Economic and Social Research Council

Capitalising on COVID-19 as a Trigger for Positive Change in Food Waste Behaviour

Team: [1]Dr Gulbanu Kaptan , [1]Prof Sally Russell , [1]Prof Kerrie Unsworth , [2]Dr Tom Quested, [1]Dr Christian Bretter, [2]Aggelina Doriza

[1]University of Leeds and [2]WRAP

Duration: Nov 2020 – July 2022






UNIVERSITY OF LEEDS

ZERO WASTE SCOTLAND

wrap

Photo by Rezel Apacionado on Unsplash

Photo by Marten Bjork on Unsplash

Agenda

10:00 Welcome and introduction

10:05 Why did we do this research?

10:15 How has Covid-19 influenced behaviour?

10:25 Key factors influencing household food waste

10:35 Can we influence people's behaviour?

10:45 Conclusion

10:50 Questions and Answers

11:10 Break

11:15 Breakout discussions

- How will you use the findings?
- What future research would be useful to you?

11:40 Feedback

11:55 Closing remarks

How we'll run the workshop

Chatham House Rule: Information disclosed during this workshop may be reported by those present, but the source of that information may not be explicitly or implicitly identified

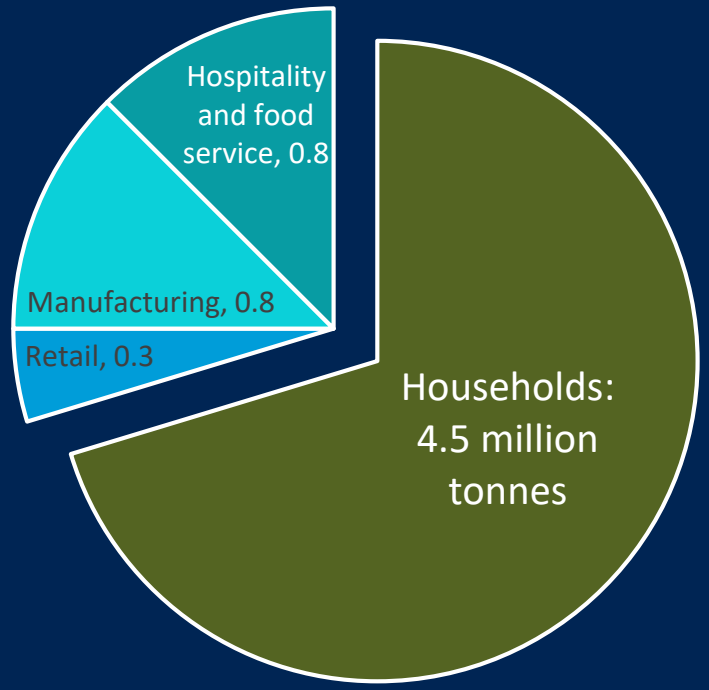
Notes will be taken from the meeting. Comments relating to the findings of this research project may be quoted in the final evaluation report. However, any quotes used will be anonymised, and the quote will not be attributed to any workshop participant

The presentations on findings will be recorded

Why did we do this research?

Photo by Nastassia Ustyan on Unsplash

Households generate more food waste than any other sector in the UK…



https://wrap.org.uk/sites/default/files/2021-10/food-%20surplus-and-%20waste-in-the-%20uk-key-facts-oct-21.pdf

