This regional collaboration is funded by the Cancer, Cardiovascular, and Chronic Pulmonary Disease Grants Program at the Colorado Department of Public Health and Environment. The public health partners of Food in Communities are Denver Department of Public Health and Environment, Jefferson County Public Health, and Tri-County Health Department.



Figure 2. Food in Communities (FIC) Community Engagement Process created by Caitlin Matthews (Tri-County Health Department).<sup>10</sup>

In addition to work conducted with the FPC and through the Food in Communities Project, a qualitative research project was conducted with food support providers contributing to the emergency food response during COVID-19 (LaRocca, 2020). This project, supported by Community First Foundation, aimed to understand the capacity of Jefferson County's food support organizations to meet the needs of food insecure residents across the County during an emergency. The project consisted of fourteen interviews with representatives from food support organizations throughout Jefferson County, with two researchers conducting the interviews via phone and a web-based, video conferencing tool. The data was analyzed to develop themes across the interviews, and member checking of the themes was conducted with interviewees and the Jefferson County Food Policy Council to increase the credibility of the findings. This project contributed to an understanding of the emergency model and its strengths and challenges.

# III. COVID-19 and Food Security

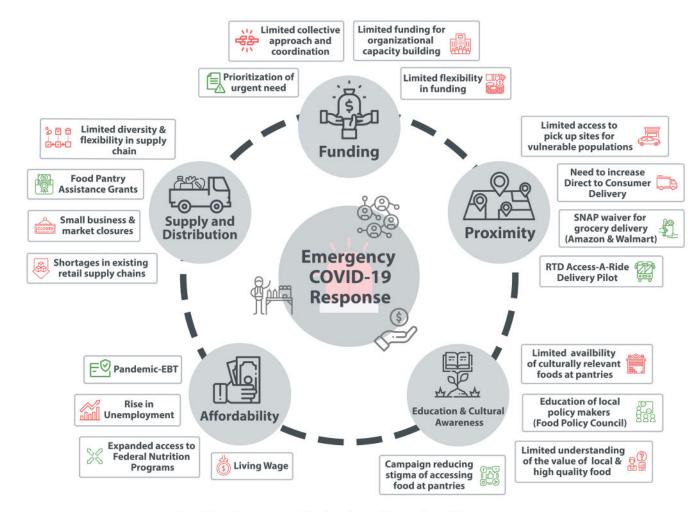
Since March 2020, COVID-19 has amplified and exposed health disparities across Jefferson County, particularly when it comes to food and nutrition security for residents. Prior to COVID-19, 9.1% of Coloradans and 10% of Jefferson County residents were experiencing food insecurity. Hunger Free Colorado has determined that since the beginning of the COVID-19 pandemic, this percentage has quadrupled—with 38% (or 2 in 5) Coloradans experiencing food insecurity (Hunger Free Colorado, 2021). Under-resourced populations, including families, people of color, and people living with disabilities, face higher rates of food and nutrition insecurity and therefore are more likely to suffer from underlying health conditions. Several influential factors—such as the built environment, sociocultural values, and effective social policy implementation—affect a community's food environment and were further impacted by the COVID-19 pandemic.<sup>11</sup>

To address the urgent need, food pantries and food support organizations served and continue to serve as the core of the response to rising food insecurity during the COVID-19 pandemic. As illustrated

<sup>10</sup> Since July 2018, Jefferson County Public Health, in partnership with Denver Department of Public Health and Environment and Tri-County Health Department (collectively as Food in Communities), have engaged in a community outreach process focused on three core components. The first stage of "Information Gathering & Synthesis" took place from July 2018 through October 2019, as staff and community partners engaged in various key informant interviews, focus groups, and community meetings that were synthesized into a comprehensive qualitative assessment (see Appendix A). During the "Prioritization & Action Planning" phase, which began in October 2019, staff and community partners went back into communities to survey for prioritization of the findings while community coalitions began to prioritize aspects of the qualitative assessment to compose community action plans. An action plan, as defined by Food in Communities, is a shared plan for realizing a shared vision, with specific steps, timeline, and roles for multiple and varied stakeholders (e.g., community-based nonprofits, public health agencies, city staff, community leaders, etc.). An action plan potentially includes policy development and advocacy, program creation or expansion, securing additional funding, coalition building, training and technical assistance, and communications campaigns. In the final two phases, which continue today, coalitions and community partners continue to execute these action plans by leveraging funding opportunities, engaging in the Jefferson County Food Policy Council to address policy change, and working collaboratively on additional opportunities for training and capacity building.

11 A food environment is "the physical, social, economic, cultural, and political factors that impact the accessibility, availability, and adequacy of food within a community or region. Food environments may be defined in terms of geographic access to food in a community or neighborhood, consumer experiences inside food outlets, services and infrast

# IV. Jefferson County's Emergency COVID-19 Response



**Positive Impacts Limitations/Negative Circumstances** 

Figure 3. Jefferson County food system during the emergency response to COVID-19.

in Figure 3 (above), the Emergency COVID-19 Response centered around the leadership of the emergency food support system (e.g., food pantries), local government (largely in leveraging federal funding from the CARES Act), and local philanthropic partners' prioritization of funding the emergency food response. These structures and resources, combined with additional stakeholders active in addressing urgent food insecurity, built up a rapid response network to address the growing rate of food need across Jefferson County. Large funding resources, along with temporary policy and budgetary changes at the federal and state levels, helped elevate and solidify components of this network to ensure success during the pandemic.

While the Emergency COVID-19 Response was successful in reaching many households in need of nutritious food, it is important to discuss how these challenges were not unique to the COVID-19 pandemic. Rather, as documented through key informant interviews, focus groups, and community conversations through the Food in Communities project, barriers to nutritious food have been a longstanding challenge for many Jefferson County residents and were heightened and further exacerbated by the pandemic. Although the COVID-19 Response focused successfully on urgent needs, due to the short-term approach inherent in an emergency system there continues to be a need for a longer-term strategy that addresses the longstanding systemic challenges to accessing



food across communities most impacted by food insecurity. In order to properly reflect on food access from a community perspective, we will discuss five core variables that were identified by communities across Jefferson County, both prior to and during COVID-19, as having the greatest impact when it comes to access to nutritious food.

# V. Affordability

The economic shock of COVID-19 exacerbated financial inequality in the United States. During the pandemic, employment losses were disproportionately concentrated amongst lower wage workers (Cajner et al., 2020), and such financial stress can negatively impact food and nutrition security. For example, according to Hunger Free Colorado's COVID Food Insecurity Survey, financial insecurity and food insecurity were the two highest needs reported by Coloradans (Hunger Free Colorado, 2020). Colorado has seen a corresponding spike in federal food assistance enrollment, with participation in the Supplemental Nutrition Assistance Program (SNAP), formerly known as Food Stamps, increasing by more than 60,000 individuals from April 2019 to April 2020 (United States Department of Agriculture, 2020). Data from interviews with food support organizations also indicated challenges related to affordability. First, all interviewees described a significant increase in the number of residents being served, with one interviewee sharing that "Before COVID, a busy month was a month where we served 800 individuals; now a busy month is a month where we're serving 3,000 individuals." Notably, interview data demonstrated that food support organizations in Jefferson County mounted a remarkable

# Key Takeaways

- The COVID-19 pandemic exacerbated the economic strain on residents in Jefferson County, thus negatively impacting food and nutrition security.
- Interviews during the pandemic with food support organizations illustrated a staggering demand in access to food needs, the success in these organizations meeting these new demands, and the success in removing barriers to access.
- State and federal policies were adopted to address the rising food insecurity during the pandemic, including increased benefits, the SNAP online food delivery waiver, and the Pandemic-Electronic Benefit Transfer (P-EBT) program.

response to the food needs of residents, meeting increased demand and removing barriers to food access. Due to this increased need for food support, many interviewees reported that their organization had removed barriers to receiving food support. These actions included eliminating income, identification, and geographical requirements in order to serve more residents in need, with one interviewee noting, "We used to have an income limit; we no longer do. We used to serve a specific area, no longer the case. We used to ask for people to provide some sort of proof, and we're not doing that, and honestly moving forward, we won't be doing that anymore. So, food assistance is really available to whoever needs it, for whatever reason they need it." This response from food support organizations helped to address the issue of affordability at a local, county-level.

