



Food insecurity and severe mental illness: prevalence, lived experiences and interventions

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Context

Key Stats

**9.7 million
adults**

(18% of households)
experienced **food
insecurity** in the past month
(September 2022)

**4 million
children**

live in households that have
experienced **food insecurity**
in the past month
(September 2022).

**54% of
households**

on Universal Credit
experienced **food
insecurity** in the past month
(September 2022).

**The Food
Foundation
(2023)**

Food insecurity and mental health

- Food insecurity causes considerable stress and anxiety which can exacerbate pre-existing mental illnesses (Thompson et 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.
- Adults with food insecurity have a higher likelihood of cost-related nonadherence to prescription medications (Men et al., 2019).
- Food insecurity increases the risk of suicide attempts (Koyanagi et al., 2019; Smith et al., 2022).

Severe Mental Illness (SMI)

- SMI defines the most serious mental health conditions that share the same basic characteristics including significant symptom severity, severe functional impairment, and an enduring impact on a person's daily life (Whitley et al., 2015).
- May include schizophrenia, bipolar disorder, schizoaffective disorder and other forms of psychosis.
- There are approximately 574,000 people with SMI in England (NHS Digital, 2022).
- People living with SMI experience a 15-to-25-year mortality gap compared to the general population (Fiorillo and Sartorius, 2021).



Food Insecurity in Adults with Severe Mental Illness: A Systematic Review with Meta-analysis

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Research Questions?

- What is the prevalence of food insecurity in adults with SMI in high or upper middle-income countries?
- What are the food insecurity experiences of adults with SMI living in high or upper middle-income countries?

Findings

- The prevalence estimate of food insecurity in adults with SMI was 41% (95% CI:29% to 53%, $I^2=99.9%$, $n=13$).
- Adults with SMI were 3.31 (95% CI: 2.03 to 5.41) times more likely to experience food insecurity than comparators without SMI ($z=6.29$, $p<0.001$, $I^2=98.9%$, $n=6$).
- Food insecurity appears to be a risk factor for developing SMI.

Smith *et al* (2023).



A mixed methods study using co-production to explore food insecurity in adults with Severe Mental Illness living in Northern England



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Research questions

- What are the **experiences** of adults with SMI in relation to food insecurity in Northern England?
- What are the possible **approaches** that adults with SMI think would be useful to support them to access adequate healthy, affordable food?

 Equally
Well UK FUNDED BY
NIHR | National Institute
for Health Research Newcastle
University

Inclusion criteria

Adults aged 18 and above.

A self-reported diagnosis of SMI*

Resident in Northern England (Northwest, Yorkshire and Humber or Northeast and North Cumbria).

Be able to provide informed consent for interviews, and implied consent by completing the survey.

*SMI – Schizophrenia, Bipolar Disorder or other psychotic disorder.

Our seven NHS sites

- Cumbria, Northumberland, Tyne and Wear NHS FT
- Leeds and York Partnership NHS FT
- Humber Teaching NHS FT
- Manchester Mental Health NHS FT
- Rotherham, Doncaster and South Humber NHS FT
- Sheffield Health and Social Care NHS FT
- Tees, Esk and Wear Valleys NHS FT.

Food insecurity results

10-item US Adult Food Security Survey Module by the US Department of Agriculture

Food security status	High Food Security	Marginal Food Security	Low Food Security	Very Low Food Security
	36.3 % 49 (n)	13.3 % 18 (n)	19.3 % 26 (n)	31.1 % 42 (n)

Overall food security status	Food Secure	Food Insecure
	49.6 % 67 (n)	50.4 % 68 (n)