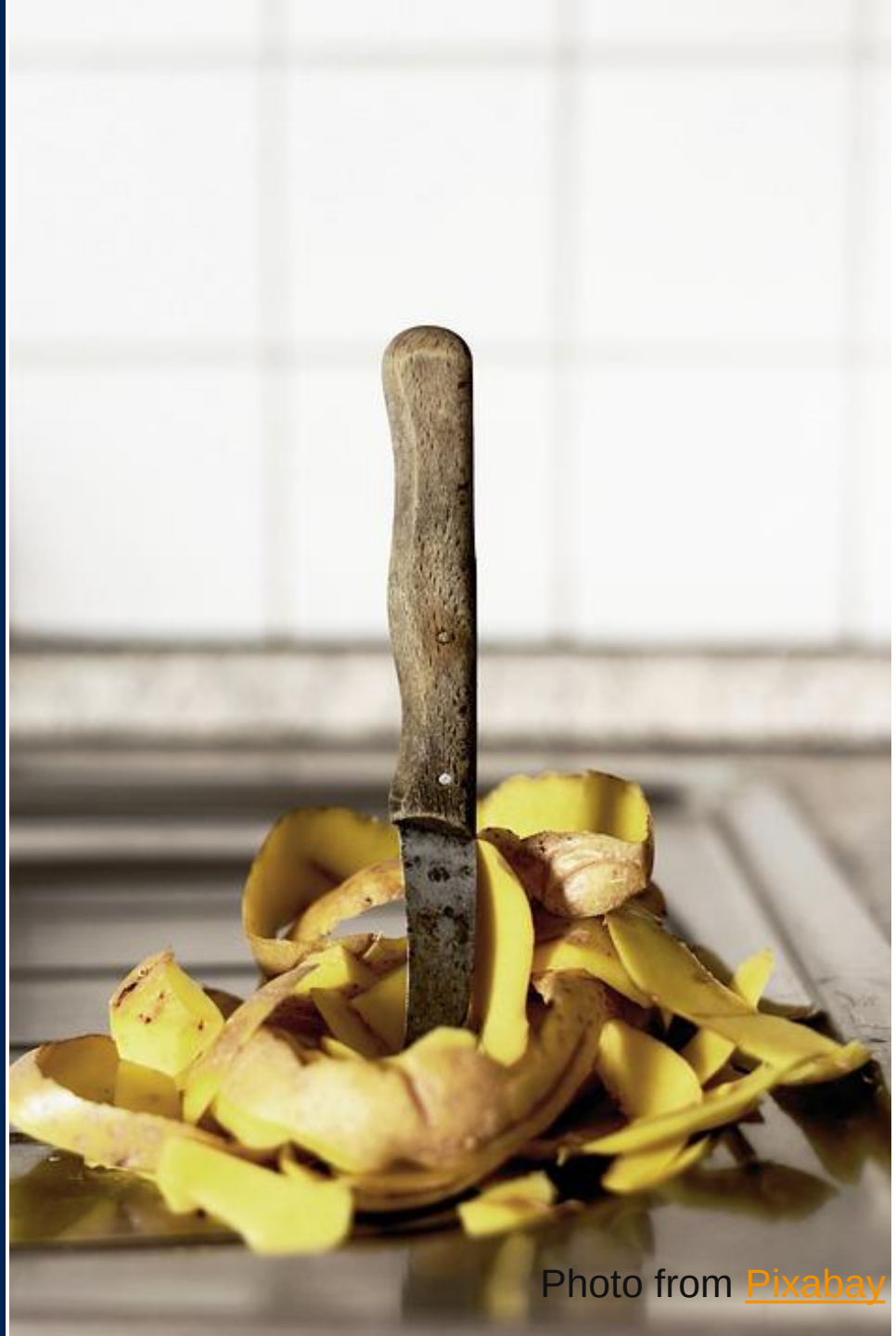
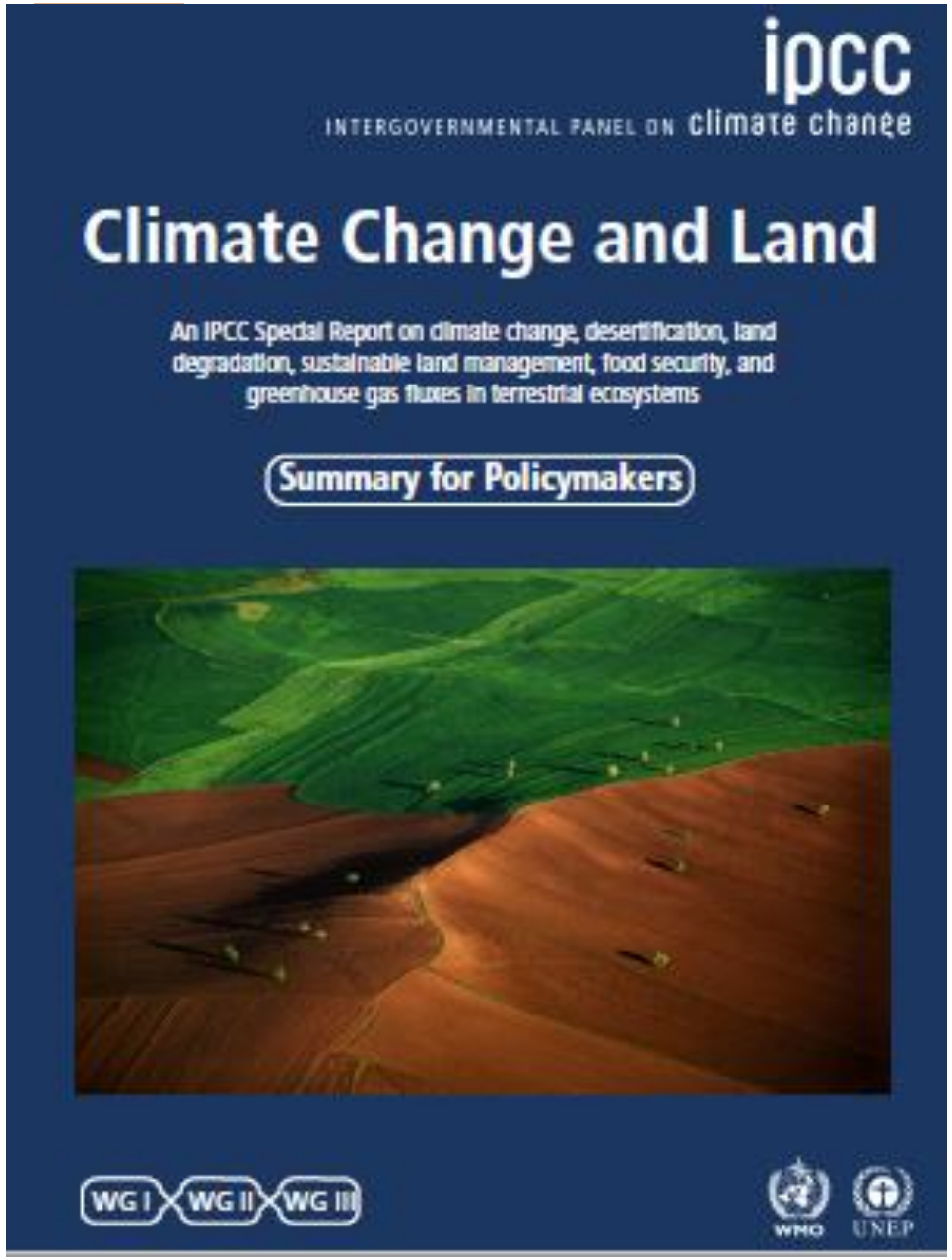


Photo from Pixabay



… the food thrown away requires energy and land to produce, and generates greenhouse gas emissions

"During 2010–2016, global food loss and waste equalled 8–10% of total GHG emissions …

and cost about 1 trillion USD per year …"

https://www.ipcc.ch/srccl/

Food waste also costs households

In 2015, food waste cost the average household £540 each year

wrap

Final Report

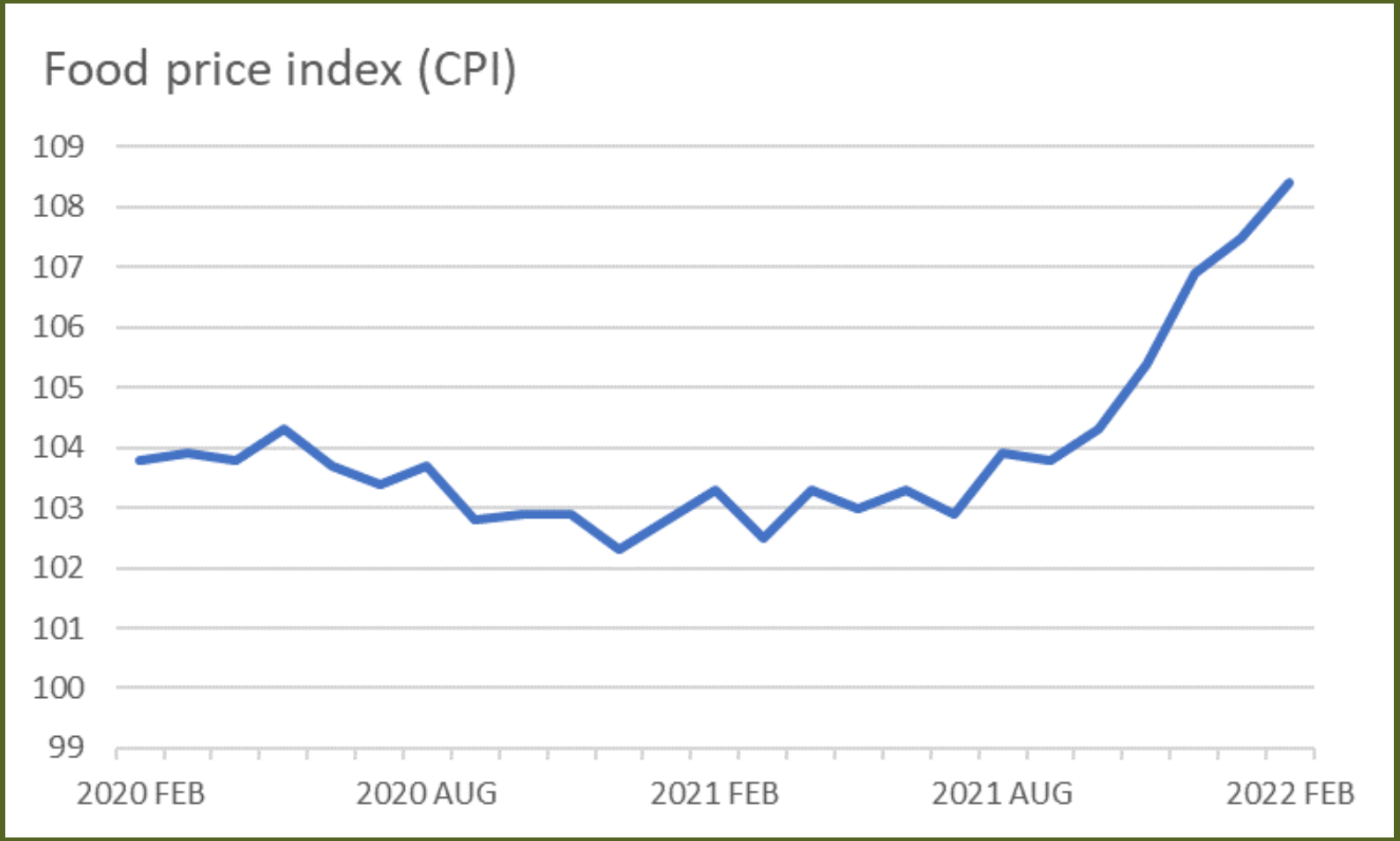
Household food waste: restated data for 2007-2015

