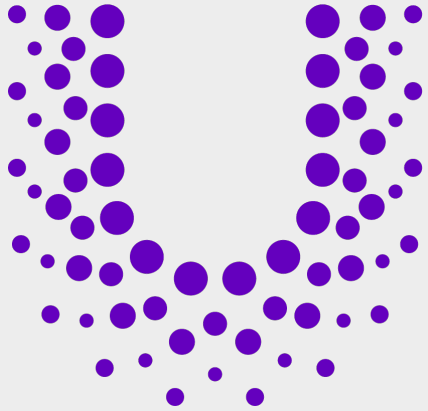

User-Centred Energy Systems

userstcp.org

Tracking energy-related behaviours to inform communications – Ireland's Behavioural Energy & Travel Tracker (BETT)

Users TCP Academy Webinar #43

Hannah Julienne, Programme Manager – Behavioural Economics

17th January 2024

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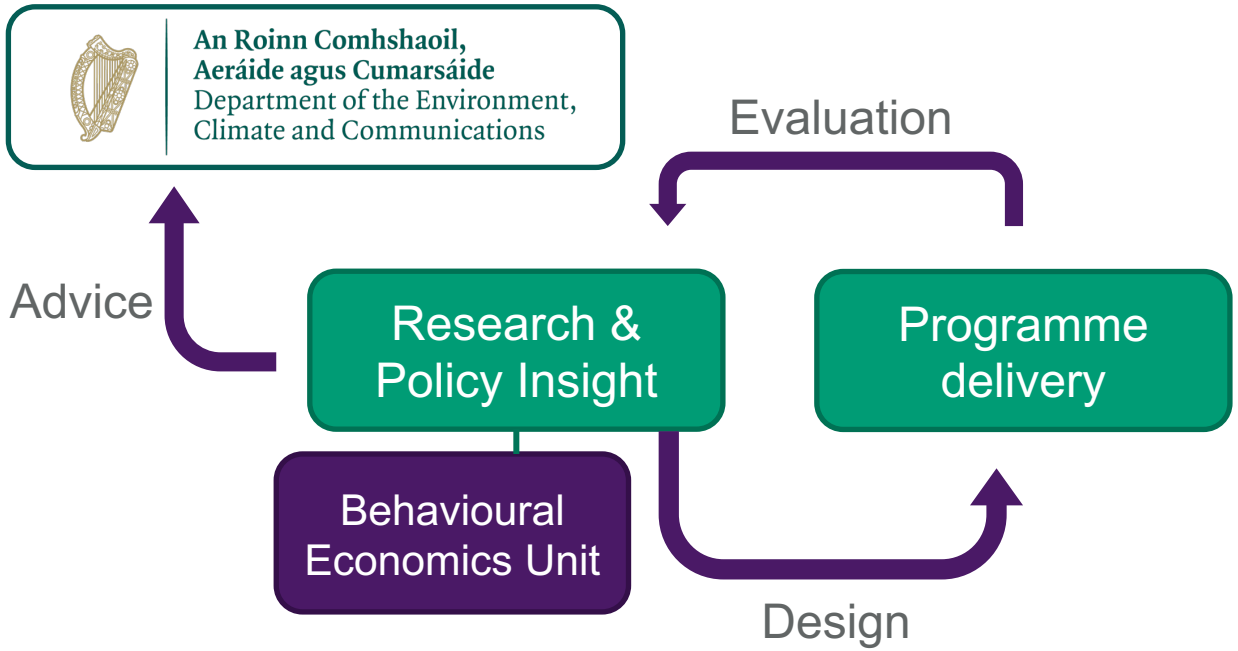
The Sustainable Energy Authority of Ireland (SEAI)

SEAI is Ireland's national sustainable energy authority.
We work with householders, businesses, communities and government to create a cleaner energy future.



