

Health and Resource Equity

Health and health care access and its association with resource equity in Berkshire

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Report for the Berkshire Health Inequalities Group

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Executive summary

Health Access and Resource Equity in Berkshire was an online cross-sectional study commissioned by the Berkshire Health Inequalities Group. The aim of the survey was understanding the experiences of residents of Berkshire of accessing healthcare and the context of their lives through the lens of the wider determinants of health.

The survey was advertised on Reach PLC social Media platforms (Facebook, Instagram) between 16-07-2025 to 18-09-2025 and via local authorities and third sector organisations' communication channels. A total of 195 adults aged 18 years and over, across the Berkshire region (Slough, Bracknell Forest, Royal Windsor and Maidenhead West Berkshire, Wokingham and Reading) completed the survey.

The topics presented in this report include 'life and healthy life expectancy across Berkshire', 'access to health care', 'physical and mental wellbeing', and 'food security'.

Key findings:

- Healthy life expectancy (HLE) at birth decreased across Berkshire between 2012/14 to 2022/24. This was disproportionately felt by women in Reading whose HLE fell 4.5 years during this period.
- The most common healthcare barrier respondents encountered was access to appointments with their GP, indicating GP surgeries are under strain to meet the needs of their patients.
- Nearly two thirds of respondents used the internet to make an appointment with their healthcare provider. However, for some, the use of an online booking system was a barrier to accessing their GP.
- The proportion of respondents reporting the experience of food insecurity was 14.4%. This is higher than the UK average of 10% and 6.8 percentage points higher than data reported for the South East in the Family Resource Survey.
- Respondents living in Reading were more likely to report experiencing food insecurity compared to other areas of Berkshire
- Food insecure respondents were more likely to be living with hypertension and poor mental wellbeing.

Implications: Health inequalities are avoidable. However, life expectancy has decreased in majority of areas of Berkshire with women in Reading disproportionately impacted. The challenges faced by some respondents in accessing their GP, and the prevalence of food insecurity is likely to widen health inequalities between population

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groups. People living with a low income, in areas with more deprivation, insecure housing, food insecurity and existing illness are at greatest risk of worsening health outcomes.

What can be done: The Berkshire Health Inequalities Group is well placed to drive and support system wide change across Berkshire for addressing health inequalities. Its members represent academic, local authorities, NHS, and the voluntary sector. Collaborative working and innovative, evidence-based interventions which are acceptable to residents have the potential to reduce widening health inequalities at the local level alongside national level policies.

Additional recommendations are made within the report.

Acknowledgements

This research would not have been possible without the respondents volunteering to take part. We are incredibly thankful for their time and insights.

Interpreting the findings

This survey utilised a volunteer sampling strategy (a non-probability sampling strategy), meaning respondents were likely individuals with an interest in health care access and resource equity. As a result, the findings reflect only the views of those who chose to participate and cannot be generalisable to the wider population. The questions contained within the survey were a mixture of closed and open text response questions.

The analysis was completed for the total sample and disaggregated by sex, ethnicity and deprivation. Due to low number of responses, ethnicity was collapsed into two groups: White, and all Other Ethnic Groups combined. Deprivation collapsed into two groups: “more deprived” and “less deprived” These groups were created by collapsing the Indices of Multiple Deprivation deciles (IMD), with deciles 1-5 classified as “more deprived” and deciles 6-10 as “less deprived”. Deprivation status was derived from respondent’s postcodes using the English Indices of Deprivation 2019 Postcode Lookup tool [1]. We report results where there is a 10-percentage point difference between the groups.

Background to Berkshire Health Inequalities Group

The Berkshire Health Inequalities Group (BHIG) was established in August 2023 by Professor Carol Wagstaff from the University of Reading. BHIG brings together representatives from the Integrated Care Board, NHS Trusts and GP services, the Voluntary, Community and Social Enterprise Sector and Local Authority Public Health teams. Its vision is to “Work together to envision a healthier future for all, where every member of our community thrives and flourishes. Through collective actions and a shared agenda, we strive to take a localised approach to address health inequalities with simplicity, collaboration, and proactive measures that unites partners within an accessible and inclusive regional framework.” The objectives of the group are:

- **Understand what it means to experience health inequality in Berkshire**
- **Reduce the differences in health between different groups of people in Berkshire**
- **Actively promote good physical and mental health and wellbeing of all adults and children in Berkshire**
- **Support communities to be part of the solution to health inequalities in Berkshire**
- **Identify the means of supporting individuals who are at high risk of experiencing poor health**
- **Improve health status and access to healthcare through addressing the causes of inequity in the population**

Definition of Health, Health Inequalities and the Wider Determinants of Health

Definition of Health

The World Health Organization defines Human Health as “Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”. This definition can be interpreted in two ways. The first interpretation is that good health requires a state of perfect wellbeing (defined as state of being comfortable, happy or healthy [2]. The second interpretation is that good health involves the opportunities to live healthy lives and to thrive [3]. In this report we align with the second interpretation.

Definition of health inequalities

Health inequalities are defined as the ‘unfair and avoidable differences in health outcomes across the population and between different groups in society’ [4–6]. Disparities in health are linked to unequal distribution of income and access to resources. Individuals sharing similar characteristics and circumstances can be grouped into four broad categories: Socio-economic groups and deprivation, Inclusion health groups (e.g. people experiencing homelessness, drug and alcohol dependency, vulnerable migrants [7], Geography (urban/rural/coastal) and Protected characteristics (gender, ethnicity, religion etc).

Definition of the wider determinants of health

Wider determinants of health are the non-medical factors in our everyday lives which are the principal drivers of the aetiology, prevalence and prognosis of disease [8]. They are diverse and multifaceted, encompassing social (e.g. social support and community networks), economic (e.g. employment status and financial insecurity) and environmental factors (e.g. housing quality or living in a deprived area). It is the inequalities in these factors that adversely shape people lives, influencing both life expectancy and the number of years spent in good or poor health. They are often referred to as the ‘*causes of the causes*’ of health inequalities [9]. Health inequalities

follow a social gradient with people having progressively better health as socio-economic position rises [10].

Contributing factors to health inequalities

The World Health Organization estimates 90% of health inequalities can be attributed to: systematic differences in the quality and affordability of health services (10%), financial insecurity including inadequate social security protection (35%), living conditions, including insecure housing tenure, poor quality homes, fuel poverty, food insecurity and a lack of community assets (29%), social and human capital including low educational attainment, lack of agency over one's life and lack of trust in others (19%) and employment and working conditions such as job insecurity, temporary employment and poor working conditions (7%) [10].

Indicators associated with population groups at risk of health inequalities

Self-rated health, mental health and life satisfaction are key indicators to measure/identify health inequalities across socioeconomic groups and deprivation, between protected characteristic and geographic areas [10]. Self-rated health has been shown to predict morbidity and mortality [11] Mental health influences physical health and capacity to lead a healthy life [12] and life satisfaction is in dimension of quality of life with lower levels of life satisfaction associated with higher healthcare utilisation[13]. Direct indicators such as life expectancy, mortality and morbidity outcome provide objective measure of inequalities in a population.

Inequalities in Berkshire

Inequalities in life and healthy life expectancy at birth across Berkshire

Life expectancy

Life expectancy at birth varies across each of the unitary authorities of Berkshire. Whilst in the South East life expectancy is above the national average of England (Figure 1)[14] It is evident there are inequalities in life expectancy between the least and most deprived areas of each unitary authority. Data for life expectancy in Berkshire West available from OHID Segment Tool [15] indicate females living in the most deprived

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quintiles of Reading had a lower life expectancy compared with those living in West Berkshire and Wokingham. The inequality gap was also more pronounced in Reading where females in the most deprived areas were expected to live up to 6.5 years less than those in the least deprived areas. A similar pattern was observed for males in Reading, where in the most deprived areas, they were expected to live, on average, 8.4 years less than their counterparts in least deprived areas (Figure 2). In Berkshire East the inequality gap was pronounced for males and females living in Slough who generally had a lower life expectancy compared to their peers in Bracknell Forest and Wokingham (Figure 2).