This report restates existing estimates for the amounts of food waste produced by UK households between 2007 and 2015. The information has been restated to align it with new international standards that WRAP helped to develop.

Project code: CIT012-004
Research date: July 2017 - January 2018 **Date:** 22 May 2018

https://wrap.org.uk/resources/report/courtauld-2025-baseline-and-restated-household-food-waste-figures

… which is important due to increased living costs



https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/d7c8/mm23

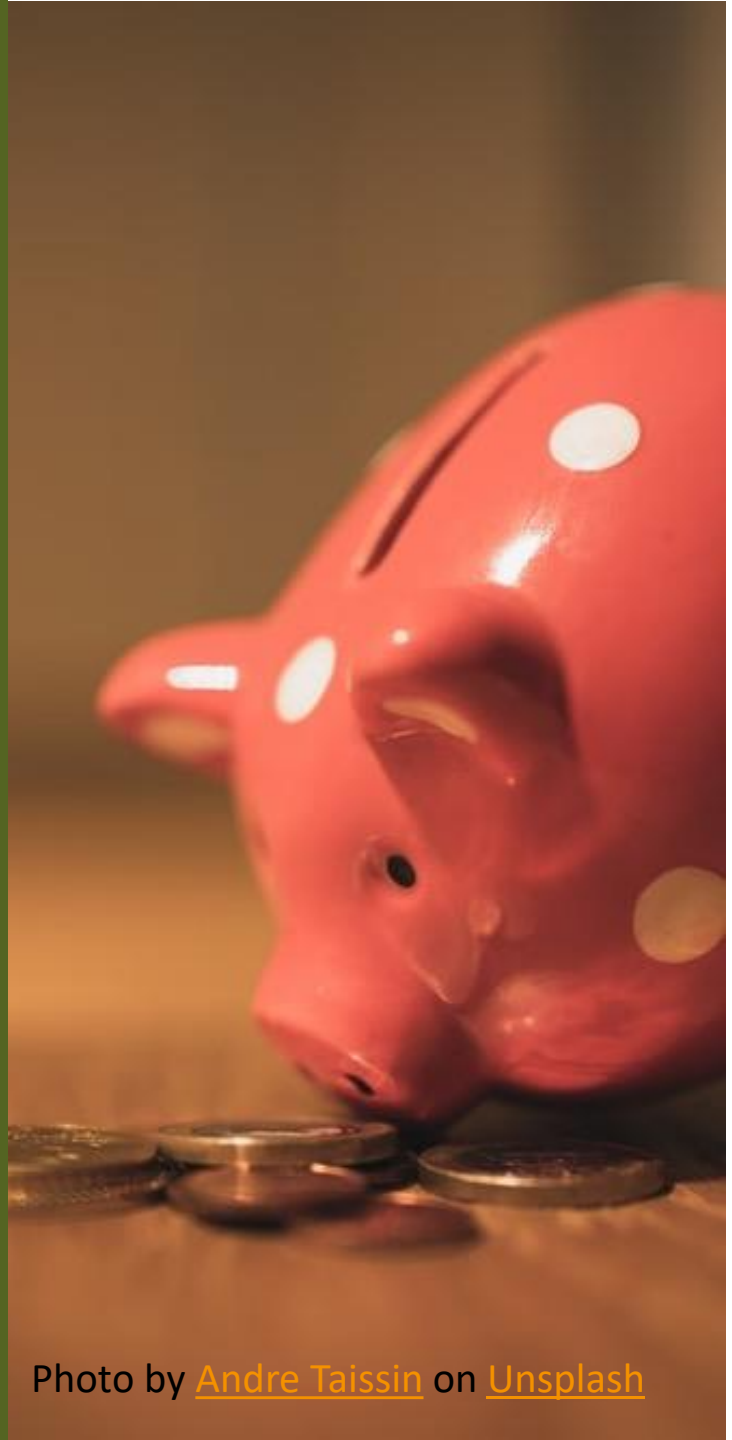
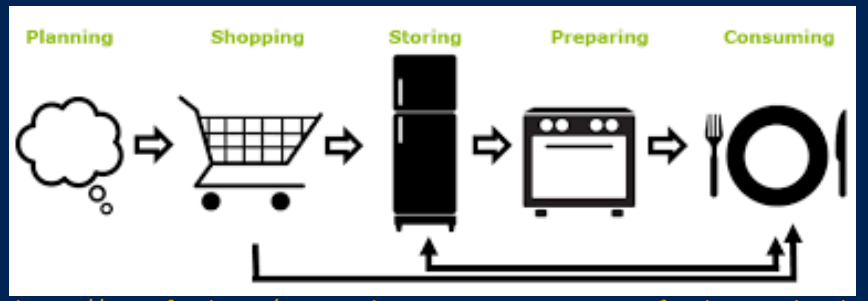


Photo by Andre Taissin on Unsplash

So, what's the solution?