At the state- and national-level, food assistance policies were also adapted to respond to increasing needs and address affordability. For example, Colorado received approval during COVID-19 to implement higher benefit allotments, extend certification periods, waive interview requirements, and participate in the SNAP online purchasing pilot. Additionally, the Pandemic Electronic Benefit Transfer (P-EBT) program was launched to support Colorado's families during the COVID-19 pandemic (Colorado Department of Public Health and Environment, 2021). The P-EBT program provides families with school-aged children, specifically those that utilize the National Free-and-Reduced Lunch program, benefits similar to SNAP to ensure school-aged children have access to meals during periods of remote learning. While these state and federal policies have begun to address affordability, these are short-term programs and may not be continued post-pandemic.



Figure 4. One of GoFarm's Local Food Share pickup locations in Golden where a drive-thru model was implemented for COVID safety protocols. Figure 5. US Department of Agriculture (USDA) Coronavirus Food Assitance Program food boxes at Kaizen Food Rescue distribution site.

# VI. Proximity

Consumers are typically beholden to the food items available within their geographic vicinity. While online grocery delivery, particularly with the rise of last-mile delivery during the COVID-19 pandemic,

# Key Takeaways

- Geography posed another challenge for communities experiencing food insecurity, particularly in more rural areas.
- The COVID-19 pandemic indicated the rise of last-mile food delivery, both as a challenge and as a success, including the RTD Access-A-Ride grocery delivery pilot and colocation of meals at JeffCo School sites.
- Last-mile food delivery has proven to be a systems change that will likely evolve out of the COVID-19 pandemic, and thus requires further exploration for equity and sustainability.

has evolved, residents experiencing food insecurity risk greater barriers to access.<sup>12</sup> Successful short-term policies, such as the federal waiver granted to Colorado for SNAP benefits to be utilized via Amazon and Walmart delivery, managed to support expanded access for particularly vulnerable communities, such as older food in secure populations.However, the rollout to only two major chains prevented more effective reach across populations, especially in rural communities with limited storefronts and delivery options. During the COVID-19 pandemic, many pantries, in surveys and interviews, identified delivery as a challenge and an opportunity for growth. As noted in Jefferson County Public Health's January 2021 survey, one interviewee reported that "[d]elivery is a longterm goal of ours as we recognize many are unable to travel to us and those who can might have to walk a mile or more to reach us despite being in 'the area." Partnerships such as the pilot program between grocery stores, food pantries, and RTD Access-A-Ride as well as co-located services, such as food pantry partnerships with JeffCo Schools' meal sites, successfully addressed some of the obstacles to last-mile delivery, however, longer term solutions are increasingly necessary.

The greater food system is likely to see the long-term impacts of the shift towards online purchasing and lastmile food delivery, which poses concerns for rural communities and communities with limited food access. Over the last year, food retailers have adapted to an unprecedented demand due in large part to stay-at-home policies that strained the current food system's infrastructure. This has created a new food environment that requires realignment across the food supply chain, classification of what parts of the food workforce are "essential," and a deeper understanding of how consumers want to access their food that ensures equity and sustainability for both the consumer and the supplier.

<sup>12</sup> Last mile delivery is the last leg of the food delivery process and encompasses the transportation of food from a distribution center to a user's doorstep. Last mile delivery can range from just a few blocks in urban areas to 50-100 miles in rural areas. Key barriers to last-mile delivery for food organizations include ensuring the customer can receive the delivery, managing individualized shipments, and cost.



# VII. Supply and Distribution

### Key Takeaways

- Large sectors of the food supply chain faced massive disruptions to markets. Many small- to mid-scale farmers, producers, and distributors faced the brunt of these challenges.
- Opportunities to address systematic breakages in these market channels proved successful in simultaneously addressing the rise in food and nutrition security, such as through the Farmers to Families Food Box Program and the Colorado Food Pantry Assistance Grant program.
- Interviews with food support organizations indicated an accelerating need for adequate transporation and storage capacity, as well as concerns regarding the limited sustainability of certain state and federal programs.

While Jefferson County residents experienced challenges to food and financial security, food supply and distribution organizations simultaneously faced significant market disruptions. In particular, local farmers and mid-size distributors experienced a reduction in wholesale markets and a lack of alternative distribution systems (Wallace Center at Winrock International, 2021). Additionally, in August 2020, farmers and ranchers received, on average, 14.6 cents for every dollar that consumers spent on food, amongst their smallest portion of the American food dollar ever recorded (Economic Research Service, 2020a). The low food costs and decrease in revenue for agricultural operations perpetuates harmful implications for agricultural workers. During the COVID-19 pandemic, agricultural workers, among other food systems workers, were deemed *essential workers*. Nonetheless, this *essential* assignment has further exploited workers we all rely on to risk their own safety for collective societal benefit.

Small- to mid-size farmers and distributors have also faced the growing challenges of large-scale food retailers and a lack of effective coordination throughout the food chain. The top food retail firms have consolidated to control the market, and in 2016, the 20 largest U.S. food retailers accounted for 66.6% of all U.S. grocery sales, up from 42.2% in 1996 (Economic Research Service, 2020b). These same large-scale food retailers have become their own distributors, managing their

own trucks, warehouses, and procurement offices. As a result of these siloed supply chains, small-scale producers have found it increasingly difficult to meet price, volume, and delivery requirements while remaining profitable. Regarding coordination, many food systems lack the coordination and partnerships needed to effectively manage food supplies. According to a 2019 study at Santa Clara University, one third of edible produce (33.7%) remains unharvested in agricultural fields and gets plowed under as waste (Baker et al., 2019).

Food insecurity has increased throughout the pandemic while farms have left crops unharvested due to rising costs and the food system's fragmented supply chains. Programs such as the Farmers to Families Food Box Program, however, have provided a model of funding that can simultaneously address hunger relief and support small- and mid-size farms and distributors. While the program experienced challenges, it was successful in investing more than \$84 million in local farms and food businesses, who in turn better served their communities during the pandemic (Wallace Center at Winrock International, 2021). Additional success in this area came from the continuation of the Colorado Food Pantry Assistance Grant, a program aimed at developing capacity and agency for food pantries to enhance local procurement of Colorado meat, dairy, and produce (Hunger Free Colorado, 2020). The continuation of this program happened as Governor Jared Polis allocated



Figure 6. Frontline Farming & Project Protect Food Systems' food distribution site. Figure 7. Kaizen Food Rescue food box including culturally relevant foods. Figure 8. Kaizen Food Rescue food distribution at Jefferson County Head Start.

CARES Act dollars to this program. This shows the critical role federal, state, and local governments can play. Supply and distribution challenges were also observed in the emergency food system during COVID-19. Challenges arose for several pantries in warehouse management and supply chain management. Data from interviews with food support organizations further revealed inadequate transportation and storage capacity. Additional surveying in June 2020 and January 2021 indicated storage as the most significant need for food pantries, with a total of 29 pantries lacking additional storage to support any additional collaborative storage during the pandemic. Reliable transportation was a consistent concern for these organizations, as they heavily depended on volunteer drivers and personal or reduced-rate rental vehicles. Food support organizations also described a patchwork of storage facilities, including old and unreliable residential refrigerators and freezers, rented units, and repurposed and borrowed spaces. Two interviewees shared that classrooms and conference rooms at their organization had been transformed into food storage rooms. Regarding supply, many interviewees also expressed concerns about the approaching end of federal aid programs as well as reduced donations. These concerns are common amongst food support organizations who rely heavily on donations, which can be inconsistent in quantity and, more importantly, inadequate for nutritional and cultural needs (Bazerghi et al., 2016).

# VIII. Education and Cultural Awareness

Schools play an important role in providing nutrition education and helping youth, and even adults, establish healthy eating habits. Schools in the United States, however, currently provide students with less than eight hours of required nutrition education per school year (Centers for Disease Control and Prevention, 2015) while research indicates that behavior change does not occur in students' consumption of fruits and vegetables until 40 to 50 hours of nutrition education are completed (Institute of Medicine, 2013). Increased opportunities for nutrition education in schools and community programs can promote healthy eating habits and help address food and nutrition security.

