NOTTINGHAMSHIRE JOINT STRATEGIC NEEDS ASSESSMENT

Food Insecurity

Profile Pack

March 2024

Topic Information	
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Executive Summary

Background

Food is central to a healthy life, impacting multiple aspects of our health and wellbeing and the number of years we live.
For people to reach their potential they need all the right 'building blocks' in place: stable jobs, good pay, safe and stable housing, good education and access to healthy food. However, both nationally and locally, for some people many of these 'blocks' are missing.

Access to affordable healthy food is vital for good health, however many people in the UK are struggling to meet basic food needs which could result in ill health such as cardiovascular disease, obesity, and chronic stress, resulting in lives cut short.

This profile pack explores the role and impact of food insecurity as a building block of health and provides recommendations for further action.

National Context

Food insecurity relates to the inability, or uncertainty to access an adequate quality or quantity of food. The term *food insecurity* and *food poverty* are often used synonymously. The UN Food and Agricultural Organisation (FAO) states that a person is food insecure when they lack regular access to enough safe and nutritious food for normal growth and development and an active and healthy life. This may be due to unavailability of food and lack of resources to obtain food. The FAO measures food insecurity using the Food Insecurity Experience Scale:

- Food secure/ mild food insecurity –uncertainty on ability to obtain food
- Moderate food insecurity - compromising on the quality and variety of food/ reducing the food quality, skipping meals
- Severe food insecurity – no food for a day or more

Food insecurity is driven by multiple factors such as access to food, affordability of food and cooking, and capability to prepare and cook food. Other factors include income, employment, and financial resilience. Currently it is thought that a range of global and national factors such as climate change, conflict and the COVID-19 pandemic have impacted on food supply chains and access and affordability of healthy food. This has been exacerbated by cost-of-living pressures. Food price inflation reached a 45 year high of 19.1% in March 2023.

According to The Food Foundation, 9 million adults (17% of households) experienced food insecurity in the UK in June 2023, an increase from 7.3% in August 2021. Nationally the number of people given crisis support (food bank referrals and emergency charitable support) more than tripled between March 2020 and March 2023.

Certain household are more at risk of food insecurity, including low-income households, unemployed, households with dependant children, people living with disabilities, minority ethnic households and people between the ages of 16-34. Groups at risk of poverty are also at risk of food insecurity. The poorest fifth of UK households would need to spend 50% of their disposable income on food to meet the cost of the recommended healthy diet, compared to 11% for the richest fifth of UK households. Nationally 1 in 4 households with children have experienced food insecurity.

Food insecurity has negative health impacts across all ages with increased risk to physical and mental health. There is an increased risk of high blood pressure, obesity, cardiovascular disease, poor sleep, depression and stress within adults. Food insecurity negatively impacts on child development in the early years and an increased risk of weight gain leading to childhood obesity and type 2 diabetes.

Malnutrition is estimated to cost the NHS in England £19.6 billion per year, and the cost of treating obesity related ill health is forecast to rise to £9.7 billion per year by 2050.

Local Context

In Nottinghamshire, it is estimated that the number of households experiencing food insecurity increased from 65,707 in 2021 to 110,000 in June 2023.

The estimated number of adults in Nottinghamshire likely to have not eaten for a whole day because they could not afford, or access food increased from 21,426 in 2022 to 38,200 in June 2023.

In 2021 19.5% of Nottinghamshire residents were living in areas at highest risk of food insecurity. There is a significant geographical inequality in the experience of food insecurity across Nottinghamshire. Mansfield (53%), Ashfield (29.1%) and Bassetlaw (29.9%) are above the Nottinghamshire average and this means that people who live in these areas are more at risk of food insecurity.

Deprivation can be an indication of food insecurity risk, specifically when used in conjunction with other risk factor data such as age and employment status. Current Nottinghamshire modelled data shows that 16% of the population live in the 20% most deprived areas in the country.

Food insecurity is a newly recognised and important issue impacting health and wellbeing. Nottinghamshire has an emerging food infrastructure through its partnerships at County and District and Borough levels which supports community engagement, planning and intervention.

Unmet Needs and Service Gaps

- There are high and growing levels of food insecurity across Nottinghamshire and further support is required to address the drivers of food insecurity, particularly in the areas most in need.
- There are currently gaps in understanding and knowledge of food insecurity within Services and where to signpost for support.
- There is a lack of consistent data and insight into food insecurity in Nottinghamshire. Currently much of this data is either incomplete or out of date.

Recommendations for consideration

	Recommendation	**Lead(s)**
	Partnership and plans	
1.	Strengthen the governance of the Nottinghamshire Sustainable Food Partnership within the Nottinghamshire Health and Wellbeing Board.	Nottinghamshire Sustainable Food Strategy Group Nottinghamshire Health and Wellbeing Board
2.	Develop a Nottinghamshire Sustainable Food Plan which builds on the ambitions of the Nottinghamshire Food Charter and sets out the steps required for Nottinghamshire to become a healthy and sustainable food county.	Nottinghamshire County Council Public Health working with the Nottinghamshire Sustainable Food Strategy Group
3.	Develop and support local food partnerships to address food insecurity and wider related food system issues in priority communities.	Nottinghamshire Sustainable Food Strategy Group
4.	Explore how system partners can work in collaboration with the commercial sector to address the marketing of unhealthy foods and access to healthy foods across the sector, including consideration of: • review of the Healthier Options Takeaway Scheme • a Health in All Policies approach with Local Authority partners including Planning, Housing, Environmental Health, and Trading Standards to embed food security into plans and strategies.	Nottinghamshire Sustainable Food Strategy Group Nottinghamshire Health and Wellbeing Board including District and Borough Councils

	Data and insight	
5.	Explore options for local data collection to increase understanding of food insecurity in Nottinghamshire.	Nottinghamshire County Council Public Health working with the Nottinghamshire Sustainable Food Strategy Group including academic partners.
6.	Map local food assets to improve understanding of provision to better inform the planning of effective interventions and targeting of resources.	
7.	Engage with communities to increase local evidence base on the enablers and barriers to accessing to healthy food.	
	National guidance and evidence based good practice	
8.	Increase uptake of the Healthy Start Scheme, Free School Meals, and the Holiday Activities & Food Programme.	Nottinghamshire County Council, in collaboration with wider system partners.

Food Insecurity - Key Facts

Nationally 1 in 4 households with children have experienced food insecurity



Most groups at risk of poverty are also at risk of food insecurity



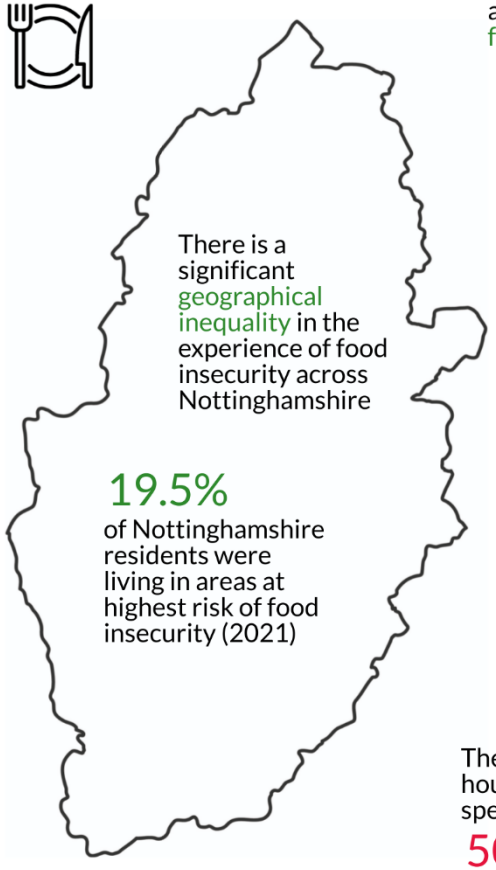
There is a positive correlation between deprivation and fast food outlet density both nationally and locally



More than 1 in 4 places to buy foods in the UK are fast food outlets

Nationally the number of people given crisis support (food bank referrals and emergency charitable support) more than tripled between March 2020 and March 2023





There is a significant geographical inequality in the experience of food insecurity across Nottinghamshire

19.5%

of Nottinghamshire residents were living in areas at highest risk of food insecurity (2021)

National evidence suggests that a mix of interventions are needed with benefits for individuals and communities



Food insecurity has negative health impacts across all ages





Malnutrition is estimated to cost the NHS in England £19.6 billion per year, and the cost of treating obesity related ill health is forecast to rise to £9.7 billion per year by 2050

There is no single measure for food insecurity but all measures show an increase



Food price inflation reached a 45 year high in March 2023 of 19.1%



The poorest fifth of UK households would need to spend

50%

of their disposable income on food to meet the cost of the recommended healthy diet, compared to

11%

for the richest fifth of UK households



What do we know and what does that tell us?

This Joint Strategic Needs Assessment seeks to explore the following areas:

- What is the national picture of food insecurity and what are its causes?
- What is the impact of food insecurity, particularly on vulnerable groups?
- What does food insecurity look like in Nottinghamshire?
- What is being done about food insecurity nationally and locally?
- What further action and research is needed in Nottinghamshire?

1. Introduction. Food security, a building block of health

Food is central to a healthy life, impacting multiple aspects of our health and wellbeing and the number of years we live.

For people to reach their potential they need all the right 'building blocks' in place: stable jobs, good pay, safe and stable housing, good education and access to healthy food. However, both nationally and locally, many of these 'blocks' are missing for people.

Access to affordable healthy food is vital for good health, however many people in the UK are struggling to meet basic food needs which could result in ill health such as cardiovascular disease, obesity, and chronic stress, which ultimately shortens lives.

