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# **The Role of Food Security and Malnutrition Risk with Psychosocial indicators of Healthy Ageing in Place**

*Food Train and Eat Well Age Well Partnership Project with  
the University of Glasgow*

## **Research Summary and 6 Key Findings**



## Overview: What we did, where we worked, what we studied and how!

Commissioned research between the [University of Glasgow](#) and [Food Train](#) / [Eat Well Age Well](#) conducted over a 12-month period (February 2019-February 2020).

Lead Principle Investigator was Dr Kate Reid, Co-Investigator was Professor Catherine Lido

Core researchers on project were Ms Kristina Huie, Ms Hannah Ross and Ms Melitza Pizarro.

The research looked at the following questions:

Q1. What is the relationship between household food insecurity, physiological (risk of malnutrition and BMI measures) and psycho-social indicators (wellbeing, social connectedness and locus of control)?

Q2. What differences exist between those receiving food support services from Food Train and those who do not receive any food support services, in terms of their 'material conditions' and 'social capital' and 'mental wellbeing'?

Q3. What are the experiences of Food Train customers in relation to food access, and nutrition and the role of food services in their lives and how do these experiences contribute to our understanding of the risk factors involved in developing food insecurity and risk of malnutrition for older adults?

We surveyed **169** community dwelling **older age adults**, average age near 80, who were mostly female (77%) and living at home alone (71%) from varied backgrounds and socio-economic areas.

Of these older adults, **19% reporting poor to very poor health**. 47% reporting good to very good health

33% (n=55) of the sample were receiving supported food delivery from Food Train. Other support involved helping the older person cook 'hot meals' at home included Friends and Family (11%), Carers (12%), although many in the sample were cooking hot meals independently (69%).

**“Around one third of the participants were receiving support to cook at home via several connections including friendship, family ties, and social care networks, including Food Train services”.**

Recruitment took place across **41 different research settings**, 7 local authorities in Scotland where Food Train operates. Our research was conducted ‘in place’ and included; older adults’ homes, day centres, lunch clubs and an afternoon tea dance.

Our **mixed-method research** involved using self-report surveys with a sub-set of more in-depth interviews (with 15 participants).



Our research engaged participants to think about many aspects of their health and wellbeing. To do this we used established research measures across **physical, psychological and social domains**, including height, weight and early indicators of malnutrition such as unintentional weight loss, rings getting looser in the last 6-12 months.

### Such measures included:

- **Physical measures (Weight, Height)**
- **Physical health and disability**
- **Malnutrition risk via a non-clinical measure (i.e. The Patient Association Nutrition Checklist PANC)**
- **Food Insecurity**

