HENNEPIN COUNTY MINNESOTA



Food rescue in Hennepin County

2023

Understanding the food rescue ecosystem and identifying innovative strategies for the county's response.

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Executive summary

Background

Food rescue involves diverting edible food to those who need it the most – people who are experiencing food insecurity. Supporting food rescue aligns with countywide priorities of acting boldly on climate change, transitioning to a zero-waste future, reducing disparities, and enhancing the health, safety, and quality of life for our residents.

The county's Climate Action Plan, adopted in 2020, identified seven foundational strategies that serve as the best place for the county to start to establish a strong foundation for a long-term response to climate change. Among those strategies are:

- Prevent food waste and divert organic material from the trash.
- Strengthen individual and community resilience.

Food rescue helps achieve both of those goals. In Hennepin County, 20% of our trash is wasted food. On average, 3.5 pounds of food are wasted per person per week. Meanwhile, 7.5% of county residents – 94,710 people – experienced food insecurity in 2020 (Feeding America, 2022). Food insecurity was disproportionately experienced by Black, Indigenous, and communities of color (Feeding America, 2022).

To address the impacts of food waste on our climate and the impacts of food insecurity on county residents, we first needed to understand the food rescue ecosystem within the county and identify potential innovative strategies in the county's response.







Goals

With that in mind, Environment and Energy, Public Health, and Strategic Planning began partnering in August 2021 with goals to:

- Explore and understand the food rescue ecosystem in Hennepin County.
- Identify gaps and opportunities to divert more food to people that would otherwise go to waste.
- Increase the food rescue system's responsiveness to community needs for both highly nutritious and culturally significant food.

Project phases

Three phases were identified to holistically assess the impact of the current structure of food rescue in Hennepin County:

- **Phase 1:** Identify the current structure of the food rescue system and gain high-level insights into the system by developing a list of food security organizations and conducting an initial survey.
- Phase 2: Understand the experiences of food rescue stakeholders, from donor organizations to community members who have experienced food insecurity, through interviews and focus groups.
- **Phase 3:** Explore key gaps and needs in stakeholder experiences and identify innovative strategies for the county to enhance the impact of food rescue.

Key learnings

Through the course of the project, key learnings emerged about the current state of food rescue in Hennepin County. Overall themes from engagement across stakeholder groups include:

- Intentionally aligned partnerships between donor organizations and food rescue organizations are fundamental to the success of food rescue efforts.
- Although intermediary organizations are key to the current food rescue system, food security organizations have complex and mixed experiences partnering with these organizations.
- Staffing and labor are a significant challenge in the food rescue ecosystem.
- Supply chain and transportation logistics continue to pose a significant challenge to ensuring the safety and quality of rescued food.
- The experiences of community members underscore the need for innovation across the food rescue ecosystem.
- Adequate finances and appropriate donations across the food rescue stream are key to the ability to participate in food rescue and meet community members' needs.
- Creative adaptations made in response to the COVID-19 pandemic and 2020 social uprising identified promising strategies to improve food rescue efforts.

Recommendations

In the transition to an equitable, zero-waste future, Hennepin County is poised to have a meaningful and transformative impact on the food rescue system. Through engagement and analysis, 14 strategies were identified for the county to pursue to ensure this impact. These strategies fit into the following recommendations:

- Expand on-the-ground support for donor organizations to operationalize and improve food rescue efforts in their organizations.
- Establish internal and external collaborations focused on continuous improvement of food rescue and county supports.
- Leverage data to promote food rescue efforts and identify system-wide improvement opportunities.
- Work with food rescue and security partners to implement creative and innovative strategies to enhance food rescue efforts and community impacts.
- Embed disparity reduction and racial equity throughout the design and implementation of county strategies.

Acknowledgements

Partnerships and engagement with various stakeholders were crucial to the success of this project. We want to acknowledge the important contributions from these stakeholders and partners.

Our partners at Asian Media Access, Community Emergency Assistance Programs (CEAP), and Volunteers Enlisted to Assist People (VEAP) were instrumental in engaging community members who have experienced food insecurity to understand their experiences accessing food security services. Thank you!

Additional thanks are due to those who participated across the project lifecycle, from sharing their experiences and perspectives about food rescue in Hennepin County through interviews and our initial survey to sharing feedback about emerging strategies in the feedback sessions. The valuable insights shared by these participants helped shape the strategic directions and outcomes of this project.

Project overview

Goals

Food rescue involves diverting edible food to those who need it the most – people who are experiencing food insecurity. The overarching goals for this project are to:

- Explore and understand the food rescue ecosystem in Hennepin County.
- Identify gaps and opportunities to increase the diversion of food to people that would otherwise go to waste.
- Increase the food rescue system's responsiveness to community needs for both highly nutritious and culturally significant food.

Stakeholders

Engaging with stakeholders participating in and/or impacted by food security was a crucial component of this project. Three core stakeholder groups identified to engage in this project were:

- **Donor organizations:** Entities that donate food to support food security efforts, such as grocery stores, co-ops, farmers markets, restaurants, schools, and wholesale food providers.
- Food security and rescue organizations: Entities that ensure people have consistent, reliable access to safe, nutritious, and culturally appropriate food. Sometimes these organizations provide food directly to people experiencing food insecurity. Others act as an intermediary organization, taking on the role of transporting and storing food between donors and direct service organizations. Food security organizations have a variety of size, scope, focuses. For example, some exist mostly to be food security orgs, some have a much broader focus and mission. Examples include food shelves, food banks and intermediary organizations.
- **People experiencing food insecurity:** Residents who do not have adequate food and/or lack consistent access to nutritious and culturally appropriate food.

Project phases

To holistically assess the impact of the current structure of food rescue in Hennepin County, three phases were identified:

- **Phase 1**: Identify the current structure of the food rescue system and gain high-level insights into the system by developing a list of food security organizations and conducting an initial survey.
- Phase 2: Understand the experiences of food rescue stakeholders, from donor organizations to community members who have experienced food insecurity, through interviews and focus groups.
- **Phase 3:** Explore key gaps and needs in stakeholder experiences and identify innovative strategies for the county to enhance the impact of food rescue.

Timeline and activities				
Phase 1: August to December 2021				
Initial project planning: August to September	Phase 2 planning: January to March	Thematic analysis: September to October		
Survey design and deployment: October to December	Contract design and deployment: February to April Engagement with food security organizations: April to May Engagement with donor organizations: May to October Engagement with community members by contracted partners: June to September	Stakeholder feedback sessions: November Impact/feasibility matrix: December Final report development: January to February		

Countywide alignment

This effort aligns with three countywide priorities: acting boldly on climate change, transitioning to a zero-waste future, and reducing disparities.

The county has an ambitious goal of net zero greenhouse gas emissions by 2050, which was adopted in order to avoid the most severe impacts of climate change. Waste and material use significantly contribute to greenhouse gas emissions, and climate action experts identify reducing food waste as one of the most effective solutions to climate change. This is because food waste in landfills produces methane. Over a 20-year period, methane is 80 times more potent at warming the climate than carbon dioxide (United Nations Environment Programme, 2022). Wasted food also has upstream climate impacts since the energy used to produce, transport, and store food is also wasted.

Preventing food waste is one of the biggest opportunities to reduce waste, since 20% of the trash in Hennepin County is food. As a leader in waste management focused on transitioning to a zero-waste future, the county is focusing on reducing food waste. The food rescue system audit outlines strategies that can expand the county's impact to accomplish this goal.

Furthermore, achieving the goal of strengthening individual and community resilience, a foundational strategy in the Climate Action Plan, involves engaging with communities to develop people-centered solutions that ensures everyone has access to safe and affordable housing, healthcare, food, and

transportation. The groups of people most impacted by food insecurity are also most susceptible to the negative impacts of climate change.

According to Feeding America, approximately 94,710 people in Hennepin County experienced food insecurity in 2020, which is 7.5% of the county's population. When disaggregated by race and ethnicity, 25% of Black people and 19% of Latinx people in Hennepin County experience food insecurity, compared to just 4% of White people. This means that Black and Latinx people are 6 and 5 times more likely to experience food insecurity compared to their White counterparts.