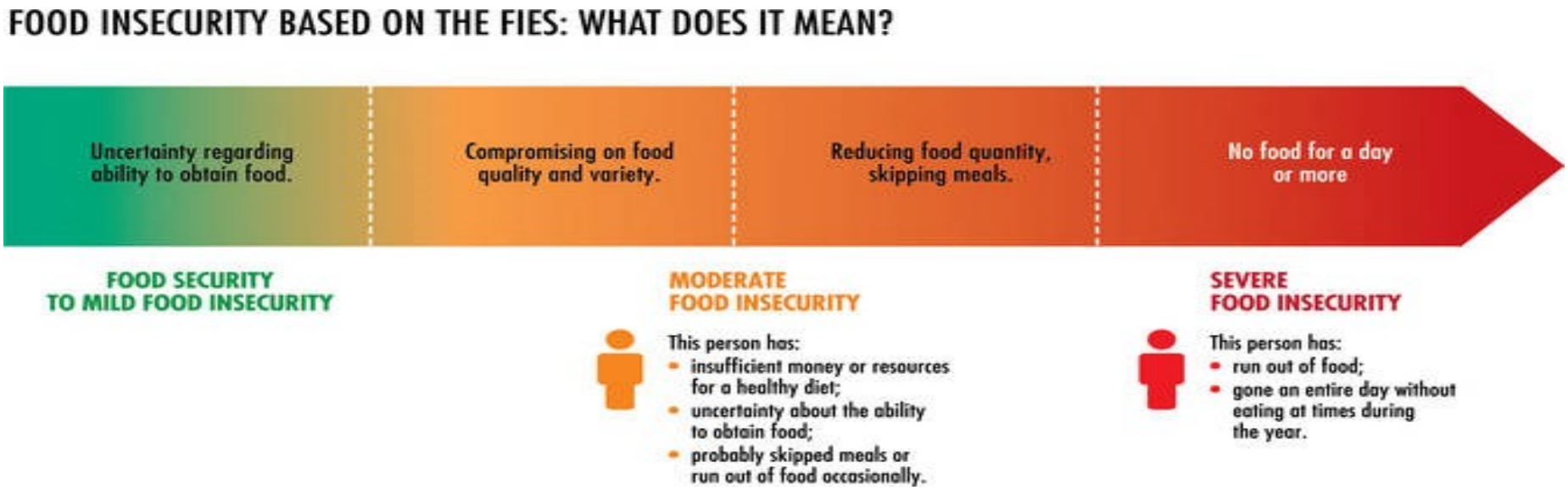
The Nottinghamshire Plan (2021) and the Nottinghamshire Joint Health and Wellbeing Strategy (2022-2026) both have food security at its core stating the importance of ensuring that Nottinghamshire residents live healthier and happier lives, prosper in their communities, and remain independent in later life.

This document explores the role and impact of food insecurity as one of the building blocks of health, providing recommendations for further action and research in this area to support strategic ambitions and provide insight to partners across the Nottinghamshire Integrated Care System.

2. What is food insecurity?

The term *food insecurity* and *food poverty* are often used synonymously. The terms signify *"*the inability to consume an adequate quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so*"* (1). The UN Food and Agricultural Organisation (FAO) states that a person is *food insecure* when they lack regular access to enough safe and nutritious food for normal growth and development and an active and healthy life (2). This may be due to unavailability of food or lack of resources to obtain food. Food insecurity can be experienced at different levels of severity. The FAO measures food insecurity using the Food Insecurity Experience Scale, as described in figure 1, below.

Figure 1 Food Insecurity Experience Scale. Source: The UN Food and Agricultural Organisation

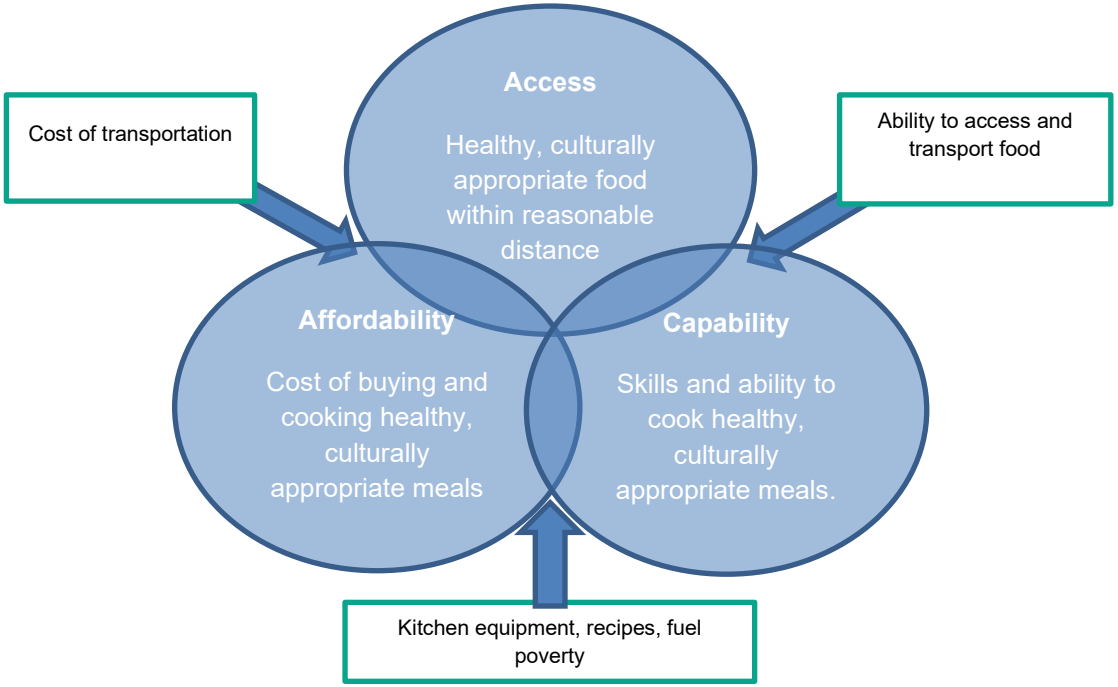


3. Food insecurity drivers

Food insecurity is driven by multiple factors such as access to food, affordability of food and cooking, and capability to prepare and cook food, as described in figure 2, below. Other factors include income, employment, and financial resilience.

During 2021 to 2023 the price of food increased significantly. The Broken Plate 2023 reported that food price inflation reached a 45 year high in March 2023 of 19.1% (3). Combined with the doubling of household energy bills in 2022 and the increased prevalence of fuel poverty (4) and other cost of living pressures, this has resulted in households cutting back on the quality and quantity of food they buy (5). The poorest fifth of the UK population would need to spend 50% of their disposable income on food to meet the cost of the recommended healthy diet, an increase of 7% since 2020-2021, compared to 11% for the richest fifth of the population (6).

Figure 2. Definitions and examples of food drivers adapted from Blake, M.
Food insecurity, its effects and ways to address them | GeoFoodie



The European Commission report *Drivers on Food Insecurity* (7) highlights seven main categories of drivers that affect the ability of food systems to deliver healthy and sustainable diets for all:

- biophysical and environmental drivers
- research and innovation, and technology
- economic and market drivers
- food value chain performance
- political and institutional drivers
- socio-cultural drivers
- demographic drivers

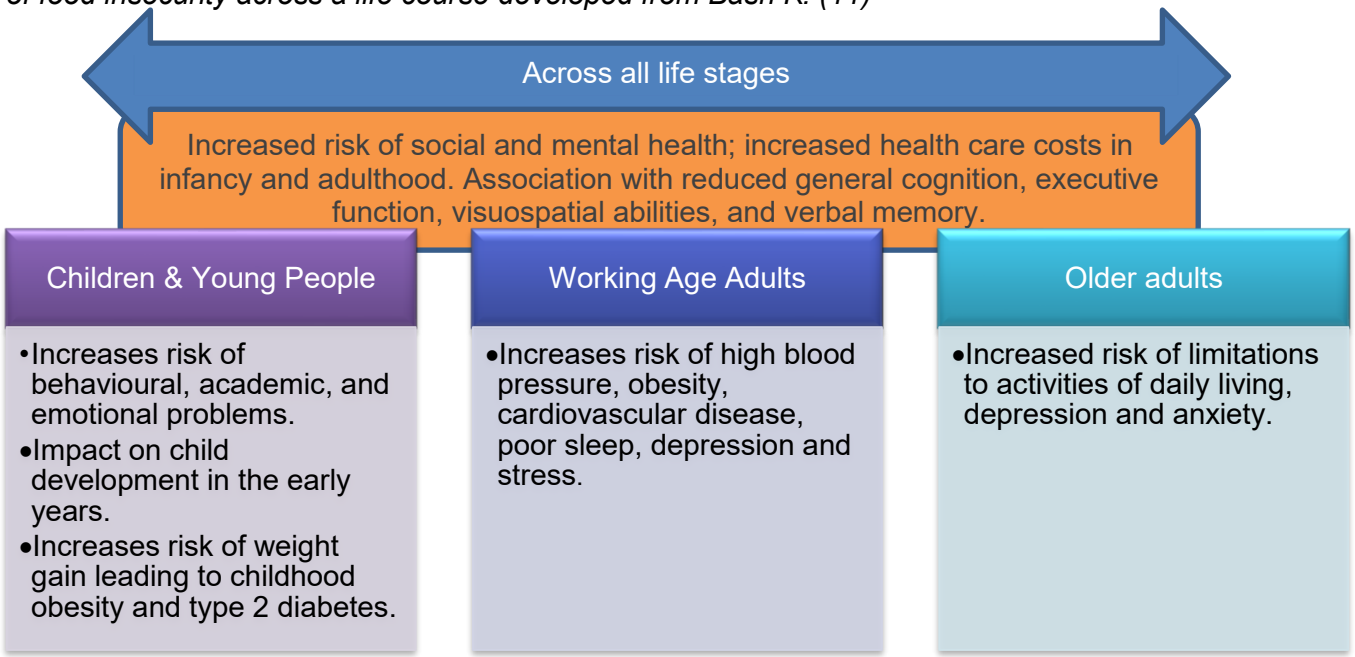
Some affect at a wider system level and others at individual and household level.

4. The impact of food insecurity on health across a life course

Diet-related ill health is a leading cause of preventable illness in the UK, and a significant driver of health inequalities. Malnutrition is estimated to cost the NHS in England £19.6 billion per year, and the cost of treating obesity related ill health is forecast to rise to £9.7 billion per year by 2050 (8). Viewing food as a building block of health enables local interventions to tackle the health impacts of food insecurity for local needs and across a life course.

It is widely known that being food insecure impacts on both physical and mental health ill health (9). For many these risks to health are compounded with fuel poverty (See JSNA Insight Pack on Fuel Poverty). Living in these circumstances, often with the additional stress and the worry of income, housing, transport and employment, choices around the quantity and quality of food are constrained and potentially have a significant impact on the health of the most at risk groups and communities (10). Figure 3, below, highlights the health impacts and the increased risk to mental and physical health at different stages of life.

