**TITLE: Food insecurity and Severe Mental Illness: Understanding the hidden issue and how to ask questions about food access within routine healthcare.**

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**Abstract**

Food insecurity occurs when an individual lacks the financial resources they need to ensure reliable access to sufficient food to meet their dietary, nutritional, and social needs. People living with mental ill-health, particularly Severe Mental Illness are more likely to experience food insecurity than the general population. Despite this, most interventions and policy reforms in recent years have been aimed at children and families, with little regard for other vulnerable groups. Initiating a conversation about access to food can be tricky and assessing for food insecurity does not happen in mental health settings. This article provides an overview of food insecurity, and how it relates to mental ill-health. With reference to research evidence, the reader will gain an understanding of food insecurity, how it can be assessed and how food-insecure individuals with Severe Mental Illness can be supported. Finally, we make policy recommendations to truly address this driver of health inequality.

**Learning Outcomes**

After reading this article you will be able to:

* Provide a balanced overview of food insecurity for people living with Severe Mental Illness.
* Demonstrate the principles of assessing food insecurity in mental health practice.
* Understand the complexity of food insecurity for adults with Severe Mental Illness and the policy changes that are required in the UK.

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**Keywords**

Food Insecurity, Food Poverty, Severe Mental Illness, Mental Health, Psychosis, Schizophrenia, Bipolar Disorder

**What is food insecurity?**

Food insecurity can be defined as “a lack of the financial resources needed to ensure reliable access to food to meet dietary, nutritional, and social need” (Blake, 2019). The history of food insecurity in the UK indicates that it was first defined at the 1974 World Food Conference where attending governments declared that everyone has the right “to be free from hunger and malnutrition in order to develop their physical and mental faculties”. Almost fifty years after the World Food Conference’s pledge to eradicate food insecurity within ten years, it remains a significant problem across the world (World Food Summit, 1996). In 2022, in the United Kingdom, 8.8% of households (4.7 million adults), experience food insecurity compared to 7.3% in July 2021 (The Food Foundation, 2022). Furthermore, 3.6% of adults (1 million) have reported that someone in their household had to go a whole day in the past month without eating because they couldn’t afford or access food; and people living with a disability are up to five times more likely to experience food insecurity than those without a disability (The Food Foundation, 2022).

Well before the COVID-19 pandemic, food insecurity was already a major concern in the UK. In 2014, the Children’s Society presented evidence to an All-Party Parliamentary Group to raise awareness of food insecurity (Forsey, 2014). Four years later, Special UN Rapporteur Sir Phillip Alston highlighted the increasing number of people depending on foodbanks in the UK (Alston, 2018). UK food banks provide emergency food parcels consisting of non-perishable food for people in crisis. They are pre-dominantly run by volunteers and food is donated by members of the public and a range of organisations such as churches, supermarkets, and local businesses. Despite these high-profile reviews of the evidence, it has taken the current pandemic and the persistent efforts of a professional footballer to bring the issue of food insecurity into the public and political spotlights (The Child Food Poverty Task Force, 2020).

In the final two weeks of March 2020, the start of the first national lockdown in the UK, there was an 81% increase in the use of emergency food parcels from The Trussell Trust (The Trussell Trust, 2020) and food banks reported a 59% increase in need (The Independent Food Aid Network, 2020). More recently, the substantial rise in the cost of living has resulted in an increase in the number of households experiencing poverty. In the winter of 2021/22, 62% of households reported having higher energy bills compared to the previous winter (The Food Foundation, 2022). This is predicted to increase even more due to the UK energy price cap increasing from 1st April 2022. Furthermore, people living on Universal Credit are up to five times more likely to have experienced food insecurity (The Food Foundation, 2022).

Food insecurity among children has resulted in reports of children having shoplifted for food, scavenged for food from bins, eaten tissue paper to fend off hunger, bartered for food at school, sold drugs for food, and mugged other children for money for food (Finlay *et al*., 2019). However, the implications of food insecurity for other vulnerable groups have been seldom considered.

Foodbanks provide emergency food packages to individuals experiencing food insecurity. These usually consist of non-perishable food items, however, often do not constitute a nutritious balanced diet. There is stigma around the use of foodbanks, and they are often only used as a last resort (Elliott, 2016). Foodbanks are therefore not a long-term solution to food insecurity.

Whilst it is unsurprising that there is a clear link between poverty and food insecurity (Wight *et al*., 2014), a wider range of factors have been linked to the likelihood of a person experiencing food insecurity. These factors do not usually occur in isolation and, when combined, can produce highly complex and stressful situations that are hard to resolve. Whilst household income is the most prominent factor, this is compounded by a lack of food-related knowledge or skills, and issues with physical access to food (Nzuza and Duval, 2016). It is important to acknowledge that the definition of poverty in relation to food insecurity includes that of in-work poverty which occurs when a working household’s total net income is insufficient to meet their needs (Hick and Lanau, 2017).