Phase 1 activities

Phase 1 concentrated on engaging food security organizations through a 21-question survey to gather important insights into the food rescue ecosystem and the needs of food security organizations and the community members they serve. The information gathered helped guide Phase 2 and Phase 3 of the project.

The project team began with a list of 134 food security organizations located in Hennepin County and narrowed the engagement list to 29 organizations based on location, demographics served, and type of service delivery.

The Strategic Planning project team led the survey development in coordination with experts from Environment and Energy and Public Health. Of the organizations engaged, 72% (21 organizations) completed the survey. The organizations surveyed work in 37 cities in the county, serve more than 32,000 people monthly, and rescue more than 6 million pounds of food annually.

Phase 2 activities

The second phase of the project focused on engagement with food rescue stakeholders to understand the gaps and opportunities in the food rescue landscape.

Phase 2 engagement summary			
Stakeholder group	Donor organizations	Food security and rescue organizations	Community members
Number of organizations or people engaged	14 organizations ¹	13 organizations ²	100 community members who have experienced food insecurity

¹ Types of donor organization included: grocery stores, co-ops, institutions that provide meals, wholesale food provider, farmers markets and farms, and restaurants

² Types of food security and rescue organizations included: food banks and other intermediaries, food shelves and food distribution sites

Engagement with donor and food security and rescue organizations The project team used several different methods to engage the various stakeholder groups. Members of the team reached out directly to food security organizations and food donor organizations to schedule and conduct individual interviews. The goals for engaging these stakeholder groups were to:

- Understand their perspective about food rescue and, for those that currently participate in food rescue efforts, their experiences supporting these efforts.
- Assess current enablers and barriers in the food rescue ecosystem.
- Identify opportunities and strategies to enhance the impact of food rescue in the county.

Engagement with community members

To engage residents experiencing food insecurity, we contracted with community-based organizations that have long-standing relationships with communities facing food scarcity in Hennepin County to recruit, host, and facilitate discussions with residents to share their experience obtaining food through the food rescue system.

The goals for engaging with people experiencing food insecurity were to:

 Understand their experience and journey accessing food via food security and support organizations, such as food shelves.



Of the community members engaged, all participants who identified as Asian, Indigenous, or multiracial identified as non-Hispanic. Participants who did not share information about either their racial or ethnic identity were included in the Unknown or Prefer not to say category.

10%

3%

11%

20%

30%

Indigenous 📕 1%

0%

Unknown race...

Prefer not to say

- Understand the degree to which the foods available meet their general, cultural, and dietary needs.
- Identify solutions to barriers, challenges, and needs.

Through the county's formal contracting process, the project team selected three organizations to receive up to \$10,500 to support their staff in engaging 30 to 40 community members each. Each community member was compensated \$100 for participating in these engagements.

The partners selected to conduct the engagement with people experiencing food insecurity across Hennepin County were:

- Asian Media Access (AMA)
- Community Emergency Assistance Programs (CEAP)
- Volunteers Enlisted to Serve People (VEAP)

The organizations' strengths, locations, and experience working with communities allowed them to successfully engage a wide cross-section of people experiencing food insecurity across the county.

Community members engaged live in 11 different cities in the county and were racially and ethnically diverse – 42% of those engaged identify as White, 25% are Hispanic, Latino/Latinx, or Spanish origin, 24% are Black, 15% are Asian, 4% are multiracial, 1% are Indigenous.

Phase 3 activities

Phase 3 focused on:

- Analyzing the themes that emerged during Phase 2 engagement to evaluate the gaps, opportunities, and stakeholder experiences while participating in food rescue.
- Identifying promising, impactful strategies for Hennepin County through stakeholder feedback sessions.

The project team used a team-based thematic analysis approach to evaluate the engagement feedback gathered in Phase 2. This is a qualitative data analysis approach that starts with understanding and reading through transcripts from interviews and/or focus groups, collaboratively identifying themes and patterns across the data, and naming the themes that emerged.

After the engagement feedback was analyzed, feedback sessions were held with stakeholders to understand and evaluate the most impactful food rescue strategies and identify the county's role in food rescue. These feedback sessions involved:

- A presentation about the key themes that emerged across stakeholder groups.
- A survey about the impact of potential strategies.
- Small group discussions to holistically evaluate top strategies.

The two sessions had 29 participants representing donor organizations, food rescue and security organizations, other government entities, and other interested parties. Participants were recruited through personal invitations from county staff and messages sent to distribution lists of stakeholders across the food rescue ecosystem.

Participants were asked to rate each strategy using this question: *From your perspective, on a scale of 1 to 10, how impactful would the following strategies be?* In this survey, 1 meant no/low impact and 10 meant very high impact. The results of this survey can be found in Appendix G.

Following the feedback sessions, the team further refined the strategies by evaluating the feasibility and sustainability of these strategies. This two-pronged approach identified 13 of strategies for the county to pursue to have the greatest impact on serving more people in need and rescuing more food.

Key learnings and recommended strategies

Many key themes, learnings, and potential strategies emerged throughout the engagement with stakeholder groups. Potential strategies were refined based on the county's strengths, capacities, and resources. The final recommended strategies and how they align with key learnings are outlined below.

Though many stakeholders had similar challenges, there are important nuances in their experiences. Details on the feedback gathered from the stakeholder groups related to each key learning theme is included in the following sections for each theme.

Key learnings and recommended strategies			
Key learnings	Recommended strategies		
Theme 1: Intentionally aligned	Train county inspectors from Environmental Health and Waste Reduction and Recycling to educate food establishments and distributors on food donation handling and legal protections.		
partnerships between donor organizations and food rescue organizations are fundamental to the success of food rescue efforts.	Train county inspectors from Environmental Health and Waste Reduction and Recycling to help potential donors who have access to culturally appropriate foods overcome barriers to food donation.		
	Work with food rescue organizations to develop a streamlined list of preferred foods for donation to distribute to donors.		
Theme 2: Though intermediary organizations are key to the current food rescue system, food security organizations have complex and mixed experiences partnering with these organizations.	Establish a council of food rescue organizations to explore partnership opportunities, identify service gaps and needs, review and deploy innovative solutions and best practices, and close the gaps in access to food for residents facing food insecurity. (Note, this strategy is listed in both themes 2 and 7.)		
Theme 3: Staffing and labor are significant challenges in the food rescue ecosystem.	Establish a workgroup of staff from Public Health, Environment and Energy, and Human Services to review guidelines of county grants and contracts that fund food rescue and food insecurity efforts and explore options for funding labor, transport, storage, operations expansions, resident choice, and culturally and nutritionally appropriate foods and coordinate funding to these organizations.		
	Consider establishing additional funding options to support food rescue organizations.		

Key learnings	Recommended strategies	
Theme 4: Supply chain and transportation logistics continue	Explore the feasibility of centralized or neighborhood-based food storage hubs to facilitate quick transfer of perishable foods in coordination with food rescue organizations through private/public partnerships.	
to pose a significant challenge to ensuring the safety and quality	Explore strategies for identifying how much food is wasted and how food is wasted across the food rescue stream.	
of rescued food.	Continue to update, improve, and expand usability of the Public Health food security organization map, raise awareness about the map, and share the resource with stakeholder groups.	
	Explore strategies that address transportation and access barriers for community members experiencing food insecurity, such as ride sharing, food delivery, and pop-up and mobile food shelves through private/public partnerships.	
Theme 5: The experiences of community members underscore the need for innovation across the food rescue ecosystem.	Disseminate the feedback collected through this project from residents on their customer service experiences at food shelves to food rescue organizations to increase awareness of the negative experiences for some residents.	
	Gather feedback from residents accessing donated food on an ongoing basis and share the feedback with food rescue organizations.	
Theme 6: Adequate finances and appropriate donations across the food rescue stream are key to the ability to participate in food rescue and meet community members' needs.	Reduction and Recycling to educate food establishments and distributors on food waste prevention, focusing on food safety	
Theme 7: Creative adaptations made in response to the COVID- 19 pandemic and 2020 social uprising identified promising	Establish a council of food rescue organizations to explore partnership opportunities, identify service gaps and needs, review and deploy innovative solutions and best practices, and close the gaps in access to food for residents facing food insecurity. (Note, this strategy is listed in both themes 2 and 7.)	
strategies to improve food rescue efforts.	Explore and advocate for policy solutions to encourage participation in food rescue efforts by donor and food rescue organizations.	