Photo by Towfiqu barbhuiya on Unsplash

Multiple behaviours / practices



https://eu-refresh.org/causes-determinants-consumers-food-waste.html

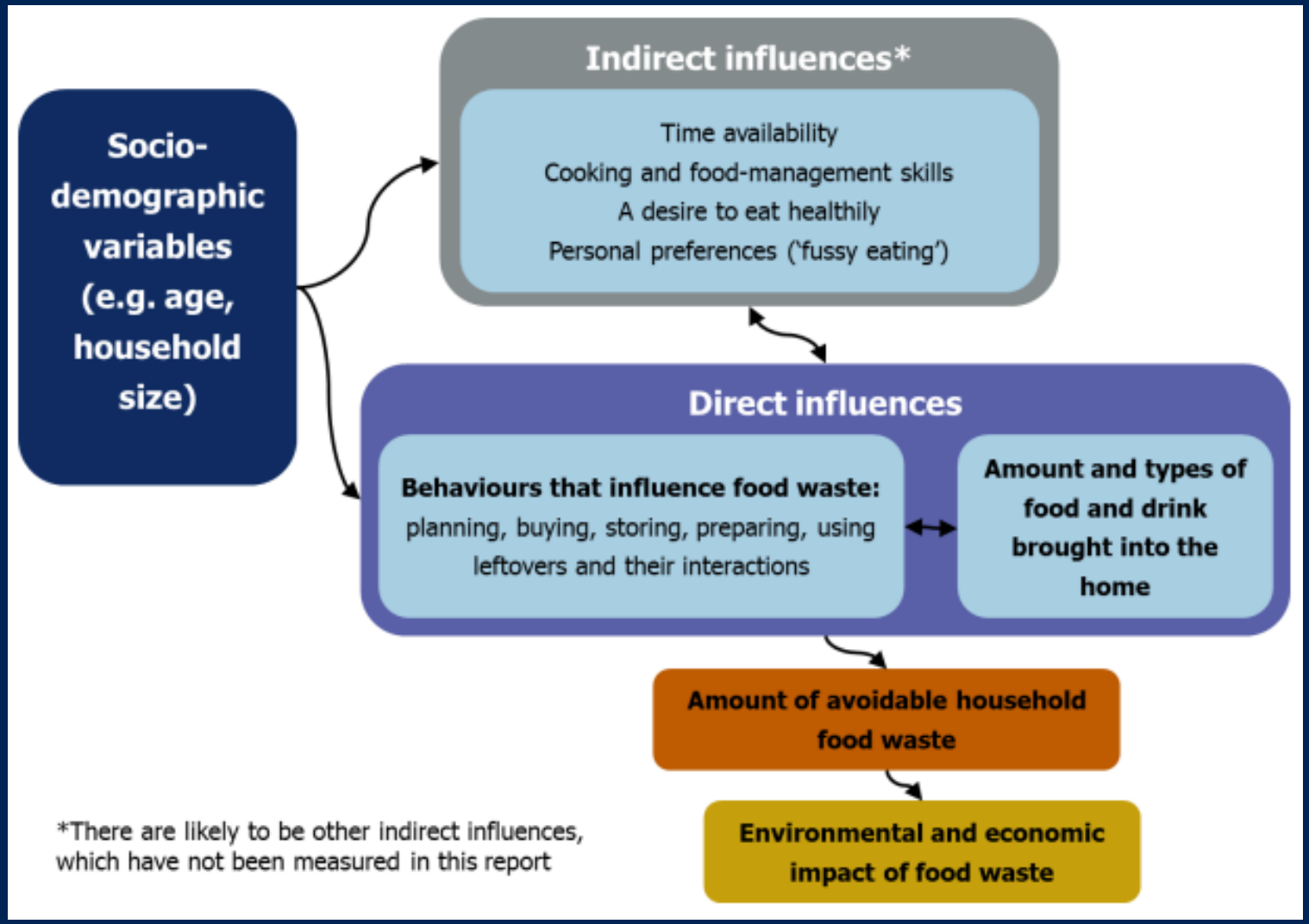
Photo by nrd on Unsplash

Different depending on type of food

Varies between different groups of the population

Photo by Ben Allan on Unsplash

Understanding food waste can be as complex as sorting out spaghetti soup…

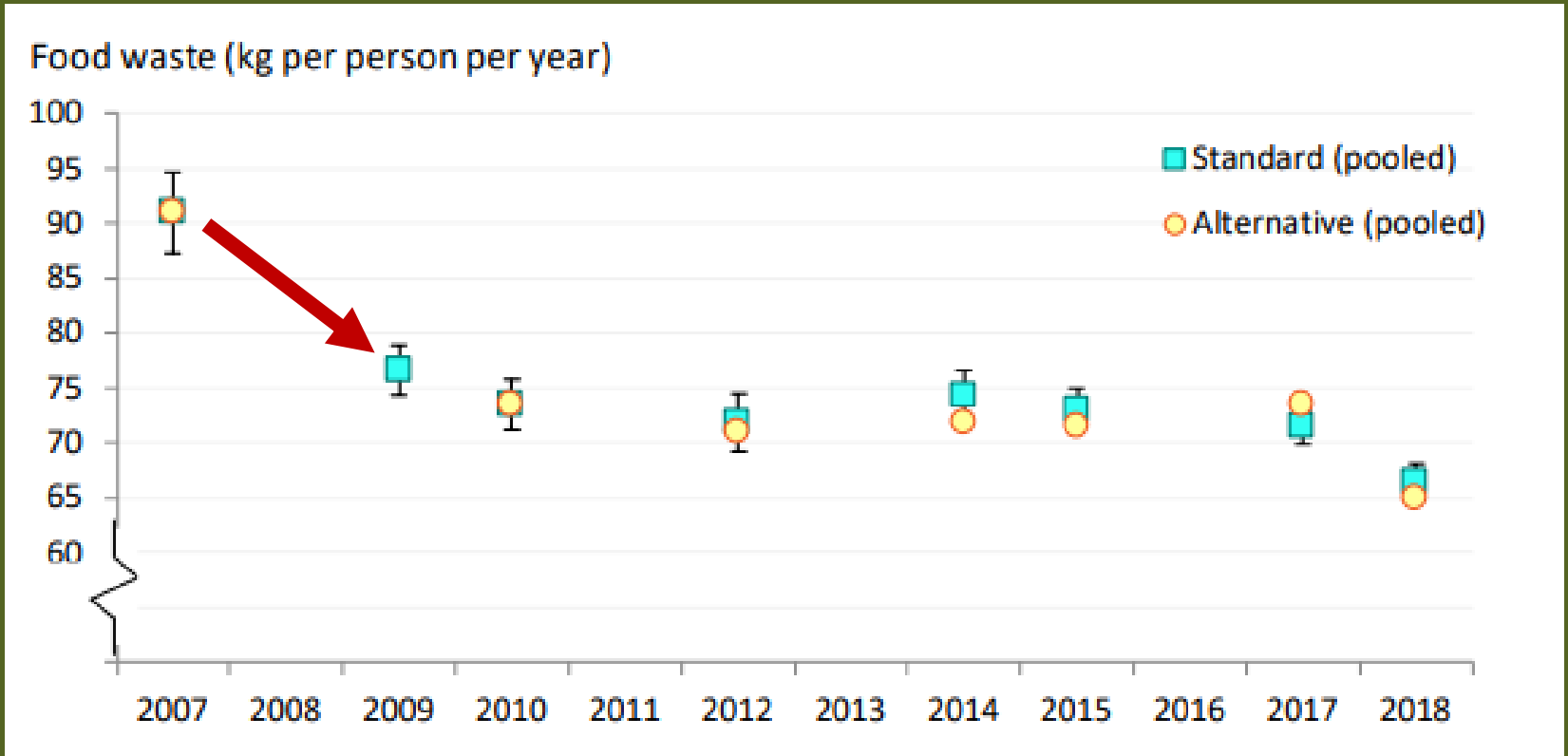


https://wrap.org.uk/resources/report/household-food-drink-waste-people-focus

- Intensive initiatives, involving tailored support to households, can lead to large reductions…
- … but scaling such interventions would be challenging