**How does food insecurity impact on people’s lives?**

***Impact on diet***

Public health guidelines, such as those from UK National Health Service (NHS) EatWell (a pictorial guide which informs the public on the proportions of their diet that should come from each food group to achieve a healthy diet), encourage people to adopt a healthy diet as part of a healthy lifestyle. However, when faced with poverty, choice becomes restricted, with less access to good quality food. There is a clear price disparity between healthy and unhealthy food products, with healthy options costing £7.49 per 1,000 calories compared to £2.50 per 1,000 calories of unhealthy products (Jones *et al*., 2014). The Broken Plate report from the Food Foundation is their annual review of the state of the UK’s food system. It outlines the challenges in ensuring that everyone in the UK can afford and has access to a healthy diet. The 2018 report states that, “for 53% of households in the UK, current food budgets are insufficient to meet government recommendations for a healthy diet” (Scott *et al*., 2018). People who experience food insecurity often report that they want to eat healthily but cannot afford to do so (Puddephatt *et al*., 2020).

Other significant barriers to consuming a healthy diet for people experiencing food insecurity include a lack of access to fresh food, and inadequate food storage and cooking facilities (Thompson *et al*., 2018). “Food deserts” are areas which are poorly served by food outlets selling fresh, healthy products and are particularly prevalent in more socio-economically deprived communities (Beaulac *et al*., 2009). In some cases, individuals and families may be housed in temporary accommodation which provides no access to cooking or food storage facilities.

***Impact on physical health***

The foods that individuals consume can have an impact on both physical and mental health (The Mental Health Foundation, 2017). Food insecurity typically results in a poor-quality diet which interweaves with the issue of healthy weight management, increasing the risk of either being underweight and at risk of malnutrition through insufficient food intake, or overweight from consuming cheaper but unhealthy food. Where food insecurity leads to a person developing obesity, these individuals are, in turn, at greater risk of long-term health conditions including type 2 diabetes and cardiovascular disease (Sustain, 2021).

***Impact on behaviour and mental health***

There are multiple ways in which food insecurity can impact on behaviour. People who experience food insecurity will often engage in a range of strategies to conserve their food supplies. These include choosing cheap and filling foods, consuming small portions, skipping meals altogether, cooking in bulk and prioritising children’s food intake (Thompson *et al*., 2018, Puddephatt *et al*., 2020). In a study of 24 adults using foodbanks in Liverpool, none of the interviewees had access to personal transport and travelled to cheaper supermarkets on foot (Puddephatt *et al*., 2020). However, this relied on them being in good health, for example to be able to carry bags of shopping home.

General population studies highlight the mental health impact of experiencing food insecurity. While having a chronic physical and/or mental health condition can be a precursor to food insecurity, research also shows that food insecurity itself causes considerable stress and anxiety which can exacerbate pre-existing mental illnesses (Thompson *at al*., 2018, Puddephatt *et al*., 2020). Low mood and lack of energy can make it even harder to manage a limited food budget and to plan and cook from scratch (Puddephatt *et al*., 2020). Whilst there is no specific evidence regarding the impact of food insecurity on psychiatric medication or compliance, there is some evidence that adults with food insecurity have a higher likelihood of cost-related nonadherence to prescription medications (Men et al., 2019). This could have an impact on taking recommended psychiatric medication, particularly for people who are not entitled to free prescriptions.

Studies have shown that experiencing food insecurity can increase the likelihood of having a range of mental health conditions. Grisaru et al. (2011) reported that food Insecure individuals had higher Brief Symptom Inventory scores than Food Secure individuals on the global index, the GSI (p=0.005) and on five out of nine subscales (somatization, anxiety, phobic anxiety, paranoid ideation and psychotism) (p<0.001). Lachaud et al (2020) reported that people experiencing food insecurity were more likely to have major depressive episodes (RRR = 1.9 [95% CI: 1.1 to 3.2]) or a mood disorder with psychotic features (RRR = 3.4 [95% CI: 1.6 to 6.9]). However, they were less likely to have psychotic disorders (RRR = 0.5 [95% CI: 0.3 to 0.9]). In contrast, Jih et al. (2019) reported that of participants who were food secure (n=436) 3% had psychosis and those who were food insecure (n=39) 15% had psychosis, (p<0.001).

Severity of household food insecurity appears to be linked with poor mental health in a dose–response manner, with experiences of severe food insecurity being associated with extreme chronic stress (Jessiman-Perreault and McIntyre 2017). Stress can lead to unhealthy eating behaviours, and one reason for this is that people may use food as a way of coping with distressing life circumstances. Greater food insecurity is associated with greater psychological distress; distress, in turn, is associated with eating to cope, and having a higher Body Mass Index (BMI) (Keenan *et al*., 2021). The relationship between food insecurity and body weight is not straightforward, psychological factors and mental health need to be considered.