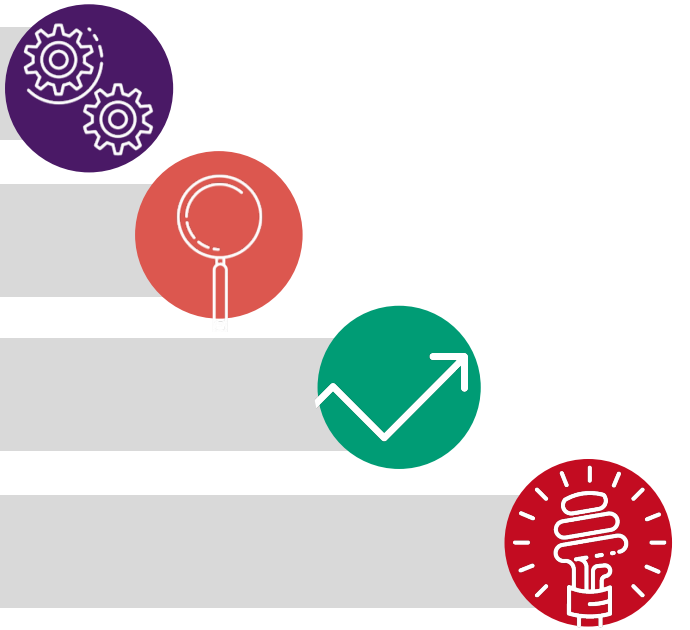
Overview

Introduction & methodology

Main findings to date

Future directions

Summary



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Introduction & methodology

Background
Survey Outline
Analysis approach

SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Overview

Evaluating effectiveness

Informing communications

Behavioural Energy & Travel Tracker (BETT)

- Monthly online survey ran from December 2022 – December 2023
- Nationally representative sample of 1,000 adults
- Uses “Day Reconstruction Method” (Kahneman et al. (2004))

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Survey outline

Think through previous day & write down what they did

"We are going to ask you some detailed questions about the things you did yesterday. Since today is **Wednesday**, we're interested in what you did on **Tuesday**, **even if it wasn't a typical day for you**."

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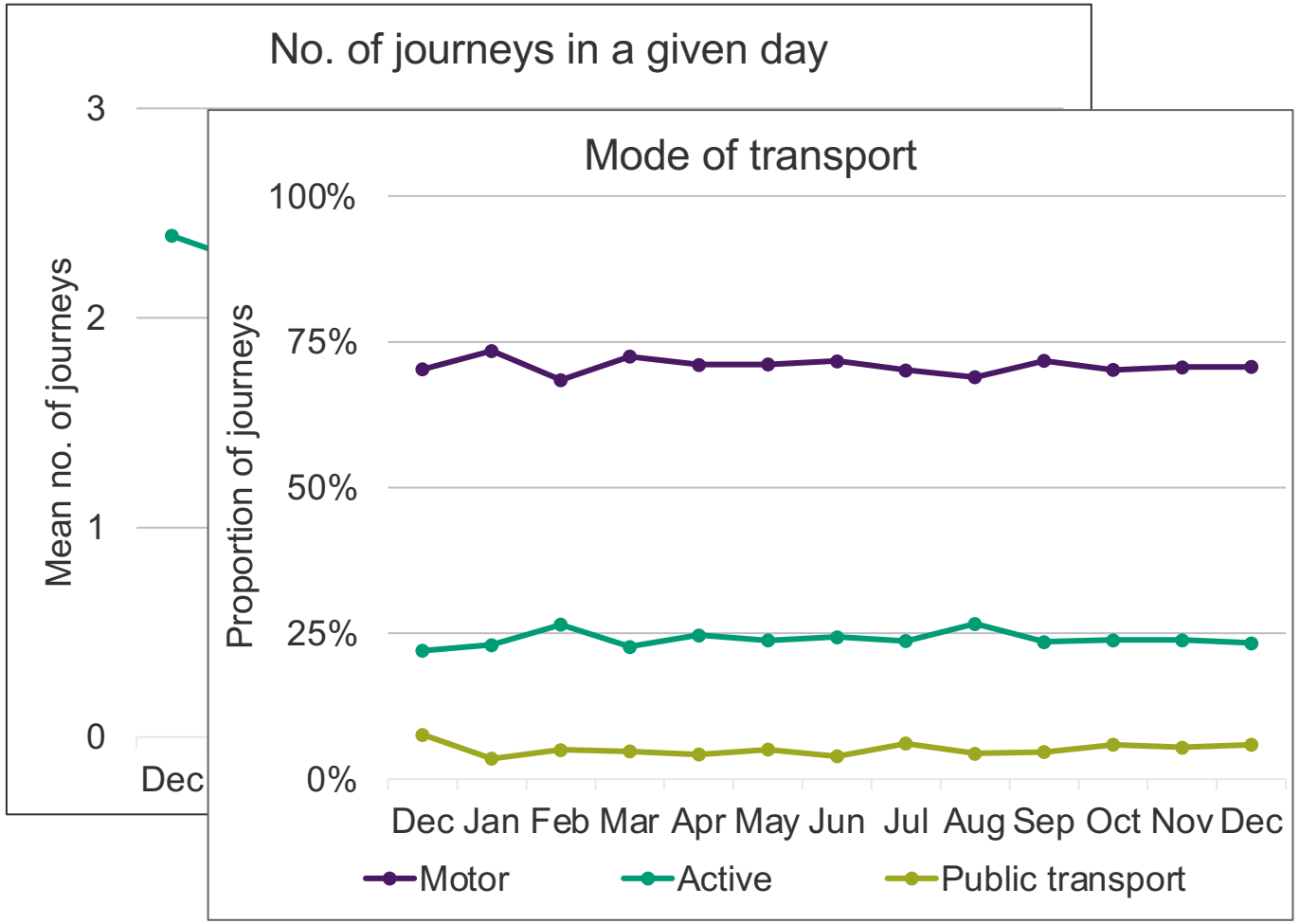
Survey outline