Guiding principles

The following guiding principles should be applied to all strategies in order for them to be successfully implemented and their potential impacts to be reached.

Disparity reduction

Disparity reduction should continue to be a central focus for this work. The county should continue to consider and acknowledge disparities and intersectional stressors residents face and their impact on food access and food security. It is recommended that county staff leading food rescue work:

- Apply a racial equity lens to strategy implementation, such as by using the Racial Equity Impact Tool (REIT) to guide the implementation of key strategies and other solutions connected to the food rescue ecosystem.
- Work with internal partners to address deeper causes of disparities and work to incorporate these into food rescue efforts.

Internal collaboration and partnerships

From addressing climate change to reducing disparities to improving health and well-being, food rescue closely aligns with county priorities and operations across many work areas. Effective and ongoing collaboration will be needed to continue to positively impact food rescue efforts. Recommendations for establishing effective internal partnerships include:

- Embed tangible steps, key metrics, and timeframes into the countywide, Environment and Energy, and Public Health Climate Action Plans to implement strategies.
- Explore ongoing partnerships to implement strategies and ensure internal alignment and resources.
- Explore collaborative funding opportunities across departments and works areas.

Theme 1: Intentionally aligned partnerships are fundamental to success

Intentionally aligned partnerships between donor organizations and food rescue organizations are fundamental to the success of food rescue efforts

Relationships and partnerships play a critical role for both food security organizations and food donor organizations.

Food security organizations

Alignment of values and shared organizational goals between food donor and food security organizations are critical to successful operations and continued partnership between the organizations. All of the food security organizations told us that it's important to ensure aligned relationships with



donor organizations. Examples of alignment noted by food security organizations included:

- Shared values such as social and environmental justice
- Partnership expectations and that the scale and quality of food received aligns with food security organization's internal capacity to store, sort, and distribute the food
- Food donated is appropriate for the communities they serve

Lack of alignment significantly harms the relationship between organizations and can negatively impact the community members being served. Some organizations shared they felt taken advantage of by donors. For example, large donations require significant amounts of storage and volunteers to sort, store, and distribute the food. Some donor organizations are focused on the quantity of food delivered, rather than taking into consideration the food security organization's capacity, the quality of food being donated, and the community members' needs. When this occurs, food security organizations shared that they felt taken advantage of by the donor organization and that they and the community members they serve were left behind.

Maintaining direct communication and the ability to share feedback between food security and donor organizations is a key factor in maintaining aligned and fruitful relationships.

Food donor organizations

For many donor organizations, partnerships with other entities – whether with an intermediary organization or directly with a food security organization partner – was critical to their participation in food rescue. All of the donor organizations we spoke to indicated that they had a partnership with a food security organization. The primary goals driving these partnerships can differ, such as supporting jobs involved with rescuing food or serving a specific cultural community. These relationships were often the space where food system innovations emerged, such as:

- Minnesota Central Kitchen Project, a program developed during the COVID-19 pandemic to rescue food that would otherwise go to waste and use it to provide meals to those in need while offering employment to kitchen and restaurant staff that would otherwise be out of work.
- A program where customers of a donor organization can round up their total grocery bill to the nearest dollar, donating the difference to a food security organization.
- Participating in Minnesota Food Share month, an annual campaign hosted by the Greater Minneapolis Council of Churches (GMCC) to raise awareness about food insecurity, advocate for policy change, and increase resources for food shelves and food distribution programs across Minnesota.
- Offering small grants (under \$10,000) to farmers to support innovation and cover hardships they experience.
- Train county inspectors from Environmental Health and Waste Reduction and Recycling to help

Aligning strategies

- Train county inspectors from Environmental Health and Waste Reduction and Recycling to educate food establishments and distributors on food donation handling and legal protections.
- Train county inspectors from Environmental Health and Waste Reduction and Recycling to help potential donors who have access to culturally appropriate foods overcome barriers to food donation.
- Work with food rescue organizations to develop a streamlined list of preferred foods for donation to distribute to donors.

Theme 2: Experiences with intermediary organizations are complex and mixed

Though intermediary organizations are key to the current food rescue system, food security organizations have complex and mixed experiences partnering with these organizations

Intermediary organizations, such as food banks, significantly impact the food rescue landscape. While donor organizations had primarily positive experiences with these organizations, food security and rescue organizations were more split in their experience.

Food security organizations

For some food security organizations that are directly serving community members, intermediary food security organizations can



act as a key support that helps with the sourcing of food, providing resources on food safety, and dedicating time to recruiting and developing relationships with donor organizations. In fact, 50% of the organizations we talked to shared that working with an intermediary helped them participate in food rescue efforts.

But some of those organizations had mixed experiences, while others had primarily negative experiences with intermediary organizations. Working with an intermediary was a barrier to their operations and food rescue efforts for 83% of the food security organizations that we engaged. These critiques applied to larger, more mainstream intermediaries. The food security organizations expressed concerns about the cost of waste and labor being shifted to their organizations, which can result from agreements between intermediary and food security organizations that dictate the type and/or amount of food donated. This was often a central reason why organizations have chosen to no longer work with an intermediary organization.

Other organizations voiced concerns about policies when working with intermediaries that restrict what they can do with food received. For example, a large food bank in Minnesota has a policy that food received through them cannot be shared with other food security organizations. Some food security organizations shared that this resulted in food that could be used being thrown away.

An additional policy that was highlighted by food security organizations was a requirement that donor organizations not work with food security organizations outside of their partnership with the

intermediary. For food security organizations that do not work with intermediaries, the impact was that they were not able to work with those donor organizations.

Donor organizations

For multiple donor organizations, partnering with an intermediary organization enabled them to participate in food rescue. More than half (57%) of the donor organizations specifically mentioned that they rely on a partnership with an intermediary organization. For some, without this partnership, they would not be able to or would be highly unlikely to participate in food rescue.

The intermediary provided transportation and labor for moving rescued food, helped formalize the relationship between donor organization and the organization that distributed the food to community members, and ensured other key requirements were met, such as ensuring the safety and quality of the food rescued.

Aligning strategies

• Establish a council of food rescue organizations to explore partnership opportunities, identify service gaps and needs, review and deploy innovative solutions and best practices, and close the gaps in access to food for residents facing food insecurity. *Note, this strategy is listed in both themes 2 and 7.*

Theme 3: Staffing and labor are significant challenges

Staffing and labor are a significant challenge in the food rescue ecosystem

Staffing and labor play an integral role throughout the food rescue ecosystem. From the education and training of workers to the challenges that come with relying mainly on a volunteer workforce, the human part of the food rescue process has a profound impact.

Food security organizations

Ongoing, dedicated volunteers are crucial for implementing programs and offering their programs and services. Food security organizations rely heavily on volunteers to



sort food that is donated, display or package food, and assist clients. Volunteers are also crucial for transporting donated food and delivering food to community members. Although volunteers contribute significantly to food security efforts, all of the organizations we talked to shared that relying on volunteers was a challenge to the long-term stability of their food rescue and security services.

For many, their pool of volunteers was deeply impacted by COVID-19 as many individuals opted to avoid public spaces. Some organizations had to pause their operations for several months, while others were able to find creative ways to use their remaining volunteers and staff. The return of volunteers has enabled many organizations to restart and/or increase their operational capacity.

Food donor organizations

Staffing for donor organizations impacts their ability to pick out donatable food and transport food between organizations. Most of the donor organizations (79%) expressed the work and effort involved to support food rescue efforts, including educating and training staff on food rescue, was a challenge. This was often mentioned in conjunction with the challenges of recruiting and retaining their workforce.