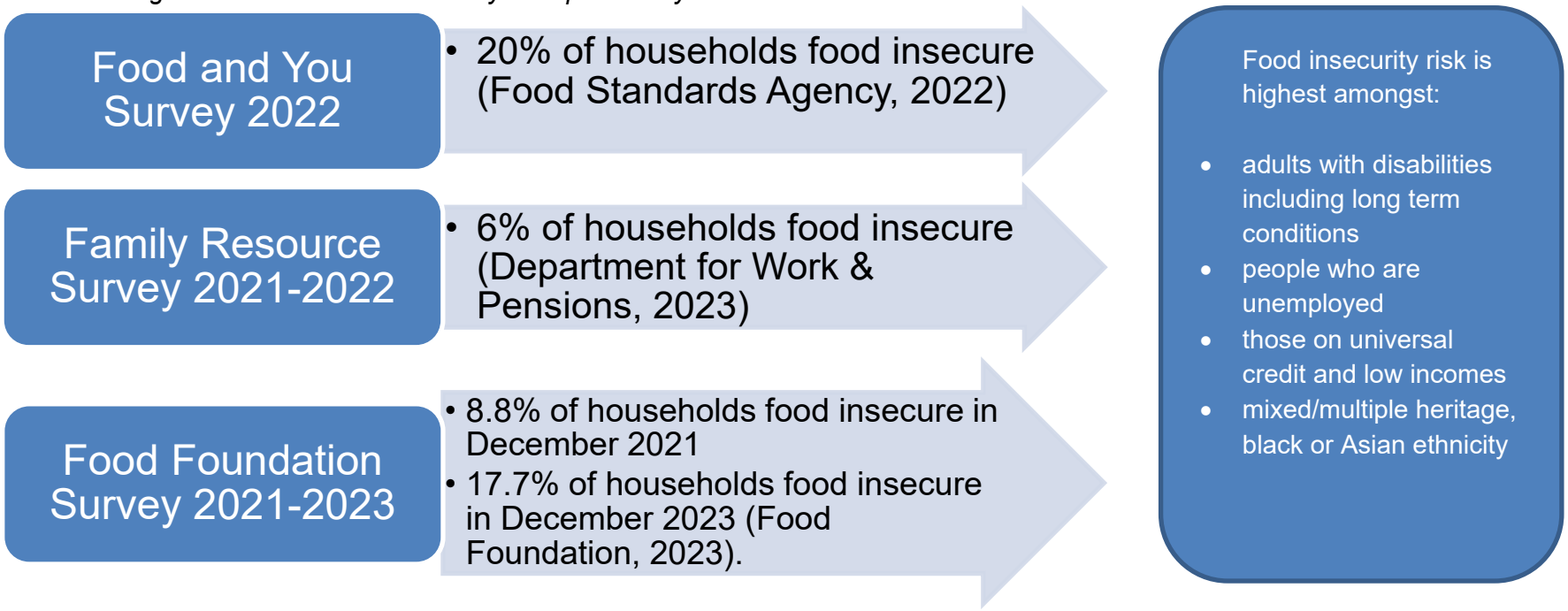
Figure 3 Health impacts of food insecurity across a life course developed from Bash K. (11)



5. National and Local Prevalence of Food Insecurity

Nationally food security has been impacted by several combined factors in recent years including the Covid 19 pandemic and the rising cost of living. Global and national factors such as conflict and climate change have played a role in the disruption of food supply chains and access and affordability of healthy food (12). Increased cost of food and fuel have subsequently intensified issues for increased numbers of people, exacerbating existing inequalities and continued financial pressures on families impacting on food insecurity over a longer term. Nationally the number of people given crisis support by Citizens Advice (food bank referrals and emergency charitable support) more than tripled between March 2020 and March 2023 (13). Estimates of food insecurity vary by survey depending on the questions asked and as such there is no single reliable data source. This is reflected in figure 4, below, using recognised national data sources. The Food and You 2 survey has recently included a question on use of food pantries showing a response to the need for a more detailed understanding but due to the small sample size it is difficult to analyse in more detail for population groups and smaller geographies.

Figure 4 The range of estimated food insecurity data per survey

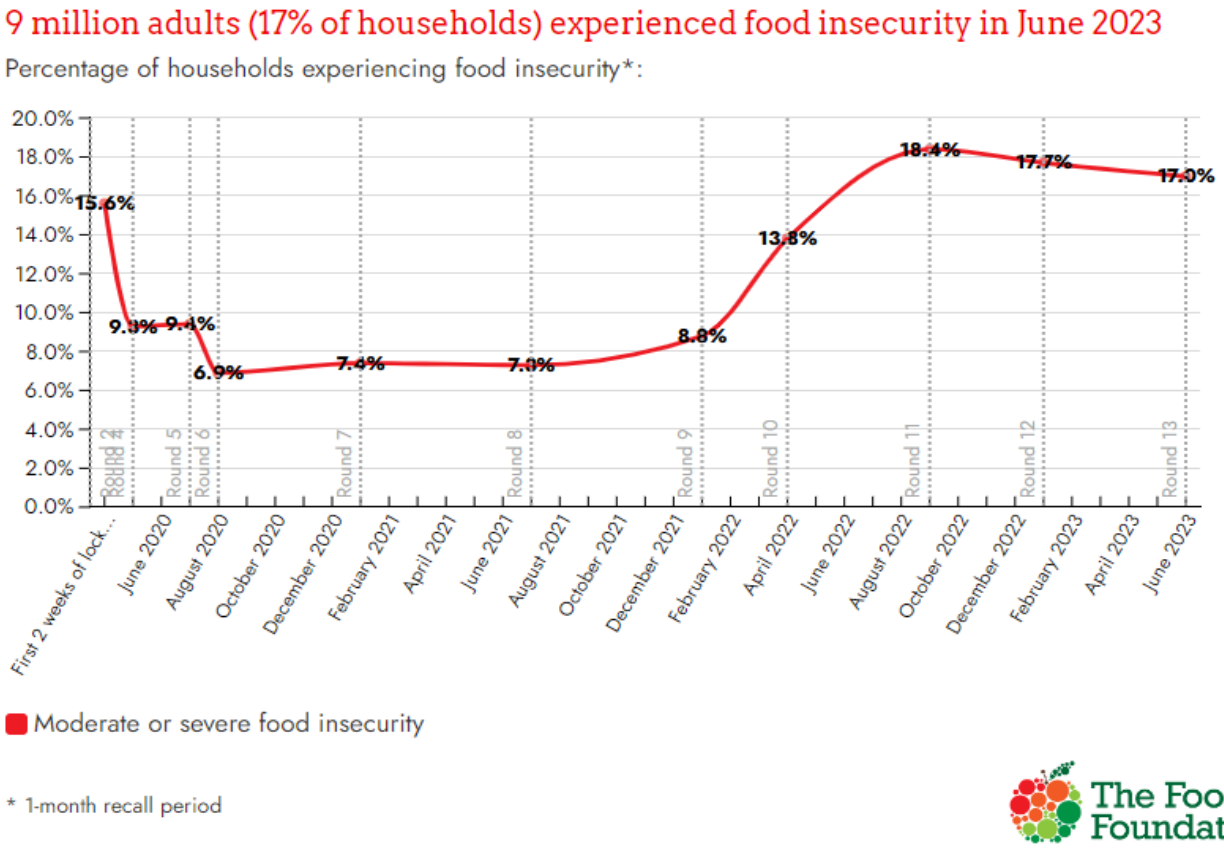


Local food insecurity data collection is important to understand the scale, assess the risk over time and identify where support is needed. It is important to understand which data sources are used locally and why. Local estimates of food insecurity use the same data source from the Food Foundation survey to provide the most accurate and timely local picture and have been used for comparison throughout this report. The Food Foundation provides bimonthly national tracking of prevalence and risk characteristics providing a regular national picture. The Family Resources Survey (FRS) is a continuous household survey that reports annually on the living standards and circumstances of people living in the UK. Although this survey includes questions on food insecurity it is less frequent than the Food Foundation bi monthly tracking and therefore is more restrictive in monitoring and to changes in food insecurity.

The United States Department of Agriculture (USDA) Household food security survey tool is a recognised tool to model food insecurity. Many national data sources utilise the basic USDA model and classification of food security. This has been used to indicate who is at risk in Nottinghamshire and where they are (14). The model presents a series of questions to identify food security status:- Recipients answering yes to one of the following questions were classed as food insecure.- *have you or anyone in your household: had smaller meals than usual or skip meals because you can't afford or get access to food?; ever been hungry but not eaten because you can't afford or get access to food?;Not eaten for a whole day because you can't afford or get access to food?*

Figure 5 highlights that nationally 9 million adults (17% of households) experienced food insecurity in June 2023, an increase from 7.3% in August 2021. In Nottinghamshire, estimates from modelled data suggest that the number of households experiencing food insecurity increased from 65,707 in 2021 to 110,000 in June 2023.

Figure 5 Food Foundation survey June 2023 (published Sept 2023)

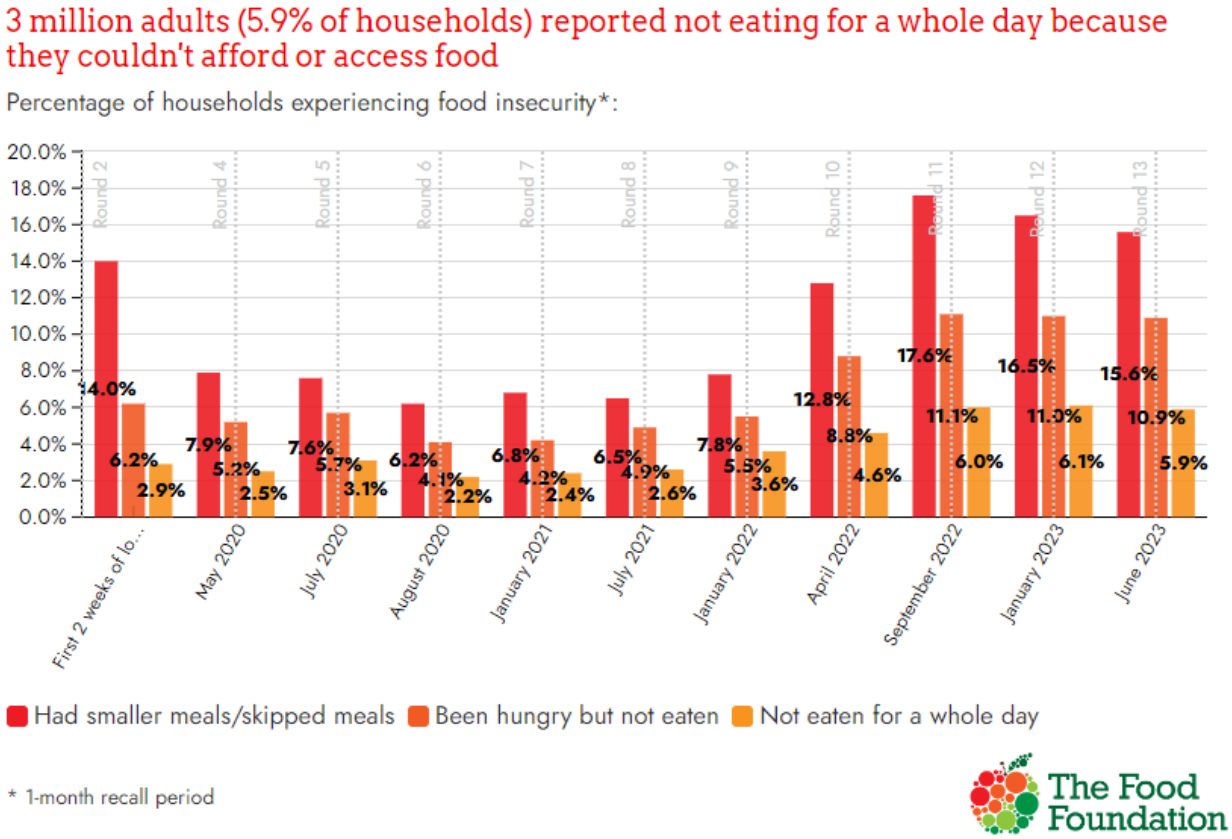


Modelled data shows that it is estimated in Nottinghamshire 110,000 adults experienced food insecurity in June 2023. This is an increase from an estimated 65,707 adults (13.8%) in Nottinghamshire 2021.

