

Co-designing an impact evaluation tool for food hubs in the UK

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SPECIAL ISSUE
Community-Based
Circular Food Systems



Sponsored by
the Thomas A. Lyson Center
for Civic Agriculture
and Food Systems

Submitted May 10, 2024 / Revised July 4 and July 11, 2024 / Accepted July 11, 2024 /
Published online February 27, 2025

Citation: Bridge, G., Papargyropoulou, E., Woodcock, S., Strachan, E., Rowlands, J., & Boniface, E. (2025). Co-designing an impact evaluation tool for food hubs in the UK. *Journal of Agriculture, Food Systems, and Community Development*, 14(2), 45–77. <https://doi.org/10.5304/jafscd.2025.142.004>

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Abstract

In the UK, place-based food initiatives, herein “food hubs,” offer a range of economic, social, and/or environmental benefits via the programs, activities and support they offer. Examples of food hubs include food banks, food pantries, social supermarkets, community farms and gardens, and community cafes. Identifying, monitoring, and communicating the benefits of and areas of

improvement for food hubs are important in enabling these organizations to access funding, scale up and/or out, and support their ambitions to enhance community development and promote community-based circular food systems (C-B CFS). However, due to constraints in time, funding, and resources, evaluation of the work of food hubs across the UK is limited to date and does not capture the multidimensional benefits they provide or

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Declaration of Interest

The authors have no conflicts of interest to declare.

the impacts they have to achieve a C-B CFS. This paper presents the co-production and application of an impact evaluation tool aiming to support food hubs to capture evidence of the benefits they provide, and areas where additional benefits can be achieved across four domains: (a) sustainability and resilience; (b) health and wellbeing; (c) access and demand for healthy, local food; and (d) food security and economy. The tool, available freely online, was implemented at 10 diverse food hubs in Leeds, UK, to capture their activities and impact. Participating food hubs agreed that the tool offers a comprehensive yet practical method of evidencing the impact of their activities. The evidence captured using the tool could strengthen both individual PBFIs and the wider community food sector. By demonstrating their contributions to national and global priorities in health, food security, and sustainability, this evidence supports advocacy for greater policy recognition and funding. After assessing the implementation of the tool across multiple PBFIs, we found how structured impact monitoring could enhance operational resilience, inform strategic planning, and reinforce the case for systemic support of C-B CFS.

Keywords

food hubs, food banks, food security, circular economy, community development, sustainability, community-based circular food systems, impact analysis, evaluation

Background and Literature Review

Household food insecurity occurs when a household cannot access or is concerned that they may not be able to access, “an adequate quality or sufficient quantity of food in socially acceptable ways” (Dowler et al., 2001, p. 12). Globally, food insecurity has increased over recent years, with estimates indicating that 1.3 billion people were food insecure in 2022, representing an increase of 10% from 2021 (Zereyeus & Cardell, 2022). The issue of food insecurity is reflected at the national level in the UK, with 18% of households experiencing food insecurity, representing over 9 million adults, in January 2023 (Food Foundation, 2023). These increases in food insecurity are the result of a complex combination of factors, including climate

change, war, environmental degradation, pandemics, and inequality (Hadley et al., 2023; Zereyeus et al., 2023). Additionally, the cost-of-living crisis, which refers to the fall in disposable incomes seen since 2021 (Hourston, 2022), has further exacerbated food insecurity. According to the Office for National Statistics (ONS), in May 2023, 95% of adults in the UK reported an increase in their cost of living, with almost all adults (97%) reporting an increase in the cost of their food shopping, and almost half (46%) stating that they had actively reduced their spending on essentials such as food (ONS, 2023). Those that have been most affected by the cost-of-living crisis, and food insecurity, include vulnerable groups such as children, the elderly, those that are ethnically minoritized (Gov.UK, 2024), and people with disabilities (Ahsanuzzaman & Islam, 2020; Ajaero, 2017; Rodriguez-Llanes et al., 2016).

The current food system is not only failing to meet the needs of people, but it is also a significant contributor to climate change (Food and Agriculture Organization of the United Nations [FAO], 2023; Wood et al., 2023). Recent data indicate that the emissions produced by the food system, including how food is grown, sold, transported, and eaten, contributes to over 34% of total greenhouse gas (GHG) emissions annually (Crippa et al., 2021).

In response to increasing levels of food insecurity and the impact of the current food system on climate change, there have been calls for system-wide transformation to achieve a more resilient and sustainable food system. As summarized by Worstell and Green (2017), resilient food systems are connected but with independent entities, locally self-organized, and have robust physical infrastructure. Resilient food systems also exhibit responsive redundancy. This means that functions, roles, or resources within the system can be dynamically allocated or adjusted to changing needs. According to Worstell and Green (2017), resilient food systems also encourage innovation and learning, are ecologically self-regulated by working with nature and embracing changes to enable transformation. Community-based circular food systems (C-B CFS) can help to realize the ambition to achieve more resilient food systems. C-B CFS aim to bring local people together and encourage self-reliance to sup-

port health and resilience outcomes within the community (Worstell, 2020). C-B CFS focus on the whole food system, by working at the local level. They aim to minimize waste from food production and consumption, protect shared natural resources, and seek to promote community health and well-being (Alattar, 2021; Bonilla Cedrez et al., 2023).

Food hubs have surfaced to support households to access adequate food, support health and wellbeing, and promote the transition to more sustainable C-B CFS. Food hubs can be broadly categorized into two approaches: values-based agri-food supply chain management and sustainable food community development (Berti & Mulligan, 2016). The values-based supply chain model, often for-profit, aligns with the U.S. Department of Agriculture's (USDA) definition of a food hub as "a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand" (Barham et al., 2012, p. 4). In contrast, the sustainable community development model, typically non-profit, is defined as "networks and intersections of grassroots, community-based organizations that work together to build increasingly socially just, economically robust, and ecologically sound food systems that connect farmers with consumers as directly as possible" (Blay-Palmer et al., 2013, p. 524). Here, we define them as centralized facilities that coordinate the marketing, aggregation, and distribution of locally produced or grown food, typically with an ethical or moral motivation (Bloom & Hinrichs, 2011 ;). Food hubs in the UK are diverse in nature, objectives, populations served, primary motivations, sourcing methods, and distribution approaches (Berti & Mulligan, 2016; Blay-Palmer et al., 2016; Morley et al., 2008). Despite this variation, most prioritize social and ecological goals (Clark et al., 2019) and align with the sustainable community development approach, as defined by Blay-Palmer et al. (2013), forming networks of community-based actors and working together to build C-B CFS that are socially just, economically robust, and ecologically sound, connecting farmers and small producers with consumers as directly as possible. Many food hubs also strive to promote

the development or strengthening of local food systems, for example by developing networks or working in partnership with other organizations (Sonnino & Coulson, 2021). Some food hubs provide food free of charge or at a reduced cost to members of the public; examples include food banks, of which there are over 2,500 in the UK (Francis-Devine, 2024). Food banks are typically run by charities and aim to act as a temporary supply of emergency food, while also making the most of food and reducing food waste (Francis-Devine et al., 2023). Other food hubs, such as community cafes and community farms, provide cooked meals or food parcels, offer cooking lessons, financial or social advice, food growing sessions, and or vegetable boxes, all of which help to support their local communities to access the food they need. Food hubs also offer volunteering, employment, and educational opportunities, helping to support community development and resilience (Francis-Devine, 2024).

Thanks to the range of services and programs offered by food hubs, their communities and the broader food system benefit in a range of ways (Papargyropoulou et al., 2024). These benefits include reducing food waste (The Global Food Banking Network, 2020), increasing access to fresh and healthy food (Hume et al., 2022), reducing food insecurity (Walters et al., 2021), promoting ecological and social sustainability (De Boni et al., 2022), and supporting local economies (Bonfert, 2022). By sourcing and distributing food regionally and redistributing food surplus, food hubs can also promote C-B CFS and reduce the carbon footprint and transportation costs associated with conventional food supply chains. By providing educational opportunities for communities and consumers to learn about food production and health, as well as offering food growing sessions, food hubs can help community members to gain greater autonomy over their food choices and have better access to culturally acceptable foods (Diekmann et al., 2020).

Considering this range of activities and benefits and using the eight qualities of resilient food systems as outlined by Worstell and Green (2017), it is possible to see how food hubs in the UK can support the transition to C-B CFS. Food hubs promote connectivity in a variety of ways, for example,

by offering community meals and group activities. Most food hubs are also locally self-organized—being run by local people with a focus on supporting local communities. Food hubs can also support local economies by building local capital, for example by employing community members or providing volunteering opportunities (Merritt et al., 2024). Food hubs are diverse in their offer and perspectives. For example, some develop local infrastructure such as community farms or community spaces. Food hubs are also open to change and adapt when needed, and are even open to periodic transformation, whereby they try offering new activities or developing new programs.