Some organizations noted that increasing costs of labor was a concern and could impact their ability to support new or continued food rescue operations in their organization. The ability to adequately provide staffing to support food rescue efforts was a major barrier and concern; for some organizations, this was a driving factor for not participating in food rescue efforts.

Community members

Volunteer interactions drive where individuals visit and what items that they take. Unfortunately, many individuals have had a negative experience with volunteers at food security organizations who made them feel judged, second class, and generally poorly treated. When sorting through produce or other items at food security organizations, multiple community members shared they have been scolded or yelled at by volunteers that assume they are trying to be greedy, even though the community member are aware of item limits. These interactions typically result in the community member not taking any of that item and even avoiding the organization in the future entirely.

Alternatively, many individuals have had wonderful experiences with volunteers at food security organizations, feeling welcomed, cared for, valued, and respected. Those who had positive experiences often return to that location as a result of the positive and respectful connection with volunteers.

Aligning strategies

- Establish a workgroup of staff from Public Health, Environment and Energy, and Human Services to review guidelines of county grants and contracts that fund food rescue and food insecurity efforts and explore options for funding labor, transport, storage, operations expansions, resident choice, and culturally and nutritionally appropriate foods and coordinate funding to these organizations.
- Consider establishing additional funding options to support food rescue organizations.

Theme 4: Supply chain and transportation logistics pose significant challenges

Supply chain and transportation logistics continue to pose a significant challenge to ensuring the safety and quality of rescued food

Working through the many moving pieces and players of the food rescue system can be daunting and frustrating. Barriers and challenges in the logistics needed to support food rescue can make the exercise not worth it.

Food security organizations

The transportation and logistics required to adequately support food rescue was a significant challenge for most of the food security organizations – 75% of the organizations engaged in Phase 2 highlighted this as a challenge. In the initial survey,



participants identified a lack of sufficient vehicles to rescue food and deliver food/meals as a barrier to increasing the amount of food rescued and distributed. Deliveries arriving as planned and containing the expected quantity and quality of food significantly enable organizations to continue building trust with community members and donor organizations alike. But this also poses logistical challenges, especially with large donations. Large donations require significant amounts of storage and many volunteers to sort, store, and distribute the food. In fact, the top barrier identified in the survey was lack of space to store rescued food. Organizations said they lacked refrigeration, freezer, and shelf stable spaces, and generally didn't have enough space in their buildings. Lack of spaces becomes especially problematic when donor organizations focus on the quantity of food delivered without accounting for the food security organization's capacity to store the food.

Food donor organizations

The logistics of food rescue was a topic of concern expressed by 64% of donor organizations. Having consistent, ongoing communication and understanding of expectations for picking up rescued food when working with food security organizations helped enable participation in food rescue. This helped ensure that the quality and safety of the food was maintained, that storage for donor organizations was freed up, and that staff were prepared to transfer food to the food security organization.

When clear communication and expectations were not maintained, donor organizations expressed frustration with perceived lack of professionalism with food security organizations staff or volunteers. Additionally, this also resulted in food that could have been rescued going to waste because the safety and quality of the food could no longer be ensured. After this happened, some donor organizations shared that they would shift their relationship and their food to a different organization that was able to support this.

Additionally, food waste and safety in the current system was a concern for many donor organizations. When concerns about food safety by partners was raised, some donor organizations also voiced concern that unsafe food would still be used and that would reflect poorly on their organization. However, there are important nuances in donor organization experiences. Some donor organizations, especially those that prepare meals, did not have enough excess food to justify donating consistently. For farmers, the ability to transport their crops from their fields was a key barrier. When they are unable to transport their crops or do not have sufficient labor, rescuable food is often left in the field.

Aligning strategies

- Explore the feasibility of centralized or neighborhood-based food storage hubs to facilitate quick transfer of perishable foods in coordination with food rescue organizations through private/public partnerships.
- Explore strategies for identifying how much food is wasted and how food is wasted across the food rescue stream.
- Continue to update, improve, and expand usability of the Public Health food security organization map, raise awareness about the map, and share the resource with stakeholder groups

Theme 5: Experiences of community members underscore need for innovation

The experiences of community members underscore the need for innovation across the food rescue ecosystem

Although the complexity of participating in food rescue was challenging for all stakeholder groups, community members experienced nuanced challenges and experiences getting their needs met.

Community members

Accessibility factors, such as transportation and wait times, impact experiences and food items chosen

Accessibility was a central concern expressed by community members when discussing their experiences with food security services.



Of the insights analyzed from community members, 20% (112 total comments) focused on the impact of accessibility factors. In the initial survey, transportation was the number one barrier for clients accessing food from organizations. Individuals with access to a car can choose the location that best meets their needs. They can also take larger quantities, heavier items, and may be able to make more frequent trips. People who take the bus, bike, or walk often alter the types and quantities of foods they get depending on what they can transport home. Some individuals appreciate when food security organizations can deliver their food, as this removes the need for their own transportation entirely.

Additionally, multiple participants indicated that they spent significant time waiting to access the food they need. Some participants shared they waited up to two hours to access food and experienced these conditions in unsafe weather conditions. Long wait time especially impacted parents with children, caregivers, seniors and elders, and those with physical mobility challenges. Limited hours of operation also negatively impact residents' experiences.

Limitations on frequency of visits and food quantity hinders access to fresh, healthy foods Of the quotes analyzed, 11% (64 total comments) indicated that limits on frequency of visits and/or quantity of food that can be taken have a negative impact on community member experiences. Individuals have different needs for the types and amount of food and frequency of visits. Food security organizations often limit the number of visits an individual or family can make per month and the number of items people can take. For those who prefer fresh foods, it is hard to only visit a food shelf once a month. This has a deeper impact on certain groups of individuals, such as those with dietary restrictions driven by health needs like diabetes.

Experience with technology to identify and access food security services was varied

Digital literacy and accessibility have compounding effects. Some community members shared that they felt isolated when food security organizations rely on online presences such as social media and websites to share food security services and information. Others said the shift towards technology during COVID-19 presented additional barriers and challenges. Preferred communication channels vary greatly, especially among different cultural groups. For those that are able to use technology to find food security resources, Facebook was the most popular method for getting information regarding food shelves and pop-up locations. People also rely on word of mouth, especially if technology is a challenge to finding food security resources.

In-person shoppers prefer self-selecting items like the grocery store experience

Locations where individuals can select the items themselves are very popular and preferred by many community members. Although some community members greatly appreciate the simplicity of delivery or pickup of pre-packaged boxes of food, others strongly prefer an in-person experience with the option to self-select items. This option to self-select gives community members more control over the specific items they get and allows them to better meet their family's needs.

Aligning strategies

- Explore strategies that address transportation and access barriers for community members experiencing food insecurity, such as ride sharing, food delivery, and pop-up and mobile food shelves through private/public partnerships.
- Disseminate the feedback collected through this project from residents on their customer service experiences at food shelves to food rescue organizations to increase awareness of the negative experiences for some residents.
- Gather feedback from residents accessing donated food on an ongoing basis and share the feedback with food rescue organizations.

Theme 6: Adequate finances and appropriate donations are key

Adequate finances and appropriate donations are key to the ability to participate in food rescue and meet community members' needs.

Funding and food availability drive the decisions made by food security and donor organizations. Both determine what organizations can and cannot do and the level in which they choose to participate in food rescue.

Food security organizations

For most food security organizations (92%), the central goal of their efforts and operations is providing consistent, adequate donations aligned to the needs of their community. Many organizations prioritize offering culturally



appropriate food for their communities. Donations do not always align with what is healthy for different cultural groups, what people with dietary restrictions need, and/or foods that community members want, need, and are excited about in their diet. To mitigate the gap when donated foods do not align with community needs, food security organizations will seek alternative sources and typically purchase the items. Receiving funding to purchase foods or being connected with organizations that can donate food that aligns with community cultural and dietary needs can help address this challenge.