**What about people with Severe Mental Illness?**

Individuals with mental ill-health are a marginalised population in terms of preventable physical illnesses. People with Severe Mental Illness (SMI), including Schizophrenia and Bipolar Affective Disorder, are particularly vulnerable in terms of their physical health, resulting in a 15–20-year shorter life expectancy compared to people without SMI (Brown *et al*., 2010). Additionally, it is widely reported that obesity is more prevalent in people with SMI than in the general population (Working Group for Improving the Physical Health of People with SMI, 2016). Contributing factors include the illness itself, medication side-effects, and social/environmental barriers to eating healthily and being active (Muralidharan *et al*., 2020).

**Figure 1: The prevalence of food insecurity for people living with SMI**

Adults with SMI are disproportionately affected by food insecurity (see Figure 1).  A Systematic Review by Teasdale *et al* showed that 40% of people with SMI experience food insecurity. People with SMI were also found to be 2.71 times more likely to report food insecurity than the comparator group. (The odds of food insecurity in SMI were higher in high/high-middle income countries compared to low/low-middle income countries, likely due to the high overall food insecurity rates in the general population of lower income countries (Teasdale *et al*., 2021).

People living with mental ill-health face a significant income gap compared to those without mental ill-health (as high as £8,400 per year) (Elliott, 2016), with just 11% of people living with psychosis being in employment in 2014 (Bond and D'Arcy, 2020). The Trussell Trust reports that mental ill-health is a concern reported by food banks with 38% of people accessing them having a mental health condition (Hadfield-Spoor, 2018).

People living with SMI report that food insecurity is increasingly prevalent. They describe examples of people with SMI prolonging their hospital stay to receive meals that they would struggle to purchase upon discharge home. Expert-by-Experience members of Equally Well-UK state the following (The Centre for Mental Health, 2020):

**Figure 2: Quotes on food insecurity from Equally Well UK’s Experts-by-Experience Group**

*“I actually really like healthy food, it’s not that I don’t like it, and I love cooking, it’s just I think it’s more with my mental health, it’s just that when I’m depressed, I get really suicidal and I don’t care so I think right, I’m on the phone [for food] because I won’t go out when I’m depressed.”*

*“Finance is also barrier – economic barriers to accessing fresh fruit and veg. A lot of users will have can of beans, toast, live on bread – cheapest available vegetables and meat.”*

The syndemic nature of having an SMI in conjunction with food insecurity remains an under-researched area worldwide (Swinburn *et al*., 2019). This potentially leads to food insecurity being unrecognised across health and social care systems.

**Boxes 1 and 2: Clinical Scenarios relating to Food Insecurity and SMI**

**Patient B** is a 20-year-old female who is experiencing her first episode of psychosis. She is under the care of the Early Intervention in Psychosis Team in the community but has recently been an inpatient in a psychiatric unit. Upon admission to hospital, Patient B was identified as being underweight and was given some support to increase her weight as an inpatient. No one asked her about access to sufficient food. Patient B lives in Bed and Breakfast accommodation and therefore has no access to cooking equipment. She is in receipt of Universal Credit but finds that she struggles to make this last for the full 4-week period between payments. Since discharge from hospital, patient B has lost weight and her currently Body Mass Index places her in the underweight category. She has no history of an eating disorder and states that she “wants to be a normal weight”. Patient B does not like to talk about her finances or access to food with her mental health team as she feels embarrassed and ashamed.

How would you ask patient B about whether she is experiencing food insecurity? What resources could you suggest to support patient B in accessing sufficient food and increase her BMI?

Possible points to consider:

* Support with cookery equipment e.g., microwave.
* Support to access social supermarkets and/or community cafes.
* Possible referral to a Dietitian for further assessment and advice regarding energy dense, nutritious food on a budget.

**Patient A** is a 56-year-old male with Schizophrenia. He lives alone and has very little social support. He is in receipt of Universal Credit but was declined Personal Independence Payment. Patient A is prescribed Olanzapine and has gained a significant amount of weight over the past 5 years. His current Body Mass Index places him in the obesity category. Patient A finds it difficult to afford food and therefore buys the cheapest foods he can find in the local shops. He does not have transport and therefore shops in his local convenience store which is within walking distance of his house. He states that he “buys whatever is on offer” and often these foods are energy dense and high in fat. Patient A has some knowledge of healthy eating and can cook meals from scratch. However, he states that he “cannot afford the ingredients for a healthy meal” and struggles to have the fuel to cook a meal due to the rise in energy bills.

What resources could you suggest to help Patient A to access a healthy diet? Who else could you refer him to for support?

Possible points to consider:

* Support to access community cafés e.g., FoodCycle for meal provision and social support.
* Referral to Citizen’s Advice for support with fuel poverty.
* Possible referral to a food bank.