# Key Takeaways

- Nutrition education is a vital component for building healthy eating behaviors and addressing some of the root causes of nutrition insecurity.
- Understanding cultural food preferences is vital to ensuring nutrition security across communities.
- Institutional barriers such as personal identification and address requirements, pose challenging to addressing food insecurity. Eliminating these barriers during the COVID-19 pandemic illustrated success in feeding communities.

Similarly, community-based programs can also contribute to and value nutrition education and cultural awareness. While many food banks, pantries, and other community food programs aim to serve all families in need, many families – particularly those with intersectional barriers to food equity<sup>13</sup> – still do not access these services. Identifiers such as race, culture, religion, sexuality, or gender may influence access to community programs, especially when there are issues of trust, dignity, and stigma. Many cultures, for instance, continue to see accessing food support programs as a "failure" and may be stigmatized within their community (Rey et al., 2019). This stigma has been further amplified through a climate of fear built up around changes to public charge. Moreover, many tight-knit communities share their experiences at community food sites, and if distrust for a service or program develops among community members, families may no longer access that service or program (see Appendix A).

Through the Emergency COVID-19 Response, food support organizations began to amplify their efforts to provide more culturally relevant food options as well as to address barriers to accessing food pantry services, such as personal identification and address requirements. January 2021 surveying by JCPH indicated that food support providers received very positive feedback with increased integration of culturally relevant food offerings in their supply.

<sup>13 &</sup>quot;An equitable food system is one that creates a new paradigm in which all — including those most vulnerable and those living in low-income neighborhoods and communities of color — can fully participate, prosper, and benefit. It is a system that, from farm to table, from processing to disposal, ensures economic opportunity; high-quality jobs with living wages; safe working conditions; access to healthy, affordable, and culturally appropriate food; and environmental sustainability". (Policy Link, 2016),



# IX. Funding

Local and state funders, in addition to increased financial support from the federal government, posed vital to the COVID-19 food support response. However, the "crisis response" resulted in a rapid response approach (as opposed to a systemic approach) that resulted in a lack of system-wide, flexible funding to support and increase high quality collaboration. In addition, the influx of emergency funds were not utilized in a systemsapproach to ensure high quality food access for residents. Further, federal and state funding during this time through federal funds and other means-had many restrictions which limited high quality collaboration to support adaptability in programs and on-theground food access interventions, communication, and education with families. An increase in funding has the potential to inhibit rather than contribute to high quality collaboration and adaptability of programming, specifically when funding is restrictive in nature and not utilized to address organizational capacity building.

### Key Takeaways

- Funders, both private and public, proved vital to addressing the rise in food and nutrition security. However, the COVID-19 response focused heavily on a rapid response to distributing funding.
- Federal and state funding through the CARES Act proved highly successful to addressing emergency food need, though also posed quite restrictive to addressing sustainable support for the local food system.
- Future prioritization of funding to address the ongoing food insecurity crisis provides significant opportunity to address resiliency of the local food system and food security through support of organizational capacity building and adaptability based on community priorities.

# X. Cross-Cutting Challenges During the Emergency Response

While the COVID-19 pandemic emergency food response proved successful in alleviating urgent needs of a growing food insecure population, the response was limited by several cross-cutting challenges. Community engagement through the Food in Communities Project and discussions among food systems stakeholders through the Jefferson County Food Policy Council revealed further gaps in the Emergency Response model.

Based on community input, one of the most significant challenges for the Emergency Response model was the gaps in service, particularly for vulnerable populations in Jefferson County. While barriers that often deter individuals from accessing traditional emergency food services, such as identification, proof of residency, minimum income requirements, and general unawareness of services were alleviated by many providers during the pandemic, several layers of stigma and distrust continued to exist within Jefferson County's most vulnerable communities. To begin to address these challenges, community-led initiatives emerged during COVID-19, particularly ones aimed at reaching communities not previously served by traditional food support organizations. These initiatives demonstrated increased participation from often underserved communities, including black, indigenous and people of color (BIPOC) households, immigrant residents, and community members with disabilities.

An additional challenge with the Emergency COVID-19 Response was the strained capacity of food support organizations and providers. As noted in our interviews with providers and surveying, many organizations lacked various components of infrastructure to address the rising needs of the Jefferson County community. One example can be seen in terms of proximity and the rise in last-mile delivery. While several providers amplified efforts to address the needs around last-mile delivery, there continues to be an outpouring of need that does not match existing capacity of the organizations actively engaged in this area of service. In addition to limitations in organizational capacity, restrictive funding prevented food support providers from changing their capacities and structures to be more reflective or adaptive to community needs.

Figure 9. Kaizen Food Rescue co-locating food distribution at Jefferson County Public Health Covid-19 Testing Site. Figure 10. Eggs for Frontline Farming's food distribution boxes.

Figure 11. Mayor Adam Paul of Lakewood helping with food distribution with Kaizen Food Rescue.

Building upon capacity challenges, sustained infrastructure posed another limitation for operations across the food system. As noted in our qualitative assessments, many food support organizations are invested in expansion of programs. Nonetheless, there are significant hurdles to effective and sustainable expansion, including a lack of storage and vehicles, limited staff and volunteer capacity, and inconsistency and growing concerns around long-term food and product availability. Several efforts around coordination and collaboration among food support organizations occurred through the Emergency Response, including opportunities for co-location, however, many of these efforts could not be sustained longer term or were challenged by a static effort solely addressing emergency feeding. While many emergency providers have identified this challenge and are seeking opportunities for funding to address collaborative infrastructure among food support providers, a challenge remains in solely funding emergency providers for infrastructure projects. A strategic investment in cross-sector collaborative infrastructure—including growers and producers (forprofit and non-profit)—will ensure a more resilient system that can be sustained long-term.

A final challenge brought forward through the Emergency Response model was the limited scope to addressing capabilities across the food system, particularly when it comes to local procurement. According to the Chmura COVID-19 Economic Vulnerability Index, which examines the composition of counties' work force and the types of employers common within counties nationwide, Jefferson County has a higher-than-average economic vulnerability. While Jefferson County is not as agricultural-centric as other counties statewide, in 2019 the agricultural industry in Jefferson County contributed \$9 million to the state economy (Colorado Department of Agriculture, 2019). To alleviate economic hardship and stimulate the economy during this time of uncertainty, Jefferson County has the opportunity to make the connection between food distribution channels that have long been disconnected, and which created significant barriers for food support providers to obtain food at the beginning of the pandemic. Purchasing from local farms helps maintain farm businesses, creates jobs, increases food security, reduces food waste and builds resilient communities. A healthy local farm economy measurably increases the health of individual community members who consume local produce. Purchases of local food have a multiplier effect, particularly in an economy that is struggling to recover. Many small- and mediumscale farms have lost the bulk of their salesforce through the disruption of restaurant service and limited options for direct-to-consumer purchasing. As the crisis continues, we will continue to see increasing strains across our entire food system, creating a large impact on our local economy.



# XI. A Food Systems Approach to Long-Term Recovery

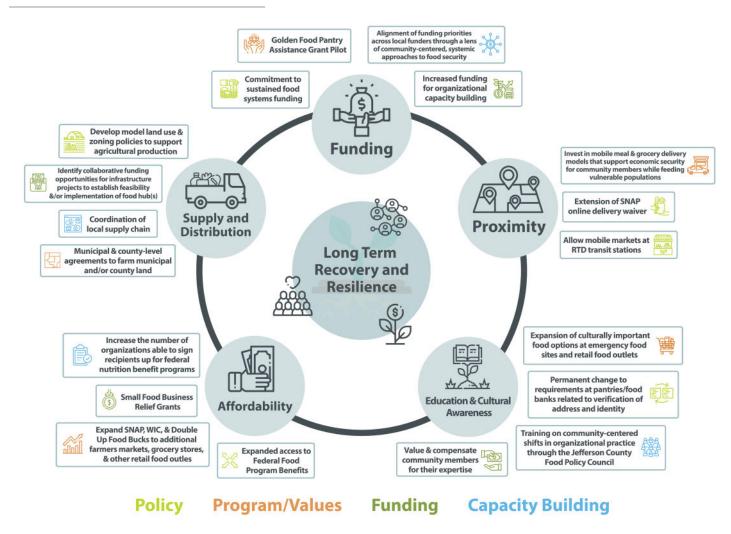


Figure 12. A model of the Jefferson County food system for long-term recovery and resilience.

