Written evidence submitted by The University of Leeds (FSC0054)

Executive Summary

This document contains evidence on the availability of food, the barriers limiting access to that food, food prices and affordability, and consumer behaviour change research that incentivises healthy food purchases by price. This evidence is provided by research conducted at the Consumer Data Research Centre (CDRC) at the University of Leeds, which has been funded by the UK Economic and Social Research Council (ESRC) since 2014. In particular, the evidence comes from CDRC's Priority Places for Food Index, which was created in collaboration with consumer champions Which?. This Index captures data on food access and obstacles to that access across the entirety of the UK, focusing on areas composed of approximately 650 households. It demonstrates that there are areas of high food insecurity in the UK, and that this is driven both by availability of food and barriers accessing the food. Further work by Which? has shown that there are additional financial barriers in store. The Index has been used to lobby policymakers and supermarkets to provide additional support for those priority places. Consumer behaviour change work, conducted in collaboration with UK retailers, has been funded by the Institute of Grocery Distribution (IGD). The work contained here, broadly speaking, shows that healthy eating can be encouraged by making food more affordable: whether that's by lowering the cost of fruit and vegetables for everyone, or by targeting some of the most vulnerable groups by providing top-ups to the Government Healthy Start Voucher scheme.

Evidence

The Consumer Data Research Centre at the University of Leeds has spearheaded research into the provision of healthy and sustainable diets. They have done this in two ways: identifying the source and extent of food insecurity in collaboration with Which?, and by working with retailers, in collaboration with the Institute of Grocery Distribution (IGD), to explore how to incentivise healthy and sustainable diets. This response focuses largely on the former body of work. However, we also draw on our work with retailers regarding Healthy Start Vouchers and top-up schemes, the insights from which have been used to expand access to food for those most in need.

Working with Which?, CDRC has assessed the availability of, and access to, food across the UK, and has identified the areas of highest priority. This has been achieved by developing the Priority Places for Food Index (PPFI). Research led by Which? (see downloadable report here) demonstrated that consumers were making increasingly difficult shopping decisions to ensure their families had adequate access to food, including changing their eating habits or reducing the amount of food consumed. Priority Places for Food Index draws on a variety of data sources to rank neighbourhoods in the UK (approx. 650 households) based on their access to food and their food insecurity. These data span 7 domains, 4 of which constitute "access" to supermarkets and other food providers (=50%), and 3 of which constitute "obstacles" to accessing those food providers (=50%). These 7 domains are: proximity to supermarket retail facilities; accessibility to supermarket retail facilities; access to online deliveries; proximity to non-supermarket food PROVISION (including markets); socio-economic barriers (e.g. income and access to a car); fuel poverty (e.g. energy prices and efficiency data, those on energy prepayment meters); and family food support (proximity to food banks, eligibility for free school meals and healthy start voucher uptake). The PPFI is interactive and has already become indispensable for local governments and policymakers, who are working hard to minimise the obstacles for those in the higher priority areas, particularly as part of localised health policies such as local food strategies. The data within PPFI has also been used to lobby MPs directly, as well as demonstrate to supermarkets the importance of adapting their selling practices based on the areas of highest need. Their Affordable Food For All campaign has reached over 100,000 signatures (as of 25/07/2023), and has resulted in both Aldi and Morrisons committing to helping the most vulnerable by making cheaper food more accessible in higher priority areas. This is particularly important as 98% of British shoppers claim to shop at either supermarkets or hypermarkets for all or part of their grocery shopping (IGD Research).

Given the expertise of our researchers and research-enabling staff (see below) response in this document focuses on the distribution and consumption of food and therefore we are unable to respond to the questions seeking evidence higher up in the “farm to fork” food chain.

Market power and regulation

Here we are able to provide evidence of supermarket market power and their relationship to both the rest of the retail sector and the areas of consumer highest priority in the UK, as indicated in our PPFI. The ‘Big five’ supermarkets – Tesco, Asda, Sainsbury’s, Aldi and Morrisons – have a combined 74.4% market share in the UK (Kantar, 2023). Within the top 10% Priority neighbourhoods for food insecurity across the UK, there are only 122 of these Big 5 supermarkets. By comparison the lowest Priority neighbourhoods for food insecurity contain over 3.5 times as many ‘Big Five’ supermarkets (443) [Fig. 1].