**How is food insecurity currently managed in SMI clinical practice?**

. At present, mental health practitioners may not prioritise asking about food insecurity. There are many potential explanations for this. We have already identified a lack of evidence regarding the prevalence of food insecurity in adults with SMI in the UK. The evidence we do have is predominantly anecdotal reports from people with mental ill-health as part of other work, for example on obesity in SMI (The Centre for Mental Health, 2020). It is therefore important to raise awareness of food insecurity for clinicians working with people living with SMI.

Furthermore, many people accessing food banks report a sense of social stigma and shame, being seen as a ‘failure’. This includes being reliant on others for their survival, being seen by other people in their local area as lacking in the choice of food they could eat and not being able to provide for their families(Purdam *et al*., 2016). It may therefore be particularly difficult for people presenting to mental health services to raise the issue of food insecurity with their clinician due to the stigma attached to food insecurity.

The lead author undertook some Patient and Public Involvement (PPI) work as part of a recent grant application on food insecurity in SMI. The service user representatives spoke about their experiences of food insecurity and gave examples of people wanting to remain in a psychiatric hospital for longer than required to have access to hot meals. The PPI work uncovered that, whilst it is a sensitive subject, patients would welcome an opportunity to talk to mental health practitioners about food insecurity if this would result in some support to access services.

**How can I support my patients with SMI who are experiencing food insecurity?**

Psychiatrists working in teams that support people living with SMI might champion the issue of food insecurity in this population, leading by example to address the wider determinants of health and provide more holistic mental health services. For example, a psychiatrist could raise awareness of the prevalence and experiences of individuals with SMI in relation to food insecurity to their own multi-disciplinary team (MDT) by sharing this article or providing an update at a team meeting. They could work with their MDT to familiarise themselves with the local services that are available to support individuals who are experiencing food insecurity and establish links with these organisations. It is vital that healthcare practitioners working in mental health assess for food insecurity routinely as part of the care they provide. When food insecurity is identified, practitioners should work with the individual to identify the support that they require to access food. This is often a complex issue and needs to be person-centred and tailored to individual circumstances and needs.

***Assessment***

It is encouraged that healthcare practitioners assess food insecurity as part of an assessment of the social determinants of health. Taking these wider determinants into consideration may, itself, prevent an individual from becoming severely food insecure. There are a variety of tools available to assess food insecurity that could be built into a clinical assessment. A large-scale household food insecurity survey has never been administered in the UK (Evidence and Network on UK Household Food Insecurity, 2021) but the Food Standards Agency has included the Adult Food Security Module (U.S. Department of Agriculture, 2012) in the bi-annual ‘Food and You Survey’ since 2016. This 10-item module has three stages (Box 3). There are optional screening questions within this tool. This is the best available validated measure for assessing food security in the world and has been shown to have sensitivity and specificity for use in the UK (Evidence and Network on UK Household Food Insecurity, 2021).

**Box 3 Summary of the Questions from the U.S. Department of Agriculture Adult Food Security Module**

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| --- |
| **Stage 1: In the last 12 months, can you tell me if these statements were true for you?** (*often true/ sometimes true/ never true/don’t know*)  “(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more.”  “The food that (I/we) bought just didn’t last, and (I/we) didn’t have money to get more.”  “(I/we) couldn’t afford to eat balanced meals.” |
| **Stage 2: (if one or more questions in Stage 1 affirmed) In the last 12 months…**  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*)  **If yes**: How often did this happen? (*Almost every month/some months but not every month/ only 1 or 2 months/ don’t know*)  Did you ever eat less than you felt you should because there wasn't enough money for food? (*yes/ no/ don’t know*)  Were you ever hungry but didn't eat because there wasn't enough money for food? (*yes/ no/ don’t know*)  Did you lose weight because there wasn't enough money for food? (*yes/ no/ don’t know*) |
| **Stage 3: (if one or more questions in Stage 2 affirmed) In the last 12 months…**  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*)  **If yes:** How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months? (*Almost every month/some months but not every month/ only 1 or 2 months/ don’t know*) |

Responses of “yes,” “often,” “sometimes,” “almost every month,” and “some months but not every month” are coded as affirmative. The sum of affirmative responses to the 10 questions in the Adult Food Security Scale is the household’s raw score on the scale.

Food security status is assigned as follows:

* Raw score zero—High food security among adults
* Raw score 1-2—Marginal food security among adults
* Raw score 3-5—Low food security among adults
* Raw score 6-10—Very low food security among adults

***Recognise food insecurity is a complex and sensitive issue***

Healthcare practitioners should take into account that food insecurity is a complex and sensitive issue and people may need support with equipment or fuel poverty in order to prepare meals. Signposting to the local Food Power Alliance or the Citizens Advice website may be required.

