

# Food Insecurity and the management of Type 2 Diabetes.

## Exploring implications for General Practice

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### Introduction

Type 2 diabetes (T2DM), associated comorbidities and outcomes represent a challenge of epidemic proportion in Scotland.

While there is a consensus that a healthy diet is a cornerstone of the management of T2DM; the statistics and literature highlight a stark dissonance between the gold standard dietary management and downstream realities of health inequality at a population level.

**Food Insecurity (FI) has been recognised as a major determinant in an individual's ability to manage diabetes** with those living with food insecurity being two to three times more likely to have T2DM (1,2)

General Practice (GP) remains a critical point of care for the management of T2DM. It is also a key gatekeeper and access point for referral into secondary care and third sector resources.

Deprivation and food insecurity are intertwined meaning GPs at the so called 'Deep End' will see greater levels of FI and correlated outcomes.

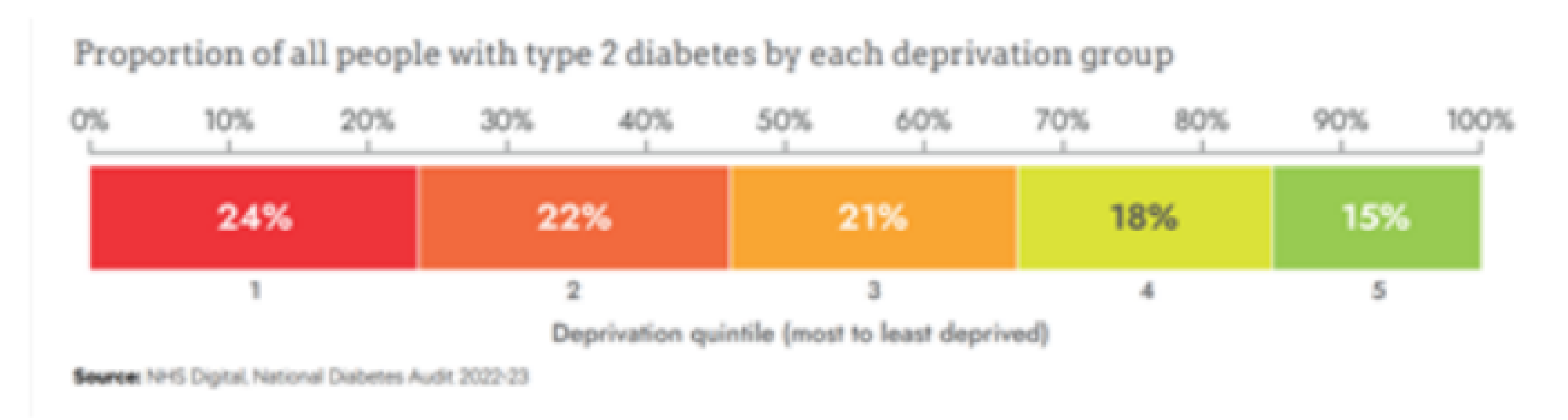


Figure 1

### Aim

To identify what is already understood about Food Insecurity and how this might interact with the management of T2DM. A further aim was to identify to what extent clinicians working within GP understand the term FI; to what extent they believe it to impact on the management of T2DM and implications for future practice.

### Method

Literature review and key findings synthesized. A small anonymised online survey of 67 clinicians working in GP was carried out and data analysed.

### Conclusions and implications for General Practice

Determinants for health that drive T2DM cannot always be controlled by the individual. There is compelling evidence to encourage clinicians in General Practice to call attention to issues of food insecurity and they are well placed to have conversations around barriers to health.

The survey findings demonstrate clearly that while FI is recognised as an important issue in the ability to manage T2DM, greater knowledge and confidence in this sensitive area is essential.

Screening tools such as the Food Insecurity Experience Scale exist (10). Data gathering using existing tools such as the Lothian Quality Data Framework could enable swifter more robust access to support, highlight potential gaps in service provision and may help to shape upstream government level policy. Identifying food insecurity can capture the existence of other barriers to health such as access to resources and social isolation and could inform the enhancement of existing quality assured programmes such as DESMOND and Let's Prevent.

