

Food insecurity evidence through a Covid-19 lens: evidence snapshot

Working Paper at 25th May 2020

This short paper provides an ‘evidence snapshot’ at 25th May 2020. It was undertaken to inform the work of the food insecurity working group of Public Health Scotland’s Covid-19 Social Mitigation Cell. It summarises the findings of a rapid (not systematic) summary of evidence before and since the introduction of Covid-19 restrictions in relation to four key questions about aspects of food insecurity.

In this paper, we have used the following definition of food insecurity: ‘The inability to access adequate quality or sufficient quantity of food in socially acceptable ways or the anxiety that one will not be able to do so in the future’¹.

This paper was put together by Jill Muirie from the Glasgow Centre for Population Health. For further information or queries, please contact [Jill Muirie](#).

Evidence relating to:	Pre-Covid evidence	Evidence since Covid-19 restrictions	Key Points/insights
Why are people food insecure?	<p>In the UK there is good evidence that, despite the multiple and complex issues that cause people to experience food insecurity, the primary reason is inadequate financial resources to purchase and prepare sufficient amounts of nutritious food^{2;3}.</p> <p>Those on low incomes spend a greater proportion of their income on food than those on higher incomes, and this is further exacerbated by the proportionately higher cost of a healthy food basket⁴.</p>	<p>There has been a dramatic increase in the numbers of household that are food insecure. This is, in part, due to changes in many people’s financial circumstances resulting from Covid restrictions e.g. unexpected loss of employment and/or income. Around 29% of respondents reported a loss of income as a result of Covid-19 2 weeks after the restrictions were introduced⁵. Six weeks later (14-17th May) this figure had not changed⁶.</p> <p>Self-isolation and a lack of food in shops created new dimensions of</p>	<p>The prevalence of food insecurity increased dramatically as a result of the COVID crisis. Two months after the introduction of restrictions, food insecurity remains over double the pre-Covid level.</p> <p>Those who were already vulnerable to food insecurity due to economic difficulties were found to be at heightened risk.</p> <p>Lack of food supplies in shops and the need for isolation (of varying periods) are new risk factors for food insecurity,</p>

	<p>Not everyone who is food insecure turns to food aid/food banks; food aid is often a last resort. Food bank data is therefore not a good measure of food insecurity².</p> <p>When the food provided and the means of distribution are adequate, food aid may provide immediate relief from the symptoms of food insecurity. However, food aid has a limited impact on overall household food security status and provides temporary relief^{2;3}.</p>	<p>food insecurity in the UK over and above the economically driven food insecurity that was more prevalent before Covid: the restrictions meant that people were unable to acquire the food they need because they could not go out and/or because food supplies were not available ^{4;5}. In the second month of restrictions more adults were food insecure for financial reasons (up 10%) and fewer as a result of lack of food in shops (down 12%) and isolation (2%)⁷.</p> <p>The three reasons for food insecurity identified by Loopstra⁵ (economic difficulties, lack of food supplies in shops, isolation) are not mutually exclusive i.e. those who report that their food insecurity is due to isolation or to lack of food in shops, may also be experiencing financial difficulties.</p> <p>In the first two weeks of the restrictions, Loopstra⁵ estimated that lack of food in shops alone explained around 40% of food insecurity. In the second month of restrictions⁷ those who experience</p>	<p>and are likely to be experienced more by those who are economically vulnerable.</p>
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How many and who is experiencing food insecurity?	<p>The 2018 Scottish Health⁸ Survey showed that round 9% of adults in Scotland experienced food insecurity in the preceding 12 months, defined as worrying about running out of food due to lack of money or other resources. Some groups were more likely to experience food insecurity: 25% of lone parent households (mainly women) and 21% of adults under 65 living alone. Adults in the most deprived areas were 4 times more likely to have experienced food insecurity than adults in the least deprived areas.</p> <p>In Glasgow, data from NHS Glasgow's Health and Wellbeing Survey (2018) found that 10.8% of respondents in Glasgow City had</p>	<p>The number of adults who were food insecure in the UK was estimated to have quadrupled in the first two weeks of the COVID-19 lockdown⁵. For Scotland, 14% of adults were estimated to be experiencing food insecurity as a result of COVID-19⁵. By mid May the number of adults living with food insecurity had fallen but was still over double the preCovid levels⁷. This fall was almost entirely due to the reduction in food supply issues in shops.</p> <p>The Food Foundation⁶ reported that food insecurity in households with children nearly doubled in in the first 5 weeks of the Covid restrictions, not including food supply issues. In Scotland 20% of households with</p>	<p>14% of adults in Scotland were estimated to have experienced food in security from the start of the COVID crisis to 9th April. In the 5 weeks following lockdown, 20% of Scottish households with children were estimated to have experienced food insecurity.</p> <p>Families with children were particularly vulnerable to food insecurity, especially lone parents, large families and families with disabled children, along with disabled adults (including those with long term conditions) and those from Black, Asian and Minority Ethnic communities. These groups were already vulnerable to food insecurity but have experienced heightened food insecurity due to economic impacts of the covid crisis – the risk has increased due to lack of food supplies and self isolation.</p>