***Provide peer support***

A Peer Support model should be considered to help people with mental ill-health access existing initiatives such as food banks, community cafes and social supermarkets in the local community. The PPI work undertaken by the lead author indicated that people living with SMI and food insecurity would prefer to speak to a peer about their experiences and be supported by a peer to access initiatives to address food insecurity. It is therefore recommended that MDTs consider using existing Peer Workers or consider employing a peer to undertake some of the recommendations that are suggested in this section.

***Consider skills and support needs***

People may require support with their cookery skills. Healthcare practitioners who have access to a mental health specialist Dietitian should therefore consult them for further advice. Dietitians use the most up-to-date public health and scientific research on food, health, and disease which they translate into practical guidance to enable people to make appropriate lifestyle and food choices. Access to Dietitians within mental health services varies significantly across the UK, with some providers hosting large teams of Specialist Dietitians, but most providers having very limited access to Dietitians. We strongly recommend that the need for specialist mental health Dietitians is considered in workforce planning, ensuring people can access mental health Dietitians when this is indicated. In many services, food preparation is part of psychosocial rehabilitation, with practitioners such as Occupational Therapists (OTs) providing cookery skills groups or undertaking 1:1 work with individuals. Psychiatrists may therefore decide to make a referral to a Dietitian or OT for further support.

Some people with SMI may live alone and/or experience social isolation. Social isolation, in conjunction with an individual’s psychiatric symptoms may further contribute to poor eating habits. Individuals living alone require specific advice on cooking for one (such as batch cooking) as this requires a degree of knowledge, skills and equipment. Another option for people living alone or experiencing social isolation is accessing a community cafe, where surplus food is donated and prepared by volunteers. This is served free of charge and no referral is required. In addition to providing a healthy meal, community cafes are an opportunity to socialise with others. One example of a scheme that operates in the UK using this model is [FoodCycle](https://www.foodcycle.org.uk/). It is important to consider the barriers that people living with SMI may experience in accessing these resources and consider whether peer support could help overcome these barriers.

**What changes are needed in the future?**

Psychiatrists and their MDTs are well placed to champion the issue of food insecurity and promote the need for local and national policy change by lobbying for more equitable access to food in the UK. Since food insecurity was first recognised in the 1970s, there have been a wide range of initiatives that have attempted to address this health inequality. Whilst there are many emergency sources of support for people experiencing food insecurity, such as food banks, sustainable social supermarkets, food parcels or cooked meal provision, these are mainly reactive and temporary solutions. We need policy reform at local and national levels to prevent people getting into a food insecurity crisis and going hungry. The Government programmes to address health inequalities encourage local initiatives such as food co-ops, community cafes, 'cook and eat' sessions, and partnerships between retailers, local authorities, and communities. Research into local food projects has shown that social gains for individuals and communities are intrinsic to projects achieving nutritional and health benefits (McGlone *et al*., 1999).

To date, much of the policy reform has focussed on childhood food insecurity, with other vulnerable groups often being excluded (including people living with SMI). Although the Feeding Britain report “A Hunger Free UK” focusses mainly on food insecurity for children and families (Feeding Britain, 2018), it does include a section regarding older adults with recommendations such as finding innovative ways to fund social care and preventative measures to stop older people becoming malnourished such as means tested winter fuel payments and protecting meals on wheels services. However, vulnerable adults aged 18 to 64 years who are experiencing food insecurity are not considered. Whilst we have discussed the issues faced by people with SMI who are living alone, it is important to acknowledge that some individuals living with SMI have families and children. For these people, food insecurity may inter-relate with additional family pressures. The recommendations of this paper therefore need to be considered in the context of each individual’s circumstances.

To address this stark health inequality for adults living with SMI, policy makers initially need to understand the barriers for people living with SMI to accessing existing interventions to address food insecurity. It is vital that any new interventions or policies for adults with SMI are co-produced so that they are feasible and acceptable for this population. Public health interventions are often delivered to, rather than with, service users, which can raise questions about their acceptability in real world practice (McGeechan *et al*., 2019). It is important that new interventions and/or policies adopt a value-driven approach, built on the principle that those who are affected by a service are best placed to design it.

Whilst it is important to address current levels of food insecurity for adults living with SMI, it is vital that this population are fully considered in upstream policy changes aimed at preventing food insecurity. One of the reasons why hunger has not been moved higher up the political agenda is that the worst consequences of hunger amongst the poorest people in society are alleviated by the voluntary sector and communities (Feeding Britain, 2018). The National Food Strategy focuses mainly on ensuring that the UK has sufficient access to food supplies by recommending that the Government trials a “Community Eatwell” programme providing targeted healthy eating support for people on low incomes. This would include identifying people who require dietary support and making a referral to a Link Worker (a non-clinical staff member with specialist training to support healthy eating). The link worker would design a programme to support the person to engage with community services (Dimbleby, 2021). We would question whether this goes far enough in addressing the complex issues that surround the causes and consequences of food insecurity for people with SMI. The National Food Strategy fails to address the complex causes of food insecurity in vulnerable groups such as addressing fuel poverty or ensuring that the benefits system is fit for purpose. Without addressing these upstream changes, people with SMI are likely to be living with food insecurity for the foreseeable future.

