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## Community responses to food insecurity during COVID-19: A case study in Sheffield, England

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## Abstract

The COVID-19 pandemic gave rise to a group of newly food insecure people and deepened hardship for those already food insecure. The crisis disrupted national food supplies and created challenges to accessing and utilizing the food that was available. As financial struggle deepened for people, and some became unable to shop for food or cook due to isolation requirements and illness, many turned to community organizations to obtain food. In Sheffield, England, small community food organizations soon became the leaders of the city's emergency food response. One such organization is the Foodhall Project, a community food organization which had previously operated as a contribute-what-you-can café serving meals from surplus food. Following the onset of COVID-19 lockdown restrictions in March 2020, Foodhall shifted to provide free food parcels through take-away and delivery services, requiring no proof of need. In collaboration with Foodhall, this research project explores the barriers to accessing food and the roles of community food responses during the pandemic. Quantitative data about food parcel deliveries was provided by Foodhall. Qualitative data about barriers to accessing food was based on interviews with fourteen adults receiving food parcels from Foodhall in August 2020. This research showed that participants experienced mainly physical and financial barriers to accessing food. The inability to see friends and family and the closure of many local support services severely limited the options available to cope with food insecurity. Having and maintaining a social network was important to find out about available support services during the pandemic. This research highlights how community food responses can play an essential role during times of crisis by being able to adapt to fit local needs. Outside of social distancing restrictions, social eating spaces like Foodhall provide opportunities to build support networks by bringing people together in an unstigmatized setting and encouraging interaction among people experiencing similar life challenges. These community spaces should be recognized and integrated as permanent parts of a city's infrastructure to increase resilience in times of crisis.

## Keywords

COVID-19, community, food security, food access, resiliency, crisis

## Disciplines

Agriculture | Food Studies | Human Geography | Nonprofit Studies | Urban Studies and Planning

## Comments

I have updated the references as needed, and also performed minor grammatical corrections in text. I have removed references not cited in text or no longer needed.

# Community responses to food insecurity during COVID-19: A case study in Sheffield, England

## Abstract

The COVID-19 pandemic gave rise to a group of newly food insecure people and deepened hardship for those already food insecure. The crisis disrupted national food supplies and created challenges to accessing and utilizing the food that was available. As financial struggle deepened for people, and some became unable to shop for food or cook due to isolation requirements and illness, many turned to community organizations to obtain food. In Sheffield, England, small community food organizations soon became the leaders of the city's emergency food response. One such organization is the Foodhall Project, a community food organization which had previously operated as a contribute-what-you-can café serving meals from surplus food. Following the onset of COVID-19 lockdown restrictions in March 2020, Foodhall shifted to provide free food parcels through take-away and delivery services, requiring no proof of need. In collaboration with Foodhall, this research project explores the barriers to accessing food and the roles of community food responses during the pandemic. Quantitative data about food parcel deliveries was provided by Foodhall. Qualitative data about barriers to accessing food was based on interviews with fourteen adults receiving food parcels from Foodhall in August 2020. This research showed that participants experienced mainly physical and financial barriers to accessing food. The inability to see friends and family and the closure of many local support services severely limited the options available to cope with food insecurity. Having and maintaining a social network was important to find out about available support services during the pandemic. This research highlights how community food responses can play an essential role during times of crisis by being able to adapt to fit local needs. Outside of social distancing restrictions, social eating spaces like Foodhall provide opportunities to build support networks by bringing people together in an unstigmatized setting and encouraging interaction among people experiencing similar life challenges. These community spaces should be recognized and integrated as permanent parts of a city's infrastructure to increase resilience in times of crisis.

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## INTRODUCTION

The COVID-19 pandemic presents a unique point in time where people from a range of backgrounds across the globe were commonly experiencing the acute shock of crisis. The pandemic created a range of public health challenges that national governments sought to address, one of which was rising food insecurity. In the UK, rates of food insecurity quadrupled during the first two months of government-imposed lockdown, from March to April 2020 (Loopstra, 2020). The pandemic brought new challenges to food security by creating difficulties in physically accessing food (due to self-isolation requirements), whilst exacerbating existing economic vulnerability and creating new financial hardship for many (Lambie-Mumford, Loopstra and Gordon, 2020; Loopstra, 2020).