However, while food hubs offer a range of benefits and may support C-B CFS ambitions, many food hubs in the UK, operating according to the community development approach, struggle with financial sustainability and operational efficiency (Neumann & Sharpe, 2023). Such challenges relate to most food hubs being charitable entities that rely on grant funding and/or donations (Goodwin, 2023). Many also rely on volunteer workforces. The reliance on volunteers impacts food hub sustainability because volunteers have varying levels of commitment and availability and can have high turnover rates, which are costly in terms of training and recruitment, and the continuity of programs (Handy & Mook, 2011).

Capturing evidence of the range of benefits that food hubs offer is important, as this evidence can help these organizations share ideas and learnings with other food hubs, as well as demonstrate their value to funders, policymakers, and other stakeholders (Nelson & Landman, 2020). In turn, this evidence could help food hubs to win funding and support, which is currently an ongoing challenge for food hubs of all sizes (Neumann & Sharpe, 2023; Rysin & Dunning, 2016). Moreover, the evidence captured could support food hubs to identify areas of weakness or opportunities for improvement. For example, the identification of more sustainable funding opportunities such as income generation via selling produce, or developing membership based social supermarkets, could help them to become more financially sustainable, and in turn continue supporting their communities and the wider food system.

However, for the evidence to be useful, it is important that food hubs capture a range of information thoroughly and regularly, considering both their strengths and weaknesses. This process should start before a program or service is offered by a food hub through the development and setting of clear objectives, outcomes, and goals, which can then be assessed, explored and captured. Then, as the food hub offers their services or programs, it is important to capture data so that objectives and goals can be monitored and assessed. Methods to capture data can include, but are not limited to, photos of the services offered, or the outputs produced, quantitative data about food parcels provided or amount of food waste saved, as well as interviews or quotes from service users or employees. It is important to include service users including young people, volunteers, and employees when collecting data, as they can provide information to determine how the activities delivered are experienced by those running the hub and by those receiving or attending the hub. The data can be captured during the program or service. This form of data collection is referred to as a “process evaluation” and can help to provide in-depth insights into mechanisms of action, contextual influences, and how the hub works in practice. Finally, additional data collection for the evaluation can be carried out at the end of the program or service, or after a predecided period, to consider the impact of the program or service. This evaluation process can help to determine whether the program has achieved its intended goals, the extent of the impact, and the overall effectiveness of the hub. By conducting these evaluations, food hubs can continuously improve and ensure that they are achieving their desired impact.

Food hubs are resource- and time-poor, which can limit their ability to collect evidence of their benefits regularly and thoroughly. This hampers their ability to capture the complex, multidimensional, context-specific benefits that many of these organizations strive to achieve so that they can meet current and future food and community development needs (Rysin & Dunning, 2016). To monitor and evaluate food hub activities in Ontario, Canada, Nelson and Landman (2020) conducted a participatory research project to

develop an evaluation resource. The authors worked with a range of food hubs focused on improving the locality of food, sustainable agriculture, achieving profit, and promoting social justice and community and civic engagement, to develop the tool that they wanted to help evaluate social and/or ecological impacts of the hubs. While this tool is useful, following conversations with UK-based food hubs, it was highlighted that they found it important to develop a tool that considered the specific needs and challenges of UK-based food hubs. They offered ideas for metrics to use to monitor impact, and highlighted that they needed a tool that they could use “in the field.” To develop a useful tool for UK-based food hubs, we conducted a collaborative project working with 30 food hubs across the city of Leeds, UK, who all contributed to the co-development, validation, and application of the tool. (See full details of participating food hubs in Appendix B.)

Materials and Methods

The aim of this study was to co-develop a tool that community development and sustainability-focused food hubs could use to capture, monitor, and communicate evidence of the range of benefits that they provide to the communities they serve and the broader food system, as well as identify areas of weakness in their work. The study focused on the city of Leeds, UK, as an example of a complex, socio-economically and culturally diverse urban food system of under one million population in the global north (Jensen & Orfila, 2021), with a diverse food hubs network (Food Aid Network [FAN], n.d.). These conditions allowed for access to potential participants, resources, and insights relevant across the UK, as well as enabled us to include food hubs providing a range of activities such as food growing, food redistribution, and financial support (see Appendix B, Table B1). This study was part of a larger research project, presented in detail in Papargyropoulou et al., (2024).

In the following sections we present the approach employed and the steps and methods involved in the development and application of the Food Hubs Impact Evaluation Tool. These include a literature review, a mapping exercise, a survey, 11 semi-structured interviews, four focus groups with

8 food hubs, and the application of the impact evaluation tool with 10 food hubs. Data was collected in five stages between February 2022 and June 2023.

The first stage involved a literature review to explore the range of benefits that food hubs provide to communities and wider food systems and how these benefits are currently monitored and/or evaluated. The next step was a mapping exercise to identify the range and number of food hubs present in Leeds. This was achieved by sourcing and collating information on food hubs listed in locally available records, such as on the Leeds Food Aid Network website (FAN, n.d.) and in the Leeds City council membership lists, and cross-checking with experts working in the food hub space in the city. In total, 58 food hubs were identified at the time of the study across the city of Leeds.

All food hubs in Leeds that were listed on the Food Aid Network and known to Leeds City Council were invited to take part in an online survey that was conducted in February and March 2022. The survey, which was shared via Twitter and email networks, sought to capture evidence of the services, motivations, impact, and aspirations for the future and support needed by the food hubs. (A survey template is provided in Appendix A.) In total, 37 participants started the survey, representing a mix of 27 food hubs across the city, offering a diverse array of services and support (Appendix B, Table B1).

Following the survey, food hubs that had given us permission to contact them for future involvement in the research were invited to take part in semi-structured interviews. The aim of these interviews was to co-develop a tool to evaluate the range of impacts of food hubs. Eleven interviews were conducted online via Microsoft Teams or Zoom platforms or face-to-face between March and April 2022 to gain more depth and context on the impact food hubs have on food security, sustainability, resilience, food justice, and healthy diets, and how this impact can be evaluated. (The semi-structured interviews template is provided in Appendix C.) The interviews lasted between 30 and 45 minutes and were audio recorded, transcribed, and thematically analyzed. The findings from the survey and the semi-structured interviews

were used to develop a draft impact evaluation tool that was suitable for food hubs in the UK context.

Four online focus groups were then conducted in May to June 2022 with food hub representatives. The aim of these focus groups was to test, validate, and refine the draft impact evaluation tool. Each focus group was 30 to 60 minutes long and comprised three to six participants and a facilitator. The focus groups involved first building a shared understanding of the challenge of conducting an evaluation with the food hubs. The participants were given prior access to the draft impact evaluation tool. During the focus groups, they provided feedback on the content, format, and user-friendliness, and made suggestions for improvement. The focus groups were audio recorded and transcribed to enable themes to be captured.

In the final phase of the project, the tool was put into practice in 10 diverse food hubs across Leeds (see Appendix B, Table B1). The aim of this phase of the work was to help the food hubs to identify the range of benefits that they provide and any areas of weakness or opportunities for change, and to explore the usefulness of the tool in practice and further refine it. First, we visited each of the food hubs, observed their work, and took notes about their services; the number of volunteers, staff, and members; food provision; and other services available. We used these data to support food hubs to complete the impact evaluation tool. To add to the tool, we conducted semi-structured interviews with a representative of the food hub. During these interviews, which were conducted online or in person, we captured any further insights about the impact of the food hub across the four categories and indicators identified in the tool, finalized the completion of the tool, and shared it with the food hubs for their records and to build on in the future.

The interactions and engagements throughout the implementation process enabled us to assess the feasibility of using the tool in a real-world setting. By co-developing the tool with food hubs, and involving food hubs directly in applying the

tool, we were able to capture valuable insights into its strengths and areas for refinement. The collaborative nature of the process also ensured that challenges encountered during implementation were addressed promptly, enhancing the tool's adaptability. The final impact evaluation tool was made available as an accessible and interactive online resource in two formats: an editable Excel spreadsheet and an editable PDF document.¹

Ethical Considerations and Co-development in the Methodological Approach

The study was conducted in accordance with the University of Leeds Research Ethics and Integrity Framework. In line with this framework, the identity of the research participants was kept anonymous and participant consent protocols were followed. All participants were given a project information sheet describing the project, explaining how data will be anonymized, stored, analyzed, and used, and asking them to provide consent before taking part in the survey, focus groups, and/or interviews. Participants were reminded that they were free to withdraw at any time during the study, up to the point of data analysis, and were free to ask any questions about the research.