Emergency food support was at the center of the model used during the pandemic. While emergency food support is necessary to the success of a food secure community, centering the food system on emergency providers does not address growing gaps across other sectors of food as well as disparities in access. Given the complex nature of how our food is produced, distributed, and consumed, a systems thinking approach is needed to coordinate all stakeholders and identify gaps and solutions that may intersect multiple aspects of the system. Thus, a food systems approach provides a framework in which "to identify and understand levers for action that can improve healthy food access for all and ensure equity across the system for those that produce, those that distribute, and those that consume food" (Hartford Food System, 2020).

Utilizing a food systems approach for long-term recovery provides many opportunities for sustainable and equitable functioning across sectors and stakeholders. From a policy perspective, emphasis on a systems approach allows the focus to shift from looking solely at individualized behavior and needs, to looking upstream at social determinants of health. As noted in the data identified by the Jefferson County Food Policy Council, food insecurity intersects with several social determinants of health and racial disparities that are further impacting population health in Jefferson County. Understanding the relationships across sectors in the food system will illustrate intersectional challenges and strategies to address population-level needs in the long-term. This allows



further analysis to consider the complexity of these challenges and strategies, and how they are often linked to root-cause and unintended consequences. In addition, this framework provides opportunities to enhance capabilities and adaptabilities of existing organizations and programs as well as build self-efficacy amongst communities to best navigate in a complex food environment. Additionally, as highlighted by the COVID-19 pandemic, systems approaches are not static in nature—as is the case with food and nutrition security. Leveraging a systems approach allows for both short- and long-term planning, considering further the cost-benefit at both scales. Furthermore, a food systems approach encourages collaboration across sectors to better understand the situations across the levers of the system and develop cohesive and effective responses.

Within the context of the food system, traditional approaches to addressing food insecurity often focus on food access, which includes the emergency food system discussed above. Although such emergency services are essential and currently play an integral role in Jefferson County's food system, community-based approaches re-center efforts to address food insecurity and food system development through a wider lens of food justice and food sovereignty. Defined by the National Institute for Health and Care Excellence (NICE), "community centered approaches are not just community-based, but about mobilizing assets within communities, promoting equity, and increasing people's control over their health and lives" (NHS England, 2015). Approaches that are community centered move beyond receiving input from community members and rather empower individuals by providing multiple pathways for participation and decision making. These approaches should not only be taken within the emergency food efforts discussed above but are also a key component for work that moves beyond emergency efforts and to the critical development of a more resilient and sustainable food system in Jefferson County.

Importantly, community-based approaches should be grounded within a food justice and sovereignty lens which provides historical context that informs strategies to address these inequities which continue to manifest in Jefferson County, and it is through this approach that transformational and sustainable change to the local food system can be achieved. A food justice lens "[works] not only for access to healthy food, but for an end to the structural inequities that lead to unequal health outcomes" (GRACE Communications Foundation, 2021). Similarly, food sovereignty protects the right to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. Specifically, structural inequities can be traced back to historically racist policies in all aspects of the food system that have left communities of color disproportionately impacted by food insecurity and negative health outcomes. Other structural inequities include "root cause" issues such as housing and economic insecurity and were also the barriers most frequently identified by Jefferson County community members when asked about what challenges they faced in accessing healthy, affordable, and culturally relevant food (see Appendix A).

In the time of COVID-19, support for charitable efforts, including many food access efforts, is increasing. It is important that, while institutions and systems kick up their charitable efforts to provide emergency food relief and other immediate necessities, Jefferson County keeps a focus on the long-term changes necessary to create a more just and resilient food system. As the COVID-19 crisis has further amplified inequities and inadequacies in the food system, Jefferson County has a significant opportunity to address long-term recovery through a systemic, community centered approach.



# XII. Recommendations

### Affordability

#### 1. Strengthen Federal Nutrition Benefit Programs

Stronger federal nutrition benefit programs are vital to ensuring economic recovery, food and nutrition security, and improved health outcomes for Jefferson County residents. Given the success of the SNAP waiver for online delivery during the pandemic, grocery purchases for federal benefit recipients must be simplified and include a diverse set of local and national retailers to accept EBT funds for phone, curbside, delivery, and online purchasing. Healthy food incentives, such as Double Up Food Bucks (DUFB) for SNAP, should be expanded into additional farmers markets as well as retail markets—with additional considerations for DUFB programming for Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) recipients. Additional expansion of Pandemic-EBT (P-EBT) should be considered to ensure food security for school-aged children and their families.

#### 2. Ensure Equitable Financial Security For Small Food Business

Food businesses faced the brunt of the economic shock across industries due to the COVID-19 pandemic. Jefferson County businesses were not excluded from these struggles, with many food businesses closing—including local grocery stores. In order to ensure security, policy addressing rent protections particularly for small food businesses as well as relief program prioritizing small food businesses would be optimal for sustaining our local food infrastructure.

#### 3. Expand Household Food Budget Through Local Food Benefit Programs

Across Colorado, food and financial insecurity were identified as the two most significant challenges for community members. In order to address the challenges to household food budget in particular municipalities and the County can look to address barriers to affordability of food through successful programs such as Double Up Food Bucks at farmers markets and retail grocery establishments. Additional policy considerations including living wage for all Jefferson County workers ensure economic security and stability for families to have a consistent and available household food budget.

### **Strategies**

#### Policy

- Increase the amount of federal food program benefits (Federal)
- Extend the Summer Food Service Program Waiver (Federal)
- Extend Pandemic-Electronic Benefit Transfer (EBT) benefits for families (Federal)
- Require Double Up Food Bucks (DUFB) at food sites on municipal and county property (Local)
- Extension of SNAP Online Delivery Waiver (Federal)
- Universal Free School Lunch (State/Federal)
- Minimum and living wage policies (Local/State/Federal)
- Eviction Court Reform (State)
- Reasonable Limits on Late Fees (Local/State)
- Increase Earned Income Tax Credit (Federal)
- Rental Protections for Small Food Business (Local/State/Federal)
- Rent Controls for Commercial and Residential Properties (Local/State)
- Tax Increment Financing (TIF) and Special Assessment Districts (Business, Neighborhood, and Government Districts (Local)

#### Program

• Expand Supplemental Nutrition Assitance Program (SNAP), Special Supplemental Nutrition Program for Women, Infants and Children (WIC), and Double Up Food Bucks (DUFB) to additional farmers markets, grocery stores, and other retail food outlets

#### **Funding**

• Small Food Business Relief Grants

#### Capacity Building

Increase the number of organizations able to sign recipients up for federal nutrition benefit programs

### **Proximity**



Figure 13. With masks and social distancing protocols in place, GoFarm distributes affordable, local food at their weekly market at the Arvada Head Start.

#### 1. Co-locate food access points\*

As noted in Appendix A, co-location of food access points, such as pop-up markets or pantries, at transit stops, housing, and educational settings are optimal for residents to increase food access, particularly for vulnerable populations including seniors, people with disability, youth, veterans, and people experiencing homelessness. Further consideration for development of community "hubs" to ensure trusted relationships with communities allows for more effective reach and opportunities for collaboration across organizations and programs.

#### 2. Expand Mobile and Last-Mile Delivery Options\*

Demand for last-mile delivery, both for free food support and general groceries, has amplified during the COVID-19 pandemic. Policies to address this long-term need, such as expansion of the statewide SNAP waiver for online grocery delivery to markets beyond Amazon and Walmart, would allow for economic models to reach food insecure populations. Further exploration of federal nutrition incentives in relation to mobile and last-mile delivery should be explored. A local example of such efforts can be seen in Bondadosa's partnership with Denver Public Schools in providing weekly dinner meals to school-aged children and their families.