Think through previous day & write down what they did

Detailed questions about:

- Journeys travelled



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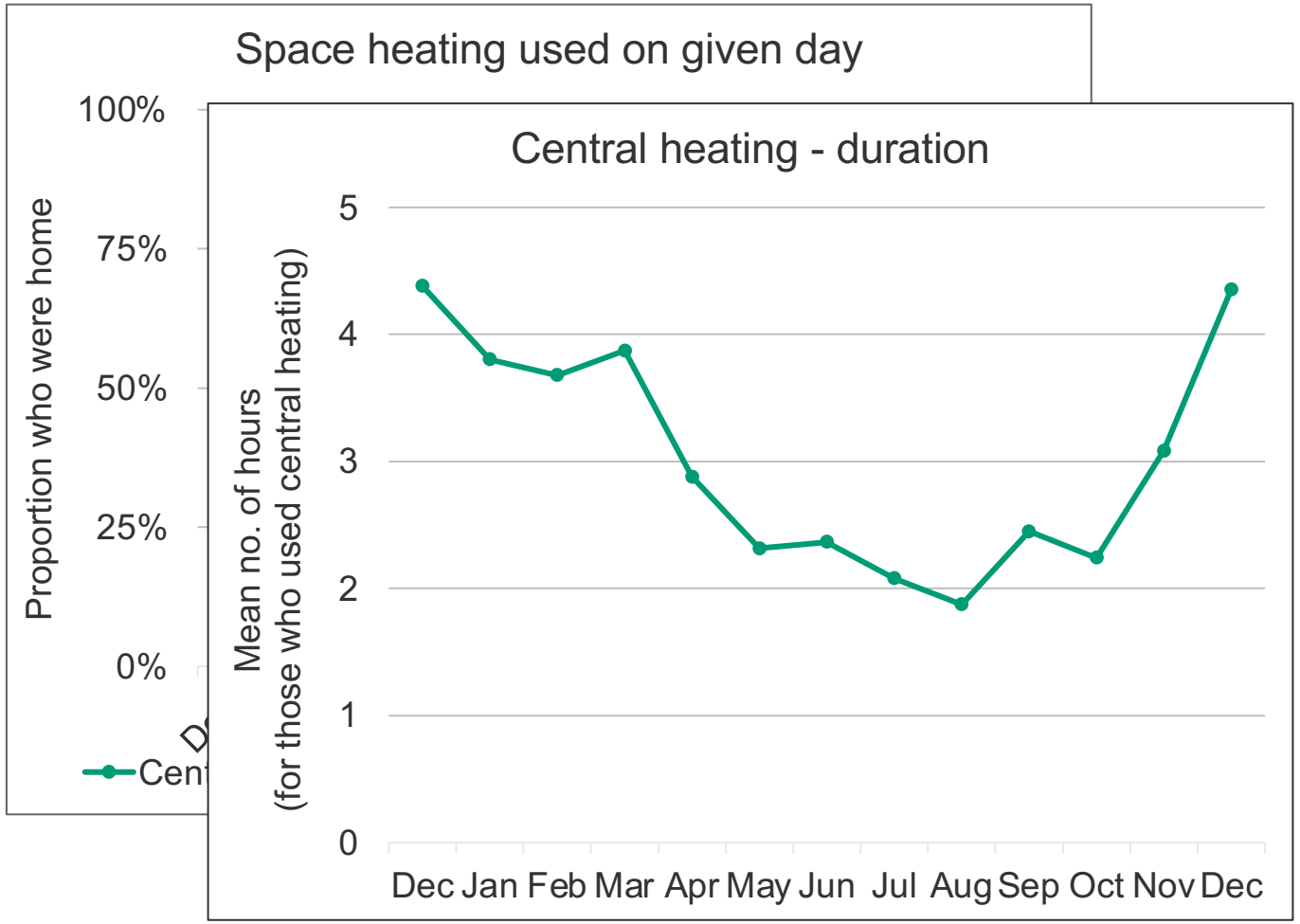
Survey outline