Photo by Super Straho on Unsplash

… change has occurred…



https://wrap.org.uk/sites/default/files/2020-12/Synthesis-of-Household-Food-Waste-Compositional-Data-2018.pdf

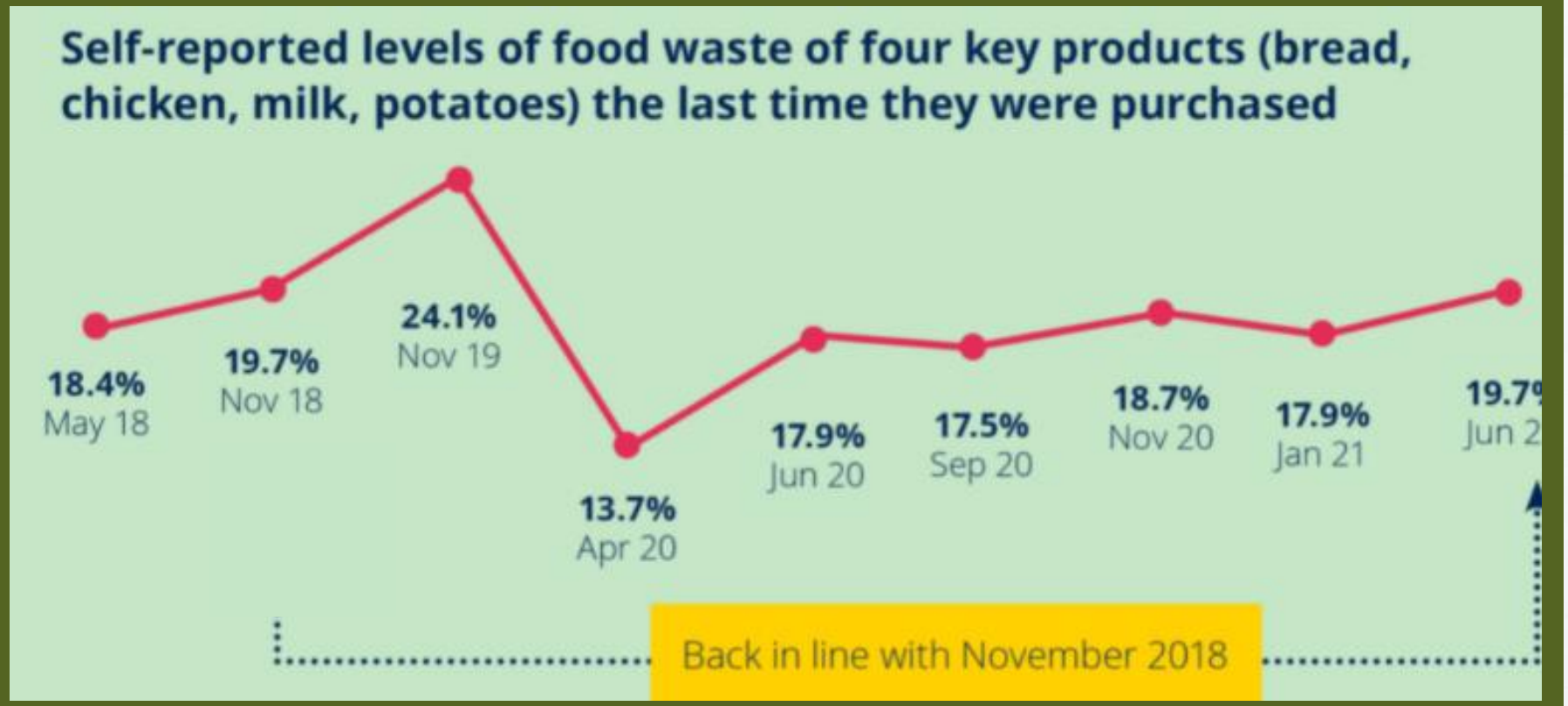
Photo by Lenka Dzurendova on Unsplash

… possibly more than once

https://wrap.org.uk/resources/report/food-waste-trends-survey-2021

Photo by Louise Lyshøj on Unsplash

… possibly more than once



https://wrap.org.uk/resources/report/food-waste-trends-survey-2021

Photo by Louise Lyshøj on Unsplash

Key questions:

- What can we learn from the acute disruption of the pandemic?
- Does this tell us what factors are important to food waste?
- Can these factors be used to design effective interventions? And how?

Photo by Marissa Grootes on Unsplash

Methods used

- **National representative survey**
  - Split over two time points
  - 1,336 participants
- **Qualitative interviews**
  - 30 households
  - Also responded to survey previously
  - Grouped by ‘responsibility’
- **Experimental interventions**
  - 5 x on-line experiments
  - Total sample size = 4,122 participants

Photo by Marissa Grootes on Unsplash

By the way...

Here are two concepts you are going to encounter:

Responsibility

- Refers to the subjective importance of medium-term goals, such as being a good person, protecting the environment, and ensuring social justice.

Altruism

- Is the perceived importance of equality, a world free of conflict and caring for the weak.

How has Covid-19 influenced behaviour?

Photo by Hello I'm Nik on Unsplash

Consumer Interviews

- Conducted in May-June 2021
- 50-min interviews over Zoom with 30 of the survey participants, with different levels of responsibility goals (low *vs* medium *vs* high)
- Questions on
  - food waste behaviour
  - emotions about wasting food
  - food management behaviours (e.g., planning, buying, preparing) and change during Covid-19

Photo by Liuba Bilyk on Unsplash

Food waste in low *vs* higher responsibility groups

- Wasting food was more frequently mentioned in low responsibility group
- Nearly all respondents reported checking date labels, whereas this is a practice only for perishable foods in the higher responsibility groups
- There are overlaps across the groups, as well (e.g., leftovers)

Photo by Darrien Staton on Unsplash

Emotions about food waste

- Feeling *guilty, annoyed, disappointed, bad, and sad* were expressed in all groups
- Wider range of emotions (i.e., *feeling frustrated and distress*) were mentioned in lower compared to high responsibility group
- Negative emotions were less frequently reported in high responsibility group
  - "*I throw so little away that it doesn't bother me*"

Behaviour change during Covid-19 in lower responsibility groups

- Switching to online shopping or more online shopping
- Less frequent shopping (although reported in all groups)
- Improvement in making shopping lists
- Improved meal planning
- Buying more frozen food
- More cooking at home