***More Research on Food Insecurity and SMI***

Primary research is urgently required in the UK to understand the prevalence of food insecurity for adults with SMI. It is also vital that we listen to the experiences of people living with SMI in relation to food insecurity and how it impacts on their weight and general health. Future longitudinal studies using rigorous statistical analysis are required to assess food insecurity interventions, and how food insecurity impacts on SMI and general health.

**Box 4 Summary of recommendations at local and national levels.**

* Psychiatrists and the MDTs they work with may wish to lobby for policy change and equitable access to food.
* Policy reform is essential to PREVENT people with SMI from developing food insecurity rather than relying on community initiatives to address food insecurity.
* Future policies to address food insecurity and poverty must ensure they meet the needs of vulnerable adults in addition to children and families, particularly adults aged 18-64 who live alone.
* Food insecurity interventions for people living with SMI should be co-produced, and the Peer Support model should be considered.
* Further UK-based research into food insecurity for people living with SMI is needed.

**Take home message**

We need to routinely assess and monitor food insecurity in people living with SMI. We need to work with people with mental ill-health to co-produce interventions that are acceptable, accessible and can be tailored to individual circumstances. Urgent policy reform is required to ensure that adults with SMI are included in upstream policy changes that address food insecurity.

**Multiple Choice Questions**

Select the best option for each question:

1. What is the estimated prevalence of food insecurity for adults living with SMI?
2. 10%
3. 25%
4. 30%
5. 40%
6. 50%

1. What is the reported price disparity (£ per 1,000 calories) between healthy and unhealthy food products?
2. £.5.75 healthy vs. £1.25 unhealthy
3. £6.79 healthy vs. £3.35 unhealthy
4. £7.49 healthy vs. £2.50 unhealthy
5. £8.21 healthy vs. £2.75 unhealthy
6. £8.89 healthy vs. £3.48 unhealthy

1. What is the percentage of people living with psychosis who were in employment in 2014?
2. 8%
3. 11%
4. 17%
5. 21%
6. 35%

1. Which of the following questions is from the US Department of Agriculture (USDA) Adult Food Insecurity Module? In the last 12 months …..

a. Did (you/you or other adults in your household) ever choose unhealthy options because there wasn’t enough money for food?b. 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?

c. Did (you/you or other adults in your household) ever prioritise energy bills over food because there wasn’t enough money?

d. Did (you/you or other adults in your household) ever prioritise feeding the children over the adults because there wasn’t enough money for food?

1. What is the name of the programme that the National Food Strategy recommends that the Government trials to address food insecurity?
2. The Eatwell Guide
3. Feeding Britain
4. End Hunger
5. Food Banks
6. Community Eatwell

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**References**

Alston, P. (2018) *Statement on Visit to the United Kingdom, by Professor Philip Alston, United Nations Special Rapporteur on extreme poverty and human rights*. Available at: <https://www.ohchr.org/Documents/Issues/Poverty/EOM_GB_16Nov2018.pdf> (Accessed: 10th January 2022).

Beaulac, J., Kristjansson, E. and Cummins, S. (2009) ‘A systematic review of food deserts, 1966-2007’ *Prev Chronic Dis,* 6(3), pp. A105. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/19527577> (Accessed: 10th January 2022).

Blake, M. K. (2019) ‘More than Just Food: Food Insecurity and Resilient Place Making through Community Self-Organising’ *Sustainability,* 11(10), pp.2942. doi:10.3390/su11102942.

Bond, N. and C. D'Arcy (2020) *Mind the Income Gap: How work and social security shape the incomes of people with mental health problems*. London, The Money and Mental Health Policy Institute. Available at: <https://www.moneyandmentalhealth.org/publications/mental-health-income-gap/> (Accessed: 10th January 2022).

Brown, S. *et al*. (2010) ‘Twenty-five year mortality of a community cohort with schizophrenia’ *Br J Psychiatry,* 196(2), pp.116-121. doi: 10.1192/bjp.bp.109.067512.

Dimbleby, H. (2021) *National Food Strategy: An Independent Review for Government*. Available at: <https://www.nationalfoodstrategy.org/> (Accessed: 10th January 2022).

Elliott, I. (2016) *Poverty and Mental Health: A review to inform the Joseph Rowntree Foundation’s Anti-Poverty Strategy*. London, Mental Health Foundation. Available at: <https://www.mentalhealth.org.uk/sites/default/files/Poverty%20and%20Mental%20Health.pdf> (Accessed: 12th January 2022).