Base number: Census 2021

Figure 6, below, shows the proportion of people in the UK who reported not eating for a whole day and highlights the significant increase in those who reported skipping meals or eating smaller meals from 7.9% in May 2020 to 15.6% in June 2023. The Nottinghamshire modelled data suggests that an estimated 38,200 people are likely to have not eaten for a whole day because they couldn't afford or access food and this number has increased since 2021. This means that there has been an increase in numbers of people experiencing severe food insecurity which is likely to have considerable impacts on both mental health and physical wellbeing.

Figure 6 Food Foundation survey June 2023 (published Sept 2023)



Estimates from modelled data show that 38,200 adults in Nottinghamshire are likely to have not eaten for a whole day because they couldn't afford or access food - an increase from an estimated 21,426 who reported having not eaten for a whole day in 2022.

6. Groups and Communities with the Highest Prevalence and at the Greatest Risk of Food Insecurity

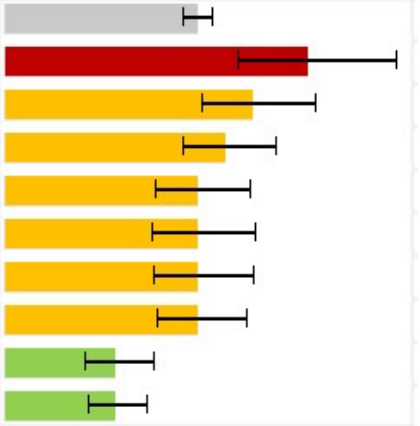
6.1 Geographical Disparities

There are significant regional inequalities in food insecurity across the UK and differences between urban and rural experiences of food insecurity. Figure 7, below, demonstrates the sizeable disparities in England, with areas in the north more likely to experience food insecurity.

Figure 7 Percentage of households experiencing food insecurity by region. Source: OHID Fingertips

Food Insecurity - percentage of households experiencing food insecurity 2020/21

Area	Recent Trend	Count	Value
England	–	525	7.0
North East region	–	49	11.0
East Midlands region	–	65	9.0
North West region	–	78	8.0
Yorkshire and the Humber region	–	57	7.0
West Midlands region	–	50	7.0
London region	–	52	7.0
East of England region	–	63	7.0
South West region	–	37	4.0
South East region	–	51	4.0



Source: Office for Health Improvement and Disparities. Public health profiles. 2024 https://fingertips.phe.org.uk © Crown copyright 2024

Food insecurity estimates in Figure 8 below show some areas of Nottinghamshire have higher proportions of people at increased risk of food insecurity which highlights the geographical inequality based on specific risk indices. These same indices are also used in modelling Nottinghamshire data and Office for Health Inequalities and Disparities (OHID) Fingertips tool.

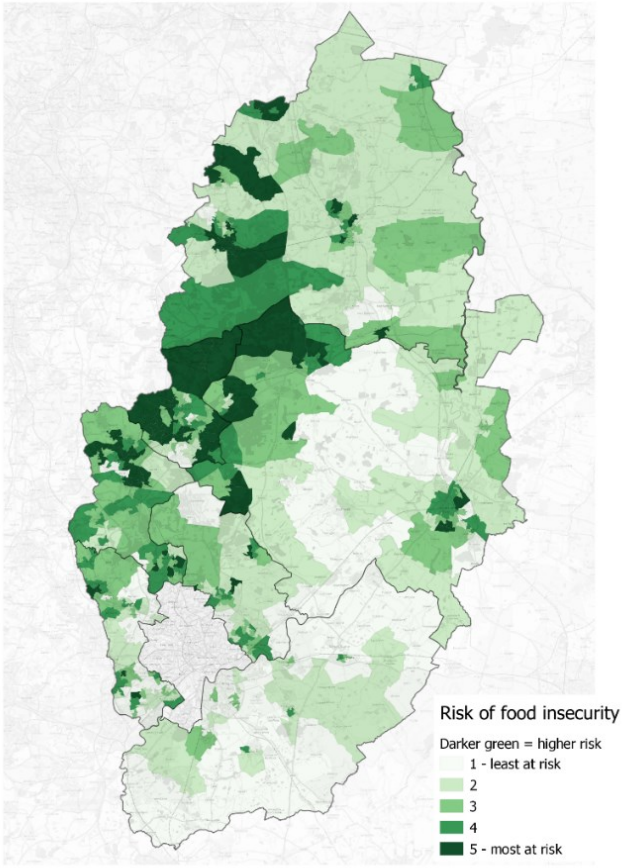


Figure 8 Nottinghamshire estmates of food security

at MSOA level produced by [Southampton University 2023]

Figure 9 Food insecurity (indirect measure) percentage of LA population living at risk of food insecurity 2021-22 2022-23

District	Percentage
Ashfield	29.1 %
Bassetlaw	29.9 %
Broxtowe	5.6 %
Gedling	2.9 %
Mansfield	53.1%
Newark & Sherwood	16.7%
Rushcliffe	0.0 %
Nottinghamshire	19.5%

Source: Office for Health Improvement and Disparities. Public health profiles. 2024 https://fingertips.phe.org.uk © Crown copyright 2024

In 2021 19.5% of Nottinghamshire residents were living in areas at highest risk of food insecurity

Figure 9 shows the disparity within the County where there are areas with a higher risk of food insecurity than others, with Mansfield, Ashfield and Bassetlaw above the Nottinghamshire average.

6.2 Food insecurity and deprivation – do areas highlighted as being food insecure correspond with areas of deprivation?

Deprivation can be an indication of food insecurity risk, specifically when used in conjunction with other risk factor data such as age and employment status. In Nottinghamshire there are 31 areas, known as lower super area output (LSOAs) in the 10% most deprived areas in England. The most deprived areas are concentrated in the districts of Ashfield (12), Mansfield (10), Bassetlaw (5) and Newark & Sherwood (3). These figures demonstrate a significant local inequality and can be useful to help build a picture of differing food insecurity across the county. Current Nottinghamshire modelled data shows that 15.7% of the population live in the 20% most deprived areas in the country. Mansfield district has the highest percentage (40.9 %) of residents in living in the 20% most deprived areas in England. In Ashfield and Bassetlaw, 27.3% and 20.7% of people live in the 20% most deprived areas in England. Broxtowe and Gedling have very low numbers of people living in the 20% most deprived areas in England and Rushcliffe has 0% of its population living in the 20% most deprived areas in England. This shows a correlation to the areas highlighted in *figure 9* as Districts with the highest risk of food insecurity. (Census 2021)

Additionally pockets of deprivation within the districts and rurality compounded by poor transport can worsen access to food support and adds higher costs of providing support and addressing these barriers in rural areas.

6.3 Groups at risk of food insecurity

Food insecurity continues to present a public health risk to children and adults as residents face cost-of-living pressures. This has a greater impact on low income and vulnerable groups in Nottinghamshire.

There has been a significant amount of research undertaken into the complexities of food insecurity and risk characteristics. Households more likely to be food insecure include low-income households; people who are unemployed; households with children; households with people living with disabilities; and minority ethnic households (15).

The Nottinghamshire Food & Nutrition Security Study (FANSS) (16) has provided local data on self-reported Food Insecurity. Although the FANSS study is unrepresentative, it suggests prevalence and individual/household characteristics that increase risk of food insecurity similarly to those groups above in Nottinghamshire districts which provides some local in depth insight. This helps to build a picture of the experience of food insecurity locally. This study will be referenced throughout the report.

6.4 Unemployed and low income

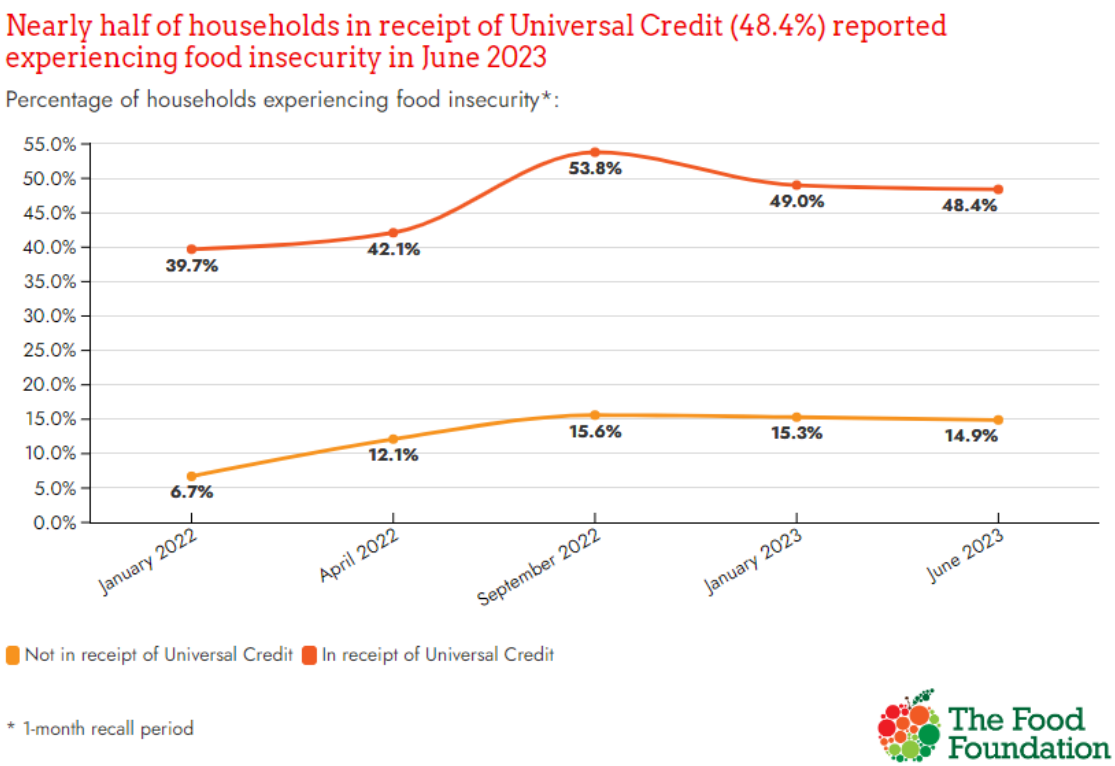
Food insecurity is associated with employment and low income. Nationally, the Food and You survey wave 6 shows 53% of respondents who were long term unemployed or never worked were likely to be food insecure. Full time students (38%) and semi routine/ routine occupational (36%) are more likely to be food insecure. Low income households are also more likely to be food insecure than those with a higher income for example with an income of less that £19,000, 46% of respondents reported being low or very low food security (17).
Nottinghamshire estimates suggest that 96,054 individuals who are long term unemployed or have never worked are likely to experience food insecurity. Also 65,865 in semi-routine and routine occupations are likely to experience food insecurity and 8,558 full time students who are not working are likely to be food insecure.