Key factors influencing household food waste

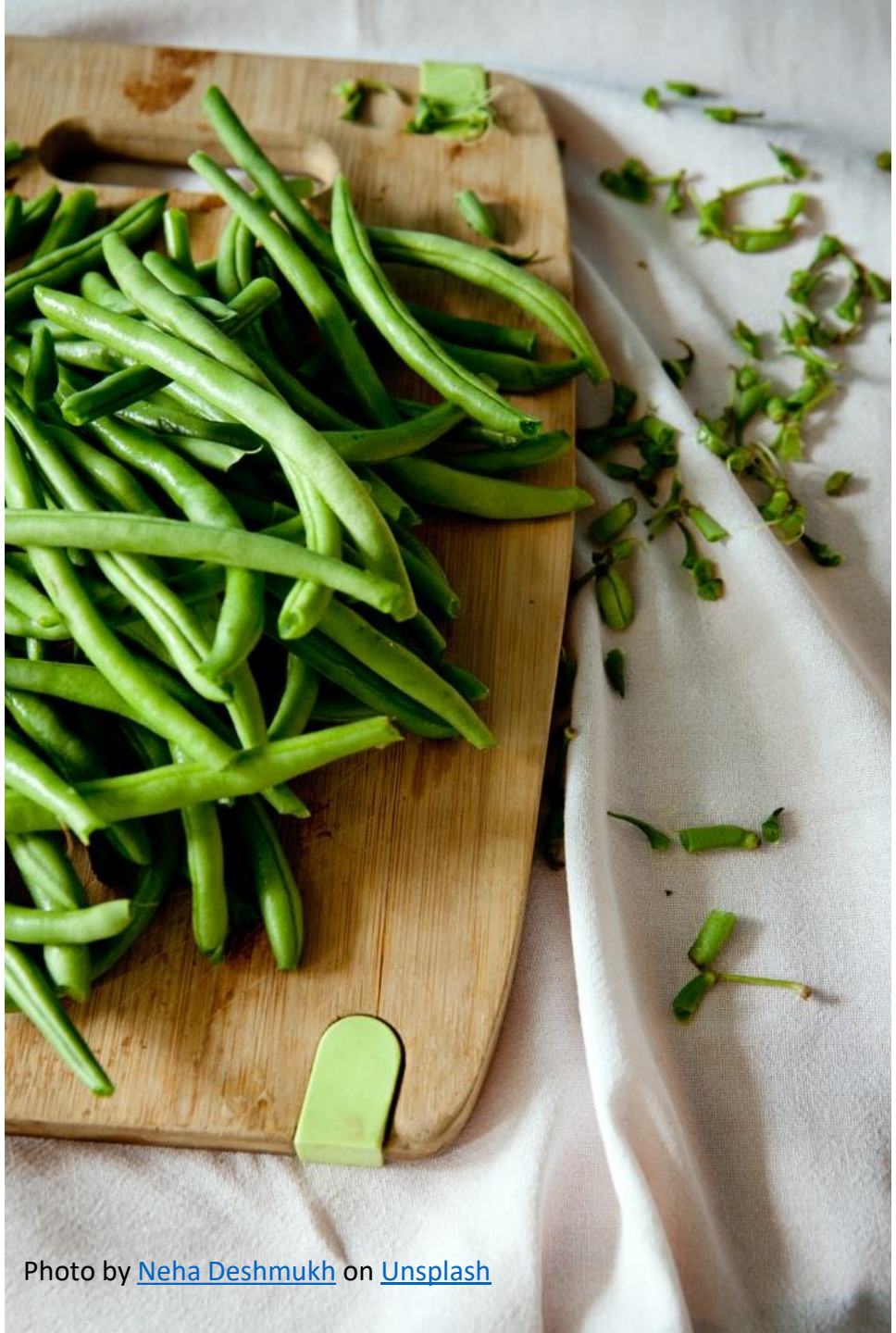


Photo by Neha Deshmukh on Unsplash

Food waste is complex…

Results of a nationally representative survey:

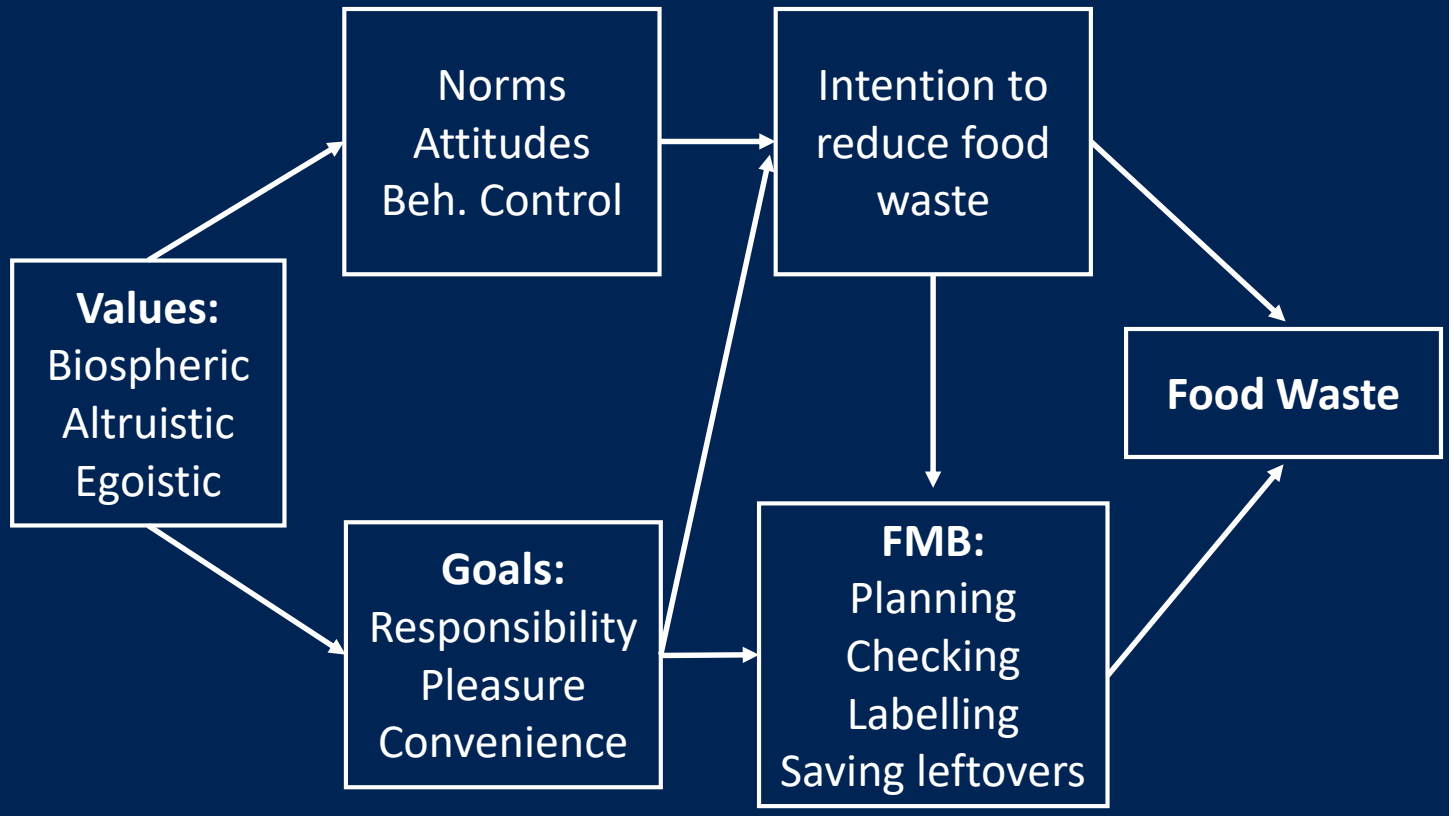


Photo by Krista Stucchio on Unsplash

Photo by Ehud Neuhaus on Unsplash

Can we influence people's behaviour?