During March 2020, the UK government advised an estimated 1.5 million people to 'shield' (not leave the home) for 12 weeks, due to being at extreme risk of hospitalization from the virus; these individuals were characterized as 'clinically extremely vulnerable' (UK Government, 2020). At the same time, disruptions in the international food supply chain saw supermarket shelves emptied (Power et al., 2020). It became increasingly difficult to obtain food deliveries from shops,

even for those shielding, who were supposed to be guaranteed priority delivery slots (Dempsey et al., 2021; McNeill, Dowler and Shields, 2022).

To ensure that people still had access to food, the Government began delivering weekly food parcels to the homes of those shielding until late July (Lambie-Mumford, Loopstra and Gordon, 2020; Dempsey et al., 2021). However, many people who were self-isolating because they were also at high risk from the virus (e.g., the elderly and pregnant women) found themselves unable to obtain these food parcels, if they were not specifically classified as ‘clinically extremely vulnerable’ based on specific health conditions (McNeill, Dowler and Shields, 2022). Even some who were characterized as clinically extremely vulnerable never received food parcel deliveries or had them stopped early.

At the same time, financial struggle deepened for people, with lack of employment and rising household costs (Loopstra, 2020). People rushed to find options for financial support, with many applying for Universal Credit, a government benefits program for the unemployed, those with low incomes, or those with sickness or disability. In just the first four weeks of the coronavirus crisis (March/April 2020), 1.2 million people in Great Britain started a Universal Credit claim; this was approximately a million more than the usual amount of monthly claim starts (Mackley, 2021). However, Universal Credit applications required a minimum 5-week wait period before the first payment, so this was not an immediate solution for people (Work and Pensions Committee, 2020).

Thus, we see that where the market failed to provide a consistent supply of food and delivery options, and where the state failed to provide ubiquitous food and financial support for all who needed it, community efforts rose to fill the gap. Food banks and community projects adapted or expanded their services during COVID (Barker and Russell, 2020; The Trussell Trust, 2020), and new neighborhood-based ‘mutual aid’ groups or other volunteer groups were created to help provide food and basic essentials to those who could not otherwise afford or obtain these items (Tiratelli and Kaye, 2020; Fernandes-Jesus et al., 2021; Mao et al., 2021). In Sheffield, England, a wide range of community projects soon became the leaders of the city’s emergency food response (Koseda, 2020; Voluntary Action Sheffield, 2020). One example is the Foodhall Project, a relatively small community kitchen and café that became one of the city’s largest emergency food providers during the first UK government-imposed lockdown (March-July 2020). This organization provides an invaluable case study to examine the role of community food projects in responding to the rise of food insecurity during COVID-19.

### **The Foodhall Project: A case study**

The Foodhall Project (hereafter referred to as ‘Foodhall’) is a community kitchen and café in Sheffield, England that is “managed by the community, for the community” (<https://www.foodhallproject.org/>). Founded in 2015, Foodhall provides communal meals, cooked largely from surplus food, on a ‘contribute-what-you-can’ basis. As a social eating space, the project aims to bring people together around food to tackle the combined issues of food insecurity, social isolation, and food waste. Its physical location in the city center of Sheffield, situated between some of the most and least deprived postcodes in the country (UK Government, 2019), provides an opportunity for the project to help bring all people together and bridge this divide.

Foodhall operates a non-hierarchical structure. They employ a small staff team to organize the project and manage finances, but ultimately the project is maintained by a suite of volunteers. Foodhall aims to blur the line between the traditional ‘service provider’ and ‘service user’ by encouraging visitors to get involved in the project and fostering a sense of responsibility for everyone involved. The flexibility and openness of the project is key to people feeling comfortable in the space and encouraging people from a wide range of backgrounds to participate.

Following the COVID-19 lockdown restrictions imposed by the UK government in late March 2020, Foodhall was unable to operate their traditional café and event space. Recognizing the likely need for food support across the city, the project thus responded by organizing an emergency food

distribution effort, which included a free food parcel delivery service as well as a front-of-house take-away service.

With rates of UK household food insecurity soaring during COVID, it becomes clear that the pandemic provides a unique point in time to analyze the role of local, community-based food infrastructure in combatting food insecurity and responding to crisis. As a community food project that was free and open to all Sheffield residents, Foodhall was used as the case study in this regard. The author of this paper is both a Foodhall volunteer and researcher at the University of Sheffield, and thus initiated a collaborative research project between the two organizations.