Several organizations highlighted that a lot of the food they receive in large quantities, especially fruits and vegetables, end up spoiling and need to be disposed of at the cost of the food security organizations. Additionally, food security organizations said that a general lack of funding hinders their ability to rescue more food, grow their organizations, and increase their hours and services.

From the perspective of food security organizations, a need identified in the survey was to increase education and awareness to donor organizations of what can or should and should not be donated, what food needs exist for food security organizations, limitations around "best-by/sell-by" dates, and the labor and financial resources needed for food security organization to properly dispose of food packaging.

Food donor organizations

All of the donor organizations underscored that participating in food rescue has a financial impact on their organization. For many, the cost of food is increasing along with the cost of packaging, especially for environmentally sound packaging. For nonprofit donor organizations, consistent funding is crucial to their ability to support food rescue efforts.

Community members

Community members value fresh, healthy foods that meet the dietary needs of their families. Almost half of the comments from community members focused on their desire for more healthy and/or fresh foods. Food choice plays a large role in which locations individuals visit. In the survey, the second largest barrier for clients accessing food from food security organizations is a lack of foods that meet specific cultural and dietary needs. The top requested foods are frozen meat, culturally specific meat, fresh prepared meals, and fresh fruits and vegetables.

Although individuals highly value fresh, quality foods, they expressed concerns with food safety since those foods tend to have a short shelf life and, in some cases, are already past their expiration date or have visible mold. Related to fresh foods, people expressed a strong desire for meat options, additional fresh produce, and culturally specific foods. Individuals prioritize locations that provide culturally appropriate items.

Aligning strategies

• Train county inspectors from Environmental Health and Waste Reduction and Recycling to educate food establishments and distributors on food waste prevention, focusing on food safety and preventing overproduction of foods least preferred by food rescue organizations.

Theme 7: Recent creative adaptions identified promising strategies

Creative adaptations made in response to the COVID-19 pandemic and 2020 social uprising identified promising strategies to improve food rescue efforts

Creative adaptations were implemented by organizations to meet community member and customer needs. Some of these adaptations are ongoing, though many were spurred by public health needs during the COVID-19 pandemic as well as the uprising after George Floyd's murder.

Food security organizations

All of the food security organizations we talked to shared that they have explored and implemented multiple, creative ways to



connect with the community members they serve. Food distribution styles evolved to meet the needs of clients and societal expectations during the COVID-19 pandemic, including by using food shelves, home delivery, and mobile food shelves to distribute food.

Ongoing creative practices include shifting to outdoor markets during the summer, purchasing culturally significant foods to fill in gaps from donations, and offering opportunities for community members to request certain foods. Several organizations also offer delivery options for community members who are unable to transport themselves.

Another ongoing practice for some organizations is partnering with other food security organizations and/or pairing services with non-food-related organizations. For example, some food security organizations communicate with others to share excess items from deliveries or events. They typically connect with nearby organizations who may or may not offer food access services. One organization shares a building with an organization that helps connect people with housing, employment assistance, and various government assistance programs. Through their partnerships, these two organizations are efficiently able to connect community members with the assistance available from both organizations.

New or expanded adaptations were needed during COVID-19 lockdowns. During this time, partnerships were significant, especially as some organizations had to close their operations due to lack of adequate volunteers or space to safely socially distance. Partnerships with health-related organizations became more common during and after lockdowns. Some organizations partnered with state and local health departments, healthcare providers, and community centers to pair food access services with COVID-19

vaccination or testing events. Additionally, many organizations shifted to curbside pickup and/or delivery options. This was necessary for the safety of their volunteers and community members and/or due to the significantly decreased number of volunteers. COVID-19-related funding was used in a variety of ways, including to purchase delivery and pickup vans.

Food donor organizations

Throughout the pandemic and the uprising after George Floyd's murder, donor organizations creatively pivoted to continue supporting food rescue and access. New strategies have been implemented by 57% of organizations since the beginning of the impacts of COVID-19 in Minnesota. Beyond supplying the food rescue system with food, additional actions organizations took included offering a micro-funding program to support programs and initiatives that provide rescued food directly to community members through food pick up and meal/CSA boxes, initiating a buy-back program with farmers to source food for community members, ensuring safety from COVID-19 in their operations, such as shifting market operations to outdoors, and supporting the development and creation of the Minnesota Central Kitchen Project.

Aligning strategies

- Establish a council of food rescue organizations to explore partnership opportunities, identify service gaps and needs, review and deploy innovative solutions and best practices, and close the gaps in access to food for residents facing food insecurity. *Note, this strategy is listed in both themes 2 and 7.*
- Explore and advocate for policy solutions to encourage participation in food rescue efforts by donor and food rescue organizations.

Appendix A: Project structure and budget

Project structure

An intentional structure was needed for this project given the potential for impact with external and internal stakeholders. This project structure consisted of:

- A core project team tasked with implementing key methods and strategies for engagement.
- An advising team to share insights and feedback about strategic directions.
- Client team to guide and sponsor the project.



Budget

Project budget		
Budget item	Anticipated budget	Final budget
Fellowship support (\$25 per hour, 20 hours a week, 50 weeks)	\$18,000	\$28,229
Contracts with nonprofits (\$10,000 to \$10,500 per organizations, 3 organizations)	\$30,000	\$31,500
End user compensation (up to 120 end users, \$100 per person)	\$12,000	\$0
Engagement with food rescue organizations	\$1,500	\$0
Engagement with trade/affinity groups (\$25 per person, 40 people)	\$1,000	\$0
Interpreter services (Spanish, Hmong, Somali, ASL)	\$10,000	\$0
Internal consultants (in-kind, \$75 per hour)	\$57,750	\$62,250
Total	\$131,750	\$121,979
Total (with in-kind excluded)	\$74,000	\$56,729

Budget explanation

The budget was developed with a focus on meeting the key objectives and goals of the project, supporting engagement with stakeholder groups, and analyzing key findings.

- Fellowship support: A fellow was hired because of the large scale of this project and engagement necessary to understand gaps and opportunities with stakeholder groups. The fellow, Clare Riley, supported the design and implementation of engagement efforts and analysis of key findings from the engagement. Due to changes in the timeline of the project, the fellow's term of employment was extended.
- Contracts with nonprofits: To connect with community members who have experienced food insecurity, it was essential to work with trusted partners and service providers that have meaningful relationships with those community members. Organizations leveraged internal resources to support language interpretation, and county staff in Strategic Planning led the transcription efforts from these engagements, including transcribing focus groups and interviews.
- Engagement with food rescue organizations and trade/affinity groups: To follow safety precautions related to the COVID-19 pandemic, in-person engagement in group settings was not feasible. Instead, these organizations and groups were engaged individually through interviews conducted by the Strategic Planning team with organizational representatives.

Appendix B: Phase 1 survey questions

Phase 1 survey with food security organizations

Thank you for taking part in this food rescue informational survey. Hennepin County is conducting this survey to get a better idea of the gaps, needs and makeup of the current food rescue system. Sixty-three million tons of food are wasted in the United States each year, representing around 15% of the total waste generated. Of that waste, two-thirds is potentially edible if saved in time. Rescuing food that would otherwise go to waste and diverting it to feed people fills a critical need in addressing hunger while also reducing waste.

Below are a few definitions that will help with your completion of the survey:

- **Rescued food:** Edible food that would otherwise go to waste from places such as restaurants, grocery stores, produce markets, schools, event centers or dining facilities.
- **Mode of delivery:** The way(s) in which you distribute food to your clients, for example: food shelf, prepared foods, mobile food banks, delivery, sit-down meals, etc.

This survey is expected to take at least 7-10 minutes to complete. Please complete the survey by November 12th. If you have questions, please email Allyson Sellwood at allyson.sellwood@hennepin.us.

Does your organization currently receive rescued food?

- No
- Yes

If your organization receives rescued food, what kinds do you receive? Please check all that apply.

	Fresh	Frozen	Canned/dried/ shelf stable	Culturally relevant/ ethnically specific
Dairy				
Meat/poultry				
Fruits/ vegetables				
Prepared meals				
Bakery				
Baking (flour, sugar, etc.)				
Herbs, spices, oils				
Packaged snacks				
Other				

How does your organization measure the amount of rescued food received? Please select all that apply.