The impact evaluation tool was co-produced with participating food hubs and in collaboration with FoodWise² and Leeds City Council's Public Health, Sustainability, and Financial Inclusion teams. FoodWise formed in 2017 as the city's food partnership to create a healthy, sustainable, and fair food system for everyone in Leeds. FoodWise consists of representatives from the third sector, academia, business, and the council. FoodWise and Leeds City Council co-developed the Leeds Food Strategy and will oversee its delivery.

Our approach to co-production of research was reflected in our commitment to diverse knowledge forms. We valued and incorporated the views of those who will use the tool and those who will be affected by it. We co-produced the impact evaluation tool with people working in and utilizing food hubs through engagement and participatory

¹ <https://environment.leeds.ac.uk/see-research-innovation/dir-record/research-projects/1854/food-hubs-for-food-security-health-inclusive-growth-and-sustainability>

² <https://foodwiseleeds.org/>

research. We were guided by the principles of the University of Leeds (UoL) Co-Production Network's Research Co-production Tool (Leeds Social Sciences Institute, 2022), and as such, considered the principles of equitability, inclusivity, mutual benefit, co-production, and a foundation of trust throughout the research. To align the research with the UoL Co-production Tool, we established equal partnerships, acknowledging shared values and actively addressed power imbalances, engaging stakeholders not merely as "participants" but as integral "collaborators" (i.e., equitability). From the project's inception, we collectively shaped the research agenda (i.e., co-production). We were inclusive in our approach throughout our process, whereby all stakeholders involved in the food hub, spanning third-sector, community development organizations, policymakers, and individuals with Lived Experience (LEX) (i.e., those with first-hand experience in living with or being affected by food insecurity, and using the services provided by food hubs) (O'Leary & Tsui, 2022), contributed their unique perspectives to the development of the tool and its application (i.e., inclusivity). The research process and outputs were mutually beneficial by ensuring that each stakeholder derived value, tailored to their needs and values, surpassing traditional research outputs (i.e., mutual benefit). Finally, all our interactions were underpinned by transparency, open-mindedness about roles and expectations, and trust through continuous dialogue (i.e., foundations of trust).

Results

The tool was co-developed with food hubs and other relevant food actors through an iterative process, as described in the methods section above. This results section presents the tool and key insights from the development and application process. The full tool is included in Appendix D.

The Food Hubs Impact Evaluation Tool

The impact evaluation tool begins with background information about its purpose and provides step-by-step instructions on how it can be used. It lists several possible activities food hubs can be involved in, such as supplying emergency food parcels, providing cooked meals, operating a food

pantry or social supermarket, growing food, and offering community group activities such as gardening or exercise classes. The tool asks food hubs to evaluate the impact of these activities, while considering that activities can contribute to multiple impacts and can therefore be mentioned several times. For example, providing cooking classes could improve the health *and* food security of community members.

The tool is then organized into four sections, grouping the impacts food hubs have in terms of (a) sustainability and resilience; (b) health and well-being; (c) access and demand for healthy, local food; and (d) food security and economy. Each section is presented as a table comprising five columns (Figure 1). The first column lists possible "impacts," which refer to the outcomes that the food hub aims to achieve. The second column asks food hubs to record the "frequency," which relates to how regularly the impact is expected. The third column, "indicators," refers to the metrics used to measure the effect of the outcome, such as volume or number of people. The fourth column asks food hubs to provide "evidence," that is, the information collected to demonstrate the effect of the outcome. Finally, the "comments" column provides space for food hubs to reflect on and note suggestions on how they could progress their work or increase the impact they are achieving. An example is provided to show how the tool can be filled in, and prompts are provided throughout the tool guiding the food hubs through the evaluation process. The tool provides additional rows so that food hubs can add additional impacts and indicators that are relevant to their setting.

Next, we describe each section of the tool and present examples of the activities, and impacts of these activities, from the food hubs involved in developing and implementing the tool.

Sustainability and resilience

This section of the tool aims to capture the impact food hubs have in terms of sustainability and resilience (Figure 1). Relevant impacts include supporting local or national sustainability, resilience, and C-B CFS ambitions through repurposing surplus food and reducing GHG emissions while also promoting access to affordable food (The Global

Figure 1. The Sustainability and Resilience Section of the Impact Evaluation Tool

 Sustainability and resilience				
Impacts What outcomes do your activities/programmes achieve? Examples provided.	Frequency How often do you do this? E.g. never, sometimes, always, everyday, once a month	Indicators What metrics do you use/would like use, to measure the effect of your outcomes? Examples provided.	Evidence What information do you have to support the effect of your impact?	Comments What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?
<i>Example: Utilising food surplus to make meals (Activity) has the positive environmental impact of reducing food waste (Impact)</i>	Everyday	Number of meals provided	We record how many meals we serve every day: on average 50 meals/day	We will capture information about the amount of surplus food we are using.
Reduce food waste		Volume of surplus food used (kg); Number of food parcels given; Number of meals provided		
Reduce Greenhouse Gases (GHG) by using locally grown food		Percentage of locally sourced food, 'food miles' travelled (miles/km)		
Reduce Greenhouse Gases (GHG) by using seasonal produce		Percentage of fresh produce used that is 'in season' compared to that which is not		
Support biodiversity by growing fruit and vegetables		Volume of fruit and vegetables grown (% of produce grown in house versus purchased/kg of produce grown)		
Support biodiversity by planting trees and plants		Number of trees, plants planted		
Improve soil quality by composting/using compost		Volume of compost produced/used (kg)		

Food Banking Network, 2020), through growing or purchasing locally grown and seasonal produce to reduce distance food travels, and by supporting biodiversity and improving soil quality through composting or regenerative farming. Food hubs can support local C-B CFS ambitions by carrying out such activities. For example, Neruka's Soul Food Kitchen, a small community organization that aims to attend to the needs of people struggling in many areas of their lives, utilizes food surplus from local supermarkets to produce meals for people affected by food insecurity. In doing so, Neruka's can help to prevent food waste, promoting circular economy principles, while also helping local people to access affordable food. The impact of utilizing surplus food can be monitored and evaluated by measuring the volume of surplus food

saved, the number of food parcels donated, or meals served, and by capturing quotes and/or stories from people receiving food parcels or meals produced from surplus food.

Another way in which food hubs can promote sustainability is by sourcing food grown and/or produced locally. In doing so, they can reduce food miles and GHG emissions and keep profits locally, promoting a circular economy. This can be evaluated by assessing the percentage of products purchased and/or grown locally and by calculating the number of food miles travelled.

Food hubs that grow food, such as Kirkstall Valley Farm, a community supported agriculture (CSA) scheme in Leeds, can further promote circular economy ambitions. For example, Kirkstall Valley Farm uses regenerative farming techniques to

increase biodiversity in their local area, by planting trees in nongrowing areas and growing seasonal fruit and vegetables. Kirkstall Valley Farm also improves soil quality by using rotational crops and no-dig methods, and by using compost. What is more, Kirkstall Valley Farm also offers volunteering opportunities that can promote skill development, enhance employment opportunities, and improve community development. Monitoring and evaluating the impact of food growing hubs could be done in several ways, for example by assessing soil health, capturing and recording evidence of foods grown, and capturing and sharing stories of volunteers and staff working on the farms.

Health and wellbeing

The health and wellbeing section of the tool aims to capture the range of impacts that food hubs have on health and wellbeing, as well as identify areas for further health and wellbeing benefits (Figure 2). Through the activities and support that they offer, which range from cooking classes to community cafes, community meals, and physical activity classes, food hubs can improve the physical health of community members. For example, Hamara Healthy Living Centre in Leeds offers a Revive Body and Mind Group for women, providing access to a gym to promote physical activity, alongside nutrition and wellbeing advice

Figure 2. Health and Wellbeing Section of the Impact Evaluation Tool

 Health and wellbeing				
Impacts What outcomes do your activities/programmes achieve? Examples provided.	Frequency How often do you do this? E.g. never, sometimes, always, everyday, once a month	Indicators What metrics do you use/would like use, to measure the effect of your outcomes? Examples provided.	Evidence What information do you have to support the effect of your impact?	Comments What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?
Improve health e.g. physical activity or healthy eating support		Quotes/images to describe or evidence the impact of the food hub on health		
Improve emotional wellbeing e.g. mental health support		Quotes/images to describe or evidence the impact of the food hub on emotional wellbeing		
Improve quality of life e.g. volunteering opportunities		Quotes/images to describe or evidence the impact of the food hub on improving quality of life		
Improved educational/work attainment due to improved access to healthy food		Improved grades in school; Improved job opportunities; Quotes about concentration		
Promote opportunities to develop social connections and relationships e.g. lunch clubs		Examples/descriptions of programmes that promote social connections and relationships; Quotes/images to describe or evidence the impact of the food hub on providing opportunities to develop social connections, sense of belonging		
Provide opportunities to engage in community activities e.g. gardening groups		Examples/descriptions of programmes that provide opportunities to engage in community activities; Quotes/images to describe or evidence how the food hub engages in community activities		

to improve knowledge on nutrition.