Overview of Studies

Three initial experiments

- Responsibility-related text
- Responsibility-related questions
- Seeing images and messages

Photo by Calum Lewis on Unsplash

Initial Findings

Low altruistic people react differently to messaging when compared to high altruistic people.

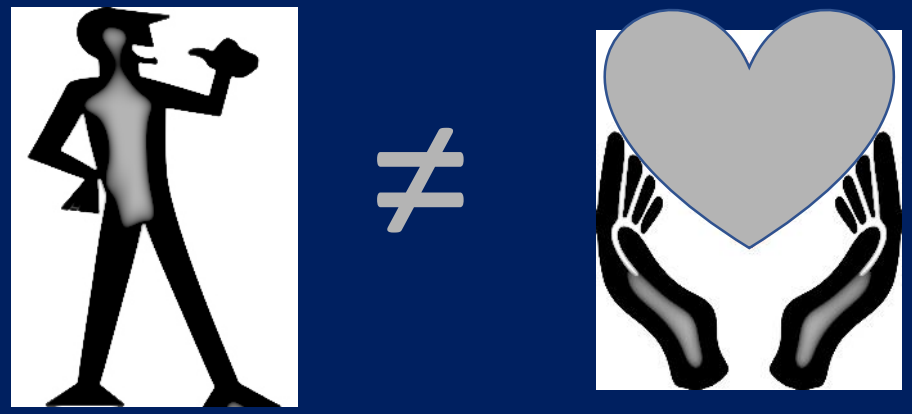
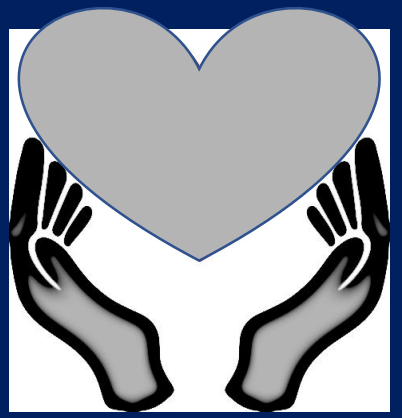


Photo by Henry Be on Unsplash



→ **High-altruists find the responsibility goals more important after seeing the message 'Wasting food feeds no-one', compared to all other messages.**

NO MESSAGE

→ **For low-altruists, our manipulations did not reveal any effect.**

NO MESSAGE

Making meal planning more attractive

We then investigated how to get low and high altruists engaged at the same time

- Image and message presentation
- Image and message and active engagement exercise

Experiment Manipulations

- **Tasty food :** Meal Planning. Because it is like planning a holiday for your tongue.

- **Enough Food:** Meal Planning. Because it makes sure you've got enough food on the table.

- **Wide Range:** Meal Planning. Because it keeps the whole family satisfied (except the dog)

- **Environment:** Meal Planning. Because how you fix the dinner can help to fix the climate crisis.

Goal Engagement

Outcomes

Planning intentions
General interest in planning
Demographics

Emotions
Values

Highlighting different Goals

Active Engagement with Goals

How do you think meal planning can help you to eat delicious meals? Please write your answer in the box below.

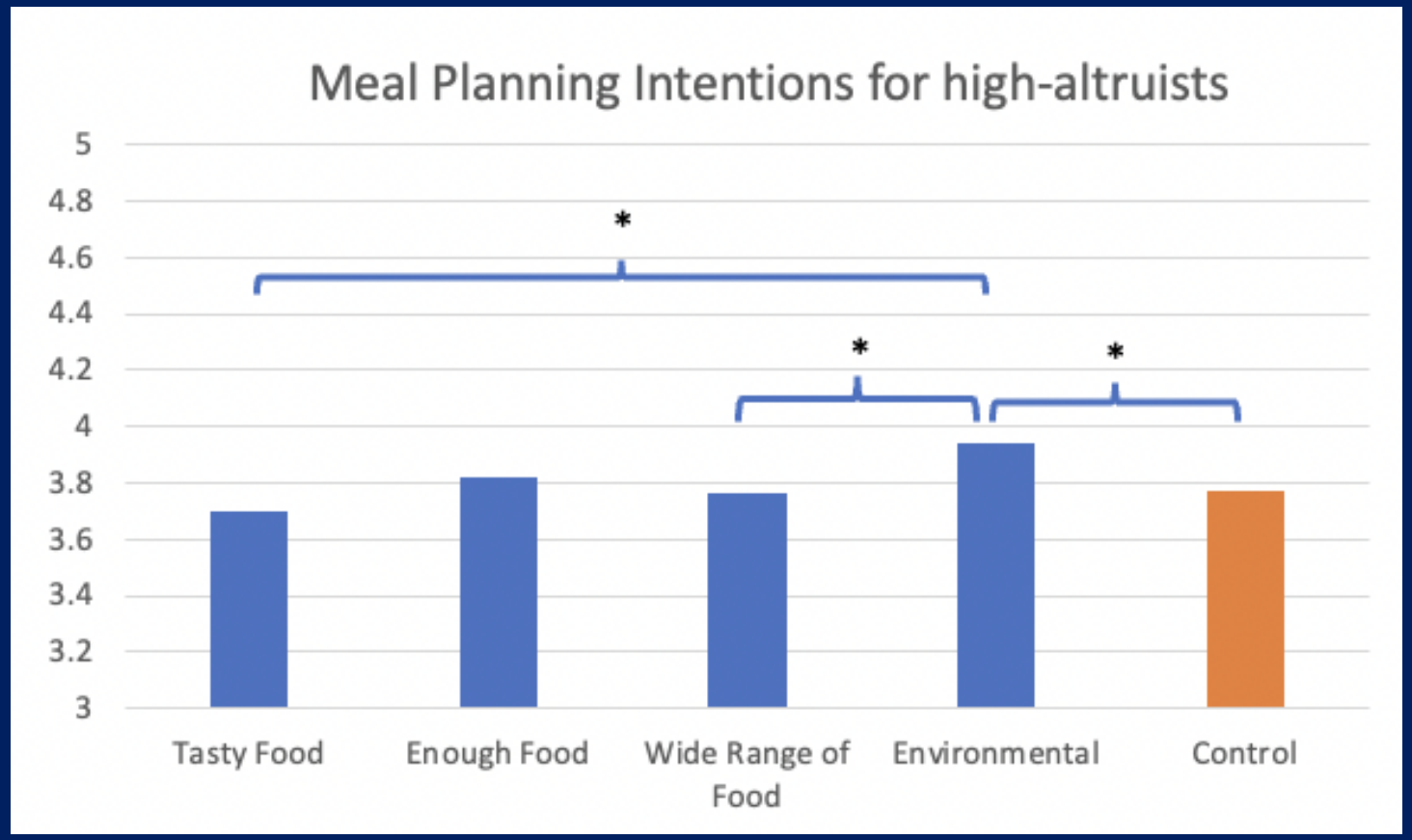
How do you think meal planning can help you to have enough food on the table? Please write your answer in the box below.