	<p>experienced food insecurity, and 4.6% had experienced severe food insecurity in the preceding 12 months⁹.</p> <p>Key groups more likely to experience food insecurity than others include those with incomes at bottom of the income distribution, people who are unemployed or not working for other reasons, and people with disabilities. Other groups at higher risk of 'less severe' food insecurity include adults with children and adults from Black, Asian and Minority Ethnic (BAME) groups¹⁰.</p> <p>Qualitative research among elderly people has found that some experience both economic and physical barriers to accessing sufficient amounts of food¹¹.</p> <p>Note: Food bank data is not a robust or accurate indicator of the prevalence of food insecurity as it has been shown that use of food banks is a measure of last resort for some population groups^{2;12}.</p>	<p>children were estimated to have been affected⁶.</p> <p>A lack of food in shops alone explained about 40% of food insecurity experiences in the early stages of the Covid-19 lockdown, but not all households were equally affected: adults with disabilities and adults with children were particularly vulnerable⁶. By mid May, food insecurity due to problems accessing food had fallen, but food insecurity for economic reasons had risen⁷. Those groups who were previously at risk of food insecurity remained so, and that risk increased - these groups include adults who are unemployed, adults with disabilities, adults with children, and BAME groups.</p> <p>Self-isolation and a lack of food in shops layered additional risk of food insecurity for those groups already vulnerable to food insecurity. The reduction in operational community-based food projects (e.g. community meals) also had an impact on these groups^{5;6;7}.</p>	<p>Adults in part time work were a new group identified to be at risk of food insecurity due to economic drivers – they are a group that have reported particularly high income losses.</p> <p>Households with children, where one or more adults is an NHS worker were also found to be at higher risk of food insecurity compared to the average household with children 5 weeks into the crisis.</p>
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What are the most effective responses to address food insecurity?	<p>Food insecurity results when household income is inadequate to meet living costs. Addressing and reducing poverty will have the greatest impact on reducing food insecurity^{2;12;13}.</p> <p>In recent years food insecurity has increasingly been experienced by households where one or more adults are in low paid or precarious work. Changes in the welfare system and transition to new benefits have also been frequently cited^{12;13}.</p>	<p>There are 2 distinct issues causing food insecurity – financial difficulty (poverty) and physical access. Financial difficulty exacerbates problems in physically accessing food⁵.</p> <p>The scale of food insecurity resulting from the Covid-19 outbreak is such that providing free food to all those in need is not practicable¹⁵. The Food Foundation also found that many of those in need did not ask or receive assistance^{6;7}.</p>	<p>Financial support is most appropriate for those who are food insecure for economic reasons (e.g. income maximisation, access to benefits, grants and other financial aid). This enables individuals to choose what and when to purchase food (as long as they are able to physically access food). It also makes best use of the resources allocated to support those who cannot physically access food.</p> <p>Food insecurity due to problems physically accessing food can be addressed through schemes that provide</p>