### Strategies

#### Policy

- Extension of Supplemental Nutrition Assitance Program (SNAP) Online Delivery Waiver (Federal)
- Allow mobile markets at RTD transit stations (Local)

#### Program

• Invest in mobile meal and grocery delivery models that support economic security for community members while feeding vulnerable populations

### Supply and Distribution

### 1. Ensure Equitable Land Access for Agricultural Production\*

A large majority of growers in Jefferson County actively participate in food access programming to serve food insecure residents countywide—including Community Supported Agriculture (CSA) shares for SNAP and WIC recipients, low-cost farm stand and grocery programs, and participation in the Colorado Food Pantry Assistance Grant program. Land access continues to be the most significant challenge for Jefferson County farmers to expand their operations and grow additional produce. As Jefferson County Public Health has identified areas for farmland viability through GIS mapping, zoning restrictions continue to pose problematic for expanded production. Additional exploration into public-private agricultural production partnerships—including private homeowners, religious institutions, and hospitals may provide opportunities for increased production and greater distribution of local product. Further considerations for policy and partnerships should ensure equitable opportunities for black, indigenous, and people of color (BIPOC) young and beginning farmers.

### 2. Determine The Feasibility For An Equitable And Sustainable Food Hub\*

A common conversation that has been expanding in the Denver Metro for several years now, that really amplified during the COVID-19 pandemic, was assessing the feasibility of a food hub or hub points in Jefferson County. One challenge of these conversations thus far has been the siloed nature of conversations. Emergency food support organizations conversations have not connected with local grower conversations, and vice versa. The pandemic did see the rise and success of food hub models, such as the East Denver Food Hub, which has proven most successful

<sup>\*</sup>These priorities were definied through community conversations as part of the Food in Communities Project.

through its focus on economic security and leadership through community itself, while also experiencing the tragedy of business losses to Jefferson County such as Four Seasons Farmers Market and Lucky's Market in Wheat Ridge, which closed due to the pandemic. In order to determine the feasibility of a food hub, to ensure equity, sustainability, resiliency, and self-sufficiency, a common understanding of "food hub" is necessary across food systems sectors. Additionally, assessment is necessary to identify best location(s) as well as the development of short- to long-term strategy to develop sustainable infrastructure, leverage partnerships, and identify opportunities for funding. Additional exploration into public-private agricultural production partnerships—including private homeowners, religious institutions, and hospitals may provide opportunities for increased production and greater distribution of local product. Further considerations for policy and partnerships should ensure equitable opportunities for black, indigenous, and people of color (BIPOC) young and beginning farmers.



Figure 14. Colorado grown beans packed and distributed by East Denver Food Hub to pantries accross the Denver Metro Area.

#### 3. Adopt and Support Protections for Agricultural Workers

Agricultural operations, typically larger scale operations, "pay low wages, offer few benefits and place workers in close proximity" to one another in the field and often in shared housing (Brunet Marks et al, 2020). Thus, many agricultural workers in Colorado are faced with heightened health and safety risks—which poses especially challenging for workers due to legal status. Without this work force, massive economic opportunity would be lost for Colorado, as well as many food channels that serve residents. It is essential that agricultural workers have equal rights and protections to other areas of the workforce.

### Strategies

#### **Policy**

- Hoop house policy for season extension (Local)
- Statewide protections for agruchtural workers SB-21-087 (State)
- Develop model land use and zoning policies to support agricultural production (Local)
- Budget Adoption of the Food Pantry Assistance Grant Program (Local/State)

#### Program

- Sourcing from local producers
- Municipal and county-level agreements to farm municipal and/or county land (e.g., City of Arvada)

#### **Funding**

• Identify collaborative funding opportunities for infrastructure projects to establish feasibility and/or implementation of food hub(s)

### Capacity Building

- Bolster collaborative efforts to build a network for sustained and equitable local procurement
- Coordination of local supply chains to establish food hub(s)
- Develop public-private partnerships for agricultural production

Figure 15. Community volunteers with Kaizen Food Rescue's Holiday Turkey Food Distribution.

Figure 16. Kaizen Food Rescue food box including culturally relevant foods.

Figure 17. Promotoras from Project Protect Food Systems.

#### **Education and Cultural Awareness**

#### 1. Integrate Nutrition and Agricultural Education into Existing Programs\*

Nutrition and agricultural education are necessary building blocks for improving self-efficacy of consumers in Jefferson County. Opportunities to expand existing farmer training, master gardener programs and community garden classes allow residents, both young and old, to build their awareness of how food is grown and opportunities to engage in their own food production. Focusing on growing areas of research, such as local efforts to build education on more climate-friendly regenerative agriculture production, adds to further resilience in our local system. Additional courses, for both individuals and organizations, on food safety ensure the safety of food distributed and consumed. Ensuring experts in community are paid for these educational approaches, especially leveraging local black, indigenous and people of color (BIPOC) community experts when possible, allows for additional wealth development and inclusive capacity building within the Jefferson County community.

# 2. Increase Community Centered Approaches To Emergency Food Distribution To Reach Communities That May Not Have Access And Ensure Programs Support The Priorities Of Community

A community centered approach transfers power and influence to community members who have lived experience with food insecurity and access these emergency food programs. For instance, in Boulder Food Rescue's A Hand and A Voice: Participation Framework they state that participation "will allow clients to develop co-ownership in improving food access, creating more effective programs, community outreach, feedback interpretation, and developing space for organizations to work towards better serving their communities". Boulder Food Rescue provides further guidance for how organizations can best incorporate these modes of community participation. These include participatory decision making, participant guided financial decisions, participatory policy making, and ultimately holding participation as a priority by formalizing it through revised missions, values, vision statements, and strategic plans. While engaging individuals through these different pathways for participation the report also stressed the importance of honoring participants for their expertise and time. Organizations might successfully accomplish this through accommodations such as training and professional development, food, accessible spaces, childcare, transportation, and compensation. If emergency food organizations are able to shift their existing models to fully incorporate these principals, while taking a community centered and participatory approach, they will be able to better serve their communities while building trust and deepening their relationships with those that they serve.

<sup>\*</sup>These priorities were definied through community conversations as part of the Food in Communities Project.

### **Strategies**

#### **Policy**

- Immigration policies that affect participation in government food programs (e.g., "public charge" rule) (Federal)
- Policy: Permanent change to requirements at pantries/food banks related to verification of address and identity (Local/State)
- Policy: Universal ID card for undocumented workers (Local/State)

#### **Program**

- Wide adoption of community-centered practices incorporated into existing organizations' models , structures, and strategic plans
- Expansion of culturally important food options at emergency food sites and retail food outlets

#### **Funding**

• Value and compensate community members for their expertise

#### Capacity Building

- Continued education of local policy makers through the Jefferson County Food Policy Council
- Training on community-centered shifts in organizational practice through the Jefferson County Food Policy Council

# Funding

### 1. Structure Relief And Stimulus Policies To Ensure Long Term Recovery And Resilience Of The Local Food System Are Considered When Addressing Urgent Food Insecurity Needs

A systems approach to addressing food insecurity aims to address the root causes of hunger while engaging in other sectors that influence a sustainable and resilient food system. Considering this approach in future relief and/ or stimulus policies would support the needs of communities experiencing food insecurity while supporting the local food and agricultural economy. Opportunities such as geographic preference for local food procurement, supporting small food business, and considerations for leveraging infrastructure over disposable resources would amplify the long-term value of such funds and their impact in the local food system. Successful examples of this can be seen in programs such as the Massachusetts Food Security Infrastructure Grant Program.

# 2. Increase Long-Term Approach, Community And Capacity Building Approach Through Collaborative Funding

As previously discussed, the bulk of funding distributed to address food insecurity thus far in the COVID-19 pandemic has been marked for emergency use. To build toward resilience, long-term recovery funding should be focused on streamlining efforts through effective collaboration and coordination, as well as enhancing organizational capacity building. In <a href="Montgomery County">Montgomery County</a>, <a href="Maryland">Maryland</a>, federal CARES dollars were utilized to provide capacity building grants for local food systems partners. Larger amounts were allocated to crossorganizational programs and collaborative efforts.



Figure 18. Food distribution box from Frontline Farming's Food distribution program.