Food hubs can also have a positive impact on the mental and emotional health of their communities, promoting resilience and community development. For example, New Wortley Community Centre in Leeds provides opportunities for members of the community to eat together at a community cafe, and also offers volunteering opportunities to improve self-esteem, offer mental health advice, and signposting.

Food hubs, such as Leeds North and West Foodbank, can also support community wellbeing by offering emergency food parcels, reducing the uncertainty of where the next meal will come from, and in turn helping to address one source of anxiety and psychological distress in food-insecure individuals (Myers, 2020). As well as monitoring community health in the long term in collaboration with local health-service providers, the range of health and wellbeing impacts offered by food hubs could be assessed by carrying out evaluations with those attending activities. To promote engagement, such evaluations could utilize novel methodologies such as photovoice (Wang & Burris, 1997), whereby attendees are asked to share images and photos of the creative sessions and then discuss the aspects of the session they enjoyed and areas that could be improved.

Access and demand for healthy, local food

Food hubs can empower and enable local people to access healthy, local food and contribute to increasing the demand for such produce (Figure 3). However, these efforts often require collaboration with other organizations and stakeholders to address challenges and ensure sustainable impact. The activities that food hubs can do to achieve these impacts include developing or strengthening rural-urban linkages for example by developing relationships with local farmers and by sourcing food items from local growers and grocers for community cafes, food pantries, food parcels and cooked meals, by providing or supporting local people or groups to access land or facilities to grow food (e.g., in CSA or allotments) and supporting the purchase of locally produced healthy food through subsidized food or home delivered fruit and vegetable boxes.

Some food hubs work hard to offer a diversity of culturally appropriate options. For example, Hamara Healthy Living Centre offers food parcels that cater to diverse dietary preferences such as Halal, vegetarian, African, Caribbean, Eastern European, and Asian which ensures that a diversity of people within their community can access culturally appropriate food.

Food hubs also work to empower their communities to access healthier and more locally produced food. For example, Meanwood Valley Urban Farm in Leeds offers educational opportunities for community groups and schools to highlight the benefits of local and seasonal food choices, they also sell affordable vegetable boxes for local people.

Finally, some food hubs aim to enable their members to cook and use fresh, local produce. For example, Health for All in Leeds achieves this by offering cooking classes, and sharing seasonal, healthy and culturally appropriate recipes.

To evaluate these activities, and evidence their impacts on local food systems and circular economy ambitions, highlight areas where further impacts can be made, food hubs can monitor the development of relationships and supply chains with local farmers and grocers, by measuring the space available for food growing, by calculating the number of vegetable boxes purchased, and by capturing feedback and stories from people that have attended workshops and programmes.

Food security and economy

The final section in the food hub evaluation tool aims to capture and evidence the food hubs' work in supporting people to access food and promote local economies and support them to identify where additional impacts can be achieved, or where changes need to be made to prevent negative impacts of their work (Figure 4). Supporting people affected by food insecurity was the primary motivation for most food hubs in the UK to launch. They aim to reduce food insecurity by providing emergency food provision, for example by offering food parcels through food banks, but also by supporting communities to access affordable healthy food through food pantry, social supermarket, and food growing models. Rainbow Junk-

tion in Leeds offers pay as you feel meals for local people to support access to affordable food, but also to reduce isolation and loneliness.

Some food hubs do additional impactful policy work via advocacy and campaigning. For example, Hamara Healthy Living Centre advocates to reduce health inequalities and poverty in Beeston and Holbeck, particularly among people from minoritised ethnic backgrounds.

Food hubs support individuals to improve their financial situation by providing advice to access financial support or assistance and by signposting to other relevant services dealing with

wider social-economic aspects. Food hubs also help local communities to become stronger economically by operating social enterprise models that reinvest revenue into the local community, promoting circular economy principles, and by offering employment, training, and volunteering opportunities to community members. Their localized focus ensures that income generating activities benefit the local economy for example by sourcing food from local greengrocers, facilitating connections between local organisations such as farms and shops, providing market access to small scale farmers. To evaluate this range of impacts, food hubs

Figure 3. Access to, and Demand for, Healthy and Local Food Section of the Impact Evaluation Tool

 Access and demand for healthy, local food				
Impacts What outcomes do your activities/programmes achieve? Examples provided.	Frequency How often do you do this? E.g. never, sometimes, always, everyday, once a month	Indicators What metrics do you use/would like use, to measure the effect of your outcomes? Examples provided.	Evidence What information do you have to support the effect of your impact?	Comments What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?
Provide access to land, facilities and infrastructure for food growing (e.g. allotments)		Area of land for growing food (ha/acres)		
Support the purchase of healthy food		Number of people who access food that contain fresh/healthy produce		
Offer a diverse range of healthy, local, culturally appropriate foods		Types of dietary & cultural preferences considered (e.g. halal, vegetarian, African, Afro Caribbean, Eastern European, Asian); Types of food offered (e.g. tinned meat, fresh fruit)		
Raise awareness for benefits of healthy local food		Number of people attending food programmes; Reach of healthy eating campaigns (e.g. social media metrics)		
Develop food skills and food literacy		Number of cooking/food growing classes and number of people attending		
Enable individuals/families to use food provided		Number of cooking utensils/appliances given; Number of recipes donated		
Provide space to store food safely		Space available to store food (meters squared) or number of fridges of x volume		

could measure the number of parcels provided or members of a food pantry or cafe. They can also capture stories from those volunteering at the hub, calculate the number of people employed at the food hub or supported to find work through programs offered by the hub, and could calculate the revenue generated by the hub, through programs

such as community cafes or art exhibitions, and that which was reinvested in food hub programs or the local community.

Reflections on Using the Tool

After developing the tool, we conducted further research to assess the practicality of using the tool.

Figure 4. Food Security and Economy Section of the Impact Evaluation Tool

 Food security and economy				
Impacts What outcomes do your activities/programmes achieve? Examples provided.	Frequency How often do you do this? E.g. never, sometimes, always, everyday, once a month	Indicators What metrics do you use/would like use, to measure the effect of your outcomes? Examples provided.	Evidence What information do you have to support the effect of your impact?	Comments What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?
Contribute to food security e.g. physical and economic access to sufficient, safe and nutritious food that meets dietary needs and food preferences for an active and healthy life		Number of food parcels provided per week; Number of members of a community food pantry/café or similar; Quotes from members about how the food hub helps them to access food		
Advocate for policies/programmes supportive of sustainable local foods		Examples of advocacy programmes/campaigns to promote sustainable local food		
Facilitate connections between other businesses/organisations		Description of/number of connections between organisations or businesses		
Provide market access to small/medium scale farmers/food businesses		Examples of partnerships with local businesses; Quotes or other evidence from local farmers/food businesses/food producers/greengrocers about their improved access to market		
Assist with access to financial or other support for community members		Description of financial or other support available (e.g. advice or signposting about benefits, debt, housing, education, abuse, immigration etc); Quotes from members who accessed support		
Support community economic development		Number of volunteers/work experience associates; Hours of volunteering/work experience offered; Quotes from volunteers/work experience associates about the impact of the opportunity on their life		
Employ staff		Number of employed staff		
Generate revenue		Sum of revenue generated per year (£)		

To do this, we worked with a sample of ten diverse food hubs across Leeds, UK to put the tool into practice. By working through the tool, reflecting on the range of impacts that the food hubs activities have, areas where further impacts can be achieved, and how evidence for these impacts can be captured, participating food hubs reported that they gained a better understanding of the significance of systematic evidence capture and documentation. The process elucidated the importance of integrating both qualitative and quantitative data, underscoring the nuanced and multidimensional nature of their impacts.