Think through previous day & write down what they did

Detailed questions about:

- Journeys travelled
- Home heating/hot water use



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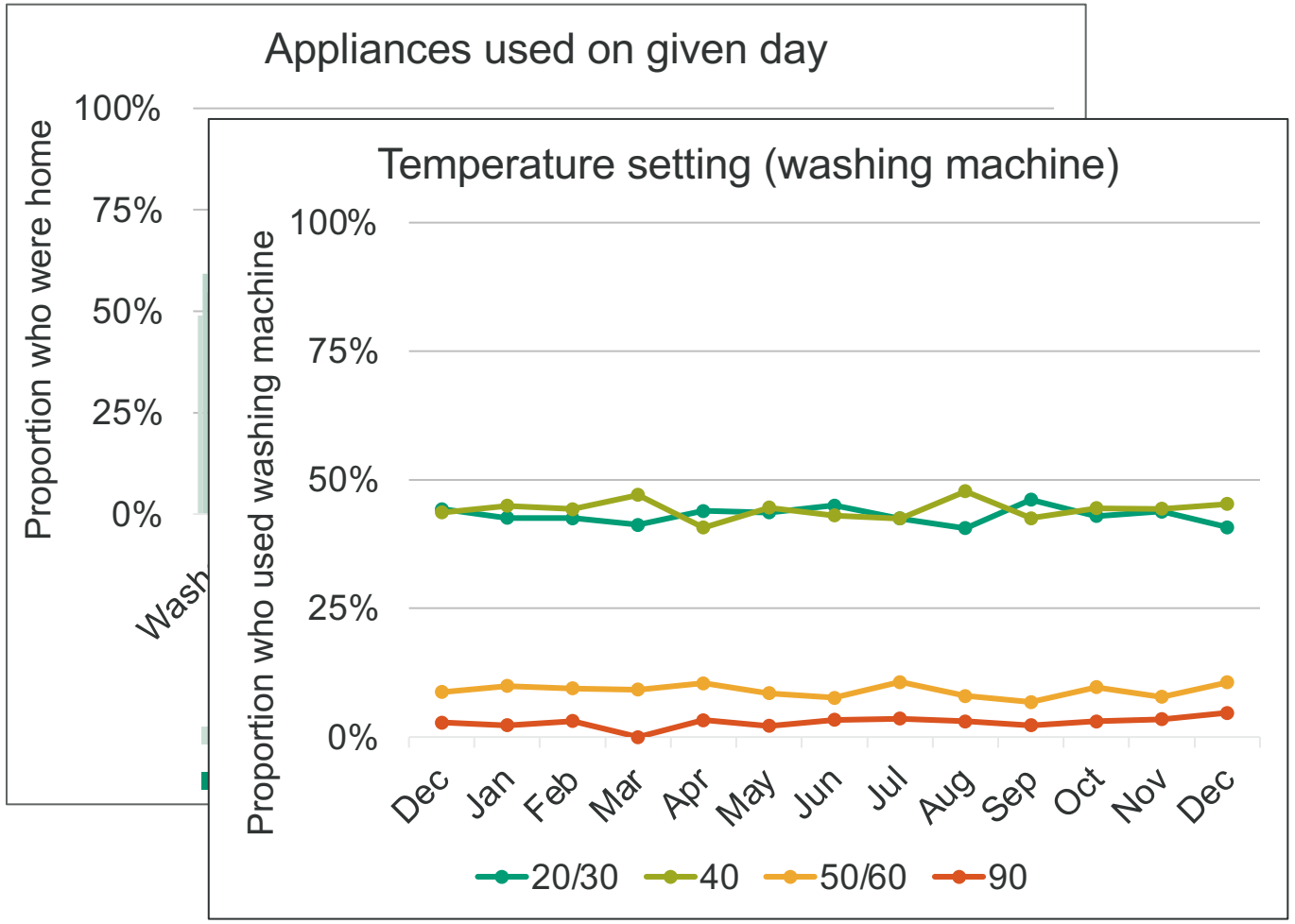
Survey outline