### T2DM and Food Insecurity

Emerging trends and the clinical impact of food insecurity in patients with diabetes

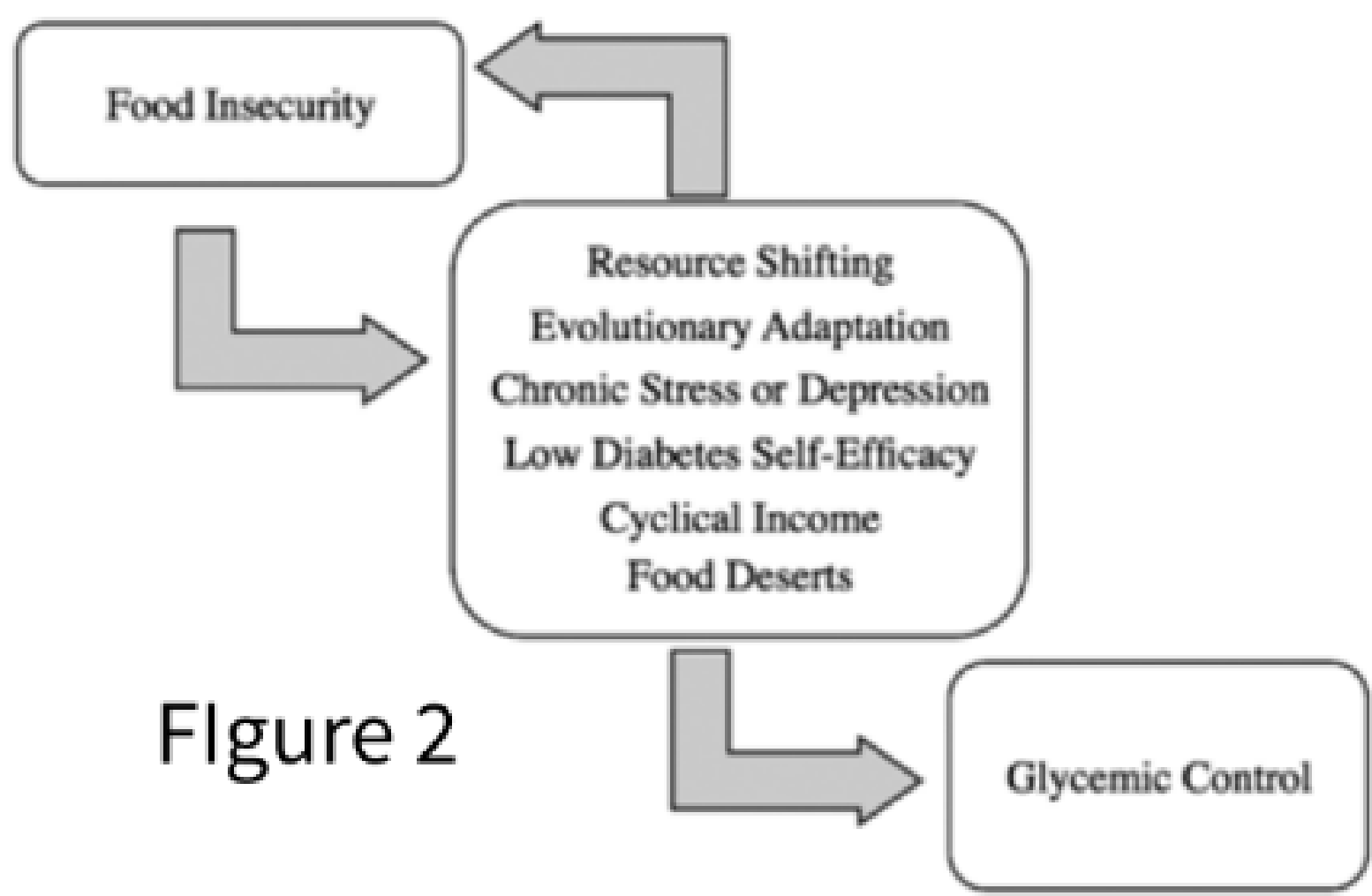


Figure 2

While there is no absolute definition, **Food Insecurity (Household Food Insecurity or Food Poverty) is defined as an inability to obtain an adequate and nutritious diet or uncertainty around access (3)**

**Estimated 14-17% of UK households (~7.3 million adults) experienced FI in Jan 2025 (4)**

Food Insecurity (FI) is a driver for poorer diabetic control and obesity. Less control over food choices = cutting back on more expensive healthy foods = opting for lower cost potentially less nutritious and more calorie-dense foods.

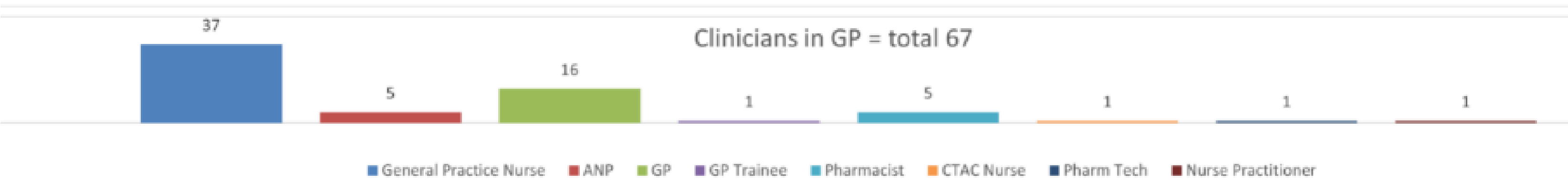
**FI makes obtaining the recommended "Eatwell" (5) and Mediterranean style diet (Predimed, 6) extremely difficult. In the current financial climate, the poorest fifth of UK households will have to use 50% of disposable income to achieve this compared to 11% for the richest fifth.**