Furthermore, the food hubs mentioned how working through the tool facilitated a heightened awareness of their contributions to key societal agendas and priorities such as health and well-being, and sustainability, both locally and nationally. By capturing information and evidence, the food hubs reflected on how they would feel better prepared to write funding bids and/or share evidence of impact with funders or local authorities. Through the evaluation process, food hubs gained clarity on the depth and breadth of their influence, contributing to a growing body of evidence that substantiates their role in advancing overarching societal goals. When this evidence is combined from multiple food hubs, this can become substantial and could support efforts to advocate for change at the community level. In essence, the tool implementation served as a learning experience for food hubs, fostering a more in-depth approach to impact assessment and a nuanced comprehension of their multifaceted contributions. The outcomes underscore the intrinsic value of integrating systematic evaluation tools within the operational framework of food hubs, enhancing their capacity to articulate and substantiate their role in addressing critical societal imperatives.

The participatory approach adopted in the development and subsequent implementation of the tool not only enhanced the tool's relevance but also strengthened the relationship between researchers and local actors, fostering a more holistic understanding of the food hub landscape. This phase of implementation lays the foundation for further refinement and wider adoption of the

tool to support sustainable food systems and community health initiatives.

Limitations and Challenges

Despite the range of positive benefits that the tool could offer, implementing it in practice could be difficult for some food hubs for example due to time and resource constraints. However, when working with food hubs during the development of the tool, it was highlighted that the time needed for this could be reduced by capturing and recording data throughout the week, or over the course of a project, rather than taking notes and adding them to the tool at the end of the project. While the tool is designed to accommodate various levels of data availability, a lack of comprehensive data might hinder the accuracy and comprehensiveness of the assessment of food hub benefits, in turn limiting their ability to provide evidence for funding or policy support. To support food hubs in capturing data, food hubs can use a range of methods that can be integrated into existing programs, such as using photovoice methodologies in collaboration with attendees, capturing, and sharing stories from people using the hubs services, counting the number of food parcels donated, and weighing the volume of food waste composted.

Conclusion

By using a co-development approach, we developed an evaluation tool for food hubs, such as food banks, social supermarkets, and community farms, in the UK to use to capture the range of benefits that they provide in their communities and across the wider food system, as well as to identify areas of weakness or opportunity for further benefit, with a focus on achieving C-B CFS and community development. Through a collaborative and participatory approach, we developed a tool that addresses need for UK food hubs to regularly capture data and evidence to support their ongoing work, and to shift from emergency models to those that are more sustainable. The mixed methods approach employed to develop the tool, and that is suggested by the tool, can help food hubs to collect evidence across a range of key indicators, relevant to funding calls and policy. The tool provides a standardized framework and acts as a prompt for

food hubs to identify and gather information about key aspects of their work. The findings of the project demonstrate the tool's practical utility and effectiveness in capturing the multifaceted benefits of food hubs, including economic, social, and environmental dimensions. The work conducted to develop the tool, as well as the insights captured during the implementation of the tool, highlights that food hubs are playing an important role in creating more circular food systems, and in strengthening community cohesion and development.

By offering a holistic and evidence-based approach, the tool empowers food hub operators, policymakers, and other stakeholders to make informed decisions, strengthen operations, and drive positive changes across the food system, with a focus on developing community-based circular food systems. This project's significance lies in its contributions to food hubs as well as to the wider food system, as the tool helps food hubs to highlight their role in promoting circular economies, supporting sustainability ambitions, fostering local economies, supporting small-scale producers, and enhancing community health and engagement.

Despite the challenges and limitations faced during the co-design process, largely in relation to the limited time and resources that food hubs have, this project underscores the importance of contin-

ued collaboration and ongoing improvement to enhance the tool's effectiveness, and to capture evidence of the ways in which food hubs are supporting circular economy principles and promoting regional sustainability. We recommend that further research is conducted to explore the application of the tool to a broader range of food hubs to promote sustainable practices on a larger scale. By promoting a comprehensive and inclusive approach the identification of a range of benefits and supporting food hubs to identify areas of weakness and opportunities for change for further benefit, this research contributes to the creation of resilient and sustainable food systems that benefit communities, producers, and the environment alike. As food hubs play an increasingly critical role in shaping our food landscape and promoting circular economies, our tool offers a practical and impactful means to grow their positive impact and support them in their community development and advocacy efforts.

Acknowledgments

The authors would like to thank all food hubs for their participation and valuable contributions to this research. Without their involvement, the development of the food hub impact evaluation tool would not have been possible.

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Appendix A. Food Hubs Survey

Information and Informed Consent

Welcome to the Leeds Food Hub survey! In partnership, the University of Leeds, Leeds City Council and FoodWise Leeds are running a project to identify and evaluate the benefits that food hubs (including food banks, food pantries, food clubs and community kitchens) across the city offer. The outputs of the project will be available to food hubs to support future strategy and funding bids and to enable an assessment and monitoring of their benefits in the community. The work will also feed into the development of the Leeds Food Strategy (due Autumn 2022). You are invited to take part in the survey because you work, volunteer at, or manage a food hub in Leeds. If you choose to take part in the survey, you will be asked to answer some questions about your food hub. Your responses will be kept confidential. The survey should take you around 10 minutes to complete. Your participation in this project is voluntary. You have the right to withdraw at any point during the survey. If you have any questions about the project, please contact XXXX: XXXXX. By clicking the button below, you acknowledge: Your participation in the study is voluntary. You are aware that you may choose to withdraw at any time for any reason.

- ☐ I consent, begin the study
- ☐ I do not consent, I do not wish to participate

About your food hub

Q2 The following section asks you questions about the food hub that you work, manage or volunteer at.

Q3 What is the postcode of the food hub?

- Please type the full postcode of the food hub e.g., LS16 5LL

Q4 What is the name of the food hub?

Q5 What population does the food hub serve? Please select all that apply.

- Anyone
- People living in a specific ward/ area.
- Children and/or schools
- Refugees/ migrants
- Older people
- Referral only
- People experiencing homelessness.
- Other, please state.

Q6 Where do you source your food from? Please select all that apply.

- Fareshare/ Too Good to Go/ Rethink Food or similar
- Donations from retail/ supermarkets
- Donations from the community
- Direct from farm(s)
- Retail - purchased at a discount price
- Retail - purchased at normal retail price
- Other, please state

Focus of work

Display Question 7 This section asks about the focus of the food hub and if/how COVID-19 altered that focus.

Q8 What is the main focus of work for your food hub currently?

- Foodbank
- Food pantry
- Social supermarket
- Community cafe
- Community centre
- Community care hub
- Support/ advice
- Farm or food growing
- Fruit and/or vegetable boxes
- Food processing
- Other

Q9 Beyond the main focus of work, what other services does the food hub provide? Please select all that apply.

- Foodbank
- Food pantry
- Social supermarket/ cooperative
- Community cafe
- Community centre
- Community care hub
- Support/ advice
- Farm or food growing
- Fruit and/or vegetable boxes
- Food processing
- Other

Q10 Did the provision of the food hub change as a result of COVID-19?

- Yes
- No

Display Question 11 if Did the provision of the food hub change as a result of COVID-19? = Yes

Q10 How did your provision change as a result of COVID-19? Select all that apply.

- Moved to providing emergency food parcels
- Moved to become a community care hub/ foodbank
- Added a food pantry
- Offered support/ advice
- Stopped face to face activities
- Changed the sourcing of food
- Other, please state

Display Question 12 if Did the provision of the food hub change as a result of COVID-19? = Yes

Q12 What was the reason behind the change in provision? Select all that apply.

- Increased requests for emergency food provision from the community
- Increased requests for advice/ support from the community
- Reduced funding
- Available funding for emergency food provision
- Change of venue
- Other, please state

Benefits of the food hub

Q13 This section asks questions about the benefits of the food hub to the food system e.g., the communities you serve, businesses you collaborate with, farmers, other actors in the food system, the planet, the economy.

Q14 How does the food hub benefit economic development and viability in Leeds? Select all benefits that apply.

- Generate revenue
- Employ staff
- Provide access to market for local businesses
- Enable investment in local food businesses
- Facilitate connections between other businesses/ organisations
- Assist with access to financial support for community members
- Assist with access to services for community members
- Support community economic development
- Other, please state

Q15 How does the food hub benefit ecological sustainability in Leeds? Select all benefits that apply.

- Reduce food waste
- Reduce greenhouse gas emissions
- Plant trees
- Grow fruit and vegetables
- Increased use of renewable energy
- Support biodiversity
- Other, please state

Q16 How does the food hub benefit access to and demand for healthy, local food? Select all benefits that apply.

- Raise awareness of healthy, local food and its benefits
- Support the purchase of healthy, local food
- Provide a diverse range of healthy local foods
- Act to increase local food system resilience
- Develop food skills and food literacy
- Provide access for marginalised groups
- Provide safe food storage
- Other, please state

Q17 How does the food hub benefit personal community wellbeing in Leeds? Select all benefits that apply.