## **MATERIALS AND METHODS**

This study aims to capture the role of community food projects in responding to the rising rates of food insecurity spurred by the coronavirus pandemic, using Foodhall as a case study. The scope of Foodhall's emergency response effort is analyzed by using quantitative data collected by Foodhall volunteers. In addition, the stories of those struggling to access food were captured through qualitative interviews with food parcel recipients. The project focuses on data from the first UK government-imposed COVID-19 lockdown (March – July 2020).

### **Quantitative data collection**

During March-July 2020, volunteers at Foodhall recorded information about the project's emergency food response. They captured data about the following: number of delivered food parcels; postcodes receiving deliveries; number of people and number of households fed, both through deliveries and the front-of-house service; cooked meals prepared; and number of volunteer hours. This data was provided to the author for analysis.

### **Qualitative interviews**

The author further captured the stories of those who were receiving emergency food parcels from Foodhall, aiming to understand the barriers to accessing food during COVID-19. Fourteen individuals were interviewed over the phone in August 2020. During these semi-structured interviews, participants were asked to discuss their methods of accessing food during the first few months of the pandemic; experiences interacting with food support projects; coping strategies to food insecurity; changes in finances; and support networks and social interaction with others during the lockdown. The author conducted the interviews as a volunteer who was knowledgeable about Foodhall and who had already spoken to a variety of food parcel recipients over the project's helpline service as a volunteer.

All participants included in this study were receiving food parcels delivered by Foodhall through home delivery during the first COVID-19 lockdown in the UK. On average, each interview lasted 44 minutes. Interviews were audio recorded and then transcribed, with the author also taking hand-written notes during the interview. Pseudonyms were assigned to each participant in order to respect confidentiality. Informed verbal consent was recorded for each participant before the interviews. The study was reviewed and approved by the University of Sheffield Research Ethics Committee.

## **RESULTS AND DISCUSSION**

Results show the scope of Foodhall's emergency food response using quantitative datasets, and explore the barriers people faced to accessing food, which spurred the use of Foodhall's service, through qualitative interviews.

### **Community emergency food response in Sheffield, UK**

During the very first week of the UK COVID-19 lockdown (23 March 2020), Foodhall shifted from operating as a community café to providing a city-wide emergency food service - something the project had never done before. Foodhall provided free meals, food items, and other essentials to

people through either a direct home delivery (available to all postcodes in Sheffield) or through a take-away front-of-house service to support those who could not receive deliveries to a permanent address. Donations of food and basic essentials were sourced widely from local supermarkets, restaurants, farms, and the city council, thus drawing upon the city's local food and community infrastructure. Because of the non-hierarchical and community-based nature of the project, Foodhall was able to act quickly to respond to an emergency that saw many other community services closing, at a time when increasingly more people lacked access to food due to reduced income and mobility.

Foodhall's service was open to anyone in Sheffield and required no means testing or referrals – thus, anyone could receive a free food parcel without having to establish proof of need. In this way, Foodhall aimed to support those who did not qualify for, or could not access, other food banks or government and council programs. Anyone requesting a food parcel would receive a delivery the same or next day, with deliveries happening five to six days a week. Each person requesting a food parcel would have a personal call with a Foodhall volunteer to provide details such as: the number of people in the household requiring food and other essentials (e.g., toilet roll, diapers, shampoo, etc.); dietary requirements; and cooking facilities available. This helped ensure that people received food they could actually use. Foodhall's trained counsellors also provided wellbeing check-in calls to delivery recipients.

Foodhall's service began the very first week of UK lockdown (23 March 2020) and continued at maximum capacity until the end of July 2020, when deliveries temporarily paused as the project moved buildings. During the first week of lockdown, the project fed 70 people in total through deliveries and front-of-house service. After one month, the delivery service reached full capacity, based on the number of volunteers able to be in the space (following social distancing guidelines) and the amount of food available. From this time (20 April) to the end of July 2020, the project delivered an average of 168 parcels per week and fed a total of 865 people per week, with approximately 55% receiving parcels through delivery and 45% receiving parcels through the front-of-house. This service relied on a total of 473 volunteer hours per week. Mapping efforts undertaken by a Foodhall volunteer further showed that during the first 10 weeks of food parcel delivery (23 March - 1 June), nearly 75% of Foodhall's deliveries went to households located within the 20% most deprived areas in the country.