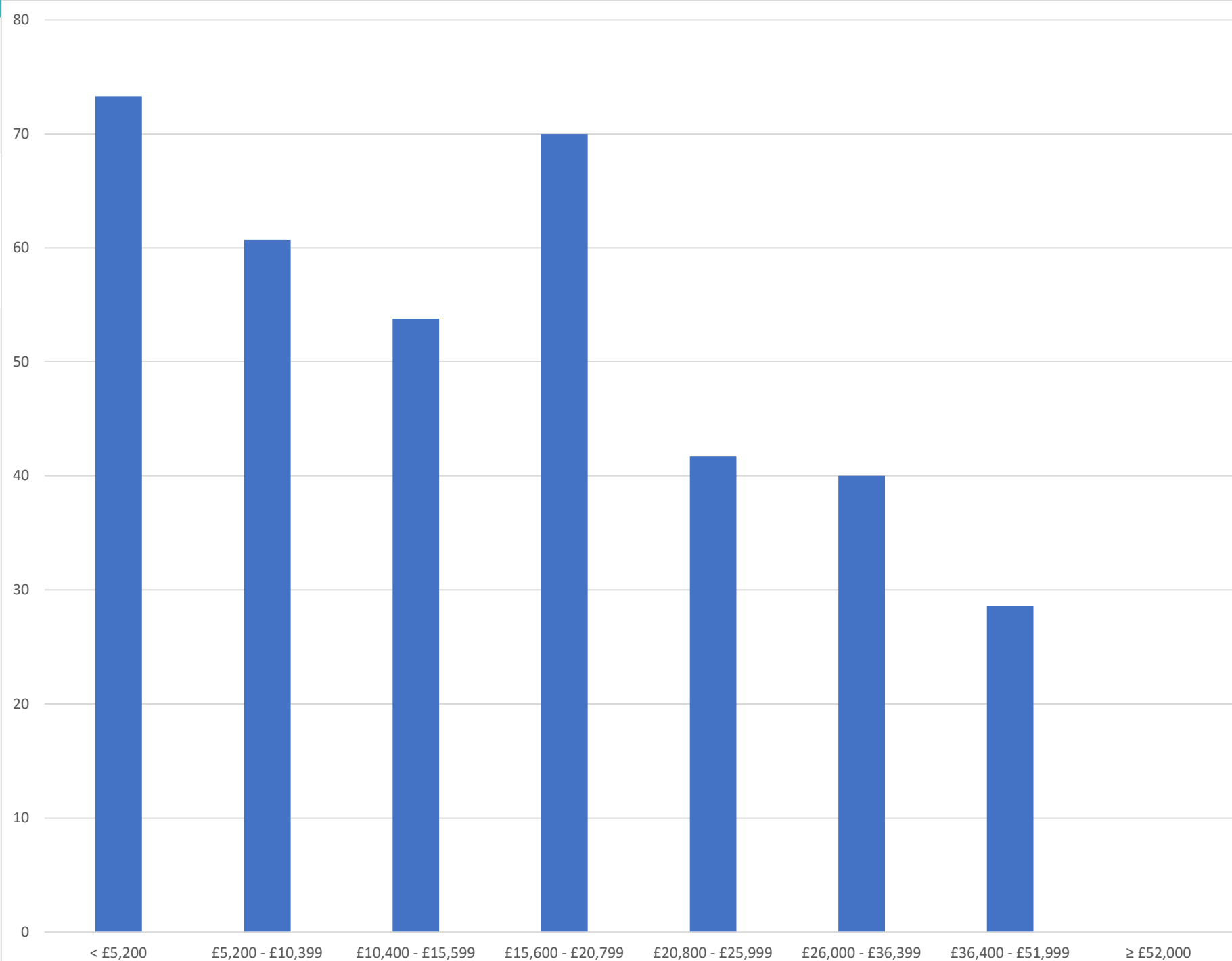




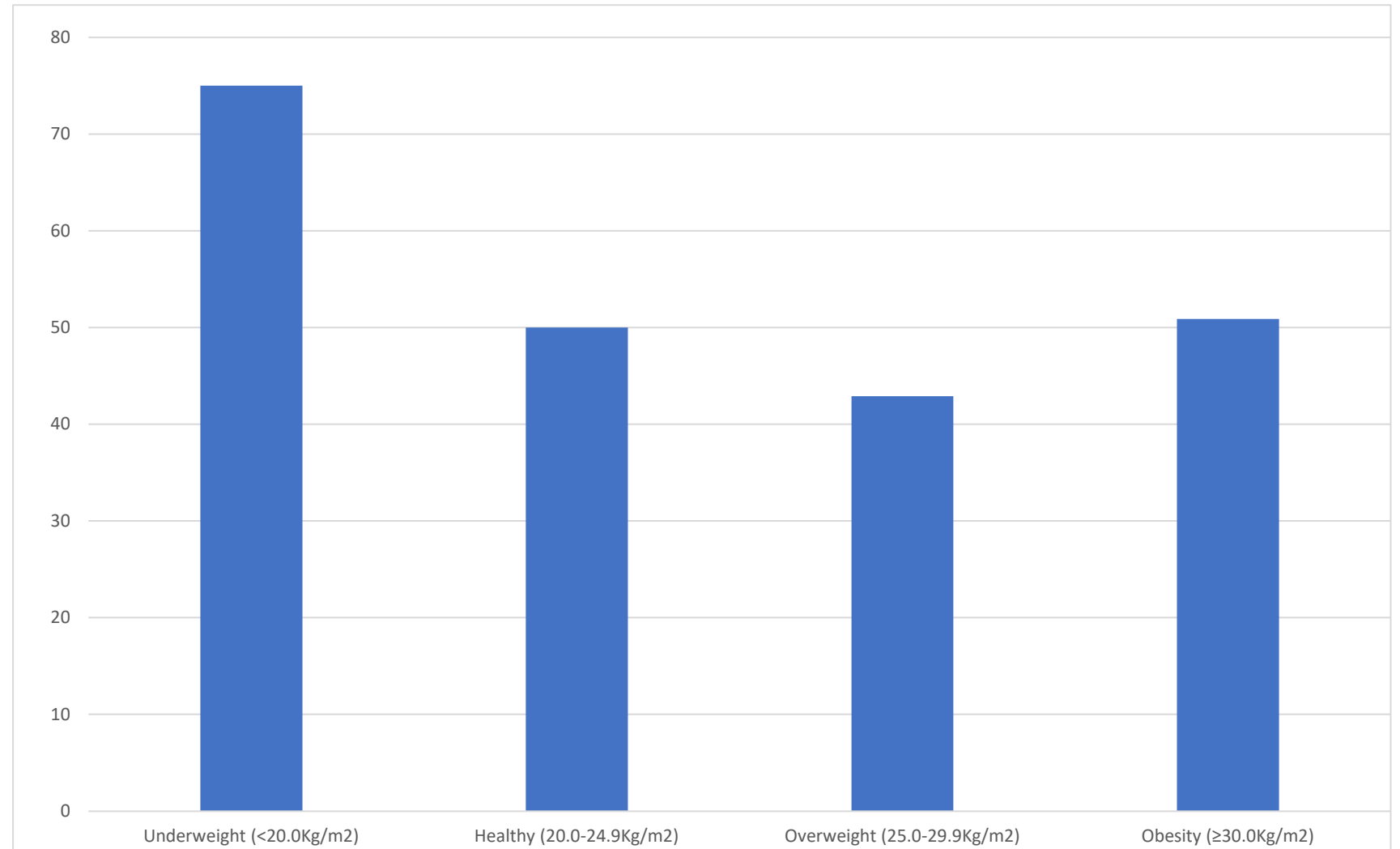
Tees, Esk and Wear Valleys
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Food insecurity prevalence and income



Food insecurity prevalence and BMI



Binary logistic regression

The only predictive variable for food insecurity was having one or more child in the household
(OR=10.657, 95%CI: 1.168-97.223, $p=0.036$).