- Improve health
- Improve emotional wellbeing
- Provide opportunities to engage in community activities
- Promote opportunities to develop social connections and relationships
- Improve quality of life
- Advocate for policies/programmes supportive of sustainable local foods
- Other, please state

The beginning

This section includes questions about the launch of the food hub.

Q19 What was the main motivation for launching the food hub?

- To collect and distribute food aid
- To provide affordable food to the community
- To improve dietary health for the community
- To provide a way to market for local farms
- To promote local food
- To provide support/ advice for the community
- To increase environmental sustainability of food systems
- To reduce food waste
- Other, please state

Q20 What was the main provision when the food hub was launched?

- Foodbank
- Food pantry
- Social supermarket/ cooperative
- Community cafe
- Community centre
- Community care hub
- Support/ advice
- Farm or food growing
- Fruit and/or vegetable boxes
- Food processing
- Other

SWOT Analysis

The questions in this section ask about the strengths, weaknesses, opportunities, and threats for the food hub.

Q22 What are the strengths of the food hub? Select all that apply.

- Multiple sources of food
- Part of a network across Leeds/ the
- Sustainable source of funding
- Team of reliable staff and/or volunteers
- Embedded in the community
- Other, please state

Q23 What are the weaknesses of the food hub? Select all that apply.

- Food is from only one source
- Work independently - not connected to other organisations
- No sustainable source of funding
- Limited human resources
- Other, please state

Q24 What are the opportunities for the food hub? Select all that apply.

- Diversification into other provisions (e.g., cooking classes)
- Work with other organisations
- Other, please state

Q25 What are the threats for the food hub? Select all that apply.

- Loss of working/ storage space
- Shocks to the food supply chain
- Limited control over what food is provided
- Funding is stopped
- Other, please state

Future plans

This section includes questions about plans for the future of the food hub.

Q27 What plans do you have for the future of your food hub? (e.g., expand capacity, provide more services, commercialise, become financially independent, more away from emergency food provision to other food/community/business/skills training etc. services)

Q28 What support do you think the food hub will need in the future? Select all that apply and elaborate with text where possible.

- Funding (please explain what kind of funding would be needed e.g., for cooking equipment)
- Human resources (please explain what human resources would be needed)
- Finding a fixed work/ storage space (please explain what space you would need)
- Training (please explain what training would be needed e.g., staff training)
- Other, please state

Any other comments

Q29, Do you have any other comments about food hubs in Leeds?

Email

Q30 If you would you be happy to be contacted to take part in later aspects of this project (a short interview and/or site visit to identify and evaluate benefits of your food hub), please write your email below:

Appendix B.

Table B1. Research Participants Participating in Stages of the Research

Food Hub/Food Actors	Description	Survey	Interview	Focus Group	Impact Evaluation Tool Application/Case study development
1. Barca Leeds	Community-based charity that aims to care, listen, and respond to the needs of the people in the communities and work with them to deliver outstanding services that improve their wellbeing. Community care hub for Bramley and Stanningley areas in Leeds. https://www.barca-leeds.org/	x	x		
2. Bramley Care Bears	Community-based charity run by community volunteers aiming to develop community spirit, trust, and support across the area. https://www.facebook.com/groups/2515675211859569/	x			
3. Butcher Hill Food Pantry	Community Food Pantry set up by KVDt to provide people with an affordable, sustainable, and dignified option when accessing food support. https://www.kvdt.org.uk/wp-content/uploads/2021/10/FoodPantryLeaflet_FINAL.pdf	x		x	
4. Feed Leeds	A sustainable food growing network, encouraging, and connecting individuals, communities, and organizations in Leeds. https://feedleeds.org/	x	x		
5. Groundwork	A charity that supports local communities and businesses to build capacity and resilience, with a focus on developing greener and healthier places. https://www.groundwork.org.uk/			x	
6. Grace and Care	A multicultural group of people aiming to encourage and support community and social projects. Providing a community café and support service. https://www.facebook.com/GraceAndCareOfficial/	x	x		
7. Hamara Healthy living centre	Community-based charity focused on providing support for people from minoritised ethnic backgrounds. Community Care Hub for Middleton Park, Beeston and Holbeck, as for cultural food support in west, north and south Leeds. https://www.hamara.org.uk/	x	x	x	x
8. Health for All—Beeston Village Food Pantry	Health for All is a charity that offers services and support to help people across generations, cultures and ethnicities achieve healthier, happier lives. https://www.healthforall.org.uk/	x		x	x
9. Health for All—Middleton Family Food Pantry		x		x	x
10. Holbeck Foodbank	A food bank and distribution service providing crisis food parcels to individuals and families in Holbeck, Leeds. http://holbeckfoodbank.org.uk/	x			

continued

continued

Food Hub/Food Actors	Description	Survey	Interview	Focus Group	Impact Evaluation Tool Application/ Case study development
11. Incredible Edible Garforth	Urban gardening project that aims to bring people together through actions around local food, helping to change behavior towards the environment. https://www.incredibleedible.org.uk/find-a-group/incredible-edible-garforth/	x	x		
12. InterACT Pantry Meanwood	A membership food club with a store at Meanwood Community Centre, offering local people the support of a reliable and good quality food resource at minimal cost. https://interact.uk.net/ylpmeanwood/	x			
13. Kirkstall Valley Development Trust/Kirkstall Valley Farm	Community development social enterprise and community owned farm. Part of the Community Supported Agriculture network. Community Care Hub for Kirkstall, Leeds. https://kirkstallvalleyfarm.org.uk/	x	x		x
14. Leeds Allotment Federation	The voice for allotment and leisure gardeners in the greater Leeds area. Aims to promote and support allotment gardening. https://leedsallotmentsfederation.org/	x	x		
15. Leeds North & West Foodbank	Food bank that supports people in the area that need food. https://leedsnorthandwest.foodbank.org.uk/	x			x
16. Leeds South & East Foodbank	Food bank that supports people in the area that need food. https://leedssouthandeast.foodbank.org.uk/	x		x	
17. Love in a Box	A halal foodbank that provides food parcels to hungry people struggling to afford enough food and once a week delivers 60 home cooked hot meals and essential warm clothes and toiletries to the homeless in Leeds city centre. https://www.leedsgrandmosque.com/love-in-a-box/about-love-in-a-box	x			
18. Meanwood Valley Urban Farm	A city farm for the community. Offering volunteering opportunities, allotment spaces, educational workshops, and vegetable boxes. https://www.mvuf.org.uk/				x
19. Middleton Elderly Aid	A charitable organization and a Neighborhood Network scheme aiming to promote independence amongst the over 60's population in Middleton and surrounding areas through a range of activities and services. https://middletonelderlyaid.org.uk/	x			
20. Neruka's Soul Food Kitchen	A community organization that aims to attend to the needs of people struggling in many areas of their lives. https://nerukassoulfood.co.uk/	x			x
21. New Wortley Community Centre	A community-owned and community-led center aiming to improve the area of and lives of residents living in LS12. Community Care Hub for Armley, Leeds. https://www.newwortleycc.org.uk/	x	x		x
22. Oblong	Community development charity aiming to help people and community's flourish. Community Care Hub for Little London and Woodhouse areas in Leeds. https://www.woodhousecommunitycentre.com/oblong/	x	x		

continued

continued

Food Hub/Food Actors	Description	Survey	Interview	Focus Group	Impact Evaluation Tool Application/Case study development
23. Otley Action for Older People	A charity that is supporting independent living in Otley, Arthington and Pool-in-Wharfedale. Community Care Hub for Otley and Yeadon areas. https://www.otleyactionforolderpeople.org.uk/	x			
24. Positive Action for Refugees and Asylum Seekers (PAFRAS)	A community center, food hub and support space for refugees and asylum seekers in Leeds. https://pafras.org.uk/	x			
25. Rainbow Junktion	As a community cafe on Mondays and Thursdays, a food share on Fridays and a support and advice centre. Supported Community Care Hubs working in Woodhouse and Headingley areas in Leeds. https://www.allhallowsleeds.org/rainbow-junktion	x	x	x	x
26. Salvation Army - Leeds Central	A community café serving weekly hot meals to those in need. https://www.salvationarmy.org.uk/leeds-central	x		x	
27. Soup and More Foodbank	A community café and foodbank. https://leedsfoodaidnetwork.co.uk/food-banks/	x			
28. We Are Seacroft	A community group aiming to create and sustain a safer and more connected environment in Seacroft. https://weareseacroft.org.uk/				x
29. Wetherby & District Foodbank	A community food bank also offering support and advice to those in need. https://wetherbyanddistrict.foodbank.org.uk/	x	x	x	
30. Zarach Food Club	A charity focused on providing beds and basics to children in poverty. Provided food and supplies during COVID-19 by converting their vans into basic pantries. https://zarach.org/	x			
TOTAL		27	11	8	10

Appendix C. Interview Template

Background

1. What population do you serve? (e.g., anyone/ specific ward/ only by referral)
2. Where do you source your food from? (e.g., donations/ purchased from supermarket)
3. What is the main focus of your work currently? (e.g., food bank/ food pantry/ community larder)
4. Beyond your main focus of work, what other services do you provide? (e.g., support for community members/ volunteer opportunities/ food growing)
5. Did your provision change during COVID-19?
 - a. If yes, how did your provision change?
 - b. If yes, what was the reason behind the change? (e.g., change to funding/ venue/ requests for support)

Your organisation/ group

6. What is the main work/provision of your organisation/ group?
7. What was the motivation behind setting up your organisation/ group?
8. What role do you think your group/ organisation plays in the food system in Leeds/ beyond?