There is significant mental health impact associated with FI. Issues of stigma may increase fear of judgement and inhibit access to support (7)

The Scottish Diabetes Improvement Plan 2021-26 (8) prioritises Equity of Access and yet evidence suggests discussion of challenges with access to food are not routinely happening in Primary Care (9, 10)

### Food Insecurity and T2DM in Primary Care Survey Results

67 respondents, anonymous 3 weeks March/April 2025



#### Awareness

55% had some understanding of the term FI  
30% had a clear understanding  
12% had no understanding at all  
3% not sure

37% are somewhat aware of FI affecting patients in the population in which they work  
22% are highly aware  
16% are not aware  
24% not sure

#### Current practice

34% rarely ask about challenges with food (< 1 in 10 consultations)  
18% often ask (> 1 in 10 consultations)  
28% never ask.

None used any screening tools to identify FI

52% have never referred for support with FI  
25% have referred to food bank; 18% to wellbeing team; 16% to another organisation (link worker, 8, local pantry, 2, health agency/third sector community food project, 3); 3% not sure

#### Importance

49% believe knowing about FI affecting a patient with Type 2 Diabetes is of high importance  
31% 'essential or imperative'  
13% 'somewhat important'  
6% not sure.  
None said it was not important at all

#### Confidence

40% are somewhat confident to signpost or offer support for FI  
13% are very confident  
39% are not confident at all  
7% not sure

**References:** **Figure 1)** [https://foodfoundation.org.uk/sites/default/files/2023-10/TFF\\_The%20Broken%20Plate%202023\\_Digital\\_FINAL...pdf](https://foodfoundation.org.uk/sites/default/files/2023-10/TFF_The%20Broken%20Plate%202023_Digital_FINAL...pdf)  
**Figure 2)** Flint, KL et al (2019) Emerging trends and the clinical impact of food insecurity in patients with diabetes. Journal of Diabetes  
<https://doi.org/10.1111/1753-0407.12992>  
**1).** Kennedy, C. (2024) 'Type 2 diabetes and food security: a mounting crisis with implications for community nurses', British journal of community nursing, 29(10), pp. 456-457., **2).** Douglas, F., MacIver, E. & Yuill, C. 2020, 'A qualitative investigation of lived experiences of long-term health condition management with people who are food insecure', BMC public health, vol. 20, no. 1, pp. 1309-9., **3).** <https://www.gov.scot/publications/scottish-government-response-un-food-insecurity-poverty/pages/4/>, **4).** <https://foodfoundation.org.uk/news/latest-food-insecurity-tracker-shows-seven-million-adults-going-hungry#:~:text=The%20latest%20Food%20Foundation%20Food,food%20insecurity%20in%20January%202025.5>, **5).** <https://www.nutrition.org.uk/media/ayth4ma4/eatwel-1.pdf>, **6).** Estruch, R et al (2018) 'Primary Prevention of Cardiovascular Disease with a Mediterranean Diet Supplemented with Extra-Virgin Olive Oil or Nuts', The New England journal of medicine, 378(25), pp. e34-e34 **7).** Taylor, N., Boyland, E., Christiansen, P et al. Towards measuring food insecurity stigma: development and validation of the Food Insecurity Self-stigma Scale and the Food Support Experiences Scale. BMC Public Health 24, 3349 (2024). <https://doi.org/10.1186/s12889-024-20878-y> **8).** [https://www.diabetesinscotland.org.uk/wp-content/uploads/2021/02/575776\\_SCT0221023700-001-P3.pdf](https://www.diabetesinscotland.org.uk/wp-content/uploads/2021/02/575776_SCT0221023700-001-P3.pdf) **9).** Douglas, F.C., Avenell, A. & Mohamed, S. 2022, 'Conversations about financial hardship should not be off limits', BMJ (Clinical research ed.), vol. 376, pp. o577. **10).** Knight, J.K. & Fritz, Z. 2022, 'Doctors have an ethical obligation to ask patients about food insecurity: what is stopping us?', Journal of Medical Ethics, vol. 48, no. 10, pp. 707-711. **11).** <https://www.fao.org/in-action/voices-of-the-hungry/fies/en/>

**Acknowledgements.** Many thanks to the participants of the survey. Also to Juliet McArthur and Andy Peters of NHS Lothian Gateway awards programme for their guidance.