Average life expectancy at birth in **England** for **women** in the **most deprived** quintile is

79.2 years



Average life expectancy at birth in **England** for **men** in the **most deprived** quintile is

74.3 years

Average life expectancy at birth in for **women** in the **least deprived** quintile is

85.8 years

They can expect to live **6.6 years longer** compared to women in the most deprived quintile

Average life expectancy at birth for men in the **least deprived** quintile is

82.8 years

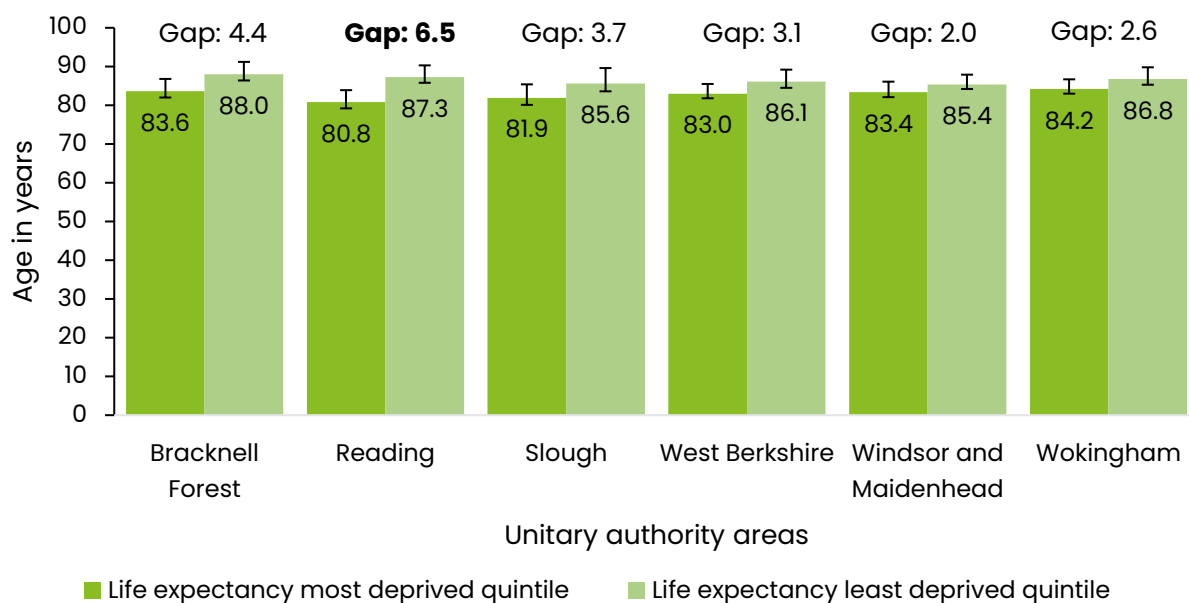
They can expect to live **8.4 years longer** compared to men in the most deprived quintile

Source: Office for Health Improvement and Disparities, segment Tool data <https://analytics.phe.gov.uk/apps/segment-tool/>

Figure 1 – Inequalities in life expectancy at birth between the least and most deprived quintiles in England **(2022–2023)** [16]

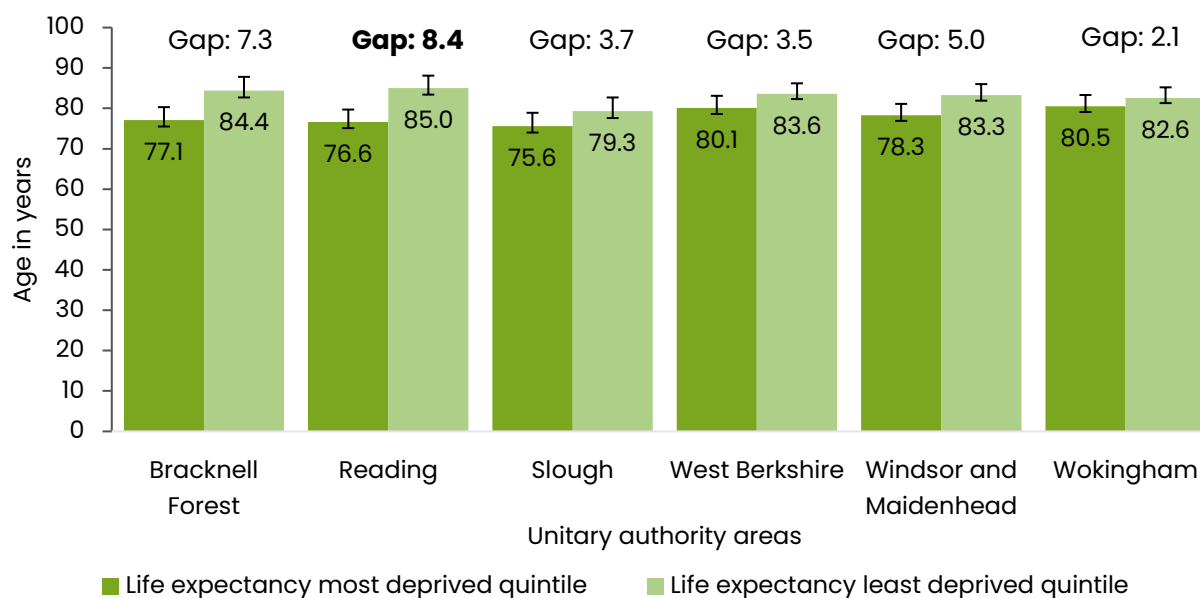


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Females

Gap = deprivation gap in life expectancy (years) for females between the least and most deprived quintiles of each unitary authority