The FANSS study suggests that in Nottinghamshire almost half of the lowest earners (bottom 20% of income) were food insecure.

6.5 People receiving universal credit experiencing food insecurity

The Food Foundation survey shows a correlation between people in receipt of universal credit and higher rates of food insecurity. Almost half of households in receipt of universal credit have experienced food insecurity in the 6-months leading to June 2023 as shown in *figure 10*.
This is replicated in local data with 48.4% (26,600) of Nottinghamshire households in receipt of Universal Credit reporting experiencing food insecurity (May 2023) (Census 2021). The FANSS study also found that more than 50% of any group reliant upon benefits were food insecure, rising to 86.8% of those receiving universal credit.

Figure 10 Households in receipt of universal credit experiencing food insecurity in the UK. Source: Food Foundation, 2023.



The modelled data for Nottinghamshire shows that the number of households in receipt of universal credit experiencing food insecurity varies across the districts, with Ashfield (9.2%), Mansfield (8.9%) and Bassetlaw (7.8%) having the highest number of households on Universal Credit experiencing food insecurity. Rushcliffe has the lowest number of households on Universal Credit experiencing food insecurity at 3.8%. There is a significant inequality between the districts with the highest number of households in receipt of Universal Credit experiencing food insecurity (Ashfield) and the lowest (Rushcliffe), with a difference of 5.4% households.

6.6. Age and food insecurity

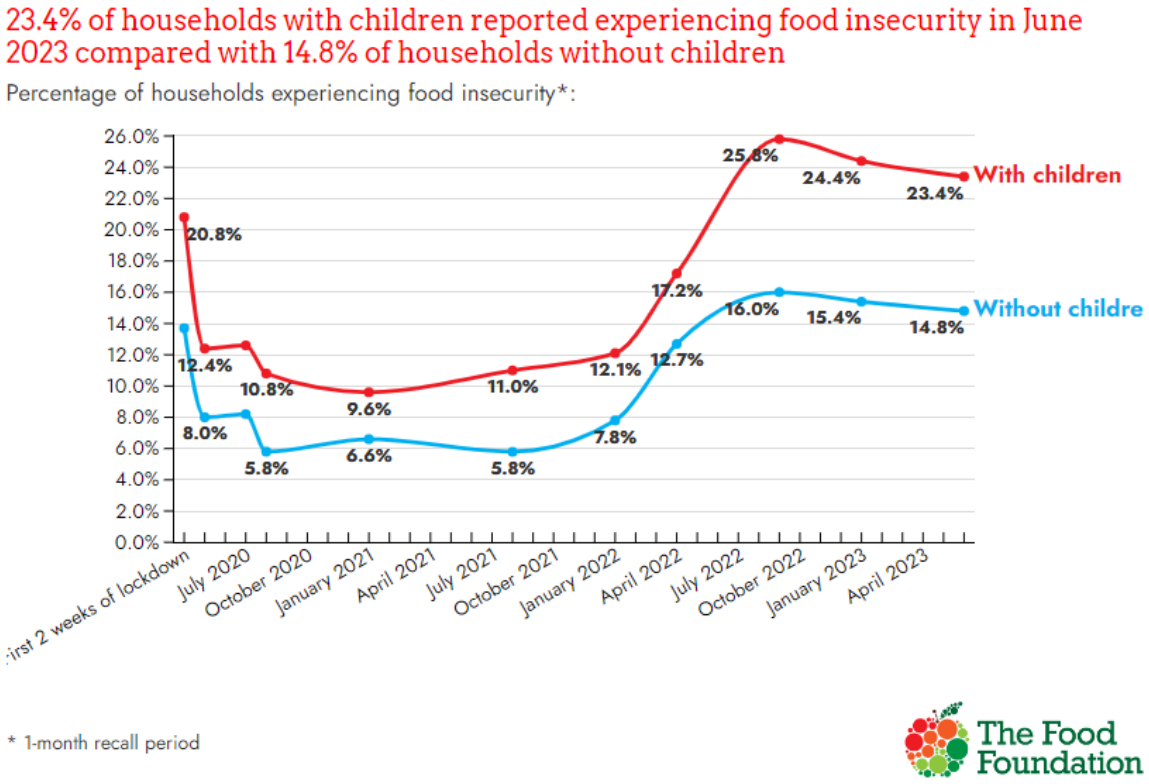
There is a correlation between age and levels of food insecurity at national level and early indicators suggest this is replicated at local level. Nationally the older the age group, the higher levels of food security with the highest levels of low or very low food security being experienced between the ages of 16-34 (18). Social and infrastructure factors such as transport links, disability and isolation may disproportionately impact older age groups accessing affordable food and recent changes to state pension age may mean older people become less food secure in the future.

The FANSS survey also shows food insecurity was greatest among younger age groups with those less than 45 years being more than 7 times more likely to be food insecure than retirees in Nottinghamshire (FANSS 2023.)

6.7 Households with children and food insecurity

The Food Foundation reports that nationally 1 in 5 (21%) of households with children have experienced food insecurity compared to 1 in 7 households without children in June 2023 (Food Foundation tracker). Of these households 12.9% were relying on low-cost food (19). Data for Nottinghamshire indicates that 18,100 households likely to be experiencing food insecurity.

Figure 11 Households with children experiencing food insecurity. Source: Food Foundation, 2023.



Modelled data shows 20,200 households in Nottinghamshire with children are likely to be experiencing food insecurity and 40,000 households without children. *Census 2021*

The Nottinghamshire FANSS study shows households with children are at higher risk of experiencing food insecurity. This is increased further if these households are in receipt of Universal credit.

The study also showed that single parents were more likely to experience food insecurity than households with two adults. *FANSS 2023*

6.8 Life limiting health problems or disability and food insecurity

The most recent national data to be produced by the Food Foundation clearly evidences a strong correlation between people with disabilities experiencing higher levels of food insecurity. The Food Foundation report *Food insecurity and inequalities experienced by disabled people (2023)* states that 4 in 10 households with an adult limited a lot by disability experienced food insecurity in June 2023. (20). Households who are limited a lot by their disability are 3 times more likely to experience food insecurity than those not limited by their disability. Local estimations based on Census data are 1 in 4 (24.5%) people limited a lot with disability are likely to be also experiencing food insecurity. Access to local competitively priced shops, transport links and capacity to cook affordably (with the use of slow cookers, air fryers etc) may also be compounding factors for this group of people.

6.9 Non-white ethnic groups and food insecurity

The Food Foundation survey shows that nationally non-white ethnic groups are more likely to be food insecure than white ethnic groups with Black /African /Caribbean households (33.5%) almost twice as likely to experience food insecurity as white ethnic groups (17.1%). The table below indicates the estimation of Nottinghamshire residents from non white/ white ethnic groups experiencing food insecurity.

Figure 12 Nottinghamshire modelling using census 2021 data

Nottinghamshire	Census population	% experiencing FI	no. experiencing FI
White	767,224	17.1%	131,195
Black African/ Caribbean	9,932	33.5%	3,327
Asian/ Asian British	24,523	21.6%	5,297
Mixed /multiple	23,141	31.4%	7,266

7. Nutrition and food insecurity

National monitoring data on food insecurity shows that groups at risk of poverty are also at risk of food insecurity at this time (20). Therefore, food choices should be seen in the context of affordable living and rising costs of fuel and housing. It is difficult to address food insecurity without considering wider systemic social and economic factors.

Healthy, nutritious food is now over twice as expensive per calorie than less healthy products. Between 2021 and 2022, healthier foods saw greater price inflation, increasing in price by 5% on average, compared with 2.5% increases seen for the least healthy foods (21). It is therefore understandable that households experiencing food insecurity are more likely to be cutting back on buying and cooking healthier foods, including fruit, vegetables and fish, resulting in poorer quality diets that increase risk of diet-related ill health. Nationally 2.3 million low-income households and more than two thirds of those receiving Universal Credit, have changed the kind of food they buy – including making less nutritious choices (22). Local research indicates that respondents with low food security ate less fruit and vegetables than food secure respondents and that food insecure respondent had below the recommended dietary minerals intake (FANSS 2023).

The growth in the production and consumption of ultra processed foods (UPF's), industrially produced foods containing ingredients not available in home kitchens, has seen much interest from the academic world but has yet to translate to government policy. The growing body of evidence on the health impacts of these often cheap, convenient, and highly processed foods, the availability and marketing (often aimed at the most deprived communities) and the subsequent impacts to health, call for further research and policy change at national level that will aid local understanding and intervention (23).

8. The food environment and food insecurity

The food environment in which people live impacts on the choices that they can make about the food they eat. Availability and affordability of fresh food and inexpensive, well marketed, and nutrient deficient food, compete for space in food environments. Eight per cent of the most deprived areas of the UK are food deserts where there is no access to healthy and affordable food. Where there are 'Food Deserts' (spatial access to affordable food), this is likely to impact on healthy food choices and affect some groups more than others (24). For example, this may disproportionately affect people with disabilities and low incomes as they may face additional costs of transport to less expensive supermarkets further from their home than local convenience stores. There is a lack of current data in Nottinghamshire to identify food deserts but opportunity to work with the retail sector to improve local access to healthy food through convenience stores, markets, and mobile shops for example.

Equally, fast-food takeaways are abundant across the UK, often offering options which appeal to people's need for cheap and convenient food but are often high in calories and lacking in nutrients. There is a higher proportion of fast-food takeaways in areas of higher deprivation.