Think through previous day & write down what they did

Detailed questions about:

- Journeys travelled
- Home heating/hot water use
- Cooking & appliance use



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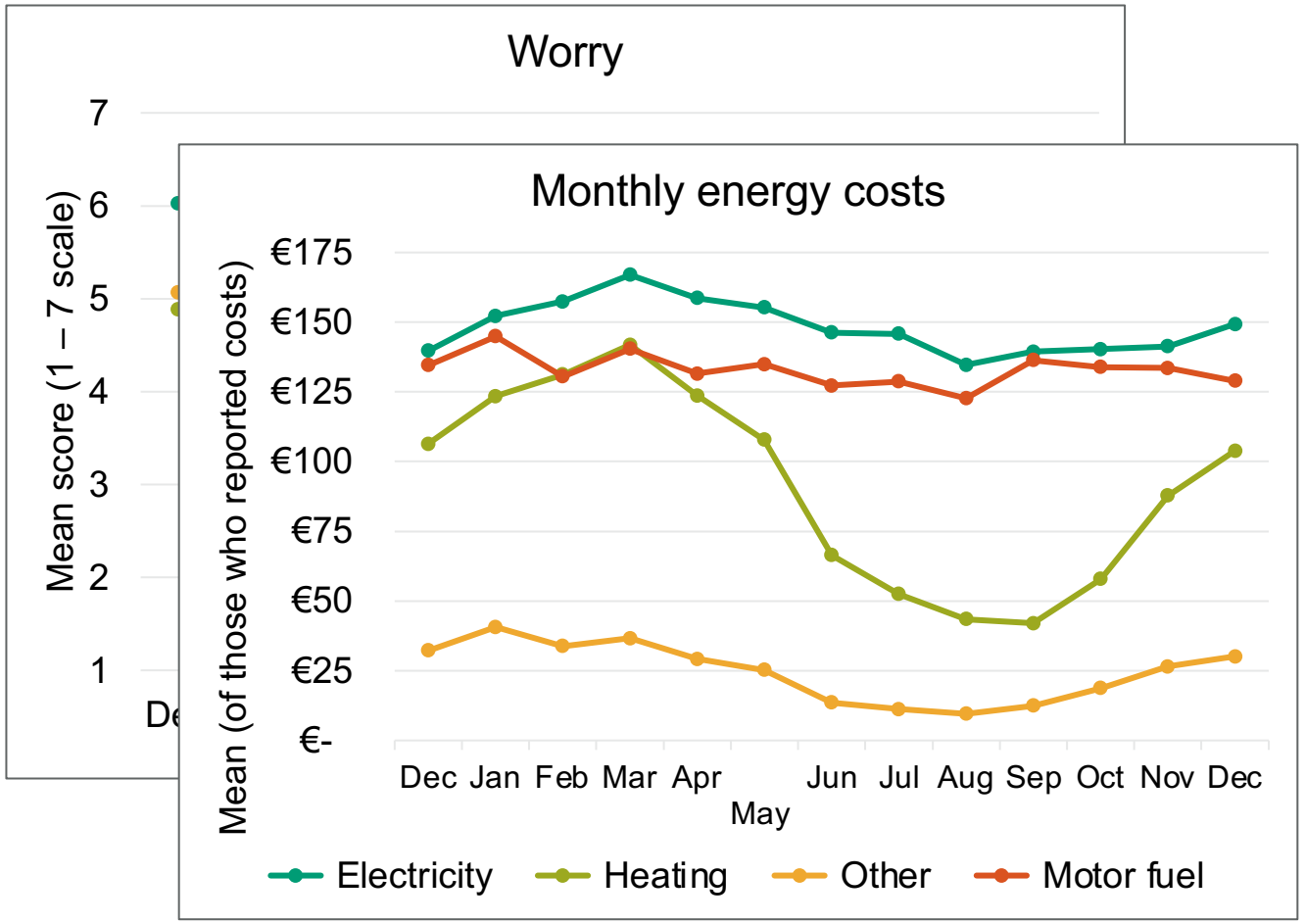
Survey outline