- Pounds
- Container types (such as pallets, boxes, Gaylords)
- We use another method. Please share more below:
- We don't measure the amount of rescued food received

What is the annual quantity of rescued food your organization received? (NOTE: Carried forward choices from previous answer)

- Pounds _____

- We don't measure the amount of rescued food received

If your organization receives rescued food, where do you receive the majority of your food? Please select your top four donors.

- Grocery store
- Faith-based organization
- K-12 school
- Colleges and universities
- Retail store
- Restaurant or food service
- Out-of-state wholesale food distributor (such as Sysco)
- Local wholesale food distributor (such as Bix)
- Food bank (such as Second Harvest Heartland)
- Entertainment venue
- Convenience store
- Corporate cafeteria
- Other. Please specify below. ______

The next questions will focus on understanding the demographics of the people and communities your organization serves. If you do not have that data, please estimate based on your organization's understanding of your communities.

Does your organization collect demographic information from your clients?

- No
- Yes

What cultural communities does your organization primarily serve? Please select up to five communities.

- African American / Black
- Cambodian
- Chinese
- Cuban
- Ecuadorian
- Ethiopian
- Filipino
- Guatemalan
- Hmong
- Indian
- Japanese
- Kenyan
- Korean
- Lao (non-Hmong)
- Liberian
- Mexican
- Native American
- Nigerian
- Puerto Rican
- Salvadoran
- Somali
- Thai
- Vietnamese
- White, non-Hispanic
- Other: _____

Does your organization serve other specific groups or populations? Examples include, but are not limited to, people experiencing homelessness, women with children, immigrants and refugees, seniors, and/or LGBTQ community members.

- No
- Yes

(If yes was selected) What other specific groups or populations does your organization serve?

What are the primary languages spoken by your organization's clients? Check all that apply.

- American Sign Language (ASL)
- Chinese
- English
- French
- Hmong
- Lao
- Oromo
- Russian
- Somali
- Spanish
- Swahili
- Thai
- Vietnamese
- Other: _____

In what city or cities do your clients primarily live?

- Bloomington
- Brooklyn Center
- Brooklyn Park
- Champlin
- Chanhassen
- Corcoran
- Crystal
- Dayton
- Deephaven
- Eden Prairie
- Edina
- Excelsior
- Golden Valley
- Greenfield
- Greenwood
- Hanover
- Hopkins
- Independence
- Long Lake
- Loretto
- Maple Grove
- Maple Plain
- Medicine Lake
- Medina

- Minneapolis
- Minnetonka
- Minnetonka Beach
- Minnetrista
- Mound
- New Hope
- Orono
- Osseo
- Plymouth
- Richfield
- Robbinsdale
- Rockford
- Rogers
- St. Anthony
- St. Bonifacius
- St. Louis Park
- Shorewood
- Spring Park
- Tonka Bay
- Wayzata
- Woodland

How does your organization define a client?

- Individual
- Family
- Other definition. Please specify below. ______

The next questions focus on your organization's service delivery to your clients, as well as logistics of that service delivery.

Approximately, how many clients does your organization serve monthly?

How does your organization distribute food to your clients? Please select all that apply.

- Food shelf
- Mobile food shelf
- Meals delivered
- Food delivered

- Sit-down meals
- Curbside pre-ordered food
- Curbside packaged meals
- Other: _____

The next questions focus on gaps in the food security landscape, as well as challenges accessing food.

Does your organization receive requests from clients for foods that aren't currently available?

- No
- Yes

(If yes was selected) Which foods are requested? Please select all that apply.

	Fresh	Frozen	Canned/dried/ shelf stable	Culturally relevant/ ethnically specific
Dairy				
Meat/poultry				
Fruits/ vegetables				
Prepared meals				
Bakery				
Baking (flour, sugar, etc.)				
Herbs, spices, oils				
Packaged snacks				
Other				

What barriers do clients face getting food from your organization? Please select all that apply.

- Stigma accessing services
- Transportation
- Cultural/dietary needs
- Unfamiliarity with available foods
- Inability to cook foods
- Concerns with spoilage
- Not being able to get food often enough
- Other _____
What are your organization's biggest challenge areas?

- Lack of adequate dry/shelf stable space
- Lack of adequate refrigeration space
- Lack of adequate freezer space
- Insufficient vehicles to deliver food or meals
- Insufficient hours of operation
- Other _____

What does your organization do with unused food? Please mark all that apply.

	Donate elsewhere	Offer increased amounts to clients	Reuse	Throw away	Compost	Other method
Excess food						
Food unclaimed by clients but still edible						
Food that is spoiled						

If you selected "Other method", please share more details below:

Which donors/sectors/businesses would your organization like to receive food from that are not already donating?

Is there anything else you would like to add about your experiences with food rescue?

Appendix C: Food rescue survey results

Environment and Energy and Public Health sponsored a project to understand how the county can expand and enhance its role in food rescue in Hennepin County to prevent food waste and its impact on communities. A food rescue survey that was completed by 21 food security organizations provided important insights into the food rescue ecosystem as well as a sampling of the needs of end users (clients) and food security organizations. This informational sheet highlights the findings from the survey.

37 cities served

32,441 individuals served monthly

6,087,895 pounds rescued annually

Minneapolis and Brooklyn Center top cities served

Key takeaways

- 20 of the 21 organizations currently participate in food rescue. The top four foods rescued are fresh dairy (71%), fresh bakery (71%), fresh fruits/vegetables (67%), and frozen meat/poultry (57%). Alternatively, the top requested foods are frozen meat/poultry, culturally specific meat/poultry, fresh prepared meals, and fresh fruits/vegetables.
- The top three sources for rescued food are grocery stores, food banks, and retail stores. Organizations expressed a desire to see more donor participation from corporate businesses (Target, Costco, etc.), small local grocery stores (both culturally specific and non-culturally specific), and farm direct products.
- Food distribution styles have evolved to meet the needs of clients and societal expectations during a public health emergency. Food shelves, home delivery, and mobile food shelves are the most widely used distribution methods.

Populations served

Not all organizations collect demographic information from clients. For those organizations that do, the top three cultural communities served are African American/Black, White non-Hispanic, and Mexican. The top three languages correlate seeing English, Spanish, and Somali served the most.

When asked what other specific groups or populations are served by the organizations, many highlighted people experiencing homelessness, immigrants/refugees, seniors, and women with children.

Several organizations specifically provide food delivery services to seniors and individuals who are suffering from sickness or those who have mobility challenges.

Challenges, barriers, and gaps



Food security organizations are experiencing similar challenges, the top being a lack of space. Specifically, organizations highlighted a lack of refrigeration, freezer, and shelf stable spaces, but they also noted a general lack of space in their buildings, which could contribute to the limited storage spaces.



Several organizations highlighted a similar challenge in that while they receive a large quantity of rescued food, a lot of those foods, especially fruits and vegetables, are spoiled and need to be disposed of at the cost of the food security organizations. This is a major frustration for these organizations since it requires staff time and a financial cost for disposal. Many organizations do currently compost spoiled foods and/or participate in programs that provide the food to farms for livestock feed but are still left with separating and disposing of the food packaging.

The second largest barrier for clients accessing food from food security organizations is a lack of foods that meet specific cultural and dietary needs.



A lack of sufficient vehicles to rescue food and deliver food/meals was identified as another barrier to increasing the amount of food rescued and distributed. Additionally, transportation was identified as the number one barrier for clients accessing food from the organizations.



A general lack of funding was identified that hinders food rescue, organization growth, increased hours, and increased services.



For businesses that participate or do not participate in food rescue donation, there is a need to increase education/awareness of what can or should/should not be donated, what food needs exist for food security organizations, limitations around "best by/sell by" dates, and the staffing impacts of donated food packaging on food security organizations.