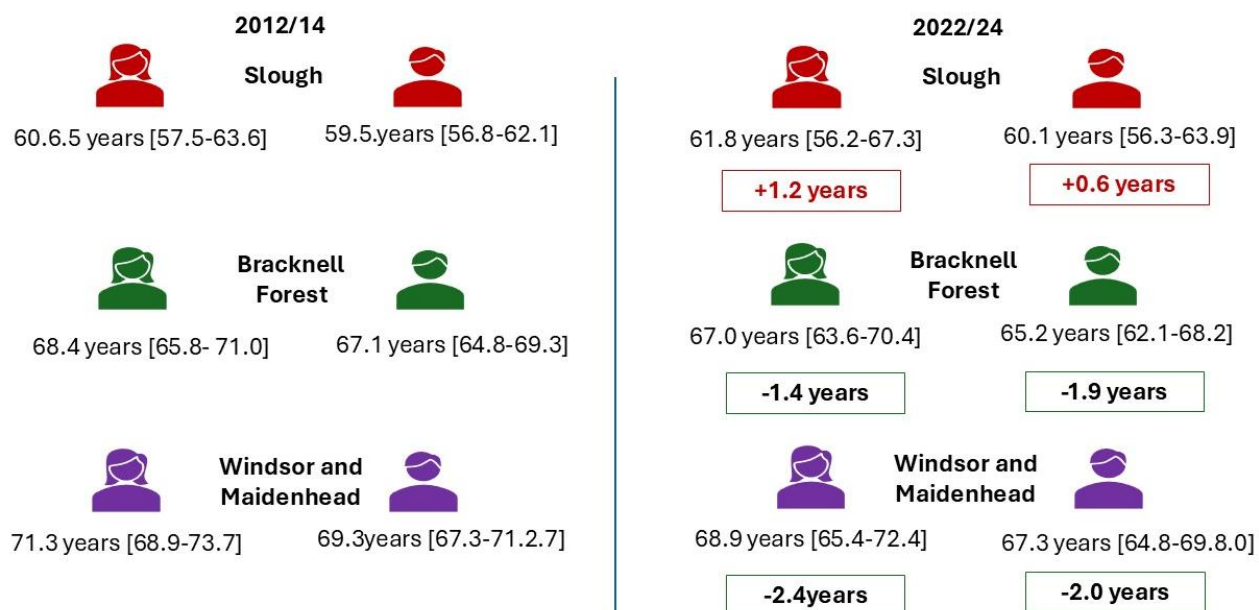


Males

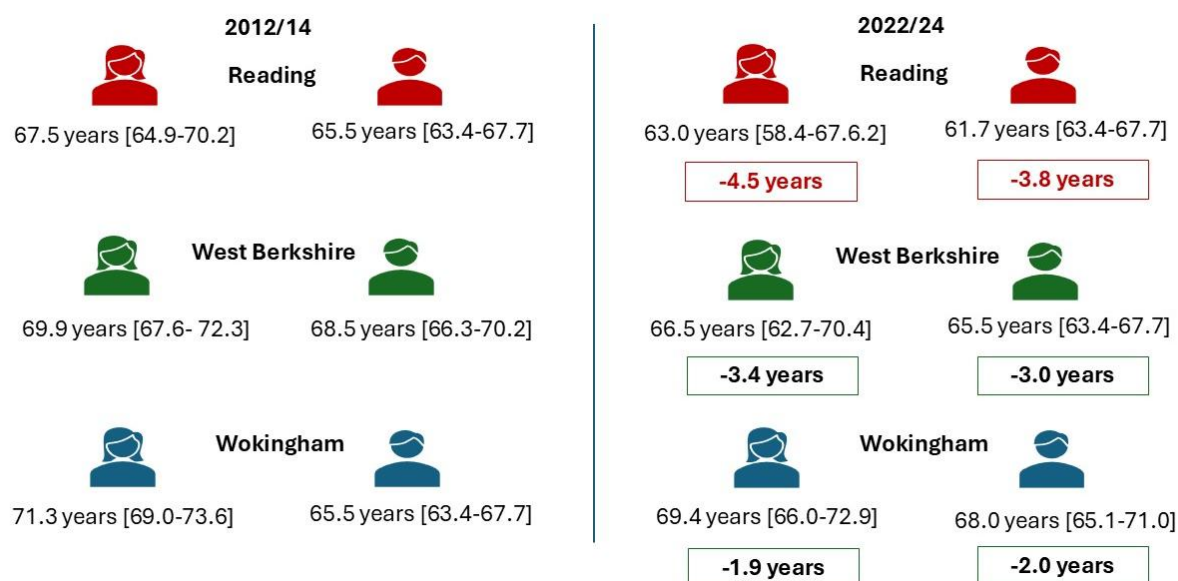
Gap = deprivation gap in life expectancy (years) for males between the least and most deprived quintiles of each unitary authority

Figure 2 – Inequalities in life expectancy at birth between the least and most deprived quintiles in Berkshire for women and men (2022–2023) [16]

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Berkshire East



Berkshire West

Figure 3 – Healthy life expectancy across Berkshire unitary authorities between 2012/14 and 2022/24

Healthy life expectancy

Recent data published by the Health Foundation reported healthy life expectancy in the UK fell by over 2 years between 2012-14 and 2022-24, from **63.7 to 60.9** years for **females** and **62.9 to 60.7** years for **males** [17]. Data for Berkshire indicates life expectancy for females in Reading has fallen the most over this 10-year period, whilst

there was slight increase in healthy life expectancy for men and women in Slough, they had the lowest healthy life expectancy of all the unitary authority despite the modest increase (Figure 3).

Health services

Introduction

This study aimed to understand peoples' experience of accessing health services and identify where inequalities may exist between people in their ability to access health services and what those drivers might be. Results are disaggregated by sex, ethnicity and deprivation for:

- Ease of accessing GP
- Experience of health care problems
- Use of the internet to care of health-related needs

An overview of respondents' mental wellbeing and self-reported health by age and equivalised income is also discussed.

Methods:

We used the *"Change NHS, tell us what you think"* survey questions¹. The results are presented for men (n = 42) and women (n =149), and by ethnicity and deprivation. Due to low representation of ethnic groups from the global majority, ethnicity is collapsed into two groups, White (n = 173), and all Other Ethnic Groups combined (n = 15). Deprivation is collapsed into 2 groups "more deprived" (IMD 1-5 deciles (n=38)) and "less deprived" (IMD deciles 5-10 (n =127) due to low representation of people living in more deprived areas. Comparisons are made to overall average for the study population and key findings are presented where there is an overall difference between the categories of 10 percentage points or more. We report key health conditions for the total population where 10% or more reported living with a condition.

¹ Which of the following healthcare problems have you experienced? Response options: Hard to see the GP or get an appointment, A long wait to get a community health service like see a nurse or get physiotherapy. A long wait for help with mental health, A long wait at A&E (accident and emergency), A long wait to go to hospital, A long wait to get treatment for an illness, Health and social care not working together, Bad communication from a health service, Bad quality care, Cannot get the right treatment from NHS, None, Other (please specify).

Results:

Participant characteristics

The majority of respondents were female (77.2%), from a white ethnic background (91.6%), and lived in less deprived areas (76.8%), with most residing in Berkshire West (91.1%).

Please see appendix 1 for full participants' characteristics.

Key health conditions of respondents (Base n =195)

In this study 22.1% of respondents reported living with hypertension, which is lower than the national average for England, where around 30% of adults are affected[18]. Just over a fifth (21.1%) of respondents reported living with back problems; higher than the estimated average for England of 16.9% across all age groups [19] . A fifth (20%) of respondents reported they were living with asthma, which is higher than the England average of 6.6% among individuals aged over 6 years. Similarly, 19.5% reported they were living with arthritis. This is higher than UK estimate suggesting 10 million people (~ 14.4% of the population) are affected [20]. 12.8% of respondents reported living with a bowel disorder. This is above the estimate reported by Bowel Research UK which states that around 3/4 of million of people in the UK live with a serious bowel condition (~ 1.1% of the population) [21]

Accessing GPs:

Around a third of respondents (34%) (n = 65) said it was easy to access their GP surgery and just over a third (36%) (n = 68) said it was difficult, men and women experienced similar levels of ease and difficulty (Figure 1). Only 20% of respondents from a global majority ethnic background said they found it easy to access their GP compared to 35.3% of respondents from a white ethnic background (Figure 2). Respondents living in more deprived areas were less likely to say it was easy to access their GP (24%) (n = 9) compared to respondents living in less deprived areas (38%) (n = 48).

Respondents who said it was difficult to access their GP surgery had the opportunity to explain further the difficulties experienced via an open text response option.

Common access difficulties included busy telephone lines or waiting in queue on the telephone to make an appointment

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"I have to phone up at 8am and wait in a queue as the lines are always already busy and sometimes can't even get in the queue. Wait time is between 20 and 45 mins by which time invariably all appointments have gone and have to start again next day..." Female, aged 63, Wokingham

You have to phone up at 8.30am to ask for an appointment. Often the line is busy and when you get through all appointments are taken. You are, however, offered an emergency appointment if it is an emergency. So, you then have to call again the next morning. Once you experience the above twice you no longer want to contact the GP surgery and feel very frustrated". Male, aged 59, Reading

The move to the online appointment booking via the Anima form created a barrier for some when accessing their GP. Key concerns raised included: the Anima form didn't ask relevant questions for their condition, the form was complicated to complete, and a burden when feeling unwell, for one participant not knowing their login details prevented them from using the service. However, one person felt the online system was a good idea:

"Only accessible online via anima which if you feel unwell just adds to the trauma..." Female, aged 57, Wokingham

"The anima form is too complex and doesn't always ask the right questions, if you get through to the surgery on the phone they always ask you to go online to raise your query or book appointments..." Female, aged 52, Wokingham

"No longer able to book appointments over the phone, must use Anima. This online app is not particularly user friendly, and I have struggled with it. The surgery are now providing training sessions for the app so I'm clearly not the only one! However, the principle of answering questions online and then it being triaged and appointments booked in order of medical need is fine, and urgent appointments are available". Female, aged 64 Wokingham

"Cannot get through on the phone. Find the Amina app which they insist is used difficult to navigate and understand" Female, 52, West Berkshire

"I don't remember my login details" Female, aged 32, Reading

Many mentioned it was difficult to book a non-urgent appointment either by phone or online in part because it is a "book on the day" system and that, when working, phoning or completing an online form for a same day appointment wasn't always feasible:

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"Getting a non-urgent appointment is practically impossible. They ask you to phone for an on the day appointment even if not urgent. You have to be in the queue as the phones open at 8. This is not possible if when travelling to work".

Female, aged 53, Wokingham

"... it is almost impossible to get an appointment without phoning. This is compounded by appointments only being available same day and opened at 8am but all filled by 8.15am when I work evenings and nights and struggle to be up to even try and phone let alone travel and ask for an appointment in person".