From June to July 2020, Voluntary Action Sheffield (a local non-profit organization) began collecting data from 21 organizations across 28 different sites that provided food support in Sheffield (excluding government parcels and several smaller organizations). Based on this data, Foodhall was identified as one of the largest emergency food responses in Sheffield, feeding on average 20% of the total 4,770 people fed per week by all 21 organizations providing data.

The fact that these community organizations were feeding such a high proportion of people showed the immense need for these more informal and voluntary support efforts during the pandemic. Since the city data previously discussed did not include people receiving government food parcels, this also shows how many people were in need but not supported by the nation-wide food support strategy. As people 'fell through the cracks' of state support, community efforts rose to respond to local challenges and needs. This included not only formal community organizations and charities, but also informal, neighborhood-based groups (called mutual aid groups). Mutual aid groups sprouted up across cities and villages in the UK to provide help and support to those in need, especially for those self-isolating and unable to physically obtain food, medical prescriptions, and other essential items (Fernandes-Jesus et al., 2021; Ntontis et al., 2022). This showed how social support structures, and therefore a sense of community to initiate these structures, were necessary to keep people alive, fed, and cared for.

Although providing invaluable information on the number of people finding themselves struggling to access food during COVID-19, the simple statistics discussed in this section do not capture the complexities of why people were struggling and the various strategies they undertook to obtain food before coming to Foodhall. To understand the specific challenges people were facing,

a qualitative methodology was essential to uncover the barriers to accessing food in people's own words.

### **Barriers to accessing food during COVID-19**

The fourteen participants interviewed in this study identified two direct barriers to accessing food because of the pandemic: financial strain and physical access. This was concurrent with research by Lambie-Mumford, Loopstra and Gordon (2020), which outlined these two barriers as the major threats to UK household food insecurity during the start of the pandemic. Most participants experienced a combination of physical and financial barriers. Ten out of the fourteen participants were not leaving the home during the first UK lockdown, with seven specifically advised not to do so by the government due to health or age conditions that classified them as clinically extremely vulnerable to the virus. Further, eleven out of fourteen participants were experiencing financial stress during lockdown, which impacted their ability to afford food for themselves and their families. Physical and financial barriers to accessing food were weaved within other changes in daily life, such as mental health challenges, physical health challenges, changing household composition, and social isolation induced by social distancing guidelines; these changes and challenges were amplified and became more widespread during the pandemic. This complex and multi-dimensional nature of food insecurity will be further discussed in upcoming publications from this research project to show why a simple cash payment or food delivery was not enough to completely expunge household food insecurity during this time.

### **Closure of services: reducing options to cope**

The options available to cope with physical and financial barriers to food access were complicated, and in some cases erased, by lockdown measures and the conditions of the pandemic. For example, social networks, often relied upon for food or money when in need, were now not as viable an option as many others were also struggling financially. In addition, many places that participants might traditionally visit for a hot meal, such as community centers and churches, were now closed. Because city councils lacked available funds to support these services to adapt, not all could shift to a delivery service in the way that Foodhall could.

Additionally, many mental health and wellbeing centers were closed to comply with government lockdown rules. This made it difficult to cope with the severe stress associated with food insecurity and financial struggles, existing mental illnesses, and anxiety from fear of the virus. Although some wellbeing and therapy services did shift to online or phone meetings, this was not a viable option for those already 'living at the edge', who had to cancel internet and even phone services in order to afford rent or food, as was the case for a few of our participants. Finally, due to the increased difficulty of seeing doctors for non-emergency services, as well as the overwhelming strain that health services were under at the time, it was also difficult to gain new access to therapy services.

Gerald's story provides one example of how the closure of community centers influenced his ability to be food secure and cope with mental health challenges. Prior to COVID, Gerald had been struggling with anxiety, incited by a past traumatic incident, as well as an ongoing gambling addiction. Because of his anxiety, Gerald was unable to work during this time. To cope with these challenges, Gerald visited different community centers or churches every day to receive a hot meal, engage in different activities, socialize with others, and volunteer. As these types of community centers and activities closed during the COVID lockdown, Gerald found it very difficult to cope with his anxiety and gambling addiction. He started having trouble sleeping, getting panic attacks, and gambling more online. This increased his financial struggle and mental stress, further affecting his mental health and his capability to achieve food security. We thus see how food insecurity and mental health challenges are inextricably linked and build upon each other (Martin et al., 2016), which, during COVID, placed many into a vicious cycle that simple cash payments or food parcels

could not completely address. We further see how options to cope with food insecurity and other life challenges were diminished during COVID as critical community spaces closed.