Evidence and Network on UK Household Food Insecurity. (2021) *Household Food Insecurity in the UK.* Available at: <https://enuf.org.uk/household-food-insecurity-uk#:~:text=A%20household%20food%20insecurity%20measurement%20tool%20has%20never,Module%20in%20the%20bi-annual%20Food%20and%20You%20Survey> (Accessed: 10th January 2022).

Feeding Britain (2018) *A Hunger Free UK: A Strategy for Zero Hunger in England, Wales, Scotland and Northern Ireland*. Feeding Britain. Available at: <https://feedingbritain.org/what-we-do/policies-research/> (Accessed: 4th February 2022).

Finlay, J. *et al*. (2019) *The Children's Future Food Inquiry*. London, House of Commons Library. Available at: <https://researchbriefings.files.parliament.uk/documents/CDP-2019-0110/CDP-2019-0110.pdf> (Accessed 4th February 2022).

Forsey, A. (2014) *An Evidence Review for the  All-Party Parliamentary Inquiry into Hunger in the United Kingdom*. Available at: <https://foodpovertyinquiry.files.wordpress.com/2014/12/food-poverty-appg-evidence-review-final.pdf> (Accessed 10th January 2022).

Grisaru, N., Kaufman, R., Mirsky, J., Witztum, E. (2011) ‘Food insecurity and mental health: a pilot study of patients in a psychiatric emergency unit in Israel’ *Community Ment Health J*., 47(5), pp. 513-9. Doi: 10.1007/s10597-010-9339-8

Hadfield-Spoor, M. (2018) *Disability, Health and Hunger*. The Trussell Trust. Available at: <https://www.trusselltrust.org/2018/01/31/disability-health-and-hunger/> (Accessed: 10th January 2022).

Hick, R. and A. Lanau (2017) *In-work Poverty in the UK: Problem, policy analysis and platform for action*. Nuffield Foundation. Available at: <https://www.nuffieldfoundation.org/sites/default/files/files/Hick%20and%20Lanau%20_%20In-Work%20Poverty%20in%20the%20UK.pdf> (Accessed: 4th February 2022).

Jessiman-Perreault, G. and L. McIntyre (2017) ‘The household food insecurity gradient and potential reductions in adverse population mental health outcomes in Canadian adult’ *SSM - Population Health,* 3, pp. 464-472. doi: 10.1016/j.ssmph.2017.05.013.

Jih, J., Nguyen, T.T., Jin, C., Seligman, H., Boscardin, W.J., Ritchie, C.S. (2020) ‘Food Insecurity Is Associated with Behavioral Health Diagnosis Among Older Primary Care Patients with Multiple Chronic Conditions’ J Gen Intern Med, 35(12), pp. 3726-9. Doi: 10.1007/s11606-019-05569-4

Jones, N. R. *et al*. (2014) ‘The growing price gap between more and less healthy foods: analysis of a novel longitudinal UK dataset’ *PLoS One,* 9(10), pp. e109343. doi: <https://doi.org/10.1371/journal.pone.0109343>.

Lachaud, J., Mejia-Lancheros, C., Wang, R., Wiens, K., Nisenbaum, R., Stergiopoulos, V., et al. (2020) ‘Mental and substance use disorders and food insecurity among homeless adults participating in the At Home/Chez Soi study’ *PLoS One*, 15(4), pp. e0232001. Doi: 10.1371/journal.pone.0232001

Keenan, G. S., Christiansen, P. and Hardman, C.A. (2021) ‘Household Food Insecurity, Diet Quality, and Obesity: An Explanatory Model’ *Obesity (Silver Spring),* 29(1), pp. 143-149. Doi: 10.1002/oby.23033.

McGeechan, G., J, Ells, L.J. and Giles, E. L (2019) Co-production: The academic perspective*. Co-creating and Co-producing Research Evidence*. Routledge.

McGlone, P., B. *et al*. (1999) *Food projects and how they work.* The Joseph Rowntree Foundation. Available at: [Food projects and how they work | JRF](https://www.jrf.org.uk/report/food-projects-and-how-they-work) (Accessed: 4th February 2022).

Men, F., Gundersen, C., Urquia, M. L., & Tarasuk, V. (2019) ‘Prescription medication nonadherence associated with food insecurity: a population-based cross-sectional study’ *CMAJ open*, *7*(3), pp. E590–E597. Doi: 10.9778/cmajo.20190075

Muralidharan, A. *et al*. (2020) ‘Quality of life outcomes of web-based and in-person weight management for adults with serious mental illness’ *Journal of Behavioral Medicine,* 43(5), pp. 865-872. doi: doi.org/10.1007/s10865-019-00117-1.