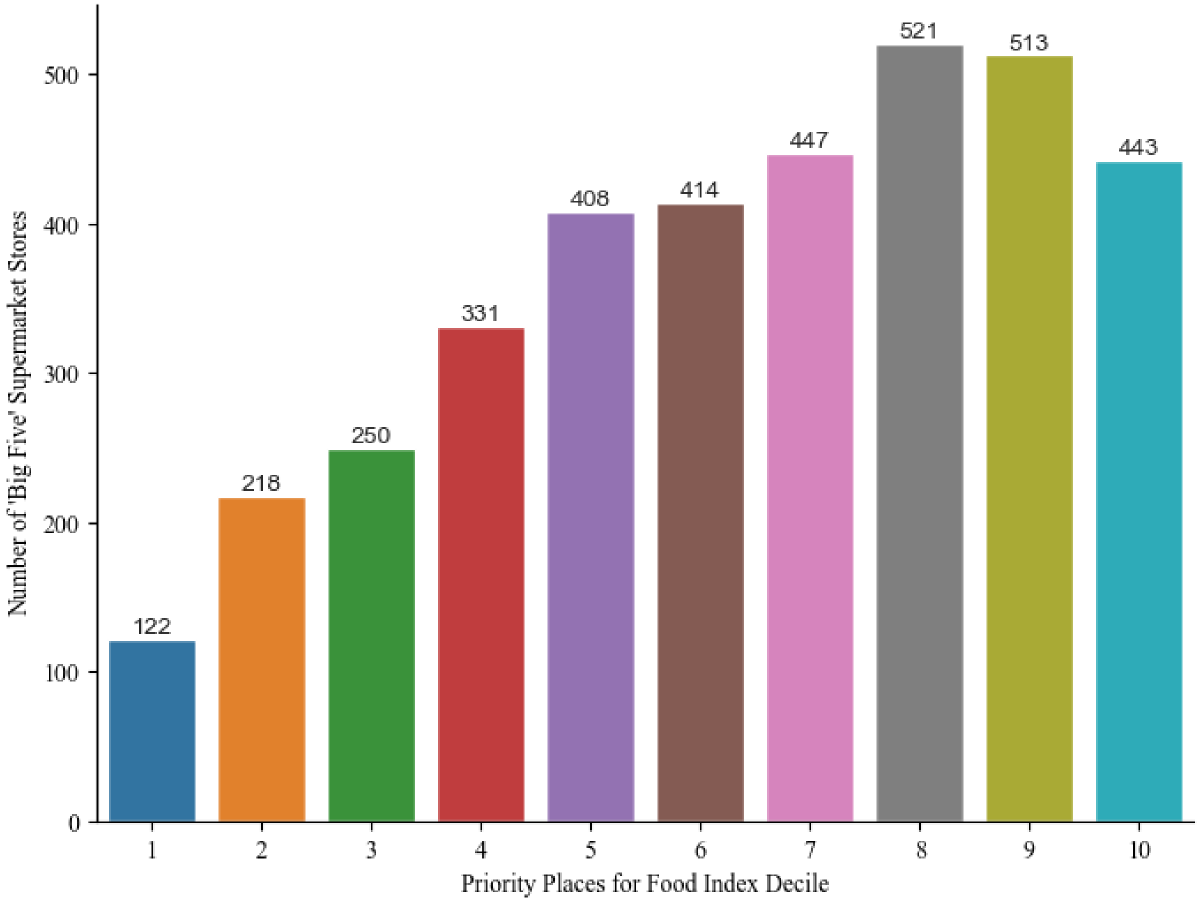

Fig. 1

When we look at the distribution of Big 5 large- and medium-sized supermarket stores across the PPFI Deciles, we see some retailers such as Morrisons and Asda have a larger proportion of their stores in higher priority deciles – providing more affordable food choices to these communities – whilst the large proportion of Tesco and Sainsbury’s supermarket stores tend to be located in low priority areas for Food support [Fig. 2].

Fig. 2

Comparing these figures with [Geolytix](#) convenience store data, we see similar shopping behaviours replicated in each decile of priority across the UK. There are 554 convenience stores cross the top 10% of priority neighbours for food insecurity in the UK. Whilst neighbourhoods in the lowest decile for food insecurity support are served by 1352 convenience stores [Fig. 3].