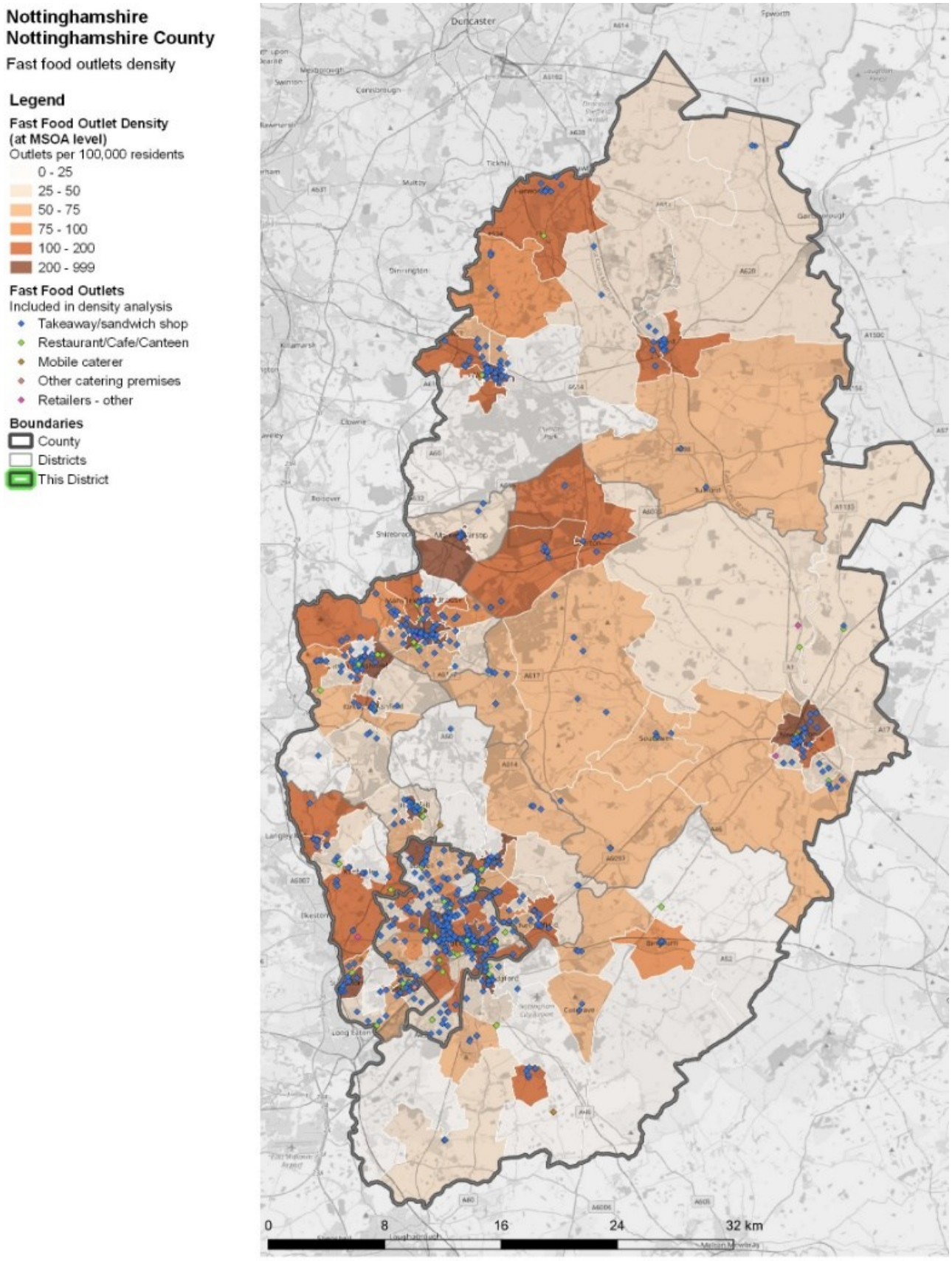
- More than 1 in 4 (26%) of places to buy foods in the UK are fast food outlets
- There is a positive correlation between deprivation and fast-food outlet density. 30.5% of places to buy food are fast food outlets in the most deprived fifth and 21.1% in the least deprived fifth (25)

Proximity to fast-food outlets has been shown to be linked to increased fast-food consumption and overweight and obesity The density of fast-food outlets in deprived areas is likely to be a contributing factor to the socio-economic inequalities seen across obesity levels (26).

Local research highlighted that food insecure respondents were less likely to eat out of the home but when they did it was more likely to be as takeaway food. Food secure individuals were proportionally more likely to eat in a restaurant or pub (FANSS 2023).

An approach in Nottinghamshire to increase access to affordable healthy food has been to assess the fast food outlet density in areas of deprivation. By providing Districts and Borough councils with fast food outlet density maps, as depicted in Figure 13 below, this has supported planning policy decisions and supported local interventions which address the availability of healthier options in takeaways such as the Healthier Options Takeaway scheme

Figure 13 Fast Food outlet density in Nottinghamshire at MSOA level

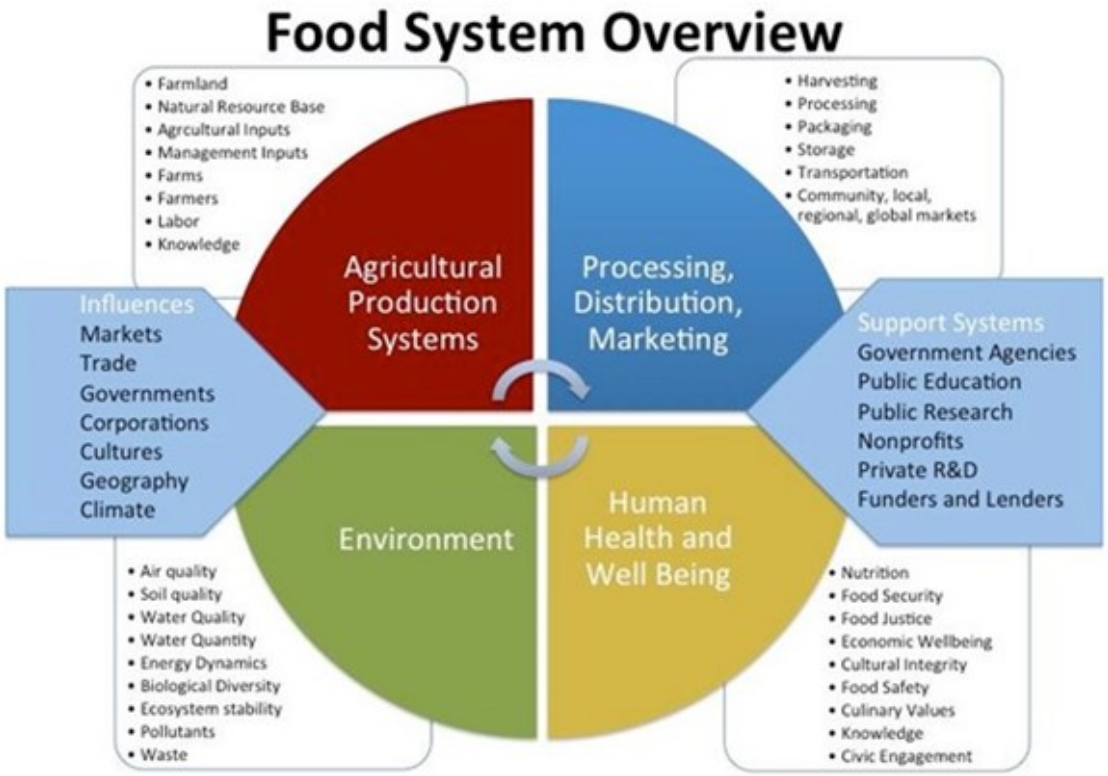


Food Standards Agency (FSA) Food Hygiene Rating Scheme (FHRS) data (extracted July 2023).
Edubase School locations (last accessed July 2023). Fast food outlet density (local analysis following PHE methodology) (2023).
Contains Ordnance Survey data Crown copyright and database rights reserved 2023.
Contains map data from OpenStreetMap available under the Open Database License (2023)
Prepared by: Nottinghamshire County Public Health (IB 20230913)

9. National policy and interventions - what is happening nationally to tackle food insecurity

It is necessary to understand food insecurity in the context of the complexity of the whole food system to address it at global, national and local level. *'A food system is an interconnected web of human activities that links food production, processing, distribution, and consumption with human health and the environment'* (27). Figure 14 highlights how food security and health and wellbeing are impacted and interconnected to other parts of the food system which are in turn shaped by social, economic, political, and environmental contexts (28).

Figure 14 Food system overview (Source: Washington State University)



9.1 National policy

National policy is fundamental to implement local plans to tackle food insecurity and improvement to health and wellbeing. The two documents described below have helped to shape both policy and community interventions of food insecurity in relation to the whole food system.

The National Food Plan was an independent inquiry commissioned by the UK government to set out a vision and a plan for a better food system. Published in two parts during the Covid 19 pandemic, recommendations highlight the need for a cohesive food system to be able to tackle diet related inequality and food insecurity**.** This report makes recommendations to address change at various levels of the system including strengthening food supply chains, expanding and resourcing food assets such as Healthy Start, school meal schemes, the Holiday Activities and Food programme, community Eatwell schemes and interventions to break the 'junk food cycle' in relation to health impacts of obesity (29).

The Government Food Strategy (2022) has a focus on industry, reformulation and agriculture within the wider food system and addresses some of the recommended drivers around food insecurity in the independent review (The National Food Plan). The government strategy does refer to the importance of local partnerships to co-ordinate food activism and funding for curriculum-based food education in schools. However there has been some criticism from campaigning groups for not committing further resource to Healthy Start, school meals programmes and calls for universalising these evidence-based schemes (30).

9.2 National Schemes

National programmes have been rolled out since the Covid 19 pandemic and cost of living pressures, including the Household Support Fund and the Holiday Activities and Food programme to support low-income eligible families to access further food & financial support. Other existing schemes such as Free School Meals and Healthy Start provides a longer term view through tracked change and analysis that enables a locally targeted approach to increase uptake.

Healthy Start is a national scheme whereby eligible people receive free card payments every week to spend on milk, fresh, frozen, and tinned fruit and vegetables, fresh, dried and tinned pulses, and infant formula milk. Eligible people also qualify for free vitamins. Healthy Start is available for pregnant women and children under 4 in receipt of certain benefits and pregnant young women under 18 regardless of income (31).

There are many exemplar programmes of work across the UK such as Feeding Liverpool which takes a robust and multifaceted approach to addressing food insecurity. This programme uses Healthy Start as a key food asset for addressing food insecurity implementing a volunteer champion scheme and lobbying for policy improvement. Nottinghamshire has developed training and promotion to enable staff to promote Healthy Start in their services. Figure 15, below, shows the difference in uptake across Nottinghamshire Districts ranging between 63% in Newark and Sherwood to 73% in Ashfield in March 2024.

Figure 15 Healthy Start uptake across the Nottinghamshire Districts, March 2024. Source: Healthy Start 2024

Area	People on digital scheme	Eligible beneficiaries	Uptake
Ashfield	1,020	1,400	73%
Bassetlaw	735	1,111	66%
Broxtowe	491	712	69%
Gedling	515	810	64%
Mansfield	855	1,249	68%
Newark & Sherwood	614	968	63%
Rushcliffe	307	483	64%
Nottinghamshire	4,537	6,733	67%
England	334,393	506,309	66%

School meal programmes

Children in state-funded schools in England are entitled to receive free school meals (FSM) if a parent or carer were in receipt of selected benefits. Since September 2014, all children in reception and years 1 and 2 in state-funded schools in England have been entitled to receive a free school meal at lunchtime under the Universal Free School Meals programme (32). School meals contribute around one-third of energy and micronutrient intake on school days and have been shown to play a role in the development of healthy eating habits, academic achievement, improved behaviour, and a reduction in picky eating behaviours at school (33). Nationally 23.8% of pupils, and in the East Midlands 23.1% of pupils, are eligible for FSM. The East Midlands region has seen the largest percentage increase in eligibility for FSM, an increase of 1.6 percentage points since 2022 (34). Nationally the Child Poverty Action Group has highlighted that current criteria means that as many as one in three (800,000) school-age children living in poverty are not eligible (35).