Interview findings

- Two main areas of exploration in the data:
 - Experience of food insecurity
 - Strategies to tackle food insecurity



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Experience of food insecurity

- Long-rooted – familial food insecurity
- Unemployment leading to food insecurity
- Circle of impact between food insecurity, mental health and physical health
- Fuel poverty = difficult to cook food parcels
- Cost of living = difficult to travel to food banks
- Food insecurity impacts on medication taken for SMI
- Barriers to accessing support = application forms

“my father was an Irish immigrant, so obviously it was difficult for him to get work. And there was very little in terms of state support, erm, for families at that time during the 'fifties, 'sixties, 'seventies. So, erm, so I grew up, you know, with this insecurity around food”

“I think, um, the, the, um, application process because I feel it's difficult for, um, for immigrants”

“...a lack of food, or access to food, has a severe impact on your mental health. Erm, and also, your physical health, because you aren't, you, you're not able to access, erm, the nutrition that you need. And therefore, your physical health will suffer, you know, it'll cause, erm, health conditions like anaemia, erm, make you feel tired, you know, it's just, it's just, erm, a vicious cycle, really. You know, one impacts on the other, your physical health impacts your mental health, and vice versa.”

so, having, erm, a lack of nutritious food, or a lack of food, erm, at all, is going to impact on both of those things, your, your self-worth, your self-esteem... You need to take some medications on a full stomach, you need to have eaten, otherwise the medication won't work properly. And it can also, erm, upset your digestive system, and make you physically ill. So, you know, you're not getting the benefit of the medication working as it should. And also, there's the physical side-effects of having to take it on an empty stomach.”

Interviewer:

“Why do you think that you've never used like a foodbank or a community café or anything like that yourself?”

Participant:

“The biggest issue is affordability, I cannot afford it... so transport costs.”
(P006)

Strategies to tackle food insecurity

- Reduce stigma around using food banks
- Food banks catering for different cultures
- Consider transporting food bank parcels to home where people have mental and /or physical illnesses
- Increase fresh fruit and vegetables in food banks and reduce canned and sugary foods
- Tackle 'root causes' of food insecurity.

"I think it would be nice if we had people, um, provide food that is, er, of different culture, you know, like, our culture food, something that I'm used to. I think we should have more community based, um, er, areas open that ... can provide meals as well."

"And the government should look into how to control the hike in food prices."

"I've been to a food bank just once. I think once or twice. The reason I stopped going was because of the type of food. It was mainly like canned food, sweet cereals, just sweet sugar, sugar, sugar, sugar. The food bank does not get deliveries of fruits like bananas or like shopping foods. They just give you canned food."

"I would like to get more information on where the centre are where people receive the foods and also if there can be arrangements of transport instead of someone going there themselves they can do trips or information is spread someone comes [inaudible 00:29:58] where they live to the addresses of their homes."

Study recommendations

- Assessing for food insecurity in mental health services is essential.
- Policy reform is essential to PREVENT people with SMI from developing food insecurity.
- Future policies to address food insecurity and poverty must ensure they meet the needs of vulnerable adults.
- 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.



MIDDLESBROUGH

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Increasing accessibility of affordable healthy food to adults living with Severe Mental Illness in Middlesbrough.