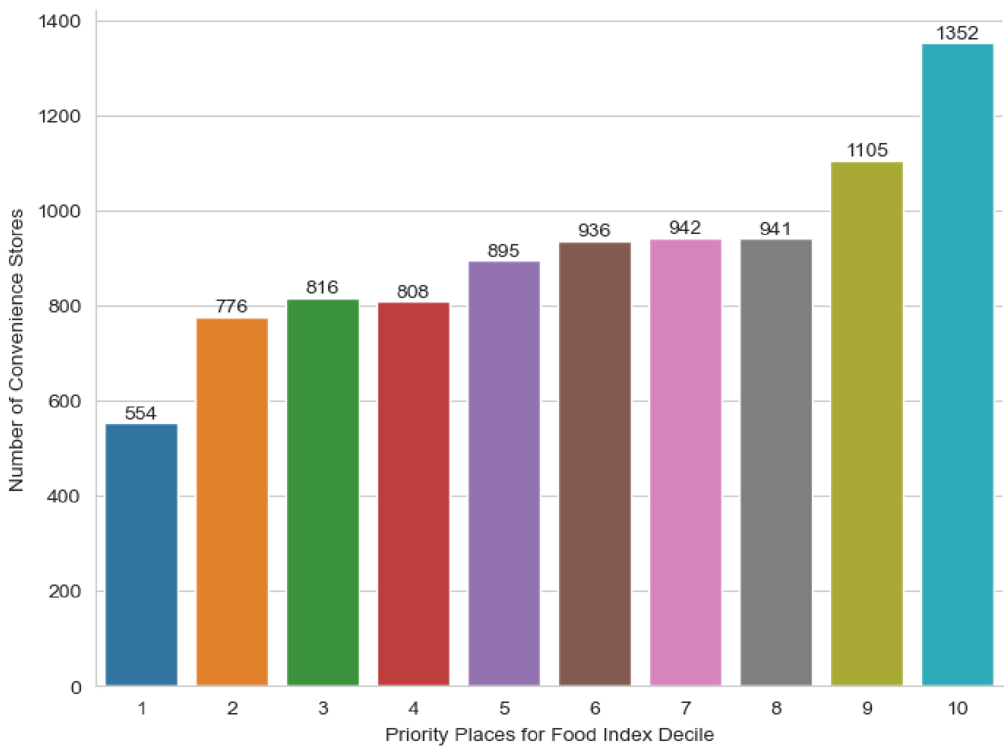

Fig. 3

These data demonstrate how having access to food – either at supermarkets or convenience stores – is an important part of combating food insecurity. However, these data do not reflect the fact that smaller and convenience stores do not always provide access to healthy or affordable food. Convenience stores in more rural communities often provide the only accessible source of food, especially for those without alternative to public transport or mobility issues. Looking at the convenience chains in the UK with the most stores [Fig. 4], Morrisons, the Spar, and the Co-op do well to serve more deprived areas, whilst Sainsbury's, Tesco, and M&S convenience stores are less likely to be in areas of high priority for food insecurity support. This convenience however is often provided at an increased cost.