Think through previous day & write down what they did

Detailed questions about:

- Journeys travelled
- Home heating/hot water use
- Cooking & appliance use

Other questions about psychological factors, ad recall, energy poverty & sociodemographics



Analysis approach

1. Defining & tracking "inefficient behaviours":

- Car for journey under 2 km
- Car for journey under 5 km (public transport available)
- Heating unoccupied rooms/home
- Thermostat set to 21 or higher
- Heating on in summer
- Long/multiple showers/bath
- Energy-intensive cooking for few portions
- Washing machine at high temperature/not on eco/not full
- Dishwasher not on eco/not full
- Tumble dryer use

2. Regression analysis to investigate relationship between behaviour & other factors we track:

- Sociodemographic/household factors
- Psychological factors

Controlling for wave, weekday, weather etc

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Main findings to date

13 waves: December 2022 – December 2023

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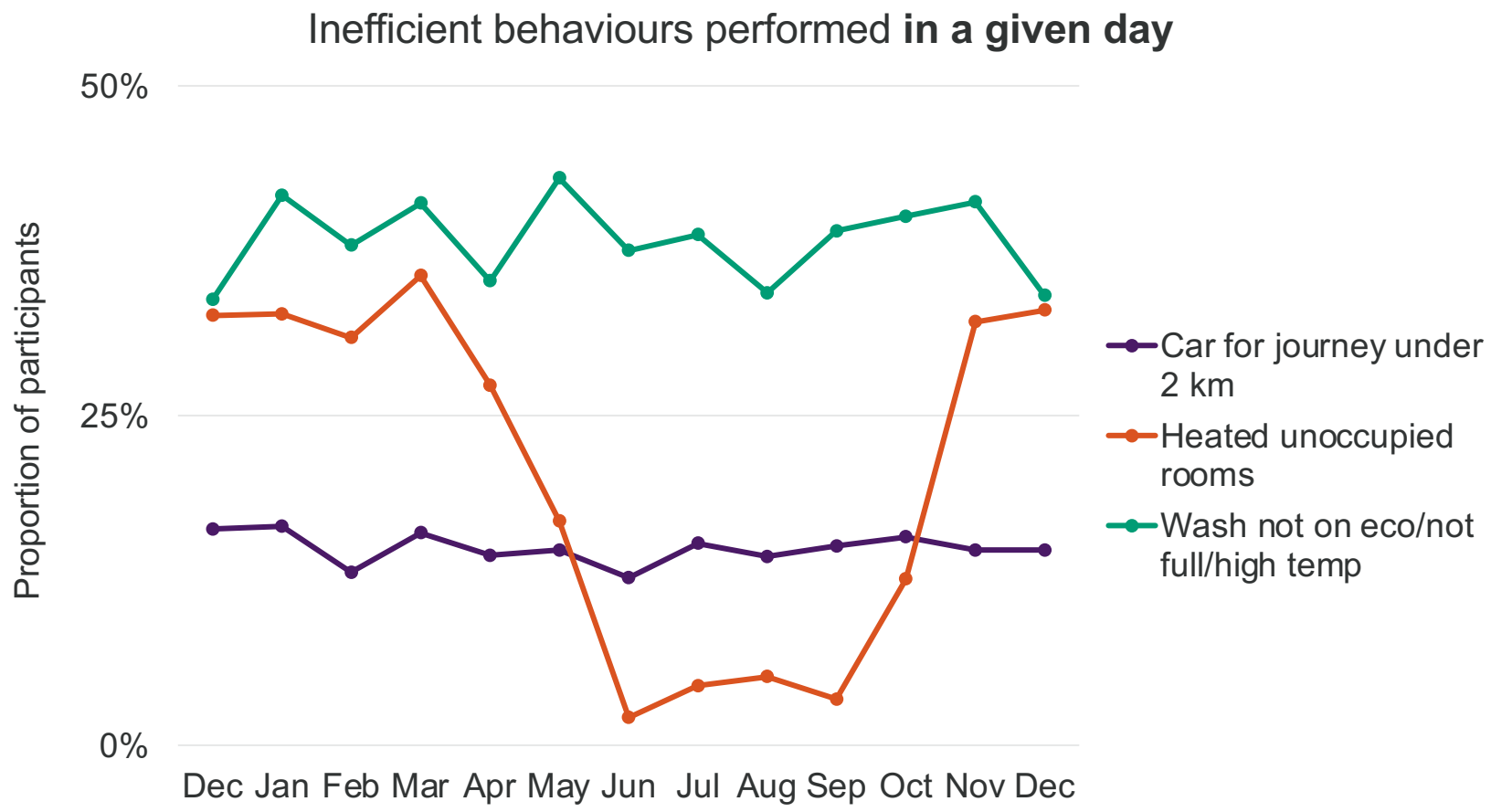
1. Inefficient behaviours are prevalent year-round