#### Psychosocial Health

**Mental Wellbeing**

**Loneliness**

**Social Support**

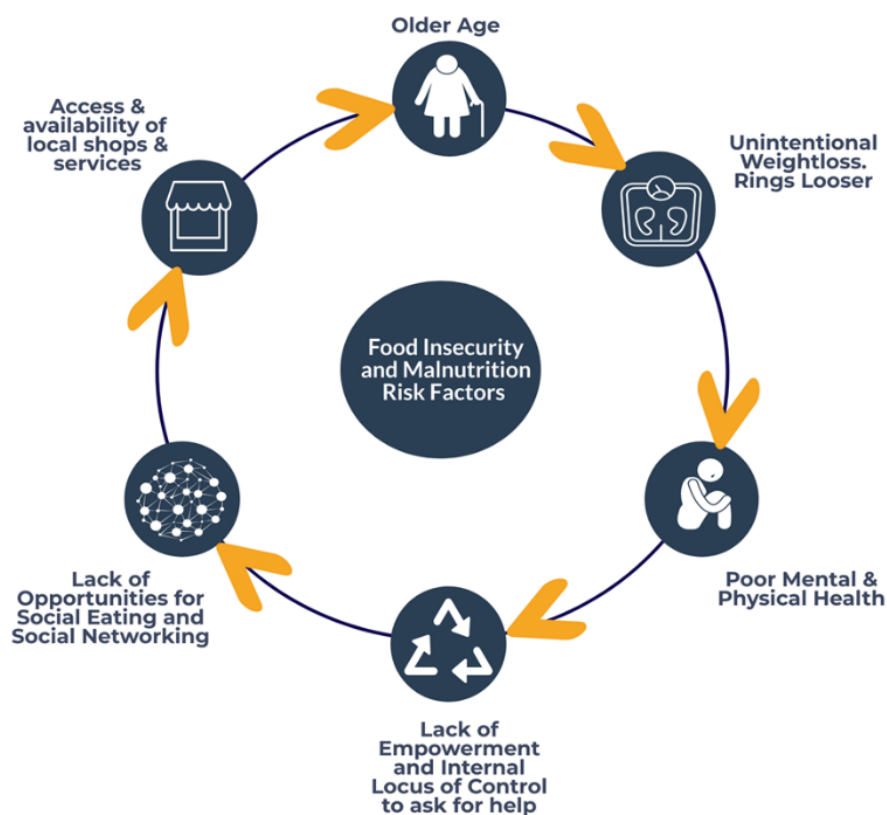
**Locus of Control**



## Findings

### General

- Our findings revealed a complex picture of food insecurity and malnutrition risk being associated with worse psychological outcomes for well-being and loneliness and reduced social support. However, food support emerged as a valuable source of empowerment of the older adults' life, and a more internal sense of control as key to positive ageing in place.
- Food access, nutrition, and household food insecurity (HFI) are intrinsically linked to the quality, equity and sustainability of active ageing in place, particularly for older adults who live at home.
- Recognising the human right to access food, paired alongside pleasure and enjoyment from food, situated in a connected community, offers a model of food security based on principles of dignity for older adults living in the community.



**Figure 1**

Cycle of Risk for Undernutrition and Household Food Insecurity for Older Community Dwelling Older Adults (Reid et al, 2020)



## 6 Key Findings

### Key Finding #1



## Older Age

*Ageing was associated with lower BMI and higher reported household food insecurity, although the BMI for our sample was 'normal' and overall levels of food insecurity were low (4.4%).*



### Key Finding #2



## Unintentional Weightloss, Malnutrition Risk Factors and Household Food Insecurity

*We found early indicators of malnutrition (undernutrition) risk for nearly half (44.6%) of the sample reporting at least one physical malnutrition risk indicators, which were then associated with further psychosocial risk factors.*



The story of malnutrition risk:

- the percentage of respondents indicating yes on any of the four [Patient Association Nutrition Checklist](#) risk factors was 44.6%.
- 32.1% of the sample scored low-moderate risk (answering yes to 1 or 2 items),
- 12.5% of the sample scored in the moderate-high risk zone (answer yes to 3 or 4 items).
- Reporting that rings felt looser (27% n=45) and there was loss of appetite/interest in eating (22% n=37) were most commonly cited risk indicators.

### Key Finding #3



## Poorer Mental and Physical Health

*Indicators of poorer mental health such as loneliness, weak social connections and lower reported wellbeing were all associated with greater reported food insecurity. Demonstrating the link between food security and psychological health outcomes.*



### Key Finding #4



## Empowerment & Control

*Having perceptions of 'feeling in control' and 'utilising services to feel in control' enabled older persons, who were often in poor health with reported disability, to take advantage of social care services such as Food Train. We need to consider how to best support older adults at home to feel empowered to ask for help and assistance thereby preserving access to food shopping and meal making*



**N.B. However, the ultimate safety net of rights based legislation does not (yet) exist in Scotland or in the UK which offers statutory protections for the right to food.**

## Key Finding #5



### **Lack of Opportunities for Social Eating and Social Networking**

*We must disentangle 'Food Poverty' from 'Food Insecurity'. Food poverty does not wholly explain why older adults face food insecurity issues. In order to fully understand how and why nutrition and food access may be inadequate; it is necessary to understand the complex social systems and interactions that influence lifestyle choices such as lack of motivation to cook following personal loss and during periods of loneliness. The pairing of food access with social interaction is critical to maximising the benefits of improved food security.*



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## Key Finding #6



### **Access and Availability of Shops and Services**

*To address the risk of malnutrition and household food insecurity for community dwelling older adults, policy and practice needs to account for the role of local services in the community such as the high street, social care support and volunteers, in helping to 'future proof' healthy ageing in place.*



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