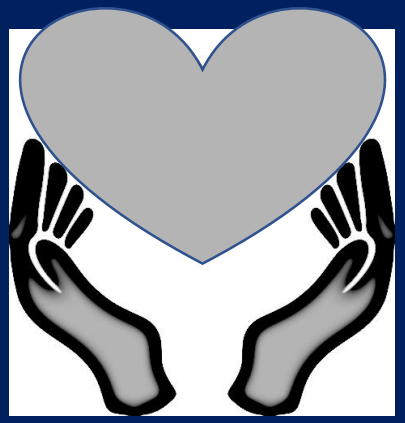
How do you think meal planning can help you to keep the whole family satisfied? Please write your answer in the box below.

How do you think meal planning can help you to fix the climate crisis? Please write your answer in the box below.

Measuring

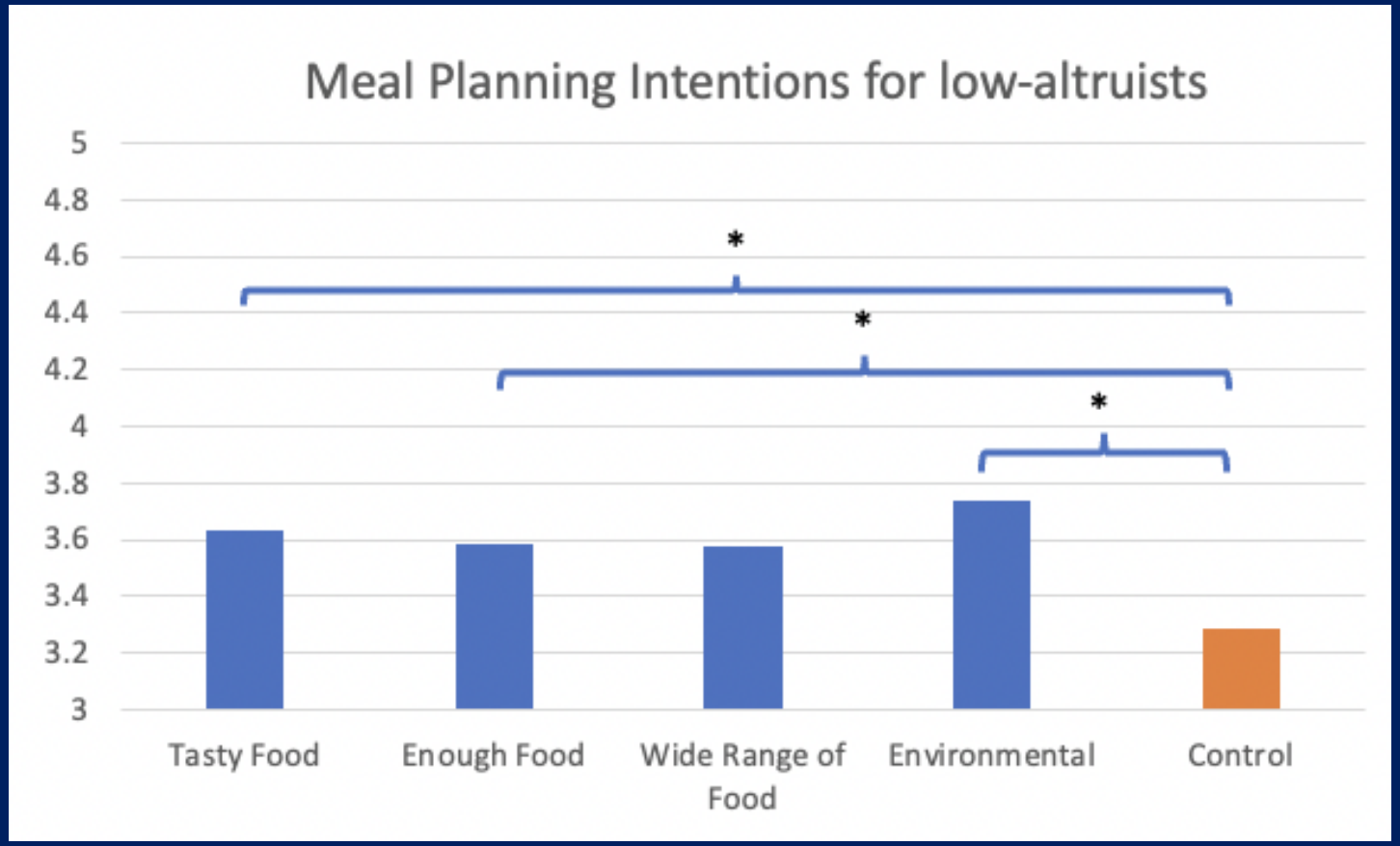
Planning intentions
General interest in planning
Values
Emotions
Demographics





→ **High-altruists report higher meal planning intentions in the environmental condition, compared to the tasty food, wide range of food and control condition.**

NO MESSAGE



→ Low-altruists also report higher meal planning intentions, but in the environmental, enough food and tasty food conditions conditions, compared to the control condition.

NO MESSAGE

Summary of Quantitative Studies

- ‘Responsibility’ seems to be important in affecting food waste.
- Individual’s reaction to primes depends on their altruism.
- High-altruists respond to a lot of different messages.
- Low-altruists need to be more engaged and to be reminded on the benefit for themselves

Photo by Nathan Dumlao on Unsplash


Photo by Anna Bratiychuk on Unsplash

Conclusions

Photo by amoon ra on Unsplash

So, what did we learn from the pandemic disruption?

- **Positive changes in food management behaviours** were observed

- Across the whole population… especially amongst those in our defined **low-responsibility** group

…but change was **short-lived**

Does this tell us what factors are important to food waste?

- In short, yes – but it is complex..

- Our research reveals that **various factors predict and influence food waste**, with **two** being found as **important predictors**:

1) **Responsibility**

More responsible → more likely to engage in FMB

2) **Altruism**

High in altruism → more likely to respond to cues/messages

Can these factors be used to design effective interventions? And how?

- The findings set the scene and suggest that **goals and values play an important role in determining food waste…**

- **...**helping to create informed **campaigns** and **interventions that aim to reduce food waste** with better audience targeting that will **increase message relevance and the extent to which is translated into attitude and behaviour change**

Photo by No Revisions on Unsplash

Finally, are there any limitations?

- Our research construct is **novel**, no other empirical studies that examined the **relationship between values and food waste behavior**.

- A few **considerations** when looking to translate the findings or conduct further research:

❑ Generalizability and transferability
❑ Representativeness of the final sample
❑ Correlation vs. causation
❑ Self-reported food waste data
❑ COVID-19 impact

Next...

- For the presentation slides and stakeholder workshop report, please see our project website at

  https://bit.ly/foodwastebehaviour

- For questions, further comments, and suggestions, please contact the project team at g.kaptan@leeds.ac.uk

Photo by Rezel Apacionado on Unsplash