Prefer to self-describe, aged 41, Reading

"My surgery uses eConsult rather than being able to call for an appointment. Often, the eConsult link closes early due to capacity. I have tried to submit an eConsult around midday numerous times and have found it closed. I have also had difficulty with flexibility that fits around work and my caring responsibilities"

Female, aged 28, Bracknell Forest

Healthcare barriers:

Most men and women said the healthcare barrier they faced was getting to see a GP or getting an appointment to do so (68%), this was also true when disaggregated by ethnicity (69%) and deprivation (69%). From respondents living in more deprived areas, a greater proportion (29%) (n =11), indicated they had experienced a long wait for help with their mental health compared to those from less deprived areas (19%) (n=24). From respondents in more deprived areas, a greater proportion reported they had received bad quality care (n =10), (26%) compared to respondents from less deprived areas (n=20) (16%).

Conversely a greater proportion (50%) (n = 64) from less deprived areas said they had experienced a long wait in Accident and Emergency compared to 39% from more deprived areas (n = 15).

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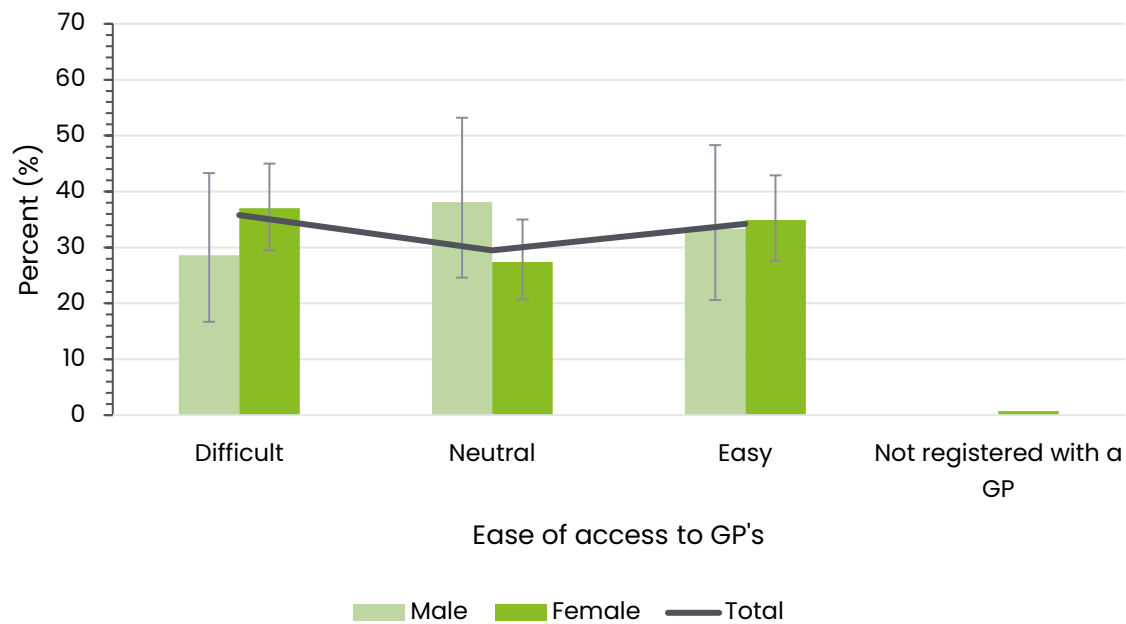


Figure 2 Ease of access to GP surgery by sex

95% Lower and Upper Confidence intervals displayed

Males n = 42, Females n = 146

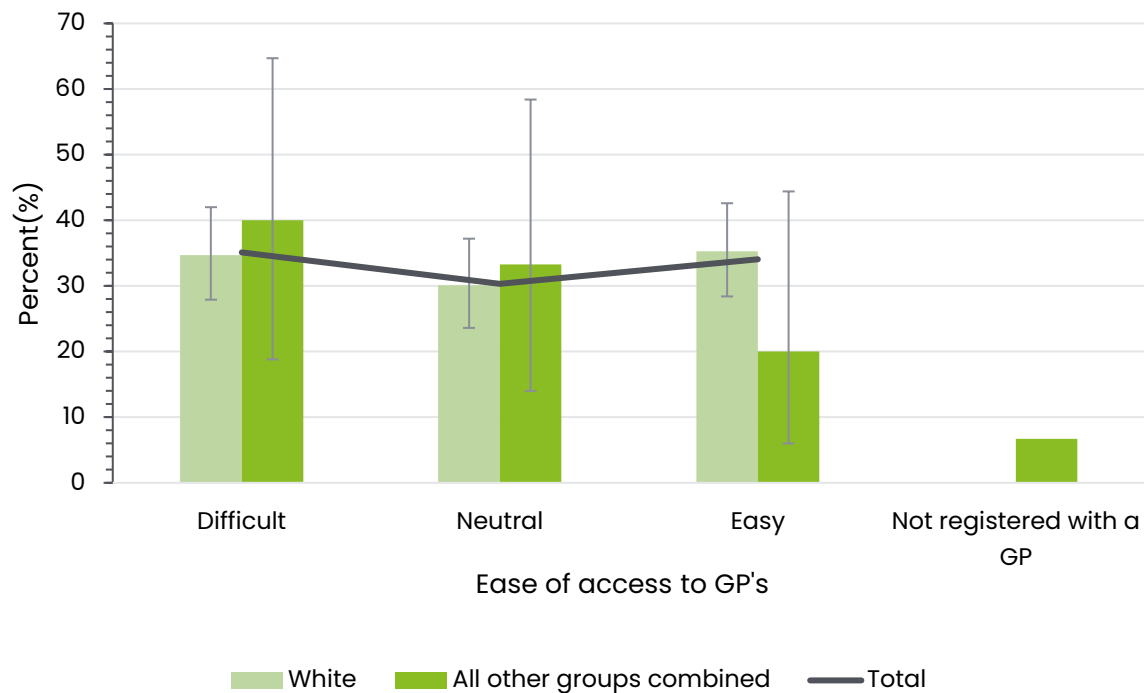


Figure 3 Ease of access to GP surgery by ethnicity

95% Lower and Upper Confidence intervals displayed

White n = 173, All other ethnic groups combined n = 15

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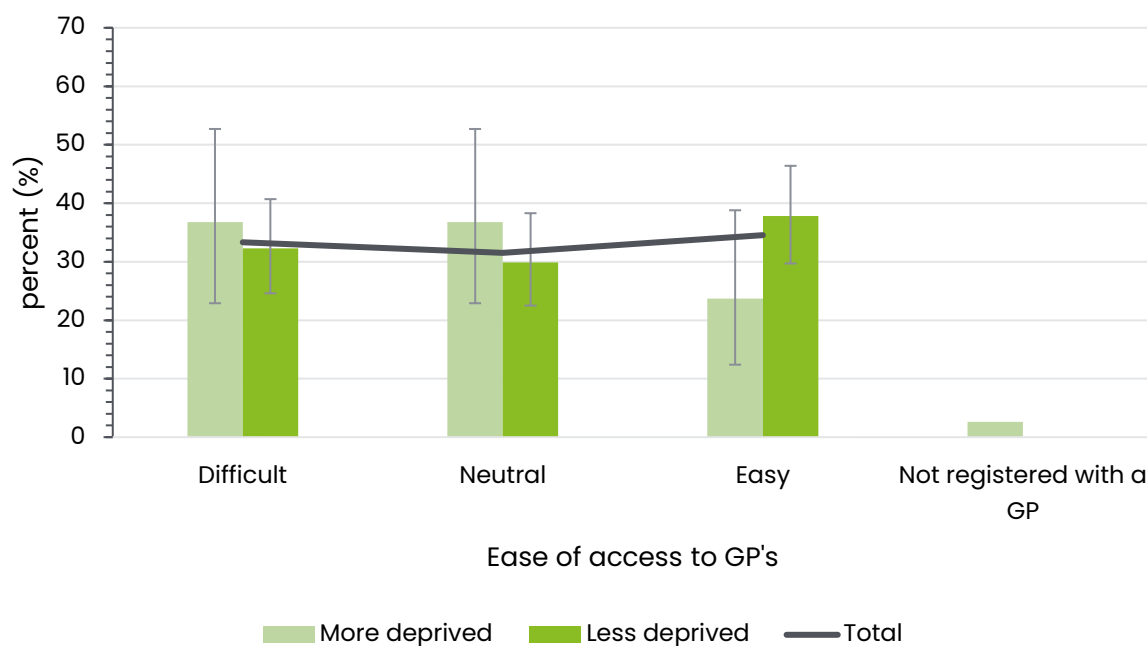


Figure 4 Ease of access to GP by deprivation

95% Lower and Upper Confidence intervals displayed

More deprived n = 38, less deprived n = 127

Use of internet to take care of health-related needs (Base n =195)

Respondents were asked if they used the internet to take care of any health-related needs for the following scenarios: *"To look for health or medical information"*, *"Send a message to a health care provider office"*, *"View medical test results"*, *"Make an appointment with a health care provider"*.