Appendix D: Food security and rescue organization interview questions

Food security and rescue organization interview

- How does your organization participate in food rescue? (Follow-up: What role(s) does your organization play in the food rescue landscape? What food-rescue related programs does your organization offer, if any?)
- What organizations or businesses do you receive rescued food from? (Follow-up: What is the process by which you receive rescued food from them? How is it determined what rescued food you receive from them?)
- Tell me more about the history of your relationship with these organizations. How did those
 relationships develop? How did your organization come to receive food from these food donor
 organizations? How does that typically come about? How are the specifics of the food
 donations determined? Do you receive any food that you aren't able to use? What happens
 with food that you aren't able to use? (Interviewer note: keep an eye out for food type,
 quantity/amount, when, how, frequency, from which locations, etc.)
- Tell me about your relationships with other food security and rescue organizations. Do you receive any food from these organizations?
- A few months ago, we sent a survey about food rescue to a small sample of food security organizations. (Interviewer note: Their organization may have been one – acknowledge if so) These organizations shared a wide variety of challenges they experience in food rescue – from the logistics of storing rescued food to the quality of the food received. What challenges does your organization experience in participating in food rescue efforts? Which challenges are the most significant?
- What are some of the benefits of participating in food rescue?
- Thinking about the communities and people your organization serves. Does participating in food rescue help your organization help meet the needs of the residents you serve? (Interviewer note: How so or why not?) Do you need additional help/resources that food rescue does not meet? (what are those?)
- COVID-19 has had severe and far-reaching impacts including restricting access to food and on the health and safety of employees and community members. How has COVID-19 impacted your organization and your role in food rescue over the last two (plus) years? How has that impacted your ability to serve the communities you serve?
- How has your organization adapted to the impacts of COVID-19?
- There's a lot happening in the food rescue landscape. From climate change to inflation to supply chain issues, there are a lot of factors putting pressure on the availability of food locally and nationally. What pressures are impacting your organization? (Follow-up: What are some of the ways those pressures have impacted your organization? What trends in the food rescue landscape do you see coming?)

- What could Hennepin County do to support your work in food rescue? (Interviewer note: If asked, some of the ways the county supports food rescue efforts are through education, resources, and funding)
- Is there anything else we should know about your experience with food rescue that we didn't specifically ask about?

Appendix E: Donor organization interview questions

Donor organizations that currently participate in food rescue interview

- Does your organization currently participate in food rescue? Do you donate excess food?
- I'm excited to learn more about you and your organization's experience participating in food donation. Tell me more - how does your organization participate in food rescue and donation? How do you decide what food will be donated? (Follow up: How did your organization begin to participate in food rescue?) (Interviewer note: keep an eye out for origin or other businesses involved, types of food collected)
- What organizations or businesses do you donate rescued food to and what does that process look like? (Follow up: What specific sites do you donate to? What mechanisms do you use to get it to them?)
- Tell me more about the history of your relationship with those organizations. How did those relationships develop? (Follow ups: Did you reach out to them? Did they get in contact with you? How did you decide which organizations to work with?)
- To what degree do you coordinate with other organizations regarding decisions about donations, food you have available to donate, and food they need? (Interviewer note: types of food? Different locations/organizations based on type of food?)
- What do you do with excess food that they cannot receive?
- Donor organizations are critical stakeholders in the food rescue ecosystem, and there are many reasons why organizations participate from sharing with their communities to receiving incentives for participation. What are some major motivations that inspire or reasons why your organization donates food? (Potential follow up: What are some of the benefits of participating in food rescue and donation?)
- A few months ago, we sent out a survey to a small sample of food security organizations. These
 organizations shared a wide variety of challenges they experience in food rescue from the
 logistics of storing rescued food to the quality of the food received. What are some of the
 challenges your organization has experienced participating in food donation efforts? Which
 challenges are the most significant?
- (AS NEEDED) COVID-19 has had severe and far-reaching impacts including restricting access to food and on the health and safety of employees and community members. How has COVID-19 impacted your organization role in food rescue over the last two (plus) years?
- How has your organization adapted to the impacts of COVID-19?
- There's a lot happening in the food rescue landscape. From climate change to inflation to supply chain issues, there are a lot of factors putting pressure on the availability of food locally and nationally. What pressures are impacting your organization? (Follow-up: What are some of the ways those pressures have impacted your organization? What trends in the food rescue landscape do you see coming?)

- What could Hennepin County do to support your work in food donation? (Interviewer note: If asked, some of the ways the county supports food rescue efforts are generally through education, resources, and funding)
- Is there anything else we should know about your experience with food rescue and donation that we didn't specifically ask about?

Donor organizations that do not participate in food rescue interview

- Does your organization currently participate in food rescue? Do you donate excess food?
- I'm excited to learn more about your organization and your potential role in food rescue and donation. Tell me more – what does your organization currently do with excess food? (Follow up:) (Interviewer note: any previous attempts at participating, types of food available to donate)
- There are many reasons organizations are unable or hesitant to rescue and donate food, from legal concerns to logistical hold ups to a desire for more information about the process. What are some major hesitancies or issues your organization has with rescuing and donating food?
- Considering your concerns with (previous response), are you interested in information regarding (concern)? (If Yes) there are
 - Educational opportunities like _____
 - The Good Samaritan Law, which removes liability from food donors ____
 - Existing network and potential for connections (if they are unsure where to bring food if they did collect it)
- What information would you and your organization need to make a decision on whether you'd like to participate in food rescue?
- (If interested in participating) What could Hennepin County do to support your beginning to participate in food donation? (Interviewer note: If asked, some of the ways the county supports food rescue efforts are generally through education, resources, and funding) (Mention phase 3)
- Understanding that you don't currently participate in food rescue or donation, there are a lot of
 emerging trends in the food rescue landscape. From climate change to inflation to supply chain
 issues, there are a lot of factors putting pressure on the availability of food locally and
 nationally. What trends do you see that may impact the availability of excess donatable food?
 What pressures are impacting your organization? (Follow-up: What are some of the ways those
 pressures have impacted your organization? What trends do you see coming that may impact
 your ability to participate in food donation?) Do you see these pressures encouraging or
 discouraging your organization's ability or willingness to participate in food rescue and
 donation?
- Is there anything else we should know about your perspective about participating in food rescue and donation that we didn't specifically ask about?

Appendix F: Community members experiencing food insecurity data collection

Interview and focus group questions

- For focus groups: We want to get to know you all a little more before diving into the main questions! To open us up, let's go around and share: What was your favorite food growing up? (Note: the goal of this question is for the participants to introduce themselves and get comfortable with each other. Other examples: What is something you ate with your family growing up? What is your favorite summertime food?)
- We want to hear about your experience getting food through a non-profit, like our organization or other organizations like us. Can you walk me through what that looks like for you, from the point you decide to get food from one of these organizations to when you get home with the food?

Follow-up: How do you decide where to go? How do you get there? When non-profits allow you to choose your foods, what are the biggest factors that go into what food you select?

- Tell me about a time it was really hard to get your needs met while getting food from nonprofit, like a food shelf. What were some of the things that made it hard?
 Follow-up: What did you have to do to get your needs met? What could organizations do to make it easier?
- We have heard of some common barriers people have to navigate when going to non-profits. They include, but are not limited to, transportation to or from the nonprofit, non-profits hours of operation, limits on how frequently people can access food, language barriers, feelings of judgement or embarrassment, safety of the non-profit (inclusivity, respect from staff), and there are more. Have you experienced these or other barriers? [*Interviewer note:* focus on the food security landscape overall and not specific orgs/sites/locations]? Follow-up: What ideas do you have for how non-profits could remove those barriers?
- Do non-profits provide the kind of food you want or need (ex. Fresh vegetables, meat and other proteins, etc.)? What foods would you like to see non-profits provide more of (ex. foods specific to your culture or diet)? Follow-up: If or when food you want isn't available at a non-profit what do you do? What foods do you want less of?
- Over the last two years, there have been a lot of changes in how non-profits distribute food. What did you like? What didn't you like? What would you change about how non-profits provide the food you need and/or want? (ex. More space, more food variety, food delivery, ability to choose your own food, etc.)? [*Interviewer note*: focus on the food security landscape overall and not specific orgs/sites/locations]?