Figure 19. Farm Bill advocacy meeting with members of the Jefferson County Food Policy Council at Sprout City Farms' Mountair farm property in Lakewood, Colorado.



#### 3. Direct Institutional Purchasing Power Along A Locally Grown Supply Chain

Colorado has rapidly grown in its awareness of the benefit to prioritizing local procurement at an institutional level, as it reaps the benefits for the local agricultural economy. By ensuring large-scale programming and institutions prioritize local farmers and producers, dollars are brought back into the local economy. This has been shown in the success of the Colorado Food Pantry Assistance Grant, which the City of Golden has recently approved to pilot as the first municipal-level program of its kind in the State. Further considerations for economic development—including workforce and infrastructure funding for the food system—allow for resilience and sustainability of the local supply chain infrastructure.

#### 4. Invest In Grant And Technical Assistance Training For Organizations

A common challenge shared by community-led food support organizations during the pandemic was limited training and capacity in applying for grants. While the Jefferson County Food Policy Council, started an informal network to connect some organizations with Council members that had volunteer capacity to support their grant writing needs, funded programs aimed at providing technical assistance in grant writing have shown quite successful. Douglas County in Kansas, for instance, utilized federal CARES funding to hire a consultant to provide technical assistance to food businesses and food non-profits wishing to apply for state-level recovery funds (K. Criner Ritchie, personal communication, January 7, 2021). Of the total 27 state awards that went to local food systems projects, at least 12 of these projects had received one on one consultation, with additional grant recipients attending webinars led by the consultant.

### Strategies

#### **Policy**

- Budget Adoption of the Food Pantry Assistance Grant Program (Local/State)
- Adoption of the Good Food Purchasing Program in municipal and county institutions (Local)
- Commitment to sustained food systems funding (Local)

#### Program

• Golden Food Pantry Assistance Grant Pilot, which utilizes local municipal dollars for local procurement of foods to distribute through Golden food pantries.

### Funding

- Allocation of funds prioritized to community-centered organizations and programming
- Increased funding for organizational capacity-building

### Capacity Building

- Alignment of funding priorities across local funders through a lens of community-centered, systemic approaches to food security
- Opportunities to leverage collaborative funding

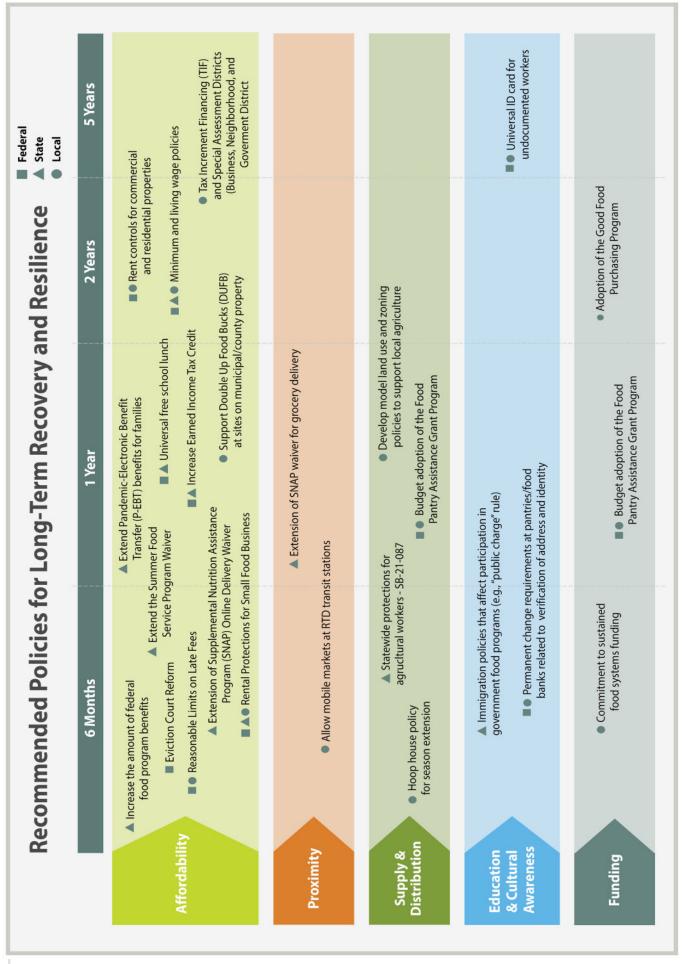


Figure 20. Timeline of policy recommendations to address five core variables for long term recovery and resilience.

# References

- Arnold, R. D., Wade, J. P. (2015). A Definition of Systems Thinking: A Systems Approach. Procedia Computer Science, 44(2015), 669-678. doi: 10.1016/j.procs.2015.03.050
- Baker, G. A., Gray, L. C., Harwood, M. J., Osland, T. J., & Tooley, J. B. C. (2019). On-farm food loss in northern and central California: Results of field survey measurements. Resources, Conservation and Recycling, 149, 541–549. https://doi.org/10.1016/j.resconrec.2019.03.022
- Bazerghi, C., McKay, F. H., & Dunn, M. (2016). The Role of Food Banks in Addressing Food Insecurity: A Systematic Review. Journal of Community Health, 41(4), 732–740. https://doi.org/10.1007/s10900-015-0147-5
- Brunet Marks, A., Knapp, H., Civita, N. (2020). Project Protect Food Systems' Colorado Coronavirus Crisis Essential Food System Worker Policy Response Agenda. University of Colorado Law Review. https://lawreview.colorado.edu/digital/project-protect-food-systems-colorado-coronavirus-crisis-essential-food-system-worker-policy-response-agenda
- Cajner, T., Crane, L. D., Decker, R. A., Grigsby, J., Hamins-Puertolas, A., Hurst, E., Kurz, C., & Yildirmaz, A. (2020). The U.S. Labor Market during the Beginning of the Pandemic Recession. Brookings Institute, 52.
- Centers for Disease Control and Prevention. (2015). Results from the School Health Policies and Practices Study 2014. 180. Colorado Department of Agriculture. (2019). A Glimpse of Colorado's Agriculture. https://www.colorado.gov/pacific/sites/default/files/Glimpse%20of%20CO%20Agriculture%20Map%202.pdf
- Colorado Department of Public Health and Environment. (2021). Colorado P-EBT. https://cdhs.colorado.gov/p-ebt Economic Research Service. (2020a). Food Dollar Series: Quick Facts. https://www.ers.usda.gov/data-products/food-dollar-series/quick-facts/
- Economic Research Service. (2020b). Retail & Wholesaling: Retail Trends. https://www.ers.usda.gov/topics/food-markets-prices/retailing-wholesaling/retail-trends/#:~:text=in%20Excel%20format-,Industry%2Structure,from%20 42.2%20percent%20in%201996
- GRACE Communications Foundation. (2021). Foodprint Issue: Food Justice. https://foodprint.org/issues/food-justice/Hartford Food System. (2020). Why A Food Systems Approach? https://www.hartfordfood.org/about/background-and-mission/why-a-food-systems-approach/
- Hunger Free Colorado. (2021). Colorado Statewide Food Insecurity Survey. https://www.hungerfreecolorado.org/covid-hunger-survey
- Institute of Medicine. (2013). Nutrition Education in the K-12 Curriculum: The Role of National Standards: Workshop Summary. https://www.ncbi.nlm.nih.gov/books/NBK202128
- LaRocca, D. (2020). Jefferson County's Emergency Food Response to COVID-19. Community First Foundation. wwww. communityfirstfoundation.org
- NHS England. (2015). A guide to community-centred approaches for health and wellbeing. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/768979/A\_guide\_to\_community-centred\_approaches\_for\_health\_and\_wellbeing\_\_full\_report\_.pdf
- Pinstrup-Andersen, P., Watson, D., Frandsen, S., Kuyvenhoven, A., & Von Braun, J. (2011). Toward a Dynamic Global Food System. In Food Policy for Developing Countries: The Role of Government in Global, National, and Local Food Systems (pp. 1-25). Ithaca; London: Cornell University Press. doi:10.7591/j.ctt7v910.8
- Rey, T., De Jesus, A., Lanier, H., & Evans, B. (2019). Shame, Stigma, Misinformation Compound Food Insecurity Problems. https://www.therampageonline.com/news/2019/05/01/shame-stigma-misinformation-compound-food-insecurity-problems
- Rideout, K., Mah, C. L., & Minaker, L. (2015). Food Environments: An Introduction for Public Health Practice. https://

# **Appendices**

Appendix A





# Food in Communities: Jefferson County

Community Findings

#### BACKGROUND ON FOOD IN COMMUNITIES

**Food in Communities** is a collaborative project that engages community members, organizations, and public agencies to identify opportunities to increase equitable access to healthy, affordable, and cultural food at the neighborhood level. This regional collaboration is funded by the Cancer, Cardiovascular, and Chronic Pulmonary Disease Grants Program at the Colorado Department of Public Health and Environment. The public health partners of Food in Communities are Tri-County Health Department, Denver Department of Public Health and Environment, and Jefferson County Public Health.