	<p>Social protection interventions (including welfare benefits) are more likely to reduce household food insecurity than community-level interventions, such as food banks and other food programmes¹⁴.</p> <p>The working group on food poverty in 2016 concluded that the most effective response to addressing food insecurity is to address the drivers of poverty and unpredictable incomes, including for those in low paid or precarious work¹³.</p> <p>There is acceptance that emergency food aid may need to be part of that in the short term (but this must always be in line with the Dignity principles set out nationally in Scotland), but access to emergency funds is considered to be a more dignified and appropriate response, to enable individuals to purchase the food that they choose to meet their own needs¹³.</p>	<p>A range of responses are suggested in the literature, all of which should prioritise dignity and choice^{15;14}. These can be categorised under two headings:</p> <ul style="list-style-type: none"> - Maximising income (for those who are experiencing financial difficulty): includes social protection and labour market measures to allow households to purchase their own food according to their needs and preferences (for those able to access a shop or delivery slot with a retailer with adequate supplies). Some food aid may be required until financial support can be arranged. - Social assistance schemes: include food deliveries, food shopping services, meal delivery, childcare services, other in kind support, and can be provided by food retailers, public services or the third sector. <p>Social assistance schemes are most appropriate for those whose food insecurity results from reasons other than financial difficulty and directly</p>	<p>either food delivery or food shopping services. These may involve a cost for those who are financially able. Groups that are most vulnerable to food insecurity should be prioritised for such services and Dignity principles should be central.</p> <p>For those who are economically vulnerable but also require assistance to physically access food, such assistance schemes should be no or low cost.</p> <p>There is need to consider how to improve provision and coordination of food supplies for community organisations that are providing local assistance schemes to avoid missing some groups and to minimise duplication.</p>
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What is the link between food insecurity and health, and how can responses minimise negative health impacts for those experiencing food insecurity?	<p>Individuals living in food-insecure households have poorer dietary and nutritional intakes than those who do not, although there is a variation across age and sex groups. This is primarily due to the proportionately greater cost of healthy food which makes it much harder for low incomes households to follow a healthy diet¹⁷.</p> <p>A healthy diet (ie.in line with 'Eat Well' Public Health England recommendations) is unaffordable for those on a very low income^{4;18}.</p> <p>Food insecurity has been associated with diet-related chronic conditions potentially</p>	<p>People with disabilities and long-term conditions are at increased risk of food insecurity due to both financial difficulties and physical access problems (food supply and isolation)^{5;7}. These groups are more likely to have specific dietary needs which will be more difficult to meet when they are food insecure.</p> <p>Most households with children experiencing food insecurity report that children eat lower quality food and unbalanced meals, with a smaller number not having enough to eat and skipping meals⁶.</p> <p>It is important that those children eligible for free school meals (FSM)</p>	<p>It is important that everyone is well nourished to help maintain their physical and mental health during this time.</p> <p>Those who are disabled or have long term conditions are more likely to be food insecure due to lack of physical access to food and so have a particular need for nutritious food that meets their needs.</p> <p>When economic vulnerability increases, there is a likelihood of lower consumption of healthy food, so it is important that the availability of nutritious, affordable, culturally appropriate food is prioritised across the food system, particularly for those in low</p>

	<p>because of its impact on dietary quality. Food insecurity has also been associated with elevations in low-grade inflammation, stress and anxiety¹⁹.</p> <p>There is a need to prioritise the supply of, and access to, healthy, affordable food particularly for low income communities.</p>	<p>receive an easily accessible substitute while schools are not operational. The Food Foundation⁶ found that many families (UK-wide) were not receiving this at 5 weeks into the lockdown. In particular, their data highlight the importance of enabling newly eligible families to access FSM substitutes.</p> <p>In the medium to longer term it is important that priority is given to maximising the availability of affordable, healthy and culturally appropriate food across our food system and especially in low income areas. Evidence from the 2009 recession²⁰ shows that expenditure on food falls with reduced income and that poorer quality, higher fat/sugar food replace fruit and vegetables as a result.</p>	<p>income communities and those most likely to experience food insecurity.</p> <p>It is also important that those children eligible for free school meals receive easily accessible and nutritious substitutes.</p>
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¹ Radimer KL. Measurement of household food security in the USA and other industrialised countries. *Public Health Nutrition* 2002;5(6):859-864.

² Douglas F. *The nature and extent of food poverty/insecurity in Scotland*. Edinburgh: NHS Health Scotland; 2015.