Demographic survey questions

The information from this survey will be used to help understand nutritional informational/educational needs and ensure we are engaging with and hearing from community members who reflect the diverse communities in Hennepin County. Responses are optional, confidential, and will only be used for the purposes stated above.

- Over the last six months how many times have you visited a food shelf?
 - 0 _____
 - I prefer not to say
- Of the times you've visited, how many times were you able to get healthy, nutritious foods at the food shelf(s) you visited?
 - 0

• Prefer not to say

- Would you be interested in learning more about nutrition and health? If so, how would you prefer to receive that information?
 - Written copy
 - Verbally from food shelf staff
 - From a website
 - Other: ____
 - I am not interested in learning more about nutrition and/or health
 - Prefer not to say
- In what city do you primarily live?
 - o ____
 - I prefer not to say
- How old are you?
 - o _____ years
 - Prefer not to say
- Do you have caregiving responsibilities at home (such as caring for a child, elder, or other loved one)?
 - o Yes
 - o No
 - Prefer not to say
 - What are the primary languages spoken in your home?
 - 0 _____
 - I prefer not to say
- What is your gender identity? Please select all that apply.
 - o Woman
 - o Man
 - Nonbinary/gender non-conforming/two-spirit
 - I prefer to self-describe: ______
 - Prefer not to say

- Do you identify as transgender?
 - o Yes
 - o No
 - Prefer not to say
- What is your sexual orientation? Please select all that apply.
 - o Straight
 - o Lesbian
 - o Gay
 - o Bisexual
 - o Pansexual
 - Another orientation not included (please share below): ______
 - Prefer not to say
- Do you identify with being Hispanic, Latino/Latinx, or of Spanish origin? Please select all that apply.
 - o No
 - Yes Please include ethnicities, nationalities, and/or cultural groups you identify with below (ex. Mexican, Chicano, Puerto Rican, Guatemalan, Ecuadorian, etc.)
 - Prefer not to say
- Which of the following do you consider yourself? Please select all that apply.
 - White Please include ethnicities, nationalities, and/or cultural groups you identify with below (ex. Irish, German, Norwegian, etc.):
 - Black Please include ethnicities, nationalities, and/or cultural groups you identify with below (ex. African American, Ethiopian, Somali, Liberian, Haitian, etc.):
 - Do you identify as a descendent of enslaved Africans in the U.S.?
 - Yes
 - No
 - Indigenous, First Nations, American Indian or Alaska Native Please include enrolled or principal tribe(s) below (ex. Red Lake Band of Chippewa, White Earth Nation, etc.):
 - Asian Please include ethnicities, nationalities, and/or cultural groups you identify with below (ex. Chinese, Filipino, Pakistani, Hmong, etc.):
 - Pacific Islander Please include ethnicities, nationalities, and/or cultural groups you identify with below (ex. Native Hawaiian, Samoan, Fijian, etc.):
 - Prefer to self-describe: ____
 - Prefer not to say
- Are you an immigrant or refugee? Please check all that apply.
 - Yes, an immigrant
 - Yes, a refugee
 - Neither an immigrant or refugee
 - Prefer not to say
- Do you experience challenges with mobility?
 - o Yes

0

- o No
- o I prefer not to say

- Are you currently experiencing homelessness, or have you recently experienced homelessness?
 - o Yes
 - o No
 - I prefer not to say

Appendix G: Stakeholder feedback session plan

Activity	Role	Time
 Welcome Icebreaker: Name; Organization; what is their favorite food?; What are you hoping to gain out of our time together today? Grounding agreements	Lead facilitator	15 min
Large group Present key findings and insights: • NRDC estimates • Stakeholder themes Share emerging strategies:	Lead facilitator	30 min
 Share emerging strategies from engagement What questions remain for you about this strategy (does it make sense, is it clear)? Audience survey: From your perspective, on a scale of 1-10, how impactful would the following be? 	Lead facilitator	10 min
 Small group Introductions: Name, organization (if affiliated), what strategy is standing out to you? (10 min; 10:55-11:05) Let's discuss the two overall strategies we've been assigned. (20 min;11:05-11:25) What positive impacts may result if this strategy moves forward? What negative unintended consequences may result? What would enable or position this strategy to most succeed? Let's talk about the targeted strategies. You all completed the survey earlier. These were the top 5 strategies identified by the group overall from the 2 overall strategies we have been given. (20 min; 11:25-11:45) Facilitator note: Emma will pull and enter in the chat the top 5 most impactful targeted strategies beneath the two assigned overall strategies; ask for feedback across the top 5 targeted strategies 	Small group facilitators	60 min

	0	Of the targeted strategies identified, which would have the greatest positive impact if implemented?		
	0	What negative unintended consequences may result if these strategies were implemented?		
	0	What needs to be considered for these strategies-individually or overall-to succeed?		
• You just learned about the strategies that emerged from our engagement. What other ideas do you have for how Hennepin County could have a positive impact in food rescue? (10 min; 11:45-11:55)				
Large group closeout		Lead	5 min	
•	Thank	you and next steps	facilitator	

Appendix H: Feedback session survey results

During the feedback sessions, participants were asked to rate the following strategies on a scale for how impactful they would be if implemented. Please note that these were initial strategies that emerged from engagement with the stakeholder groups. These were later refined by members of the team charged with this project.

From your perspective, on a scale of 1-10, how impactful would the following strategies be?

Strategy	Average rating
Increase funding for positions at food security organizations	8.5
Provide logistical and planning support for potential donors who have access to culturally appropriate foods to integrate food rescue into their operations	8.4
Support expanding the hours of operation for food security organizations to high traffic evening and weekend hours through funding	8.2
Incentivize waste reduction with donor organizations	8.0
Increase funding for food security organizations for different types of storage and transportation	8.0
Provide funding for food security organizations to cover the cost of culturally appropriate foods	8.0
Provide funding for food security organizations transition to "SuperShelf" style operations, that prioritize a welcoming environment for participants, and access to fresh, culturally appropriate foods	8.0
Work with food inspectors to identify opportunities for education on food waste and rescue at inspections	7.8
Increase funding for donor organizations, especially less-resourced organizations.	7.8
Provide support and resources to FSOs to develop individual relationships with donors, especially local and/or smaller scale donors	7.8
Provide funding for the cost of composting food for food rescue and security organizations	7.8
Provide educational materials and/or training for volunteers on customer service and cultural competency	7.7

Develop a way to track waste across the food rescue supply chain	7.7
Help stabilize the labor needed by food security organizations to participate in food rescue, such as developing a volunteer program to support the sorting of food in the food rescue stream	7.6
Provide educational materials for staff at the frontlines of food, such as more information about food rescue and information about best practices for food rescue	7.6
Participate in providing transportation for community members to access rescued food through delivery and/or ride sharing services	7.6
Provide funding specifically to help cover the cost of packaging materials for donor organizations	7.6
Provide resources (funding, labor) to support gleaning an farms	7.5
Raise awareness of the benefits and impacts of food rescue and providing support to integrate food rescue in their operations.	7.5
Increase funding for donors with access culturally appropriate foods, such as halal grocery stores	7.4
Incorporate a grant priority for "SuperShelf" style operations as a best practice requirement	7.0
Continue providing education and support to donor orgs, such as education about the Good Samaritan Law.	7.0
Explore options for a centralized rescued food hub to facilitate a quick transfer of perishable foods in coordination with food rescue organizations	6.9
Partner with human services to provide food pop-ups at county service centers	5.9

Contact information

Strategic Planning

Hennepin County Government Center, 300 South 6th St, Minneapolis, MN 55487

Environment and Energy

701 Fourth Avenue South, Suite 700, Minneapolis, MN 55415 environment@hennepin.us 612-348-3777

Public Health

Health Services Building, 525 Portland Avenue South, MC L963, Minneapolis, Minnesota 55415-1569 publichealth@hennepin.us 612-348-8900