FOCUS AREAS: Sheridan Corridor/West Colfax; Wheat Ridge/South Arvada

#### **OVERVIEW OF COMMUNITY FINDINGS**

#### **Data Collection Process**

This summary of community findings incorporates information from:

- Key informant interviews with 104 individuals representing 72 organizations or agencies
- 16 resident listening sessions with 303 participants
- 281 survey responses collected
- Site visits with 12 food access organizations engaging with 51 participants utilizing services
- Participants of listening sessions and survey respondents included families living in affordable
  housing, immigrants and refugees, people experiencing homelessness or unstable housing (e.g.,
  people living in motels), older adults living in affordable housing, people of color, and speakers
  of diverse languages.

See below for an overview of community-responded answers to the following questions:

- What assets do you identify in your community?
- What barriers do you face when accessing healthy, affordable and culturally relevant food (or food you want to eat)?
- (Based on earlier reflections of community assets) What ideas do you have for improving you and your community's current access to healthy, affordable and culturally relevant food (or food you want to eat)?







#### ASSETS TO FOOD ACCESS FOR RESIDENTS

- Community gathering spaces with activities and services, as well as cultural, arts, and social
  events
- Infrastructure including parks, open spaces, and community gardens; and bike paths, sidewalks, and transportation routes
- Many **services** nearby through recreation center, library, nonprofits, schools, and faith organizations **to help address the needs of specific populations,** though residents are not always aware of what services are available and who is eligible.
- Active neighborhood organizations, parent groups, community-based nonprofit organizations, faith communities, large medical and public health institutions, and affordable housing for seniors.
- Cultural richness and diversity of the people.
- Connectedness of neighbors, friends, and family that look out for each other.
- Food resources including locally owned stores and businesses, faith organizations, nonprofits, and housing partners that offer food assistance, and resources specific to older adults, federal programs, and summer meals programs.

#### BARRIERS TO FOOD ACCESS FOR RESIDENTS

- Limited availability, affordability, and quality of fresh, culturally relevant foods at stores and pantries in neighborhoods
  - Limited access and affordability of meat
- Limited and costly transportation options to distant stores, as well as mobility challenges for older and disabled residents
  - Limited walkability or bike lanes
- Barriers to accessing food assistance including awareness of available resources, address and ID requirements, limited selection of cultural foods, language barriers, stigma, fear of intake process, and limited days and hours of operation
  - Limited awareness of what other resources are out there and how to consistently find them
- Affordability, limited income, and tradeoffs between food and other basic needs
- Heightened barriers around mobility, mental health, and substance use (in relation to food access) for veterans and those experiencing homelessness and housing instability
- Lack of kitchen access and food storage for people experiencing homelessness and housing instability
- Limited access to land for gardening and food production
  - Limited availability of commercially zoned land in neighborhood for grocery store
- Limited economic opportunity for small farms & food businesses to provide for communities
- Limited time to shop and prepare food
- Quality of School Food
- Limited nutrition education around cooking and preparing certain foods
- Significant stigma and lack of "trust equity" when using food assistance or enrolling
  - Distrust of services
  - Mistreatment when trying to access services
- Limited access to job training and job opportunities





- Concerns around crime and safety when trying to access resources
- Even with barriers to food access, there is significant food waste

#### BARRIERS TO FOOD ACCESS FOR ORGANIZATIONS

- High rent costs, lack of capital, and limited commercial kitchen space or storage (e.g., cold storage) are challenges for food businesses
- Food assistance programs face budget, staff/volunteer, and storage and refrigeration capacity barriers
- Limited coordination across agencies for best use of available resources
- Difficulty with maintaining food safety standards

#### IDEAS FOR IMPROVING FOOD ACCESS

#### Leverage Local, Region and Statewide Efforts

- Secure and coordinate funding for food access strategies
- Support neighborhood-level strategies and integrate with broader frameworks (e.g., Blueprint to End Hunger, neighborhood and city plans, etc.)
- Align with efforts to address systemic issues such as housing, employment, and transportation
- Provide policy recommendations on regional planning initiatives
- Build capacity, network, and share skills and knowledge

#### **Increase Community Food Production**

- Improve food supply through local agriculture, expanded and new community gardens, greenhouses, high tunnels, vertical farms, and freight farms
  - Purchase equipment to utilize additional land (e.g., irrigation and cold storage)
  - Identify land available for farming & develop public-private partnerships
  - o Identify schools looking to build or expand existing gardens
- Edible forests/landscapes (e.g., have cities plant fruit trees accessible to all)
- POLICY: Develop model land use and zoning policies to support local agriculture
  - Utilize the City of Arvada as the model policy for high tunnels
  - Land access program whereby land donated to the City of Arvada is made available to farmers if they pay the cost of water and agree to provide fresh produce to low-income communities
- POLICY: Clarify and improve Cottage Food for local growers and producers

#### Improve Food Pantry Services, Outreach, and Access to Services and Information

- Improve pantry services including expanded days, longer hours, more fresh food, and complete meals
- Ensure information and outreach offered in multiple languages
- Create interactive map and downloadable document of what resources are located where
- POLICY: Change requirements at pantries/food banks related to verification of address and identity

#### Address Stigma and Fears Associated with Food Assistance

 Develop guidelines around storytelling in existing groups around utilizing food benefits and other forms of benefits/assistance to build "trust equity"







- Social media campaign on reducing stigma of utilizing assistance programs
- Opportunities to partner with existing groups around stigma awareness (e.g., Family Leadership Training Institute)
- Utilize the Walk to Connect application with the topic of barriers to food/stigma around food assistance

#### Coordinate Food Assistance with Other Services

- Improve screening and referral for food insecurity at clinics, schools, human services, etc.
- Strengthen connections between healthcare providers and service providers
- Co-locate food assistance programs located where people frequently visit (schools, "food pharmacies", etc.)

#### Create Economic Development Opportunities for Farmers and Food Businesses

- Expand healthier food options in existing markets (including farms, corner stores, and grocery stores)
- Develop commercial/commissary kitchens
- Connect commercial facilities with growers for value-adding processing opportunities
- Develop grocery co-op or farm co-op
- Develop food hub
- "Buy Local" Campaign

#### Improve Affordability and Availability of Fresh Produce

- Increase WIC, SNAP, and Double Up Food Bucks acceptance at existing markets (including farms, corner stores, and grocery stores)
- SNAP Gap Program
- Healthier options on restaurant menus (e.g., Diabetic-friendly items)
- Ensure days/hours of farmers markets, farm stands, etc. are accessible to people
- Create markets or set up food trucks (with healthy options) at community hubs (e.g., Youth Market at Jefferson Jr/Sr High School)
- Share out additional savings/benefits on SNAP (e.g., cell phone, utilities, museums)
- POLICY: Default healthy beverages on children's menus in restaurants
- POLICY: Require farmers markets to accept SNAP benefits
- POLICY: Livable Wage
- POLICY: Paid Family Leave

#### Increase Food Rescue and Distribution

- Address limited storage space, cold storage, food safety knowledge, and staff and volunteer capacity of local agencies
- Educate potential food donors on food rescue
- Increase capacity to rescue and distribute surplus food
- Aggregate produce from local growers to create an Abundance Market (free produce for community)
- Distribute produce (that's about to turn) to meal sites for processing
- POLICY: Increase tax incentive for donating excess produce to pantries