The majority of respondents (92.8%) used the internet to look for health or medical information, 63.7% to view test results, 64.1% to send a message to a health care provider and 63.1% to make an appointment with a health care provider.

Variations in the use of the internet to take care of health-related needs were observed between the different groups of people.

- **Sex (Base n = 191):** Females were more likely seek medical or health information and manage or monitor their health information online compared to males. 95.3% of females reported they used the internet to look for health or medical information compared to 83.3% of males and 72.5% of females viewed their medical test results online compared to 59.5% of males.

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- **Ethnicity (Base n =191).** People from a White ethnic background had higher levels of engagement with healthcare providers online compared to those from a Global Majority ethnic background. 65.1% of respondents from a White ethnic background reported using the internet to send a message to their healthcare provider compared to 43.8% of respondents from a Global Majority Ethnic background. This was also true for making appointments online with 64.0% of respondents from a White ethnic background doing so compared to 43.8% of respondents from a Global Majority Ethnic background.

Self-rated physical health.

A total of 192 respondents answered the question *"In general, would you say your physical health is...?"* with the response options of "Poor", "Fair", "Good", "Very Good", "Excellent". For analysis, these options were collapsed into two groupings: *Poor* (combining "Poor" and "Fair") and *Good* (combining "Good", "Very Good" and "Excellent"). Just under 3/5th of respondents reported their health as good (58.9%).

Variations in self-reported physical health were observed between the different groups of people.

- **Ethnicity (Base n = 188):** A higher proportion from a Global Majority Ethnic background rated their health as good (68.8%) compared to people from a white ethnic background (57.6%).
- **Deprivation (Base n = 165):** From respondents living in more deprived areas, a lower proportion rated their health as good (48.7%) compared to 60.3% of those living in less deprived areas.
- **Equivalised household income (Base n = 145):** From respondents who rated their health as good, median equivalised household income was 26% higher compared to respondents who rated their health as poor (£37499.50 [£22661.62: £48610.83]) vs (£29761.67 [£14999.67: £41874.63])
- **Food security (Base n= 192):** Of the food secure respondents (n =164), 62.9% were likely to report their health as good compared to just 28.6% of respondents who were food insecure (n = 28).
- **Living with someone not in good health or living with a long-term illness (Base 192):** 30% (n =59) reported living with someone not in good health or with long-term illness; of these 45.8% rated their own health as good, compared to 64.4% of respondents who were not living with someone experience illness or poor health.
- **Mental wellbeing (Base n= 192):** Of respondents who reported their physical health as good, 19.5% reported they had high wellbeing, whilst 64.6% said there

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wellbeing was moderate and 15.9% reported low wellbeing being. When comparing with respondents who reported their physical health as poor, just 3.8% had high wellbeing with an equal split between moderate and low (48.1%)

Summary

Around one third of respondents reported it was easy to access their GP with a third reporting it was difficult. Individuals from a Global Majority Ethnic background and/or those living in most deprived areas were less likely to report they found it easy to access their GP. Factors such as reliance on telephone booking, complex online forms and the inability to prebook appointment for working age population groups are key challenges experienced. Further research is required to understand the specific barriers faced by people from a Global Majority Ethnic background and those living in an area of high deprivation to inform targeted interventions which ease the burden for people seeking to access their GP.

Use of the internet to care of health-related needs

Females demonstrated higher levels of digital engagement than males for seeking medical information and viewing test results. This aligns with previous studies which found women had a higher frequency for using the internet for health-related information [18]. There appears to be disparity between ethnic groups for using online resources to communicate with their healthcare provider and make appointments. This suggests people from a Global Majority Ethnic background maybe excluded from digital healthcare. The reason for this will need to be elucidated.

Key recommendations

Access to GPs

- Continue to support residents in the transition to digital online tools for booking GP appointments, to check their results and order repeat prescription etc.
- Establish what methods residents would find most useful for learning how to use digital booking systems and the NHS app.
- Continue to provide telephone support for residents without digital access.
- Many GPs surgeries are open from 8.00 am to 6.30 pm Mon-Friday with some operating on a Saturday. It is recognised GP surgeries are under strain due to underinvestment which has impacted on recruitment and retention staff [23]. It is therefore recommended to continue focusing on prevention of ill health,

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supporting people in community settings and working with community and voluntary sectors to mitigate against patients presenting at urgent care and A&E. However, continued and increased funding is required for GP surgeries to better meet the needs of their patients.

- Continue to fund community wellness outreach services such as Meet PEET

Lead / supporting organisations: Primary Care Networks and GP practices (lead), supported by the Integrated Care Board and VCSE digital inclusion services.

Food Security

Introduction

Food insecurity can be defined as the lack of access to adequate food. However, adequacy encompasses more than food quantity. To be food secure, households must have access to food that is nutritionally adequate to meet physiological requirements for a healthy and active life, be sourced in socially acceptable ways, safe to eat and meet cultural and dietary preferences [23]. Sustained food insecurity and poor diet quality can lead to malnutrition and the development chronic and complex diseases including obesity [25, 26] which increases the risk of the development of diet related non-communicable diseases such as type II diabetes and some forms of cancers. There is also a clear association with food insecurity and poor mental health [27].

Food insecurity is a public health concern in England. Although, responsibility for addressing food insecurity formally sits with local government [28], charitable and voluntary sector organisations frequently intervene to support households in accessing food through emergency food aid, food pantries, communal eating programmes and other initiatives. Despite this, food insecurity remains a under examined social determinant of health [29] even though its health implications are far reaching. Individuals experiencing food insecurity are more likely to

“Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”.

(World Food Summit, 1996)

present at both community and hospital settings with complications related to chronic diseases associated with malnutrition and obesity [29], as well as poor mental health.

Food insecurity disproportional impacts people with an income from Universal Credit [30] households with children [31], people living or caring for someone with a disability or long-term health condition [32], individuals from a Global Majority Ethnic background and those living with a mental health illness [33]. When multiple risk factors for food insecurity converge (e.g. living with a low income and material deprivation) and/or when social identity (gender, ethnicity, disability, age etc) overlaps this can worsen the severity and duration of food insecurity experienced.

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Factors driving food insecurity and impact on diet

The cost of living is placing a burden on household budgets, including food costs. Food budgets are often considered modifiable, meaning households commonly reduce spend on food to compensate for increasing cost in other areas. The consequences of this can lead to a reduction in the quality and variety of food within the diet and in the most severe cases going whole days without eating. Although following a diet aligned with government dietary guidelines can reduce premature mortality, evidence suggests this is unaffordable for the most deprived households in the UK who would need to spend 50 – 70% of their disposable income to achieve the guidelines compared to just 11% in the least deprived households [34]. Fruit and vegetables are the food group most likely to be modified because of the cost-of-living crisis and among households experiencing food insecurity, with evidence suggesting sales have slumped to their lowest in 50 years [35]. This is concerning, as consuming at least five portions of fruit and vegetables per day is thought to be a major contributing factor to reducing premature mortality [36].

Overview of Food insecurity in the UK

Private household food security in the UK is measured as part of the Family Resource Survey (FRS) which uses the USDA 10-question Adult Food Security Survey Module with a 30-day reference period. The FRS estimates the proportion of households that were food insecure in the UK increased by 3 percentage points, from 7% in 2021/22 to 10% in 2022/23, equivalent to an extra 2.5 million people [37, 38]. Food insecurity in the South East region increased by two percentage points from 6% in 2021/22 to 8% 20022/23. However, the FRS is only suitable for analysis at the regional level due to its sampling design, it is also recognised to under report benefit recipients [39]. Therefore, it is not possible to estimate food insecurity prevalence and severity within local areas or identify population groups who are at increased risk within these areas with the current resources available.