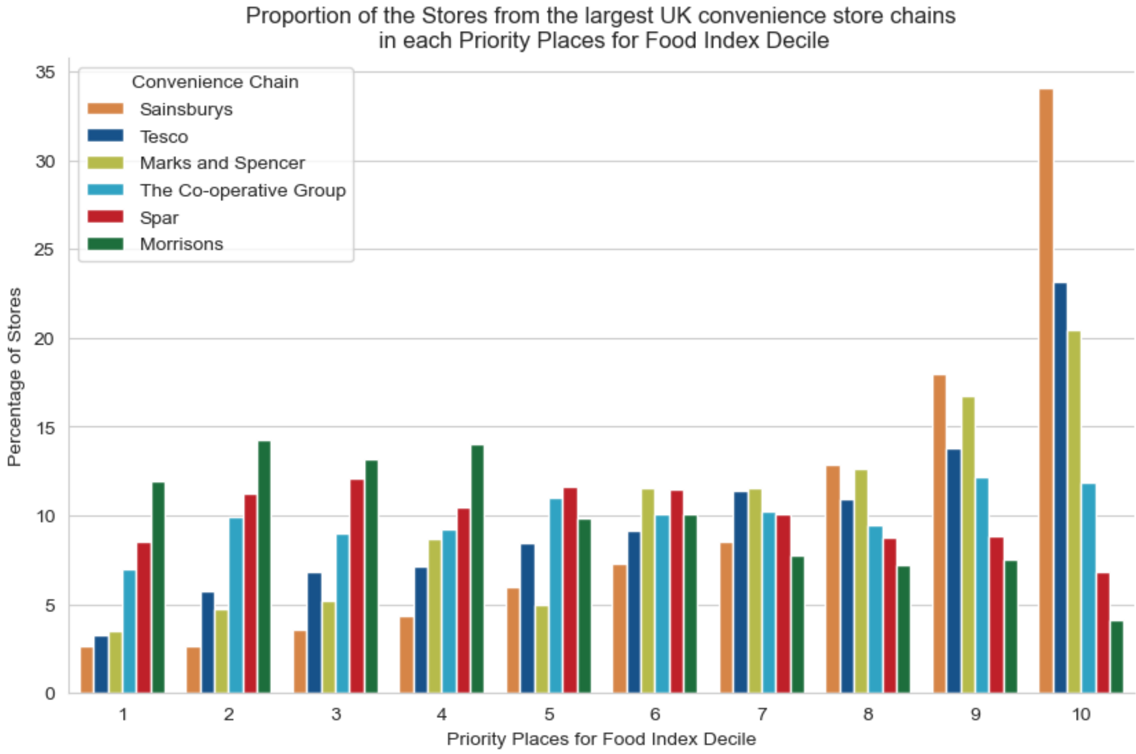

Fig. 4

In recognition that it is not just access to supermarkets, but access to affordable food that indicates food insecurity, some convenience providers have acted in response to Which?'s Affordable Food For All campaign, calling for retailers to make food more affordable. These include Morrisons Daily who have increased the number of budget line items sold in their convenience stores (Which?, July 11 2023), and Aldi, who committed to the campaign on social media by highlighting that it already complied with the action plan.

Food prices, security and fairness

As discussed above, the access to affordable food is not currently captured within CDRC's Priority Places for Food Index. However, the Index is the basis upon which Which? have built their Affordable Food For All campaign, in recognition that being able to access a supermarket does not mean being able to access affordable food within that supermarket. Dr Peter Baudains, part of the team at Leeds responsible for the PPFI, was able to adjust the Index within London based on this assumption. This included down-weighting the access data domains to 1/3 rather than 1/2 of the Index's calculations [Fig. 5]. The result was as follows:

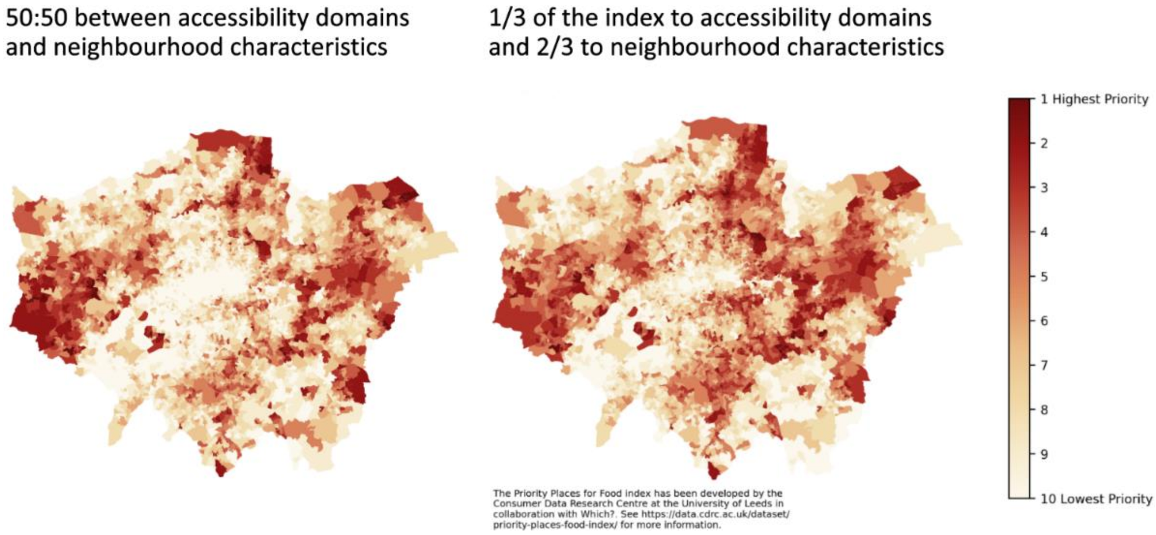

Fig. 5

As we can see from this comparison, the highest priority places remain high priority even after access to supermarkets becomes less significant to the calculations. Importantly, reweighting the Index to limit the effect of access to food locations also demonstrates that there are high areas of need that are currently being obscured by their proximity to food outlets. This demonstrates that in those priority places there are significant barriers to accessing affordable food that are likely not impacted by the proximity of food outlets. This inevitably demonstrates the inequity both of proximity to food outlets and the inequity in accessing food from a financial perspective in addition to proximity. It does not matter how close a supermarket is if people cannot afford to buy from it.