However, some community centers, like Foodhall, were able to adapt. Indeed, Foodhall provided a wellbeing call service to their food parcel recipients. However, many participants still expressed how they craved real human interaction. Indeed, Gerald detailed that what really helped him during this time was reaching out to others as a way to share his struggle and alleviate stress. In the past, Gerald often hid his struggle from his friends and family when times were hard, but he explained how he now realized how critical it was for him to maintain social and support networks during times of crisis.

"I learned from that - isolating myself from people when times are hard. I kept saying, 'I just don't want to talk to anybody. Just leave me alone,' et cetera, but then I found it seems to be a burden on you. I've found that talking to people, it's really helped me." (Gerald, age 30-40)

### **Role of community food infrastructure**

The closure of many traditional local service providers, along with increased difficulty in navigating government bureaucracy to find and receive national support, meant that many people were left without the help they needed during the COVID-19 pandemic. Time and time again, the participants in this study expressed that community projects and their own personal support networks were all they could rely on. Indeed, word of mouth was the primary way that people found out about Foodhall's service. This shows how important it is to create spaces for people with similar life challenges to come together, share information, and provide support.

For Randy (age 50-60), the COVID-19 pandemic saw increased financial difficulty layered atop an inability to physically go out and get food, since he, and his wife and daughter were all shielding. For the first time in his life, Randy was unable to provide food for his family, instead relying on "basic rations" delivered by friends at the start of the pandemic. Randy made sure that his family had been fed and his rent was paid before having meals himself. Since Randy had never had to rely on food support before, he did not know about food banks or other support available; only after speaking to a friend did he find out about Foodhall. Randy expressed that although he first felt ashamed utilizing food support services, he felt better after talking to friendly volunteers and realizing he was not the only one struggling during the pandemic. He even began to make friends at Foodhall and the food bank.

"We've got news out of talking to new people through the Foodhall and through the food banks and that. Now everybody knows who we are up at the food banks and at the Foodhall. They know us all by the proper name and that. Every time I go up they're always asking, 'Are you okay? Is your family okay? Can we help with anything else?'" (Randy, age 50-60)

Randy's story shows how essential his social networks were in finding the help he needed. It also shows the opportunity that community organizations have to create a space where people can come together and make friends in an unstigmatized setting. Knowing that 'you're not alone' can make it easier to share life's challenges and difficulties and lessen feelings of shame and stigma. Randy's interactions with volunteers showed how important personal connections were in making him feel comfortable using the service, as he soon came to consider some volunteers as friends. This provides an opportunity to blur the line between service provider and service user, promoting ideas of active citizenship and mutual aid.

### **CONCLUSION**

Community-based responses were essential to ensure that people could access food during the COVID-19 pandemic. At a time when the international food supply chain was unable to cope, and many individuals were unable to access state support services, community groups and organizations were able to rapidly adapt to local needs, provide reliable and personalised services, bring people together, and include options for holistic support. By interviewing fourteen individuals receiving food support from a Sheffield-based community food project (Foodhall), it



became clear that social networks and community responses were necessary to find new ways to cope with food insecurity, atop challenges of reduced mobility and closure of other local services during the pandemic.

This research points to a clear need for communal spaces where people can come together and share skills and information, both providing and receiving the support needed to manage life's challenges. These spaces thus provide opportunities for community-based mutual aid, and as such should be incorporated as critical and permanent parts of a city's infrastructure, building coalitions with other important services. Social eating spaces can work with mental health organizations to provide holistic support. These spaces can also work with local farms, food producers, and shops to provide a home for surplus food. In this way, communal food spaces can be weaved into a local food infrastructure, where food producers, retailers, restaurants, and community projects can work together to respond to local gluts and needs, adapting during times of crisis to ensure that food is consistently available and accessible to all.

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## Literature Cited

Barker, M. and Russell, J. (2020). Feeding the food insecure in Britain: learning from the 2020 COVID-19 crisis. *Food Security*, pp. 10–12. doi: 10.1007/s12571-020-01080-5.