The OHID Fingertips public health profiles estimate food insecurity at the county and district level based on the University of Southampton's Food Insecurity Risk Index for English neighbourhoods [28]. It is an indirect measure developed to fill the gap between regional and local estimates as there is a lack of robust data for food insecurity at local level. The Index estimates the percentage of the local authority population living in areas at the highest risk of food insecurity. In Berkshire, Slough is estimated to have 29.8% of its population living in an area at high risk of food insecurity, followed by Reading (11.1%) and West Berkshire (1.7%), whilst Wokingham, Windsor and Maidenhead

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and Bracknell Forest, it is estimated 0% of the population are living in areas at high risk of food insecurity. A key limitation of this method is that it identifies populations living at risk, rather than directly estimating the number of households experiencing food insecurity. Therefore, these estimates should be combined with local authority surveillance data to gain an understanding of the prevalence and severity of food insecurity at the local level for the identification of population groups at risk, and development interventions to address food insecurity.

Methods

In this study we use the USDA 10 question Adult Food Security Module² with a 30-day reference period to estimate food security prevalence. A key limitation of this module is that it does not estimate child food security. Respondents were asked all ten questions to determine their food security status. Respondents are assigned to one of four following categories depending on their answers.

- **Raw score of zero: High food secure** – no indication of problems in accessing food
- **Raw score of 1–2: Marginal food secure** – worry around food sufficiency but little change to diet
- **Raw score of 3–5: Low food secure** – characterised by a reduction diet quality and variety of food or eating foods which are not appealing, although quantity of food consumed is not reduced.
- **Raw score \geq 6: very low food secure** – characterised by disrupted eating patterns, skipping meals or going whole days without eating

² U.S. ADULT FOOD SECURITY SURVEY MODULE

1. The first statement is "(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more." Was that often true, sometimes true, or never true (don't know, prefer not to say) for (you/your household) in the last 30 days?
2. The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more." Was that often, sometimes, or never true, (don't know, prefer not to say) for (you/your household) in the last 30 day?
3. (I/we) couldn't afford to eat balanced meals." Was that often, sometimes, or never true (don't know, prefer not to say) for (you/your household) in the last 30 days?
4. In the last 30 days did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food? (Yes, no, don't know)
5. [IF YES ABOVE, ASK] In the last 30 days, how many days did this happen?
6. In the last 30 days, did you ever eat less than you felt you should because there wasn't enough money for food? (Yes, no, don't know)
7. In the last 30 days, were you every hungry but didn't eat because there wasn't enough money for food? (Yes, no, don't know),
8. In the last 30 days, did you lose weight because there wasn't enough money for food? (Yes, no, don't know),
9. In the last 30 days, did (you/you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food? (Yes, no, don't know),
10. [IF YES ABOVE, ASK] In the last 30 days, how many days did this happen?

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Respondents with high and marginal food security are categorised as food secure whilst those with low and very low food security are categorised as food insecure [40].

Results

Across Berkshire 85.6% of respondents (n = 167) were categorised as food secure and 14.4 % (n = 28) as food insecure. When segmented by boroughs there were clear disparities in the prevalence of food insecurity.

Respondents in:

- **Reading** (n = 46), 78.2% were food secure and **21.7% were food insecure.**
- **Wokingham** (n = 45) 88.9% were food secure and **11.1% food insecure.**
- **West Berkshire** (n = 62) 91.9% were food secure and **8.1% food insecure.**

The number of respondents in Bracknell Forest (n = 11), Slough (n = 2) and Windsor and Maidenhead (n = 2) were too few to report reliably when split by borough.

Experiences of food insecurity

The USDA 10 adult question Food Security Module assesses economic access to food along a continuum from worry and anxiety about running out of food to going whole days without eating because of financial constraints. Figure 6 presents the proportion of survey respondents who answered affirmatively to eight of module questions. The two missing questions are follow-up questions to “cut the size or skip meals” and “not eat for a whole day” to determine the number of days these experiences occurred.

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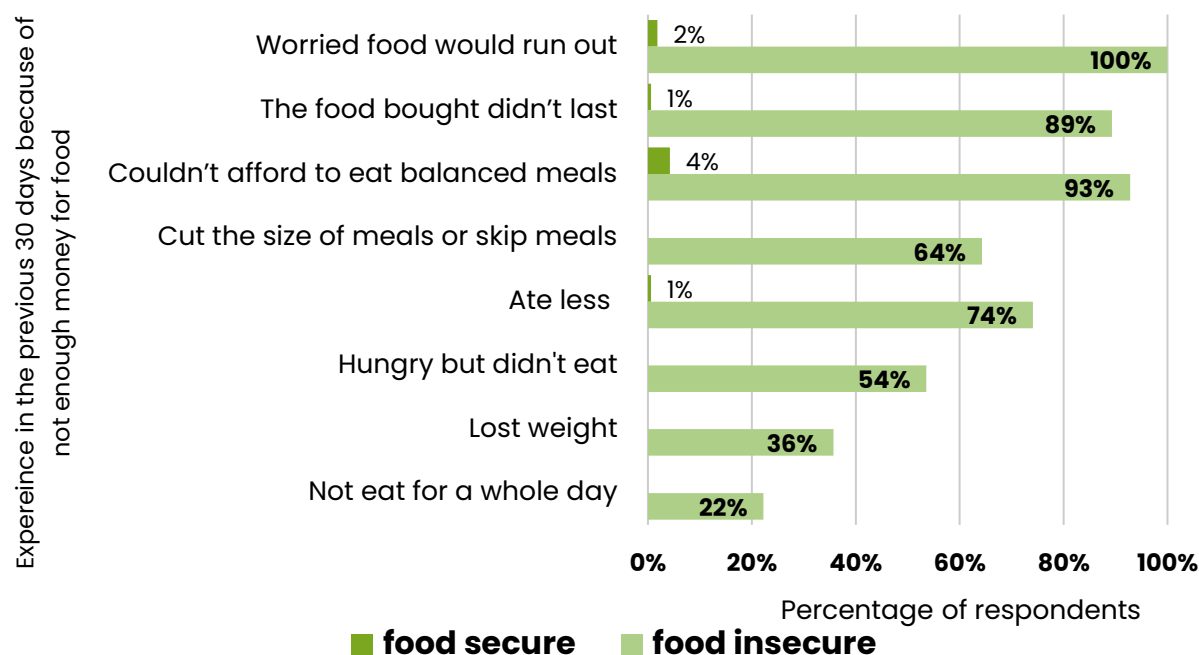


Figure 5 Experience of food insecurity in the previous 30 days

Food secure n = 167, Food insecure n = 28.

Among respondents classified as food insecure, all (100%) reported worrying their food would run out before they had money to buy more. Coping strategies utilised to mitigate against not having enough money for food included cutting the size or skipping meals (64%), eating less they felt they should (74%), and not eating when hungry (54%). More severe indicators of food insecurity were also evident: over a third (36%) reported losing weight because they didn't have enough money for food and 22% reported they went whole days without eating.

Protected characteristics of respondents who are food secure and food insecure in Berkshire

Health inequalities refer to the observable differences in health outcomes across the population. The food we eat has a key role on our health outcomes, and the experience of food insecurity can further compound the effect of an already poor diet. This section explores food insecurity through the lens of these protected characteristics to understand how these factors influence the experience of food insecurity.

Variations in people's characteristics were detected between food secure and food insecure respondents for:

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- **Age:** Food secure were more likely to be older (mean age 40 year \pm S.E.M, 1 years) (Base, n =166). compared to food insecure (mean age 31 years \pm S.E.M, 2 years) (Base, n =28).
- **Disability:** Food secure were more likely to report they did not have a disability (63.5%) (Base, n =167) compared to food insecure (21.4%) (Base n, 28)

Food secure were also less likely to report they had a physical or mobility disability (17.4%) (Base, n = 167) compared to food insecure (50%) (Base n = 28)

- **Neurodivergent:** Food secure were less likely to report they were neurodivergent e.g. Autism or ADHD (7.8%) (Base, n =167) compared to food insecure (25%) (Base = n= 28)
- **Relationships:** Food secure were more likely to be married or in a domestic partnership (73.0%) (Base, n = 159) compared to food insecure (42.3%) (Base, n =26)

The Health Foundations Building Block of Health is a metaphor that illustrates the wider determinants of health. This section explores food security through the lens of these Building Blocks to examine how multiple factors converge to influence the experience of food insecurity.