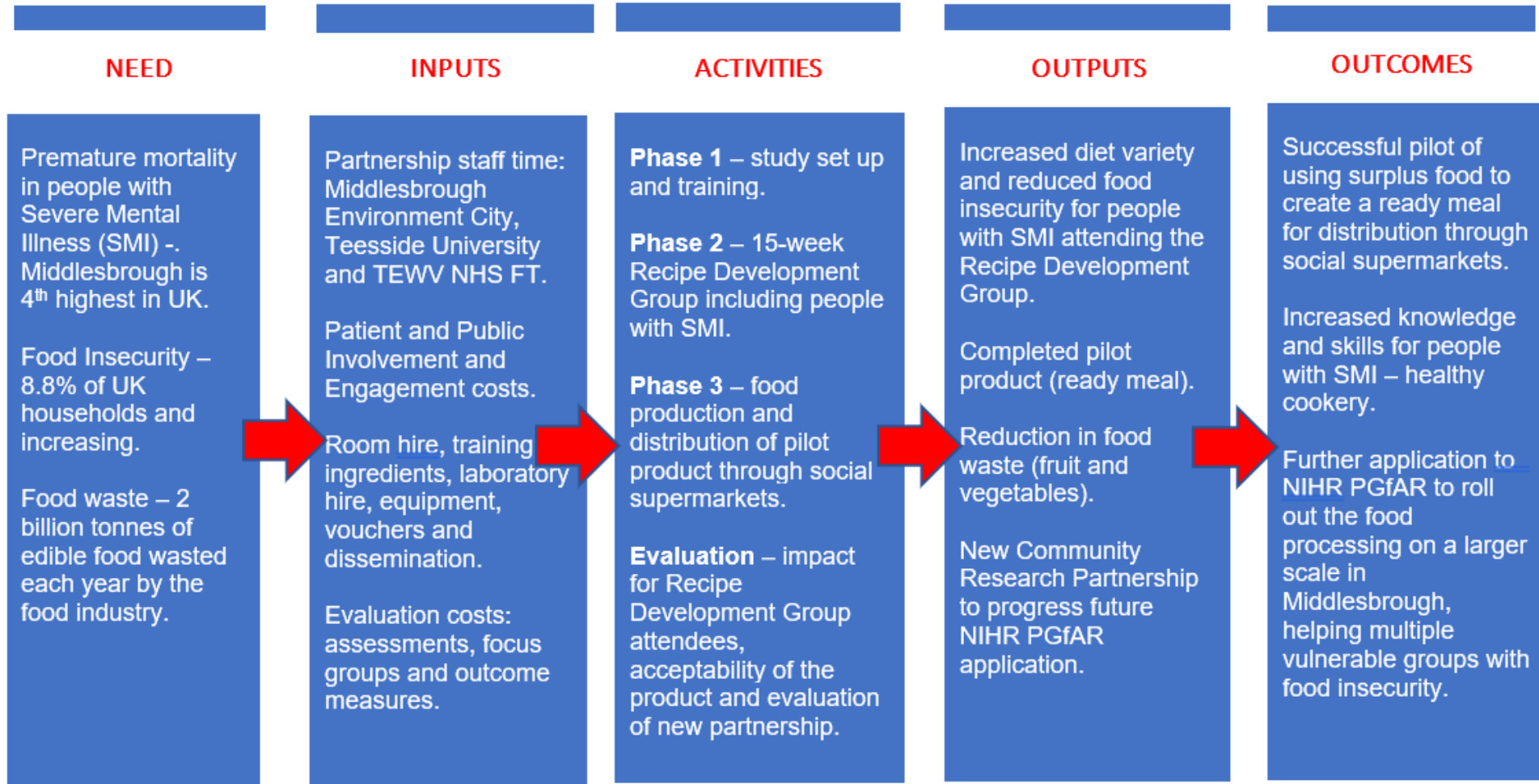
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Research plan

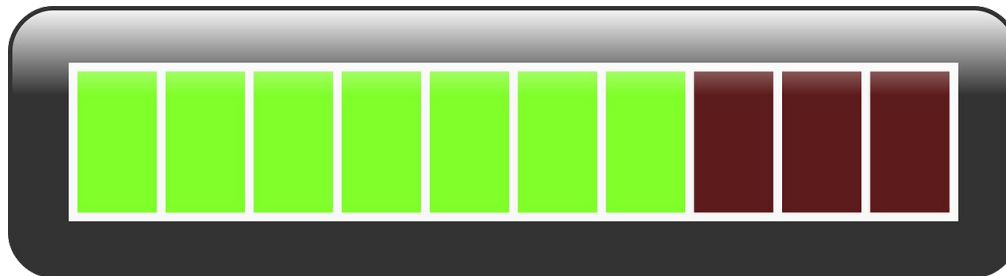
- Funded by the NIHR Programme Development Grant programme - Funding for Community Research Partnerships .
- This is a 12-month project that commenced 1st June 2023.
- Jo Smith is the NHS Chief Investigator (CI) with Joe Dunne from Middlesbrough Environment City as joint Chief Investigator.





Where are we up to?

- Health Research Authority and Research Ethics Committee approvals August 2023.
- Recruitment of participants to commence in October 2023.
- Menu development group will run November 2023 to February 2024.
- Pilot ready meal will be developed in spring 2024 and distributed to social supermarkets.
- Evaluation April and May 2024.



Thank you – any questions?

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