<https://www.communityfoodandhealth.org.uk/publications/nature-extent-food-poverty/>

³ Lambie-Mumford H, Crossley D, Jensen E, Verbeke M and Dowler E. *Household Food Security in the UK: A Review of Food Aid*. Food Ethics Council; 2014.

⁴ Food Foundation. The Broken Plate Report. London: Food Foundation; 2019. <https://foodfoundation.org.uk/wp-content/uploads/2019/02/The-Broken-Plate.pdf>

⁵ Loopstra R. *Vulnerability to food insecurity since the COVID-19 lockdown*. London: Food Foundation; 2020a.

https://foodfoundation.org.uk/wp-content/uploads/2020/04/Report_COVID19FoodInsecurity-final.pdf

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- ⁶ Food Foundation. *The impact of coronavirus on food (households with families)*. London: Food Foundation; 2020a. https://foodfoundation.org.uk/vulnerable_groups/food-foundation-polling-third-survey-five-weeks-into-lockdown/
- ⁷ Food Foundation. *Findings on Food Access and Covid-19 survey 4: How has the story changed?* London: Food Foundation 2020b. <https://foodfoundation.org.uk/new-food-foundation-data-food-insecurity-and-debt-are-the-new-reality-under-lockdown/>
- ⁸ Scottish Health Survey 2018. <https://www.gov.scot/publications/scottish-health-survey-2018-volume-1-main-report/>
- ⁹ Understanding Glasgow Website. Food insecurity. https://www.understandingglasgow.com/indicators/poverty/food_insecurity
- ¹⁰ Loopstra R, Reeves A & Tarasuk V. The rise of hunger among low-income households: an analysis of the risks of food insecurity between 2004 and 2016 in a population-based study of UK adults. *JCH* 2019. 73(7): p. 668-673.
- ¹¹ Purdam K, Esmail A & Garratt E. Food insecurity amongst older people in the UK. *British Food Journal* 2019. 121(3): p. 658-674.
- ¹² GoWell briefing paper 30: Food insecurity among residents of Glasgow's deprived neighbourhoods. Glasgow: GoWellonline; 2018. At https://www.gowellonline.com/assets/0000/3960/GoWell_briefing_paper_30_Food_insecurity.pdf
- ¹³ Working Group on food poverty. Dignity: Ending Hunger Together in Scotland. Edinburgh: Scottish Government; 2016. <https://www.gov.scot/publications/dignity-ending-hunger-together-scotland-report-independent-working-group-food/pages/7/>
- ¹⁴ Loopstra R. Interventions to address household food insecurity in high-income countries. *Proceedings of the Nutrition Society* 2018;77(3):270-281.
doi:10.1017/S002966511800006X
- ¹⁵ Power M, Doherty B, Pybus K and Pickett K. How Covid-19 has exposed inequalities in the UK food system: The case of UK food and poverty [version 1; peer review: 3 approved, 2 approved with reservations]. *Emerald Open Res* 2020, 2:11 (<https://doi.org/10.35241/emeraldopenres.13539.1>)
- ¹⁶ Poverty and Inequality Commission *Briefing paper on food insecurity and covid: April 2020*. Poverty and Inequality Commission: 2020. <https://povertyinequality.scot/publication/covid-19-food-insecurity-briefing/>
- ¹⁷ Darmon N, Drewnowski A. Contribution of food prices and diet cost to socioeconomic disparities in diet quality and health: a systematic review and analysis. *Nutn Rev* 2015; 73: 642-660.
- ¹⁸ Food Standards Agency. *The cost of a healthy food basket in Northern Ireland in 2018*. London: FSA; 2019 <https://www.food.gov.uk/research/research-projects/the-cost-of-a-healthy-food-basket-in-northern-ireland-in-2018>
- ¹⁹ Gregory CA & Coleman-Jensen A. *Food Insecurity, Chronic Disease, and Health Among Working-Age Adults*. Economic Research Service Economic Research Report Number 235. USDA; 2017.
- ²⁰ Griffith R, O'Connell M, Smith K. *Food expenditure and nutritional quality over the great recession*. Institute of Fiscal Studies; 2013. www.ifs.org.uk/bns/bn143.pdf