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Rachel Smith, Miriam E. Clegg, Lisa Methven, Claire Sulmont-Rossé, Oydis Ueland

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# Co-creation of food solutions to improve nutritional status in older adults

Dr Rachel Smith, Dr Miriam Clegg, Professor Lisa Methven, Dr Claire Sulmont-Rossé and Dr Øydis Ueland



## Background

- Protein is a vital dietary component for combating negative health outcomes associated with malnutrition in older adults (e.g. sarcopenia, functional decline and reduced quality of life)
- Increasing evidence indicates older adults require comparatively more protein per day than younger adults (1-1.5g protein/kg of body weight/day vs 0.75g protein/kg of body weight/day)
- Poor appetite is recognized as a major determinant of protein-energy undernutrition
- Protein fortification of regular food or drinks provides a flexible and relevant approach for older adults with reduced appetite.

## The recipe for success in protein-fortification

“Food has no nutritional value until it is chosen, accepted and consumed” C Forde.

To increase the likelihood of older adults successfully incorporating fortified products into their diets and fortifying their normal meals, the food and drink solutions must:

- ✓ be adaptable to older adults eating patterns
- ✓ be easy to consume or prepare
- ✓ cater for their food preferences
- ✓ be sensorially pleasurable
- ✓ take the specific age-related problems that complicate food intake into account

## Methodology

EU funded project, **Fortiphy**, is using a mixed-methods a co-creation approach with older adults (age 70+) in France, Norway and the UK, to develop recipes which make protein-fortification a viable and appetising solution.

### Cooking and eating behaviour questionnaire

Participants (N=60) were asked about their usual eating habits, shopping habits and cooking habits.

### 4-day food diaries

Participants (N=60) completed a 4-day food diary over a 2-week period with a focus on: the food/drink, the preparation method and amount eaten - for 7 potential meal occasions across the day.

### Focus groups with older adults and carers of older adults

Older adults (N=36) and carers (N=18) were asked about attitudes to protein, fortification and meals using high protein ingredients that they would or would not be willing to try and why.

## What we now know

**Attitudes towards protein:** Most older adults were unaware they needed to eat more protein and usually focused on what foods to cut out of their diet. They were interested in education and suggestions to increase protein.

**Preferred fortification ingredients:** Every-day high-protein culinary ingredients (eggs, milk, ground almonds, cheese) were preferred. They were uncertain about protein powders (in terms of expected taste, usage etc) but were willing to use them to substitute another dry ingredient (fortified flour, or in lieu of flour to thicken stews and soups).

**Preferred meal carriers:** Most older adults found increasing the amount or concentration of high protein ingredients the easiest method (e.g. fortified milk or adding an extra egg). It was important that the high protein ingredients fit well with commonly consumed foods (e.g. meat stew, soup, and cakes).

This has yielded prototype fortified recipes that will be evaluated by older adults in a Home Use Test across all 3 countries in May.