#### Mobile Markets and Mobile Groceries

- Develop and/or expand mobile markets and/or pantries that serve people with transportation, mobility, and time limitations (e.g., Arvada Veggie Van service or model; senior meal site with Eaton Senior Centers and We Don't Waste; GoFarm's Low Cost Market; Mobile Bike Farm Stand with Sprout City Farms)
- Improve outreach and relationships with motel management to identify opportunities for food assistance outreach on-site
- Affordable grocery delivery, including options to purchase with SNAP and WIC
- Expand summer meal sites
- Refrigerated, pre-packaged meals onsite at community hubs/senior centers (e.g.,CIBO Meals' meal in a jar)

#### Create Nutrition and Agriculture Educational Awareness and Opportunities

- Work with local experts include Cooking Matters, An Ounce of Nutrition
- Provide recipes to families and seniors utilizing various food assistance programs (in multiple languages and recipes specific to a variety of cultures)
- Social media tools to educate on "heathy eating", including cultural preferences
- Education around understanding food labels (e.g., What does an expiration date actually mean?)
- Allow food providers to set up at motels or partner with motels

#### Improve Transportation Options to Get to and from Food

- Provide affordable/discounted bus passes
- Expand grocery rideshares and carpools
- Improve RTD routes to include neighborhoods often excluded (e.g., Villa Park) or routes that prioritize stopping at/near grocery stores
- Grocery carts available to drop off at RTD stations (pay fee or token to borrow and return)
- Increase bike lanes/walkability
- Expand service options of Lakewood Rides (can this service be utilized in Villa Park? Can seniors in Lakewood use the service in more expansive areas/ways?) and rides from Senior Resource Center

#### Improve Fair and Affordable Housing

- Work with Police Dept on fair practices for calls received at motels to ensure families aren't wrongfully evicted (e.g., Lakewood Ordinance)
- Allow food providers to set up at motels or partner with motels
- Create an affordable housing database

#### Improve food options at school

- Expand summer meal sites
- Recover unused food in cafeteria/central kitchen to be made into meals for students to bring home (e.g., We Don't Waste partners on this with Aurora School District)
- Students want salad bars
- Youth market or mobile market at schools (e.g., Edgewater Project Based Learning Curriculum)
- Connect local farmers into schools (through meal program, taste testing)
- Co-location of assistance/supports onsite at schools
- POLICY: Increase time students have for lunch in schools



Appendix B



# JEFFERSON COUNTY'S EMERGENCY FOOD RESPONSE TO COVID-19

#### The COVID-19 Crisis and Food in Jefferson County, Colorado

Food insecurity is associated with poor, long-term health and wellbeing outcomes, including asthma, hypertension, diabetes, and poor emotional health.<sup>1,2</sup> The issue of food security in America was amplified by the onset of the novel coronavirus (COVID-19) pandemic in March 2020. The number of unemployed Americans rose from 6.2 million in February 2020 to 20.5 million in May 2020,3 and initial research indicated a nearly one-third increase in household food insecurity.<sup>4</sup> Additionally, research suggests that the COVID-19 pandemic has amplified existing disparities related to food security status, especially for non-Hispanic Black and Hispanic individuals.<sup>5</sup>

Food insecurity is defined as the disruption of food intake or eating patterns because of lack of money and other resources.

In Colorado, prior to the COVID-19 pandemic, 9.1% of Coloradans and 10% of Jefferson County residents were experiencing food insecurity. Data from Hunger Free Colorado has demonstrated that since the beginning of the COVID-19 pandemic, this percentage has quadrupled – with 38% (or almost 2 in 5) of Coloradans experiencing food insecurity as of December 2020.

Stakeholders throughout the Jefferson County food system responded quickly to this growing public health concern. As this emergency response evolved, it became clear that a better understanding of the response's strengths and challenges was needed. Therefore, in the summer of 2020, a qualitative research project was conducted with food assistance organizations contributing to the emergency food response during COVID-19. This project aimed to understand the capacity of Jefferson County's food assistance organizations to meet the needs of residents experiencing food insecurity during an emergency. The project consisted of fourteen interviews with representatives from food assistance organizations throughout Jefferson County, with two researchers conducting the interviews via phone and a web-based video conferencing tool. The data was analyzed to develop themes across the interviews, and member checking of the themes was conducted with interviewees and the Jefferson County Food Policy Council to increase the credibility of the findings.

#### **Findings**

**Increased Food Insecurity.** All interviewees described a significant increase in the number of residents being served. One interviewee shared that "Before COVID, a busy month was a month where we served 800 individuals. Now a busy month is a month where we're serving 3000 individuals."

Removal of Barriers. Many interviewees reported ways in which barriers to receiving food assistance services were removed. Organizations described eliminating income, identification, and geographical requirements in order to serve residents in need. Notably, interviewees described how removing barriers also increased trust with the residents they served, reducing concerns about stigma and the Public Charge rule.

"We used to have an income limit; we no longer do. We used to serve a specific area...; no longer the case. We used to ask for people to provide some sort of proof, and we're not doing that, and honestly moving forward, we won't be doing that anymore. So, food assistance is really available to whoever needs it, for whatever reason they need it."



5855 Wadsworth Bypass, Unit A Arvada, CO 80003 CommunityFirstFoundation.org 720.898.5900 Concerns about Winter. Many interviewees expressed concerns about the approaching winter months, including staff and volunteer safety and availability and sufficient food procurement. Interviewees described safety concerns for staff and volunteer working in inclement weather conditions, such as snow, ice, and cold.

"People are on ice and they are volunteers... and we barely have enough volunteers and things now much less after it gets to the bad weather."

Interviewees also pointed to the end of certain federal programs, such as the Coronavirus Food Assistance Program (CFAP), as well as reductions in donations and funding opportunities.

Inadequate Transportation and Storage. Interviewees consistently reported inadequate transportation and storage capacity for food assistance services. Regarding transportation, reliability was a key concern as much transportation was being completed by volunteers or via personal or reduced rate rental vehicles. Regarding storage, organizations described a patchwork of storage facilities, including old and unreliable residential refrigerators and freezers, rented units, and repurposed and borrowed spaces. Two interviewees shared that classrooms and conference rooms at their organization had been transformed into food storage rooms.

Safety over Choice. Finally, many interviewees reported adjusting program models to integrate COVID-19-related safety precautions. Organizations shifted to drive through models, loading pre-packaged boxes directly into residents' cars, or delivered food directly to residents' homes. These adjusted models increased staff and client safety, however, they also significantly reduced residents' choice and preference in the type of food received.

"Our food pantry, prior to pandemic times, we had a choice shopping model and through the pandemic, obviously felt like we needed to transition that for safety purposes into a drive thru food model."

#### References

- Bruening M, Dinour LM, Chavez JBR. Food insecurity and emotional health in the USA: asystematic narrative review of longitudinal research. Public Health Nutr. 2017;20(17):3200-3208. doi:10.1017/S1368980017002221
- 2. Gundersen C, Ziliak JP. Food Insecurity And Health Outcomes. Health Aff (Millwood). 2015;34(11):1830-1839. doi:10.1377/hlthaff.2015.0645
- 3. U.S. Bureau of Labor Statistics. Labor Force Statistics from the Current Population Survey.; 2020. https://www.bls.gov/cps/
- 4. Niles MT, Bertmann F, Belarmino EH, Wentworth T, Biehl E, Neff R. The Early Food Insecurity Impacts of COVID-19. Nutrients. 2020;12(7):2096. doi:10.3390/nu12072096
- 5. Wolfson JA, Leung CW. Food Insecurity and COVID-19: Disparities in Early Effects for US Adults. Nutrients. 2020;12(6):1648. doi:10.3390/nu12061648
- Jefferson County Public Health. 2019-2021 Jefferson County Community Health Improvement Plan. Published online 2019:127.
- Hunger Free Colorado. COVID Survey: Hunger Remains a Top Priority.; 2020. https://www.hungerfreecolorado. org/covid-hunger-survey This is the body copy style - it can be found in the paragraph style called [Basic Paragraph].

#### **Author:**

Dave LaRocca, MS
DrPH Student, Community and Behavioral Health,
Colorado School of Public Health