Both Which? and the ONS have developed inflation trackers, mapping how costs are passed on to consumers. Pivotally, the inflation tracker provided by Which? captures rates of inflation by supermarket retailer. Between April and June 2023, Lidl, Aldi, Asda, and Morrisons have the top four highest rates of inflation. If we map this on to the PPFI, this means that those areas served by these four retailers – which, as mentioned above, are primarily the low-income, high priority areas – are facing new obstacles to accessing affordable food. This means that inflation is disproportionately impacting the people in the areas of highest need.

CDRC's research collaboration with the retail sector, led by Professor Michelle Morris and in collaboration with IGD, has demonstrated the value of price incentives for eating a healthy and sustainable diet.[1] Working with Sainsbury's as part of their 60p fruit and veg trial, CDRC analysis revealed a 78% uplift on promoted products in 2020 and 56% during the January 2021 COVID-19 national lockdown, compared to the baseline year. All fruit and vegetable sales increased during intervention, regardless of whether they were on offer, resulting in 4.9 additional portions sold across both interventions. While this demonstrates that initial price incentives can help to nudge consumers in the direction of a more healthy and sustainable diet, the intervention targets all customers and not simply those most in need. Focusing instead on research designed to target the most vulnerable, CDRC analysed the results of Sainsbury's top-up scheme for Healthy Start Vouchers, which are provided to low-income young families and pregnant people to encourage the purchase of fruit, vegetables, and milk products. CDRC analysis showed that when using Healthy Start top-up vouchers, which provided an extra £2 on top of government support, shopping habits shifted positively towards the Eatwell Guide. This included: 13 extra portions of fruits and vegetables; 12% more fresh fruit; fewer composite dishes; fewer

[1] It is worth noting that interventions run in-store and online through this collaboration are funded by industry and the costs of such interventions are not passed on to other actors within the food system (consumers, farmers, producers, etc.).

discretionary products; and less protein rich-food. Healthier habits continued after the trial finished. Focusing on the uptake of top-up vouchers revealed that only half of eligible customers used a top-up voucher only once during the six-month trial, and just 2.5% of customers used the voucher 15 or more times. This highlights further opportunity to expand this scheme. This shows that improving the affordability of healthy food plays an important part in encouraging healthy purchasing habits.

Affordable and healthy food

As discussed above, researchers at CDRC Leeds have played a pivotal part in not only mapping food insecurity across the UK, but actively working with retailers to improve access to healthy and sustainable diets. Which?'s Affordable Food For All campaign was launched at the same time as Priority Places for Food Index, drawing its ten-point action plan from the insights uncovered by the Index. Which?'s suggestions for retailers include actions: making pricing clearer to customers, particularly where promotional offers may not always be the best deal; providing more affordable items; tailoring promotions to support people where they are most likely to be struggling, including providing "top-ups" to the Healthy Start or Best Start voucher schemes; and to provide healthier and more sustainable food at a lower price point and in a way as to be appealing to the breadth of communities that are served.

As noted above, Morrisons Daily have agreed to proposition number 3 – 'Provide a basic range of essential budget lines for affordable, healthy everyday choices that are available across stores, but particularly in locations where people most need support' – by making a basic range of essential budget line items available in all stores. Additionally, as also noted above, Aldi have noted that they are already compliant with all ten action points. In CDRC's other work with retailers, we are helping retailers to address some of the other points, especially regarding Healthy Start Voucher scheme top-ups and promotions on healthy and sustainable foods. CDRC will continue to work with retailers on this, occasionally working alongside Which?, to ensure consumers have access to affordable healthy and sustainable foods, with improved access for those most in need.