Variation in the stability of the Building Blocks of Health [41]

- **Housing and environment:** Food secure respondents (Base n=164) were less likely to report that they had housing but were worried about losing housing in the future (3.7%) compared to food insecure (29.6%) (Base, n =27). Food secure respondents (Base n =165) were also more likely to be homeowner with or without a mortgage (86.1%) compared to food insecure respondents (35.7%) (Base, n =28) who were more to be renting from a local authority or housing association (25.0%) or private landlord (28.6%).
- **Geography:** Food secure respondents were more likely to live in less deprived areas (83.9%) (Base, n =143) compared to food insecure (16.1%) (Base, n =25).
- **Economic activity:** Nearly half of respondents who reported they were experiencing food insecurity were in either full or part time employment (48.1%)(Base n = 27).

Coping strategies

Respondents who were food insecure (Base, n = 28) (14.3%) said they had visited a food pantry / social supermarket in the previous 30 days; 1 person visited a community meal and 1 person a surplus food table. Both food secure (Base, n=167) and food insecure

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(Base, n= 28) utilised food sharing platforms such as Olio or Too Good to Go (6% and 28.6% respectively), indicating a preference for these types of initiatives that bring anonymity compared to charitable provision for food insecure households when faced with financial constraint for affording food.

Respondents were asked about their coping strategies in the previous 7 days when they did not have enough food or money for food. The most common coping strategies reported among food insecure households (n=28) included relying on less preferred or less expensive foods (67.8%). Many respondents also reduced the amount (75.0%) and variety (78.6%) of fruit and vegetables eaten. Over 2/5 fifths (82.3%) indicated their meals lacked variation (e.g. eating the same foods at each meal occasion or the same food for consecutive days), whilst 64.3% reported limiting portion size at mealtimes or reducing the number of meals eaten in a day.

Health conditions

Respondents who were food secure were 2.2 times more likely to perceive their physical health as good, compared food insecure respondents (64.0% vs 28.6% respectively).

Variations in people's existing health conditions were detected between food secure and food insecure respondents:

- **Mental illness:** food secure were less likely to report they had a mental illness like anxiety (12.6%) (Base, n=167) compared to food secure (57.1%) (Base, n =28)
- **Long term illness:** Food secure were less likely to report they had been ill for a long time (6.6%) (Base, n= 167) compared to food insecure (46.4%) (Base n =28)
- **Hypertension:** Food secure were less likely to report they were living with hypertension (18.6%) (Base n =167) compared to food insecure (42.9%) (Base n=28)
- **Migraines:** Food secure were less likely to report they were living with migraines (7.8%) (Base n =167) compared to food insecure (21.4%) (Base n=28)
- **Asthma:** Food secure were less likely to report they were living with asthma (18.6%) (Base n =167) compared to food insecure (28.6%) (Base n=28)
- **Bowel disorders:** Food secure were less likely to report they were living bowel disorders (10.8%) (Base n =167) compared to food insecure (25.0%) (Base n=28)

Summary

Characteristics that protect people from the experience of food insecurity in this study included being married or in a partnership, not having a long-term disability or illness, including mental health illness. Although the sample size for the food insecure respondents was small, it suggests food insecure respondents are socially-economically deprived, a factor in health inequalities. Food insecure were more likely to report experiencing instability with their housing tenure and to be renting their accommodation, living in a more deprived area, living with a disability, a long-term health condition and/or mental illness and were less likely to report their physical health as good. These findings align with previous studies [19,20] and further emphasise the association between food insecurity self-reported poor physical health and poor mental wellbeing.

Coping strategies utilised by food insecure respondents suggest the diet quality of respondents is unlikely to be sufficient to meet their nutritional needs for an active and healthy life. Consequently, food insecurity is a contributing factor to inequalities for physical and mental health observed in society.

A Population Health management approach to food security could be used to identify local at-risk cohorts and create an evidence base for targeted action need [44]. As primary prevention of health inequalities occurs outside the NHS [45] such monitoring would support local authorities in the development of targeted interventions to address the root cause of food insecurity and transition people to a food secure state. This has the potential to reduce burden on community healthcare and hospital settings by supporting people before they develop complications related to food insecurity.

Key recommendations:

- Monitor food security at the local level in each unitary authority
- Incorporate the 10-question adult food security module into health and wellbeing checks at the GP and via Meet PEET and /or local citizen surveys.
- Identify population groups at risk or experiencing food insecurity to enable relevant support for moving people to a more food secure state.
- People presenting with low or very low food security prescribe £20³ per week for essential items including fruit and vegetable for an extended period (approx. 3

³ The figure of £20 is derived from evidence during the Covid-19 pandemic that £20 a week uplift was likely to have protected people in receipt of Universal Credit from food insecurity <https://foodfoundation.org.uk/press-release/government-data-shows-ps20-uplift-likely-have-protected-people-universal-credit-food>

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months) via the Change-Box Essential for Everyone programme. This could be funded via the Crisis and Resilience fund.

- Fund Community Health and Wellbeing workers to work in partnership with individuals/households and communities experiencing food insecurity to support, identify and address the causes of food insecurity and poor health.
- Incorporate priorities for food system change and addressing food insecurity into Health and Wellbeing strategies.
- Work towards local unitary authorities across Berkshire becoming members of the Sustainable Food Places network [46] and embedding of Local Food Partnerships.

Lead/ supporting organisations: NHS trusts, local authorities (joint lead), University of Reading and Berkshire Health Inequalities Group

References

1. English indices of deprivation 2019: Postcode Lookup. <https://imd-by-postcode.opendatacommunities.org/imd/2019>. Accessed 18 Feb 2026
2. Health Foundation T (2024) What builds good health? <https://doi.org/10.37829/HF-2024-HL02>
3. Schramme T (2023) Health as Complete Well-Being: The WHO Definition and Beyond. *Public Health Ethics* 16:210–218. <https://doi.org/10.1093/phe/phad017>
4. What Are Health Inequalities? | The King's Fund. <https://www.kingsfund.org.uk/insight-and-analysis/long-reads/what-are-health-inequalities>. Accessed 17 Feb 2026
5. NHS England » What are healthcare inequalities? <https://www.england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improvement-programme/what-are-healthcare-inequalities/>. Accessed 17 Feb 2026
6. Wider Determinants of Health – Data | Fingertips | Department of Health and Social Care. <https://fingertips.phe.org.uk/profile/wider-determinants/data#page/3/gid/1938133045/pat/15/par/E92000001/ati/502/are/E06000038/iid/93864/age/1/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1/page-options/car-do-0>. Accessed 16 Feb 2026
7. NHS England » Core20PLUS5 (adults) – an approach to reducing healthcare inequalities. <https://www.england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improvement-programme/core20plus5/>. Accessed 18 Feb 2026
8. Ekmekci PE, Arda B (2015) Enhancing John Rawls's Theory of Justice to Cover Health and Social Determinants of Health. *Acta Bioeth* 21:227. <https://doi.org/10.4067/S1726-569X2015000200009>
9. Wider Determinants of Health | Fingertips | Department of Health and Social Care. <https://fingertips.phe.org.uk/profile/wider-determinants#1>. Accessed 17 Feb 2026
10. WHO Europe (2019) WHO Healthy prosperous lives for all: the European Health Equity Status Report. Copenhagen

Report for the Berkshire Health Inequalities Group

11. Mutz J, Lewis CM (2022) Cross-classification between self-rated health and health status: longitudinal analyses of all-cause mortality and leading causes of death in the UK. *Scientific Reports* 2022 12:1 12:459-.
<https://doi.org/10.1038/s41598-021-04016-x>
12. Inequalities in mental health and why this data is a priority - NHS England Digital. <https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/mental-health-services-data-set/submit-data/data-quality-of-protected-characteristics-and-other-vulnerable-groups/inequalities-in-mental-health-and-why-this-data-is-a-priority>. Accessed 18 Feb 2026
13. Goel V, Rosella LC, Fu L, Alberga A (2018) The Relationship Between Life Satisfaction and Healthcare Utilization: A Longitudinal Study. *Am J Prev Med* 55:142–150. <https://doi.org/10.1016/j.amepre.2018.04.004>
14. Office for national Statistics (2025) Life expectancy for local areas of the UK - Office for National Statistics. In:
<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/lifeexpectancyforlocalareasoftheuk/between2001to2003and2022to2024>.
<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/lifeexpectancyforlocalareasoftheuk/between2001to2003and2022to2024>. Accessed 14 May 2026
15. Office for Health Improvement and Disparities (2025) Segment Tool. In:
<https://analytics.phe.gov.uk/apps/segment-tool/#References>.
<https://analytics.phe.gov.uk/apps/segment-tool/#References>. Accessed 16 Mar 2026
16. Segment Tool. <https://analytics.phe.gov.uk/apps/segment-tool/>. Accessed 26 Feb 2026
17. Healthy life expectancy trends in the UK: a watershed moment - The Health Foundation. <https://www.health.org.uk/reports-and-analysis/analysis/healthy-life-expectancy-trends-in-the-uk-a-watershed-moment>. Accessed 14 May 2026