Dempsey, D. et al. (2021). Food insecurity in times of Covid-19-an insight into a deepening crisis. Glasgow, UK. Available at: <https://oxfampartnership.uws.ac.uk/wp-content/uploads/2021/10/Food-insecurity-in-times-of-Covid-19-2021-WEB-FINAL.pdf>.

Fernandes-Jesus, M. et al. (2021). More than a COVID-19 response: sustaining mutual aid groups during and beyond the pandemic. *Frontiers in Psychology*, 12(October), pp. 1–17. doi: 10.3389/fpsyg.2021.716202.

Koseda, L. (2020). Covid has shown why we always need social architecture. *The RIBA Journal*. Available at: <https://www.ribaj.com/culture/coronavirus-national-food-service-social-architecture-sheffield-foodhall>.

Lambie-Mumford, H., Loopstra, R. and Gordon, K. (2020). Mapping responses to risk of rising food insecurity during the COVID-19 crisis across the UK'. Available at: <http://speri.dept.shef.ac.uk/food-vulnerability-during-covid-19/>.

Loopstra, R. (2020). Vulnerability to food insecurity since the COVID-19 lockdown: Preliminary report. Food Foundation, (April). Available at: [https://foodfoundation.org.uk/wp-content/uploads/2020/04/Report\\_COVID19FoodInsecurity-final.pdf](https://foodfoundation.org.uk/wp-content/uploads/2020/04/Report_COVID19FoodInsecurity-final.pdf).

Mackley, A. (2021). Coronavirus : Universal Credit during the crisis. London. Available at: <https://commonslibrary.parliament.uk/research-briefings/cbp-8999/>.

Mao, G. *et al.* (2021). What have we learned about COVID-19 volunteering in the UK? A rapid review of the literature. *BMC Public Health*, 21(1). doi: 10.1186/s12889-021-11390-8.

Martin, M. S. *et al.* (2016). Food insecurity and mental illness: Disproportionate impacts in the context of perceived stress and social isolation. *Public Health*. Elsevier Ltd, 132, pp. 86–91. doi: 10.1016/j.puhe.2015.11.014.

McNeill, G., Dowler, E. and Shields, K. (2022). Inside the box: an analysis of the UK's emergency food distribution scheme, Global Academy of Agriculture and Food Systems. Available at: <https://www.ed.ac.uk/global-agriculture-food-systems/gaafs-news/blogs/inside-the-box-an-analysis-of-the-uk-s-emergency-f> (Accessed: 14 September 2022).

Ntontis, E. *et al.* (2022). Tracking the nature and trajectory of social support in Facebook mutual aid groups during the COVID-19 pandemic. *International Journal of Disaster Risk Reduction*. Elsevier Ltd, 76(February), p. 103043. doi: 10.1016/j.ijdrr.2022.103043.

Power, M. *et al.* (2020). How Covid-19 has exposed inequalities in the UK food system: The case of UK food and poverty', Emerald Open Research, pp. 1–22. Available at: <https://emeraldopenresearch.com/articles/2-11>.

The Trussell Trust (2020). UK Food Banks Report Busiest Month Ever, as Coalition Urgently Calls for Funding to Get Money into People's Pockets Quickly During Pandemic. Available at: <https://www.trusselltrust.org/2020/06/03/food-banks-busiest-month/> (Accessed: 14 September 2022).

Tiratelli, L. and Kaye, S. (2020). Communities vs. coronavirus: the rise of mutual aid. London, UK. doi: 10.1093/acprof:oso/9780195336450.001.0001.

UK Government (2019). English indices of deprivation 2019: mapping resources, Guidance. Available at: <https://www.gov.uk/guidance/english-indices-of-deprivation-2019-mapping-resources> (Accessed: 14 September 2022).

UK Government (2020). Major new measures to protect people at highest risk from coronavirus, Press Release. Available at: <https://www.gov.uk/government/news/major-new-measures-to-protect-people-at-highest-risk-from-coronavirus> (Accessed: 14 September 2022).

Voluntary Action Sheffield (2020). Sheffield Charities call on food security for all residents during COVID-19 crisis. Available at: <https://www.vas.org.uk/sheffield-charities-call-on-food-security-for-all-residents-during-covid-19-crisis/> (Accessed: 14 September 2022).

Work and Pensions Committee (2020). DWP's response to the coronavirus outbreak: First Report of Session 2019–21. London. Available at: <https://publications.parliament.uk/pa/cm5801/cmselect/cmworpen/178/17814.htm>.