Food hub definition

9. What do you understand by the term food hub?
10. Do you think there is a better way of describing 'food hubs'?

Impacts of food hubs

11. What benefits do you think that your food hub provides? (e.g., to the communities you serve, farmers, the planet, the economy) in terms of:
 - a. economic development and viability
 - b. ecological sustainability
 - c. access to and demand for healthy and local food
 - d. personal and community wellbeing

SWOT analysis

12. What do you think are the strengths of your organisation/ group currently?
13. What do you think are the weaknesses?
14. What opportunities are there for the organisation?
15. What threats face the organisation?

Future plans

16. What plans do you have for the future?
17. Do you think the provision you offer should remain indefinitely? If yes, why? If not, why not?
18. What support do you think you will need?
19. Any other comments related to food hubs in Leeds that you'd like to make?
20. Would you be interested in us coming for a site visit to identify and evaluate the impacts of your food hub?

Appendix D. The Impact Evaluation Tool for Food Hubs

Impact Evaluation Toolkit for Food Hubs

2023



Project partners:



Background to the toolkit

This toolkit was developed by the University of Leeds in collaboration with Foodwise and Leeds City Council to assist Food Hubs in evaluating their impact on the communities they serve and the wider food system. More information about the research behind this toolkit is available at the [Global Food and Environment Institute](#).

This toolkit is in line with the [Leeds Food Strategy](#).

The **toolkit is designed to be self-administered by Food Hubs** to support them in developing funding bids or to evidence their impact within the community.

A Food Hub is an umbrella term to describe entities that sit between people who produce food and people who use it, gathering food from growers and distributing it either to commercial customers or directly to consumers – often working with an explicit set of ethical priorities.



For support using this toolkit or to receive an Excel version of this toolkit, please contact Dr Effie Papargyropoulou E.Papargyropoulou@leeds.ac.uk.

Food Hubs benefit **communities** and the **food system** by:



Toolkit edited and designed in collaboration with [Research Retold](#) (2023)

1

How to use this toolkit

Click to get to the relevant section you are interested in.

1

Identify an activity
Begin by identifying an activity or programme to evaluate.

2

Complete the tables
With that activity or programme in mind, go through each table and complete the columns.

Impacts
Identify the outcomes that your activities/programmes achieve

Frequency
State how often you carry out the activity or programme (e.g. everyday, once per month)

Indicators
Consider how you measure the impact (i.e. what metrics you could use)

Evidence
Capture any evidence that you already have to support the impacts you've stated

Go through the toolkit for each activity that you do. You can fill the information on this pdf. It is fillable.

We've provided some examples of impacts and indicators. Not all of them may be relevant - skip those which do not resonate.

As you're working through the toolkit, one activity or programme could contribute to multiple impacts and can therefore be mentioned several times. e.g. cooking classes could bring benefits in terms of 'Access and demand for local healthy food', 'Community wellbeing', and 'Economic viability'.

3

Record additional evidence needed
List any additional evidence that you need to collect in the future in order to support each impact of the activity or programme. Start collecting that data.

2

Step 1. Select an activity or program

☐ Community café/in house meal provision

☐ Food bank (free to customer)

☐ Distribute food parcels

☐ Community pantry/social supermarket (small cost/membership)

☐ Utilise surplus food

☐ Composting

☐ Cooking classes

☐ Food growing

☐ Food/health literacy support

☐ Finance support/signposting

☐ Mental health support/signposting

☐ Community group (e.g. art, gardening, music)

☐

☐

☐

You can add other activities to this list.

How to use this toolkit

3

Journal of Agriculture, Food Systems, and Community Development
ISSN: 2152-0801 online
https://foodsystemsjournal.org

Step 2. Complete the columns for each impact of the activity



Health and wellbeing

Impacts What outcomes do your activities/programmes achieve? Examples provided.	Frequency How often do you do this? E.g. never, sometimes, always, everyday, once a month	Indicators What metrics do you use/would like use, to measure the effect of your outcomes? Examples provided.	Evidence What information do you have to support the effect of your impact?	Comments What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?
Improve health e.g. physical activity or healthy eating support		Quotes/images to describe or evidence the impact of the food hub on health		
Improve emotional wellbeing e.g. mental health support		Quotes/images to describe or evidence the impact of the food hub on emotional wellbeing		
Improve quality of life e.g. volunteering opportunities		Quotes/images to describe or evidence the impact of the food hub on improving quality of life		
Improved educational/work attainment due to improved access to healthy food		Improved grades in school; Improved job opportunities; Quotes about concentration		
Promote opportunities to develop social connections and relationships e.g. lunch clubs		Examples/descriptions of programmes that promote social connections and relationships; Quotes/images to describe or evidence the impact of the food hub on providing opportunities to develop social connections, sense of belonging		
Provide opportunities to engage in community activities e.g. gardening groups		Examples/descriptions of programmes that provide opportunities to engage in community activities; Quotes/images to describe or evidence how the food hub engages in community activities		

[How to use this toolkit](#)

5

Step 2. Complete the columns for each impact of the activity



Sustainability and resilience

Impacts What outcomes do your activities/programmes achieve? Examples provided.	Frequency How often do you do this? E.g. never, sometimes, always, everyday, once a month	Indicators What metrics do you use/would like use, to measure the effect of your outcomes? Examples provided.	Evidence What information do you have to support the effect of your impact?	Comments What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?
<i>Example: Utilising food surplus to make meals (Activity) has the positive environmental impact of reducing food waste (Impact)</i>	Everyday	Number of meals provided	We record how many meals we serve every day: on average 50 meals/day	We will capture information about the amount of surplus food we are using.
Reduce food waste		Volume of surplus food used (kg); Number of food parcels given; Number of meals provided		
Reduce Greenhouse Gases (GHG) by using locally grown food		Percentage of locally sourced food, 'food miles' travelled (miles/km)		
Reduce Greenhouse Gases (GHG) by using seasonal produce		Percentage of fresh produce used that is 'in season' compared to that which is not		
Support biodiversity by growing fruit and vegetables		Volume of fruit and vegetables grown (% of produce grown in house versus purchased/kg of produce grown)		
Support biodiversity by planting trees and plants		Number of trees, plants planted		
Improve soil quality by composting/using compost		Volume of compost produced/used (kg)		

[How to use this toolkit](#)

4

Impacts	Frequency	Indicators	Evidence	Comments
What outcomes do your activities/programmes achieve? Examples provided.	How often do you do this? E.g. never, sometimes, always, everyday, once a month	What metrics do you use/would like use, to measure the effect of your outcomes? Examples provided.	What information do you have to support the effect of your impact?	What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?
Provide access to land, facilities and infrastructure for food growing (e.g. allotments)		Area of land for growing food (ha/acres)		
Support the purchase of healthy food		Number of people who access food that contain fresh/healthy produce		
Offer a diverse range of healthy, local, culturally appropriate foods		Types of dietary & cultural preferences considered (e.g. halal, vegetarian, African, Afro Caribbean, Eastern European, Asian); Types of food offered (e.g. tinned meat, fresh fruit)		
Raise awareness for benefits of healthy local food		Number of people attending food programmes; Reach of healthy eating campaigns (e.g. social media metrics)		
Develop food skills and food literacy		Number of cooking/food growing classes and number of people attending		
Enable individuals/families to use food provided		Number of cooking utensils/appliances given; Number of recipes donated		
Provide space to store food safely		Space available to store food (meters squared) or number of fridges of x volume		