Nzuza, N. and Duval, D. (2016) *Royal Borough of Greenwich Food Poverty Needs Assessment*. London: The Royal Borough of Greenwich. Available at: [Royal Borough of Greenwich Food Poverty Needs Assessment (wordpress.com)](https://greenwichfairnesscommission.files.wordpress.com/2016/11/rbg-food-poverty-needs-assessment-report-public-health.pdf) (Accessed: 4th February 2022).

Puddephatt, J. A. *et al*. (2020) ‘”Eating to survive”: A qualitative analysis of factors influencing food choice and eating behaviour in a food-insecure population’ *Appetite,* 147, pp. 104547. doi: 10.1016/j.appet.2019.104547.

Scott, C., Sutherland, J. and Taylor, A. (2018) *Affordability of the UK’s Eatwell Guide*. Available at: [Affordability of the UK’s Eatwell Guide | Food Foundation](https://foodfoundation.org.uk/publication/affordability-uks-eatwell-guide) (Accessed: 10th January 2022).

Sustain. (2021) *What is food poverty?* Available at: <https://www.sustainweb.org/foodaccess/what_is_food_poverty/> (Accessed: 10th January 2022).

Swinburn, B. A. *et al*. (2019) ‘The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission report’ *Lancet,* 393(10173), pp. 791-846. doi: 10.1016/S0140-6736(18)32822-8.

Teasdale, S. B. *et al*. (2021) ‘Prevalence of food insecurity in people with major depression, bipolar disorder, and schizophrenia and related psychoses: A systematic review and meta-analysis’ *Critical Reviews in Food Science and Nutrition*: pp. 1-18. <https://doi.org/10.1080/10408398.2021.2002806>

The Centre for Mental Health. (2020) *More than a number: Experiences of weight management among people with severe mental illness*. London, The Centre for Mental Health. Available at: <https://www.centreformentalhealth.org.uk/sites/default/files/2020-03/CentreforMH_HWBA_WeightManagement.pdf> (Accessed: 10th January 2022).

The Child Food Poverty Task Force. (2020) *LET'S #ENDCHILDPOVERTY TOGETHER*. Available at: <https://endchildfoodpoverty.org/> (Accessed: 10th January 2022).

The Food Foundation. (2022) *New data shows food insecurity major challenge to levelling up agenda*. Available at: <https://www.foodfoundation.org.uk/press-release/new-data-shows-food-insecurity-major-challenge-levelling-agenda> (Accessed 14th February 2022).

The Independent Food Aid Network. (2020) *Independent Food Bank Emergency Food Parcel Distribution in the UK December 2020.* The Independent Food Aid Network. Available at: <https://uploads.strikinglycdn.com/files/aca26e70-de5a-4a2e-bc1a-75b1d5fe42cf/IFAN%20data_11.12.20_FINAL.pdf> (Accessed: 10th January 2022).

The Mental Health Foundation. (2017*) Food for thought: Mental health and nutrition briefing*. London: The Mental Health Foundation. Available at: <https://www.mentalhealth.org.uk/sites/default/files/food-for-thought-mental-health-nutrition-briefing-march-2017.pdf> (Accessed: 10th January 2022).

The Trussell Trust. (2020) *Food banks report record spike in need as coalition of anti-poverty charities call for strong lifeline to be thrown to anyone who needs it.* Available at: from <https://www.trusselltrust.org/2020/05/01/coalition-call/> (Accessed: 10th January 2022).

Thompson, C., Smith, D. and Cummins, S. (2018) ‘Understanding the health and wellbeing challenges of the food banking system: A qualitative study of food bank users, providers and referrers in London’ *Social Science & Medicine,* 211, pp. 95-101. <https://doi.org/10.1016/j.socscimed.2018.05.030>

U.S. Department of Agriculture. (2012) *U.S. Adult Food Security Module: Three-stage Design, with Screeners*. Economic Research Service, USDA [Online], U.S. Department of Agriculture. Available at: [USDA ERS - Survey Tools](https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/survey-tools/#adult) (Accessed: 10th January 2022).

Wight, V. *et al*. (2014) ‘Understanding the link between poverty and food insecurity among children: Does the definition of poverty matter?’ *Journal of Children and Poverty,* 20(1), pp. 1-20. doi: <https://dx.doi.org/10.1080%2F10796126.2014.891973>

Working Group for Improving the Physical Health of People with SMI. (2016) *Improving the physical health of adults with severe mental illness: essential actions (OP100)*. Available at: [Improving the physical health of adults with severe mental illness: essential actions - Academy of Medical Royal Colleges (aomrc.org.uk)](https://www.aomrc.org.uk/reports-guidance/improving-physical-health-adults-severe-mental-illness-essential-actions/) (Accessed: 10th January 2022).

World Food Summit. (1996) *World Food Summit*. Available at: [World Food Summit (fao.org)](https://www.fao.org/wfs/index_en.htm) (Accessed: 17th February 2022).