Figure 16 shows the percentage of pupils eligible and take up for FSM in Nottinghamshire schools in January 2023. This indicates that 1/5 of children in Nottinghamshire who are known to be eligible, are claiming FSM.

Figure 16 Nottinghamshire County Council January 2023

Phase	Number on roll NCY R-11 (1)	Number of pupils known to be eligible for and claiming free school meals (2)	Percentage of pupils known to be eligible for and claiming free school meals (2)
Primary	66,493	15,058	22.6
Secondary	47,293	10,387	22.0
Special	1,024	462	45.1
Nottinghamshire	114,810	25,907	22.6

1.Includes pupils who are sole or dual main registrations in years R-11; 2. Number of pupils who have made themselves known to be eligible and are claiming FSM.

10. Stigma and food insecurity

There is an increasing body of evidence that stigma and shame prevent uptake in accessing food support such as Healthy Start and Free School Meals. Nottinghamshire County Council is currently conducting research into food and stigma engaging with residents to better understand the structural and individual factors that constrain or facilitate access to food aid, this will support services in designing and delivering appropriately targeted interventions. Early findings highlight that universal programmes have greater benefits for deprived communities whereas targeted marketing campaigns heavily influence the attitudes and beliefs and contribute to feelings of guilt or shame in those with limited food options. Equally, barriers to food security are experienced in early childhood where inherently held beliefs are formed and manifest as internalised stigma in later life. Other key findings suggest that experiences of stigma are often compounded by other forms of societal stigma in marginalised groups and social power imbalances play a significant role in both increasing or mediating stigma manifestations. This may be controlled through effective structural and policy decision-making (36).

11. Local drivers - strategic priorities

Nottinghamshire County Council passed a motion in January 2022 (Nottinghamshire County Council, 2022) recognising the immediacy of the challenge of poor nutrition, food poverty and the need to encourage healthy eating in Nottinghamshire and beyond. The Council requested tackling food poverty to be part of the Joint Health and Wellbeing Strategy and for Nottinghamshire to be a "Healthy Food Sustainable Shire". In November 2022 Nottinghamshire became a member of the Sustainable Food Places network, joining other members to improve their local food system. Reducing food insecurity is a priority within the Joint Health and wellbeing Strategy 2022-26 and developing Nottinghamshire as a sustainable food place is part of the Healthy and Sustainable places ambition which aligns with The Nottinghamshire Plan and Nottinghamshire Best Start strategy 2021-25 The vision and call to action on food and health is set out in the County's Food Charter endorsed by the Nottinghamshire Health and Wellbeing Board in February 2022.

12. Local interventions

Nottinghamshire County Council have taken an approach that considers the whole local food system to reduce food insecurity and views food as an essential building block of health. This looks at environmental and systemic factors as well as behavioural change to improve health outcomes and tackle inequalities. Food insecurity is a central pillar of the Healthy and Sustainable Places programme of work and sets out to improve food security at all levels through building resilience and sustainability.

Figure 17 Nottinghamshire Food Charter



12.1 Food support initiatives in Nottinghamshire

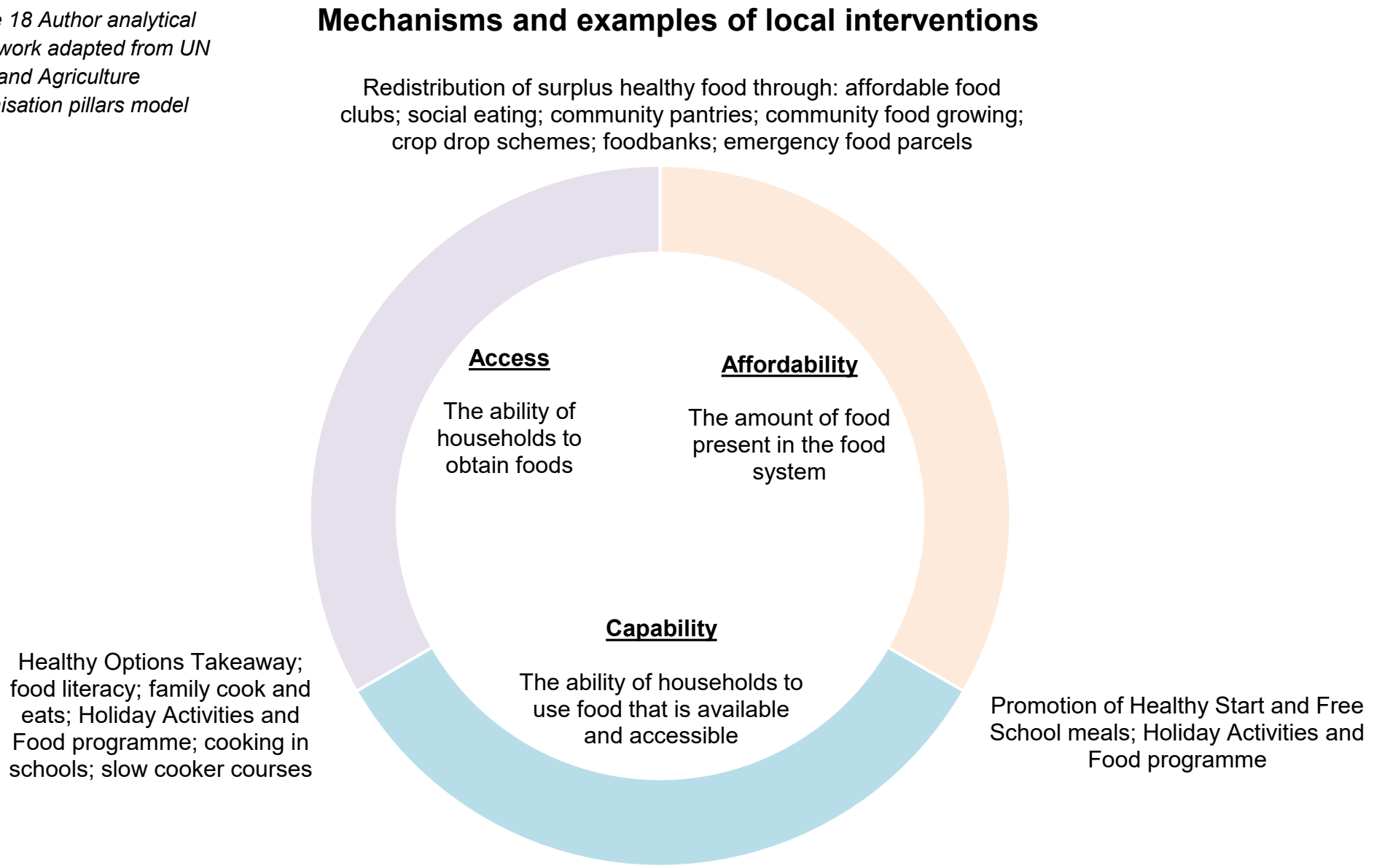
As a newly emerging important area of work, there are limitations with available data and currently gaps in local knowledge in Nottinghamshire on the provision of food initiatives. There are aims to strengthen this through collaborations with local partners. Universities and commissioned partners are undertaking research to better understand food insecurity, what support is needed and the impacts on health and wellbeing to inform local interventions and policy. These research findings will be available from March 2024.

The food support infrastructure is an evolving landscape involving a wide range of programmes, initiatives and organisations that aim to address issues relating to food insecurity and increase access to affordable, nutritious food. Elements of support include emergency food parcels, food banks, food clubs/ hubs, pantries, community garden/growing projects and social eating in addition to school meal programmes and national initiatives such as the Healthy Start scheme. Figure 18 shows examples of local interventions. This is a dynamic landscape and responsive to changing needs often on a very local basis led by the voluntary and community sector.

Affordable food clubs, social supermarkets and social eating typically utilise surplus food, often from Fareshare. Local insight from the County's Sustainable Food Network indicates that there is increasing demand for food support from Fareshare across the County. This is also highlighted in the Waste Britain Report , an evaluation on the economic and social impact of Fareshare UK in tackling food waste. Unlocking other sources of surplus food is a national concern and Nottinghamshire networks are exploring alternative opportunities such as collective purchasing and opportunities in the commercial sector to redress the strain on the current food system, build resilience in the system and address the risks to community food provision.

The scale and scope of the local food support infrastructure is unknown, there is no county wide data on the number of projects or number of people receiving support. The examples of Nottinghamshire interventions listed below show how the '*more than just food'* approach (37) is being adopted across Nottinghamshire and how food acts as the enabler for health improvement at all levels. Coventry University's evaluation of the Feeding Coventry social supermarket in Foleshill shows the self-reported improvements to health and wellbeing of this type of intervention (38).

Figure 18 Author analytical framework adapted from UN Food and Agriculture Organisation pillars model



12.2 Food insecurity networks and partnerships

There is significant evidence of the benefits of local food partnerships and Nottinghamshire has established a countywide food infrastructure with a significant focus on food insecurity (39). A county wide Sustainable Food Network and district based partnerships bring together local authorities, county social eating and food growing networks, and national organisations such as Feeding Britain with the NHS, voluntary and community sector, and other stakeholders such as academics, food producers and businesses. The local networks have been a valuable source to engage with communities, understand food insecurity issues for residents and local infrastructure pressures and risks.

Feeding Britain is a national charity which supports a national network of anti-hunger partnerships comprising of more than 700 frontline organisations. There are five Feeding Britain networks in Nottinghamshire – Ashfield, Bassetlaw, Newark & Sherwood, Mansfield and Rushcliffe which bring together community partners working on food insecurity to collaborate and share local knowledge and skills. Feeding Britain provide support, funding and training and work with Food Co-ordinators in Ashfield, Bassetlaw, Newark & Sherwood, Mansfield to support the co-ordination and strategic development of the networks. Food insecurity is a priority in district and borough councils and is incorporated or being developed in local plans across the county. An example of a place based approach to tackling food insecurity through mobilising communities, capacity building and initiating sustainable change can be seen in the Impact report from Bassetlaw Food Insecurity Network.