6

Impacts	Frequency	Indicators	Evidence	Comments
What outcomes do your activities/programmes achieve? Examples provided.	How often do you do this? E.g. never, sometimes, always, everyday, once a month	What metrics do you use/would like use, to measure the effect of your outcomes? Examples provided.	What information do you have to support the effect of your impact?	What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?
Contribute to food security e.g. physical and economic access to sufficient, safe and nutritious food that meets dietary needs and food preferences for an active and healthy life		Number of food parcels provided per week; Number of members of a community food pantry/café or similar; Quotes from members about how the food hub helps them to access food		
Advocate for policies/programmes supportive of sustainable local foods		Examples of advocacy programmes/campaigns to promote sustainable local food		
Facilitate connections between other businesses/organisations		Description of/number of connections between organisations or businesses		
Provide market access to small/medium scale farmers/food businesses		Examples of partnerships with local businesses; Quotes or other evidence from local farmers/food businesses/food producers/grocers about their improved access to market		
Assist with access to financial or other support for community members		Description of financial or other support available (e.g. advice or signposting about benefits, debt, housing, education, abuse, immigration etc); Quotes from members who accessed support		
Support community economic development		Number of volunteers/work experience associates; Hours of volunteering/work experience offered; Quotes from volunteers/work experience associates about the impact of the opportunity on their life		
Employ staff		Number of employed staff		
Generate revenue		Sum of revenue generated per year (£)		

7

Appendix A

Use this page to collate evidence about the demographics of the recipients of your services (i.e. users of your services)

Activity	Number of households or individuals served per week/month	Number of households with children served per week/month	Number of individuals with disabilities served per week/month	Number of pensioners served per week/month	Other relevant demographic characteristics (e.g. gender, age, socio-economic status, education, occupation)

Step 3. Record additional evidence needed

Appendix E. Worked Examples of the Impact Evaluation Tool for Food Hubs

Step 2: Complete the columns for each impact of the activity or programme				
Health and wellbeing				
Impacts (What outcomes do your activities/ programmes achieve?) Examples provided.	Frequency (How often do you do this? E.g. never, once per month, once per week, everyday)	Indicators (What metrics do you use/ would like use, to measure the effect of your outcomes. Examples provided.)	Evidence (What information do you have to support the effect of your impact?)	Comments (What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?)
Improve health through cooking classes offering healthy eating support	Regularly	Number of people attending sessions. Stories about how the services have helped to improve health.		Capture stories of the impact of cooking sessions on health and wellbeing
Improve emotional wellbeing through adult therapeutic gardening sessions	Once per week	Quotes/ images to describe or evidence the impact of the food hub on emotional wellbeing	Photos of gardening sessions; Quotes/ stories from people attending the gardening sessions	
Improve quality of life through the volunteering programme	Everyday	Number of volunteer opportunities available.	89 volunteers are involved across the range of activities offered at NGCFI	Capture stories/ quotes of the impact of taking part in the volunteer programme on self esteem, wellbeing
Improved educational/ work attainment due to improved access to healthy food	Regularly	Description of the support provided.	Stories from young people and adults about the impact of	
Promote opportunities to develop social connections and relationships through community meals and activities	Regularly	Examples/ descriptions of programmes that promote social connections and relationships	Stories/ quotes from people attending the meals/ events; Photos of the meals	
Provide opportunities to engage in community activities through community gardening groups and cooking clubs	Regularly	Examples/ descriptions of programmes that provide opportunities to engage in community activities	Stories/ quotes from people attending the gardening groups and gardening groups; Photos of the gardens	

Step 2: Complete the columns for each impact of the activity or programme				
Sustainability and resilience				
Impacts (What outcomes do your activities/ programmes achieve?) Examples provided.	Frequency (How often do you do this? E.g. never, once per month, once per week, everyday)	Indicators (What metrics do you use/ would like use, to measure the effect of your outcomes. Examples provided.)	Evidence (What information do you have to support the effect of your impact?)	Comments (What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?)
Utilising food surplus to make meals for the community - reducing food waste	Regularly	Number of meals provided; Weight of surplus food used	Record how many meals are served/ number of people attending community meals	Capture information about the amount of surplus food we are using.
Reduce Green House Gases (GHG) by using locally grown food and offering vegetarian/ vegan meals whenever possible	Regularly	Number of vegetarian/ vegan meals offered		Explore the 'food miles' travelled (miles/ km); % of locally sourced food
Reduce Green House Gases (GHG) by using seasonal produce	Seasonally	Volume or % of seasonal fruit and vegetables used/ purchased	Photos of the produce used; Stories about food growing; Number of portions of fresh fruit/ vegetables served	Capture evidence of the weight/ volume of seasonal fruit and vegetables used
Support biodiversity by growing fruit and vegetables	Regularly	Volume of fruit and vegetables grown (% of produce grown in house versus purchased/ kg of produce grown); Number of gardening sessions per week	Photos of the gardening sessions; Descriptions of the range of fruit and vegetables grown; Weight of fruit and vegetables grown	
Support biodiversity by growing plants and trees	Occasionally	Number of trees/ plants planted	Photos of plants/ spaces planted	Capture stories from local people about the impact of having plants/ trees in their local area
Improve soil quality by composting/ using compost	Everyday	Volume of compost produced/ used (kg)	Photos of composting areas	

Step 2: Complete the columns for each impact of the activity or programme				
Access and demand for healthy, local food				
Impacts (What outcomes do your activities/ programmes achieve?) Examples provided.	Frequency (How often do you do this? E.g. never, once per month, once per week, everyday)	Indicators (What metrics do you use/ would like use, to measure the effect of your outcomes. Examples provided.)	Evidence (What information do you have to support the effect of your impact?)	Comments (What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?)
Provide access to land, facilities and infrastructure for food growing	Regularly	Number of growing spaces available	Number of growing spaces available	Square footage of growing space; Photos of the growing spaces
Support the purchase of healthy food through community cafes and surplus food sharing	Weekly	Number of meals prepared that contain fresh fruit and vegetables; Volume of fresh fruit and vegetables used to produce meals	Number of meals prepared with fresh fruit and vegetables; Number of portions of fruit and vegetables served	
Offer a diverse range of healthy local culturally appropriate foods	Regularly	Images of the culturally appropriate food available; Number of culturally appropriate meals served	Number of culturally appropriate meals served	Photos of culturally appropriate meals
Raise awareness for benefits of healthy local food through cooking sessions	Regularly	Number of people attending cooking programmes	Number of people attending cooking programmes	Stories about the impact of cooking sessions on use of healthy, local food
Develop food skills and food literacy through cooking classes and growing sessions	Regularly	Number of cooking/ food growing classes; Number of people attending	Number of cooking/ food growing classes; Number of people attending	Stories or images from people attending sessions to demonstrate the impact on food literacy
Provide space to store food safely	Everyday	Square footage of storage space	Square footage of storage space	Photos of the storage space

Step 2: Complete the columns for each impact of the activity or programme				
Food security and economy				
Impacts (What outcomes do your activities/ programmes achieve?) Examples provided.	Frequency (How often do you do this? E.g. never, once per month, once per week, everyday)	Indicators (What metrics do you use/ would like use, to measure the effect of your outcomes. Examples provided.)	Evidence (What information do you have to support the effect of your impact?)	Comments (What could you do to increase the impact of your food hub, or how to capture the effect of the impacts?)
Contribute to food security e.g. physical and economic access to sufficient, safe and nutritious food that meets dietary needs and food preferences for an active and healthy life	Everyday	Number of food parcels donated. Number of individuals reached. Quotes about how the food has supported people to access food.	Number of food parcels donated. Number of individuals reached.	Quotes about how the organisation has supported people to access food; Stories evidencing the impact of having access to affordable food
Advocate for policies/programmes supportive of sustainable local foods	Sometimes	Number of policies advocated for or impact of the advocacy	Record the number of policies advocated for; Record evidence of the outcome of the advocacy efforts	
Facilitate connections between other businesses/ organisations	Sometimes	Record of the number and diversity of partnerships; Description of how the partnership supports the organisation to achieve impact	Record of the number and diversity of partnerships	Description of how the partnership supports the organisation to achieve impact; Develop a map to show the range of connections that the organisation has
Assist with access to financial or other support for community members	Sometimes	Description of the financial programmes/ support available; Number of people receiving support; Stories demonstrating the impact of accessing such services	Record the number of people receiving financial or other support; Description of the financial support available	Capture stories that demonstrate the impact of receiving financial support and/or signposting
Employ staff	Everyday	Number of staff. Hours staff work (equivalent FTE)	Record the number of staff	Record the number of hours staff work, including overtime
Generate revenue	Sometimes	Sum of revenue generated per annum (£)	Record the sum of revenue generated from various activities	