Report for the Berkshire Health Inequalities Group

18. Adults' health – NHS England Digital. <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2024/adults-health>. Accessed 21 May 2026
19. Musculoskeletal health profile | Fingertips | Department of Health and Social Care.
<https://fingertips.phe.org.uk/msk#page/1/gid/1938132773/ati/15/iid/93086/age/1/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1>. Accessed 22 May 2026
20. The Lancet Rheumatology (2025) The stark reality of living with arthritis in the UK. *Lancet Rheumatol* 7:e825–e825. [https://doi.org/10.1016/S2665-9913\(25\)00317-0](https://doi.org/10.1016/S2665-9913(25)00317-0)
21. About us – Bowel Research UK :Bowel Research UK.
<https://bowelresearchuk.org/about-us/>. Accessed 22 May 2026
22. Bidmon S, Terlutter R (2015) Gender Differences in Searching for Health Information on the Internet and the Virtual Patient–Physician Relationship in Germany: Exploratory Results on How Men and Women Differ and Why. *J Med Internet Res* 17:e156. <https://doi.org/10.2196/jmir.4127>
23. BMA (2026) Pressures in general practice data analysis.
<https://www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/pressures/pressures-in-general-practice>. Accessed 14 May 2026
24. What is Food Security? There are Four Dimensions.
<https://www.worldbank.org/en/topic/agriculture/brief/food-security-update/what-is-food-security>. Accessed 9 Mar 2026
25. Carvajal-Aldaz D, Cucalon G, Ordonez C (2022) Food insecurity as a risk factor for obesity: A review. *Front Nutr* 9:1012734.
<https://doi.org/10.3389/fnut.2022.1012734>
26. Stone RA, Brown A, Douglas F, et al (2024) The impact of the cost of living crisis and food insecurity on food purchasing behaviours and food preparation practices in people living with obesity. *Appetite* 196:107255.
<https://doi.org/10.1016/j.appet.2024.107255>
27. Maynard M, Andrade L, Packull-McCormick S, et al (2018) Food Insecurity and Mental Health among Females in High-Income Countries. *Int J Environ Res Public Health* 15:1424. <https://doi.org/10.3390/ijerph15071424>

Report for the Berkshire Health Inequalities Group

28. Smith DM, Rixson L, Grove G, et al (2022) Household food insecurity risk indices for English neighbourhoods: Measures to support local policy decisions. PLoS One 17:e0267260. <https://doi.org/10.1371/journal.pone.0267260>
29. Murthy VH (2016) Food Insecurity: A Public Health Issue. Public Health Reports 131:655. <https://doi.org/10.1177/0033354916664154>
30. Thomas M, Rose P, Coneyworth L, et al (2025) Food insecurity amongst universal credit claimants: the benefits and nutrition study (BEANS), a cross-sectional online study. Eur J Nutr 64:. <https://doi.org/10.1007/s00394-025-03596-Y>
31. New data shows one in seven households with children struggling to afford food | Food Foundation. <https://foodfoundation.org.uk/press-release/new-data-shows-one-seven-households-children-struggling-afford-food>. Accessed 16 Mar 2026
32. Food insecurity and inequalities experienced by disabled people DECEMBER 2023
2 FOOD INSECURITY AND INEQUALITIES EXPERIENCED BY DISABLED PEOPLE
33. Power M, Yang T, Pybus K, Tajik B (2025) Association between food insecurity, ethnicity, and mental health in the UK: An analysis of the Family Resource Survey. PLoS One 20:. <https://doi.org/10.1371/journal.pone.0332762>
34. Kaur A (2025) The affordability of diets that align with the UK's dietary advice and the Eatwell Guide. Proceedings of the Nutrition Society 1–5. <https://doi.org/10.1017/S0029665125101742>
35. Food Sense Wales (2026) Cost of living crisis results in lowest vegetable purchases in the UK for 50 years – foodsensewales.org.uk. In: <https://www.foodsensewales.org.uk/cost-of-living-crisis-results-in-lowest-vegetable-purchases-in-the-uk-for-50-years/>. <https://www.foodsensewales.org.uk/cost-of-living-crisis-results-in-lowest-vegetable-purchases-in-the-uk-for-50-years/>. Accessed 16 Mar 2026
36. Patterson JG, Russomanno J, Teferra AA, Jabson Tree JM (2020) Disparities in food insecurity at the intersection of race and sexual orientation: A population-based study of adult women in the United States. SSM Popul Health 12:100655. <https://doi.org/10.1016/j.ssmph.2020.100655>
37. Francis-Devine B Who is experiencing food insecurity in the UK?

Report for the Berkshire Health Inequalities Group

38. Department for Work and Pensions (DWP) (2024) Family Resources Survey: financial year 2022 to 2023. <https://www.gov.uk/government/statistics/family-resources-survey-financial-year-2022-to-2023>. Accessed 28 Jan 2026
39. DWP. (2024) FAMILY RESOURCES SURVEY UNITED KINGDOM 2022/23. In: <https://www.gov.uk/government/statistics/family-resources-survey-financial-year-2022-to-2023/family-resources-survey-financial-year-2022-to-2023#using-the-frs-for-analysis>. <https://www.gov.uk/government/statistics/family-resources-survey-financial-year-2022-to-2023/family-resources-survey-financial-year-2022-to-2023>. Accessed 16 Mar 2026
40. Shillitoe R, Clifford R, Jenkins M, Murray L (2025) Food and You 2: Wave 10 Key Findings
41. The Health Foundation, Frame Works UK (2022) How to talk about the building blocks of health A toolkit. London
42. Van Der Velde LA, Steyerberg EW, Numans ME, Kiefte-De Jong JC (2022) Food insecurity status is of added value in explaining poor health: a cross-sectional study among parents living in disadvantaged neighbourhoods in the Netherlands. *BMJ Open* 12:e052827. <https://doi.org/10.1136/bmjopen-2021-052827>
43. Pheley AM, Holben DH, Graham AS, Simpson C (2002) Food security and perceptions of health status: a preliminary study in rural Appalachia. *J Rural Health* 18:447–453. <https://doi.org/10.1111/j.1748-0361.2002.tb00909.x>
44. Population health management: an introduction | NHS Confederation. <https://www.nhsconfed.org/articles/population-health-management-introduction>. Accessed 26 Feb 2026
45. NHS England » Public health. <https://www.england.nhs.uk/ourwork/public-health/>. Accessed 26 Feb 2026
46. What are Sustainable Food Places | Sustainable Food Places. <https://www.sustainablefoodplaces.org/about/what-are-sustainable-food-places/>. Accessed 15 May 2026

Appendix 1

Participant characteristics

Majority of respondents were female (77.2%), from a white ethnic background (91.6%), and lived in less deprived areas (76.8%), with most residing in Berkshire West (91.1%)

Participant characteristics

Variable	Median	25 th percentile	75 th percentile	
Age (years)	40	29	47	
Gender	Frequency	Valid Percentage		
	Male	42	21.8	
	Female	149	77.2	
	Prefer to self-describe	1	0.5	
	Prefer not to answer	1	0.5	
	Total	193		
	Missing	2		
Ethnic groups				
White	175	91.6		
All other groups combined	16	8.4		
Total	191			
Missing	4			
Indices of Multiple deprivation				
More deprived	39	23.2		
Less deprived	129	76.8		
Total	168			
Missing	27			
Unitary authority				
Reading	46	27.4		
Wokingham	45	26.8		
West Berkshire	62	36.9		
Bracknell Forest	11	6.5		
Slough	2	1.2		
Windsor and Maidenhead	2	1.2		
Total	168			
Missing	27			