12.3. Small grants schemes for community action

Nottinghamshire County Council have funded a series of food related small grant schemes to enable community and voluntary groups to tackle food insecurity through their activities. Around £1,460 000 has been allocated to 3 food grants streams through the NCC Local Communities Fund between 2020-2025. The implementation of a small grants scheme with a focus on food insecurity has enabled and strengthened 245 community led interventions to address food insecurity through building skills, knowledge and confidence in cooking and growing food: strengthening and expanding a food infrastructure through capacity building and improving access to affordable healthy food. This funding has increased the number and quality of existing community food interventions such as social supermarkets and pantries, food clubs, social eating spaces and community cafes. Other funding streams also supported food initiatives but were not designed specifically around food. Funding was allocated from both Council and government funding during this time.

Evaluation of such schemes have found benefits including improved access to good quality food, the potential to reduce food insecurity and hunger, improved diet and nutritional knowledge and skills, and improved social and financial wellbeing. Community benefits include building resilience and social infrastructure and connecting community services.

12.4. Affordable food clubs/hubs and food banks

The Trussell Trust have reported that between April 2022 and March 2023 close to 3 million emergency food parcels were distributed by their food banks across the UK. This is an increase of 37% on the previous year and 760,000 people used a food bank for the first time (40). This data does not capture a full picture of food bank use across the UK or locally as there are many independent food banks operating different referral systems and levels of monitoring. Importantly not all people who are food insecure will use food banks or emergency food parcels due to stigma and shame. This inconsistency in referral, criteria and monitoring across emergency food parcels and food banks leaves an incomplete picture in Nottinghamshire currently. Feeding Britain reports that across England, Wales, and Northern Ireland, the same number of people now report accessing an affordable food club, such as a pantry or social supermarket, as report accessing a food bank. Feeding Britain have summarised their learning around Affordable food clubs

The development of affordable food clubs, with on-site services such as benefits and housing advice, aims to prevent periods of acute food insecurity and dependence on food banks, building capacity, agency, and challenging stigma. Nottinghamshire has a range of affordable food provision models across all districts however there is no single data source for this. The House of Commons Environment, Food and Rural Affairs Select Committee has recommended this shift toward affordable food clubs, as a default mode of community food provision (41).

12.5. Social eating

Social eating activities include eating a cooked meal together in a particular location and focuses on the commensality (the social act of eating together) of food to improve social networks. These range from soup kitchens that usually support the homeless, to activities that specifically work to attract a wider group of people. Typically, these activities use surplus food to cook nutritious meals on site. Nottinghamshire has a network which shares best practice, and promotes the benefits of eating together in groups, food sharing, the use of surplus food, community cohesion and collaboration over food. Food acts as an enabler to reduce social isolation and loneliness, bringing people, communities, projects, and services together whilst also importantly providing hot meals to people who struggle to cook for themselves. Research conducted locally after the pandemic highlighted the health and wellbeing benefits of the social eating model as people emerged back into their communities and gained confidence to socialise through food (42).

12.6. Community food growing

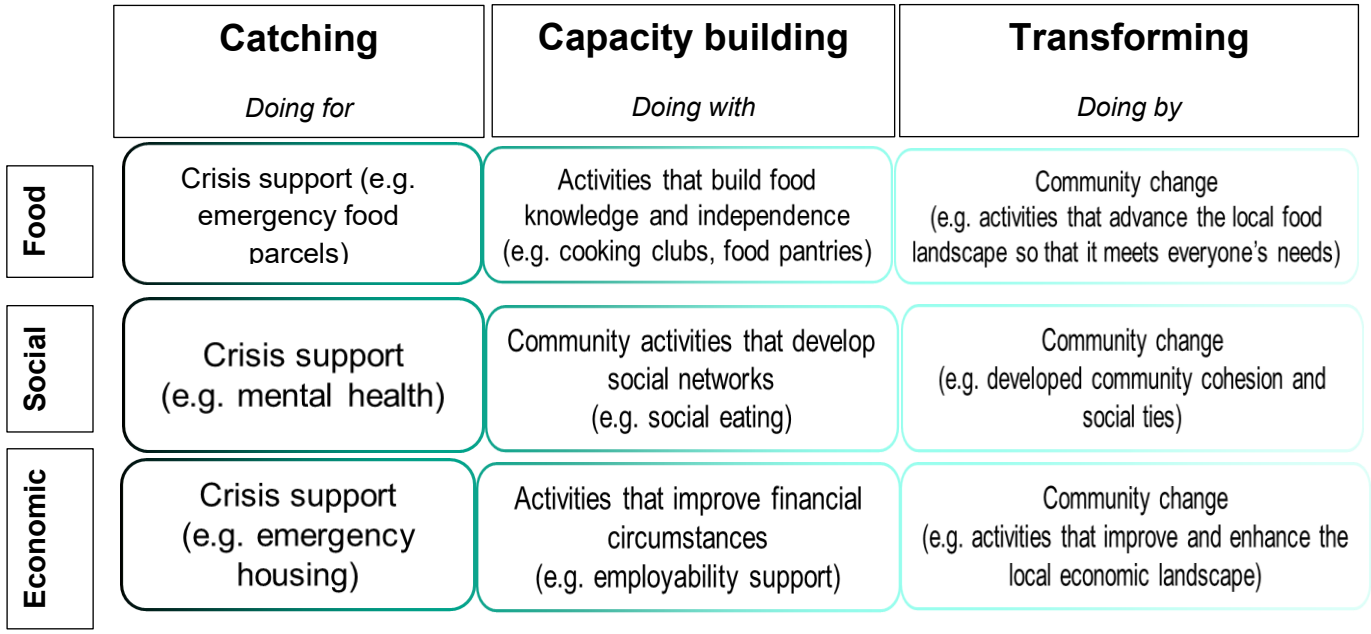
Community gardens and growing spaces can encourage participation, reduce social isolation, improve physical health and emotional wellbeing, and build skills, knowledge, and confidence to grow and cook food. Often these groups cook and share a cooked meal on site, sharing knowledge and skill in a mutually supportive environment. Nottinghamshire has developed the Nottinghamshire Community Garden Network, a forum that currently supports 84 growing groups and brings together community growing spaces for mutual support, learning and development opportunities. Community growing spaces and allotments have developed volunteer led 'Crop Drop' schemes and abundance models to redistribute surplus locally grown fresh, nutritious produce often supplying local food clubs, social supermarkets, and community cafes.

Food support groups also provide an opportunity to include additional services on site or signposting to benefit advice and housing for example. These types of community food interventions provide opportunity for services such as Social prescribing to signpost into community support networks. Connecting referral and support systems such as this into food infrastructure is important to ensure that services can both recognise food insecurity and are knowledgeable of the food support in their area. They also provide opportunity for meaningful, innovative engagement with groups and co production of service development.

13. Framing food insecurity interventions and support structures

There is no one intervention type will fix all the problems of food insecurity and a mix of interventions are needed with benefits for individuals and communities. Food Ladders is a novel evidence-based approach for describing how household and community resilience capitalise on the capacity for food to bring people together, developed by Megan Blake (43). This approach considers the social and economic factors that are associated with food insecurity drawing on three elements or ‘rungs’ of the ladder: Catching, Capacity Building and Transforming. A ‘Food Ladder’ approach can help those who are food insecure overcome these challenges, build resilience and progress into security.
This framework of support not only prevents the increase in a singular, short term type of support, but it also means that the range of interventions such as food pantries and social eating activities can help bridge gaps between emergency provision and buying food commercially. Moreover, when ladders of support exist in communities presenting a diverse range of interventions, people can move/ services can refer between rungs of support as needs change or progress. Figure 19, developed by Blake, illustrates this potential for movement between support services.

Figure 19 Food Ladders. Source: Blake, M.



Many organisations agree on core principles of good food insecurity interventions. Examples of good practice in the UK such as Feeding Liverpool, and Bristol Food Strategy and can be seen to utilise these principles below as highlighted in Sustainable Food Places in their strategic direction and delivery of food interventions.

- User-centred and inclusive to everyone in the community
- Healthy, culturally appropriate, and social
- Communicated effectively to increase knowledge of the available support and reduce stigma

- Easy and quick to access, and tailored to need
- Promoting dignity, reciprocity, and autonomy
- Empowering through community participation in design and delivery, and transparent decision making
- Having effective monitoring and data recording mechanisms in place
- Advocating for change, including the adoption of the real Living Wage
- Establishing and utilising a joined-up, multi-agency partnership that includes key organisations and people with lived experience
- Taking a whole system approach by facilitating onward referral to broader support.

A Cash First approach as recommended by several food organisations such as Sustain advocate for local interventions to maximise income either through vouchers/ crisis payments (such as Household Support Fund) or signposting or referral to support services (44). This approach can encourage income to be spent in local shops, for example a Healthy Start payment for fruit and vegetables, an economic advantage for the commercial sector who often participate in donating surplus food into the system of food insecurity interventions. Blake also encourages this active participation of the commercial sector in the food ladders approach.

This report highlights several national and local interventions. As a newly emerging agenda in Nottinghamshire the availability of local evidence to demonstrate impact is limited in some areas. The areas of work for consideration in this report will be aligned with the development of the Nottinghamshire food plan.

What should we do next?

14. Recommendations for Consideration

Food insecurity is a newly recognised and important issue impacting health and wellbeing. The following recommendations highlight key steps to support progress in this area.

	Recommendation	Lead(s)
	Partnership and plans	
1.	Strengthen the governance of the Nottinghamshire Sustainable Food Partnership within the Nottinghamshire Health and Wellbeing Board.	Nottinghamshire Sustainable Food Strategy Group Nottinghamshire Health and Wellbeing Board
2.	Develop a Nottinghamshire Sustainable Food Plan which builds on the ambitions of the Nottinghamshire Food Charter and sets out the steps required for Nottinghamshire to become a healthy and sustainable food county.	Nottinghamshire County Council Public Health working with the Nottinghamshire Sustainable Food Strategy Group
3.	Develop and support local food partnerships to address food insecurity and wider related food system issues in priority communities.	Nottinghamshire Sustainable Food Strategy Group
4.	Explore how system partners can work in collaboration with the commercial sector to address the marketing of unhealthy foods and access to healthy foods across the sector, including consideration of: • review of the Healthier Options Takeaway Scheme • a Health in All Policies approach with Local Authority partners including Planning, Housing, Environmental Health, and Trading Standards to embed food security into plans and strategies.	Nottinghamshire Sustainable Food Strategy Group Nottinghamshire Health and Wellbeing Board including District and Borough Councils
	Data and insight	
5.	Explore options for local data collection to increase understanding of food insecurity in Nottinghamshire.	Nottinghamshire County Council Public Health working with the Nottinghamshire Sustainable Food Strategy Group including academic partners.
6.	Map local food assets to improve understanding of provision to better inform the planning of effective interventions and targeting of resources.	

7.	Engage with communities to increase local evidence base on the enablers and barriers to accessing to healthy food.	
	National guidance and evidence based good practice	
8.	Increase uptake of the Healthy Start Scheme, Free School Meals, and the Holiday Activities & Food Programme.	Nottinghamshire County Council, in collaboration with wider system partners.

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