Table 1

Highest Priority Decile for…	Rural town and fringe	Rural town and fringe in a sparse setting	Rural village and dispersed	Rural village and dispersed in a sparse setting	Urban city and town	Urban city and town in a sparse setting	Urban major conurbation	Urban minor conurbation
Supermarket proximity	24.0	0.4	60.0	4.6	9.6	0.1	1.2	0.1
Supermarket accessibility	13.6	1.2	42.1	4.8	22.8	0.4	15.1	0.0
Online supermarket delivery	5.3	1.3	0.4	0.5	43.8	1.0	41.9	5.9
Socio-demographic barriers	0.5	0.0	0.0	0.0	27.1	0.1	66.6	5.7
Non-supermarket food proximity	18.8	0.7	57.7	4.8	15.7	0.4	1.7	0.2
Family food support	1.7	0.2	0.2	0.0	30.4	0.2	57.0	10.4
Fuel poverty	1.1	0.1	0.0	0.0	36.2	0.2	56.0	6.5
Overall Priority Places for Food Index	**8.3**	**0.5**	**3.6**	**0.8**	**29.3**	**0.2**	**51.4**	**5.9**

In England we looked at the highest priority 10% of neighbourhoods across the seven index domains by urban/rural location of the neighbourhood [table 1]. We found 60% of neighbourhoods with poor proximity to supermarket food and 57.7% of neighbourhoods with poor proximity to markets and convenience stores are classed as 'rural village and dispersed communities' despite these neighbourhoods making up only 0.6% of the LSOAs in England. Conversely for affordability barriers we see those living in 'urban major conurbations' make up 66.6% of the highest priority neighbourhoods for socio-demographic barriers, 57% of the highest priority neighbourhoods for Family food support and 56% of neighbourhoods for fuel poverty. Finally, we see neighbourhoods in urban cities and towns, typically small cities and large UK towns, tend to make-up a substantial proportion of all top priority domains (9.6-43.8%). This demonstrates that there is an accessibility split between urban and rural locations, with rural areas less likely to have food accessible to them. However, there is also a split in terms of sociodemographic obstacles to accessing food between urban and rural areas, with urban areas most likely to have barriers that limit their ability to afford food. Additionally, smaller UK cities and towns risk scoring poorly for both access and affordability barriers to healthy and affordable food.

Future work

CDRC have committed to an annual update of Priority Places for Food Index, adding in new data that provide added dimension to food (in)security. The tool was launched in November 2022, and the first planned update is due autumn 2023. All data included in the Index are open source and therefore can be accessed freely and downloaded by researchers in a variety of sectors.

There are additional work packages attached to the Priority Places for Food Index using data that will not be, or has not yet been, added into the Index. These include work on mapping health outcomes to areas of high priority. This work will be completed by September 2024 and CDRC plan to share this research with interested stakeholders then.

CDRC's collaboration with IGD is ongoing and continues to be led by Professor Michelle Morris, who can be contacted for further information on this work. The collaboration continues to explore ways of incentivising healthy and sustainable diets, working with current retail partners and scoping further work with new partners.

Contributors

We welcome correspondence on any of the points raised above.

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Maddie Thomas, Healthy & Sustainable Diets Assistant, Sainsbury's

Links and further publications

Baudains P., Pontin F., Ennis E., and Morris M., *Priority Places for Food Index* [data portal] (2022) <https://data.cdrc.ac.uk/dataset/priority-places-food-index>

Baudains P., Pontin F., Ennis E., Morris M., ‘Priority Places for Food’, *Royal Geographic Society: Geovisualisation* <https://www.rgs.org/geography/geovisualisation/priority-places-for-food/>

Baudains P., Pontin F., *Priority Places Explorer* (2023) <https://github.com/Leeds-CDRC/priority-places-explorer>

Newing A., *E-Food Desert Index* (2022), <https://data.cdrc.ac.uk/dataset/e-food-desert-index>

Newing A., Hood N., Videira F., Lewis J., ‘“Sorry we do not deliver to your area”: geographical inequalities in online groceries provision’ (2022) *International Review of Retail, Distribution and Consumer Research* 32 (1), pp. 80-99 <https://www.tandfonline.com/doi/full/10.1080/09593969.2021.2017321>

Pontin F., ‘Understanding Priority Places – targeted support for the UK’s hungriest neighbourhoods’, *Academy of Social Sciences: Comment and Analysis* <https://acss.org.uk/understanding-priority-places-targeted-support-for-the-uks-hungriest-neighbourhoods/>

Thomas M., Moore J.B., Onuselogu D.A., Dalton A., Rains T., Lowry E. et al., ‘Supermarket top-up of Healthy Start vouchers increases fruit and vegetable purchases in low-income households’ (2023), *Nutrition Bulletin*, 00, pp. 1– 12 <https://doi.org/10.1111/nbu.12627>