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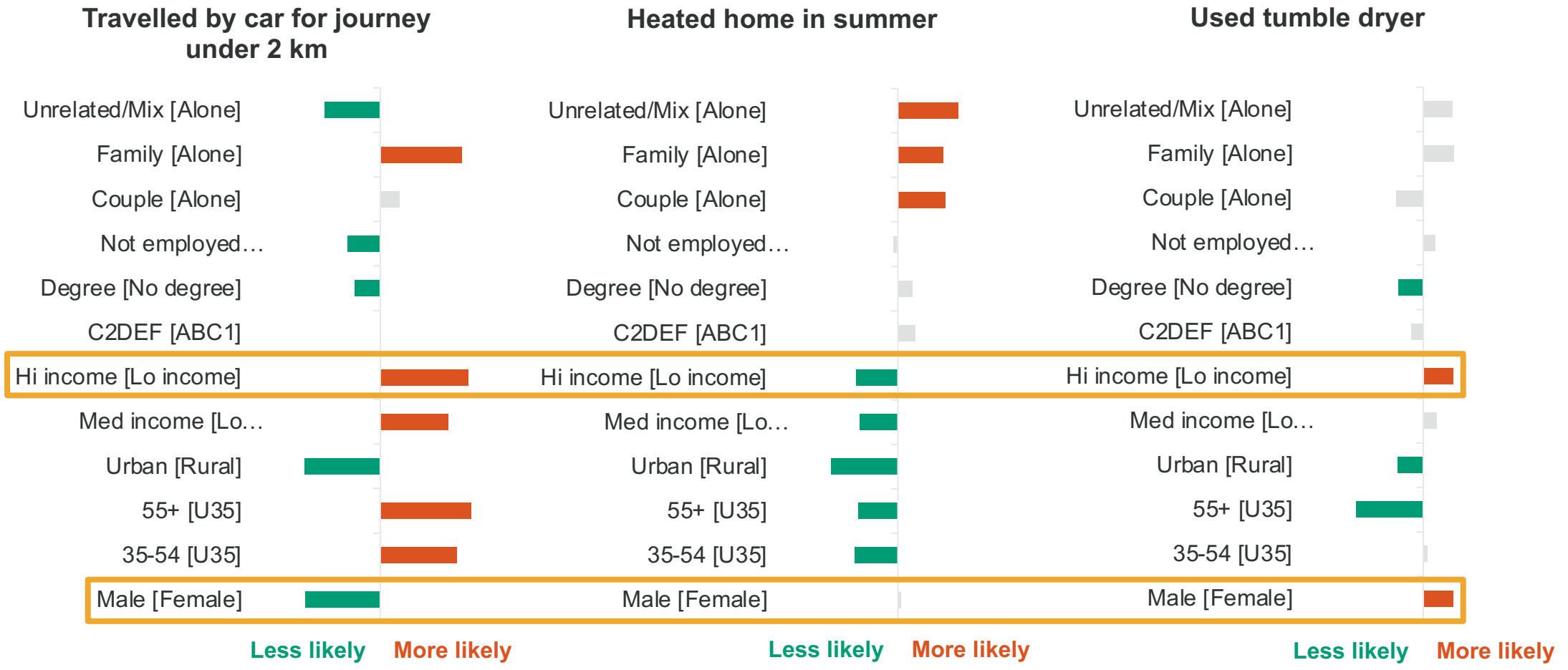
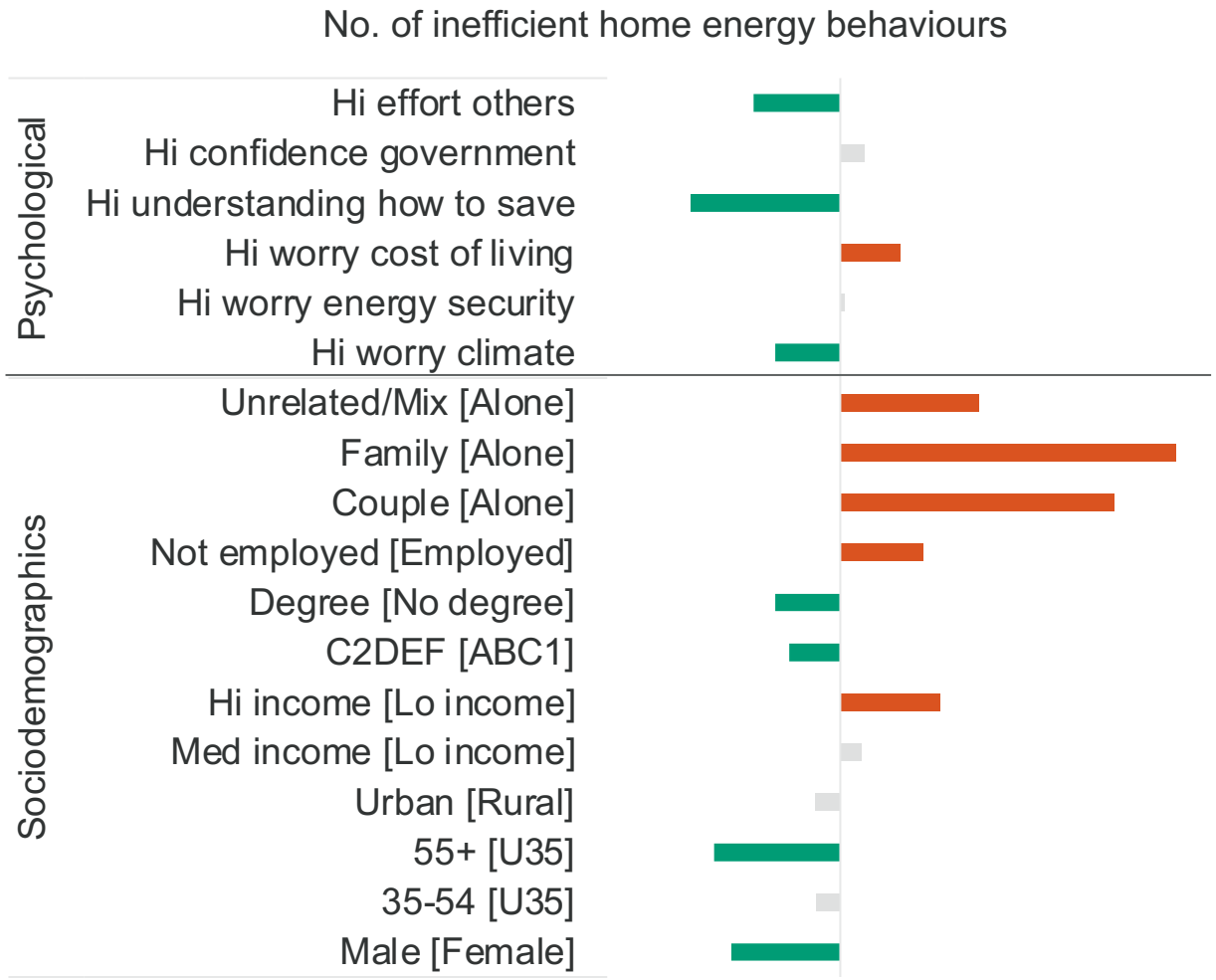
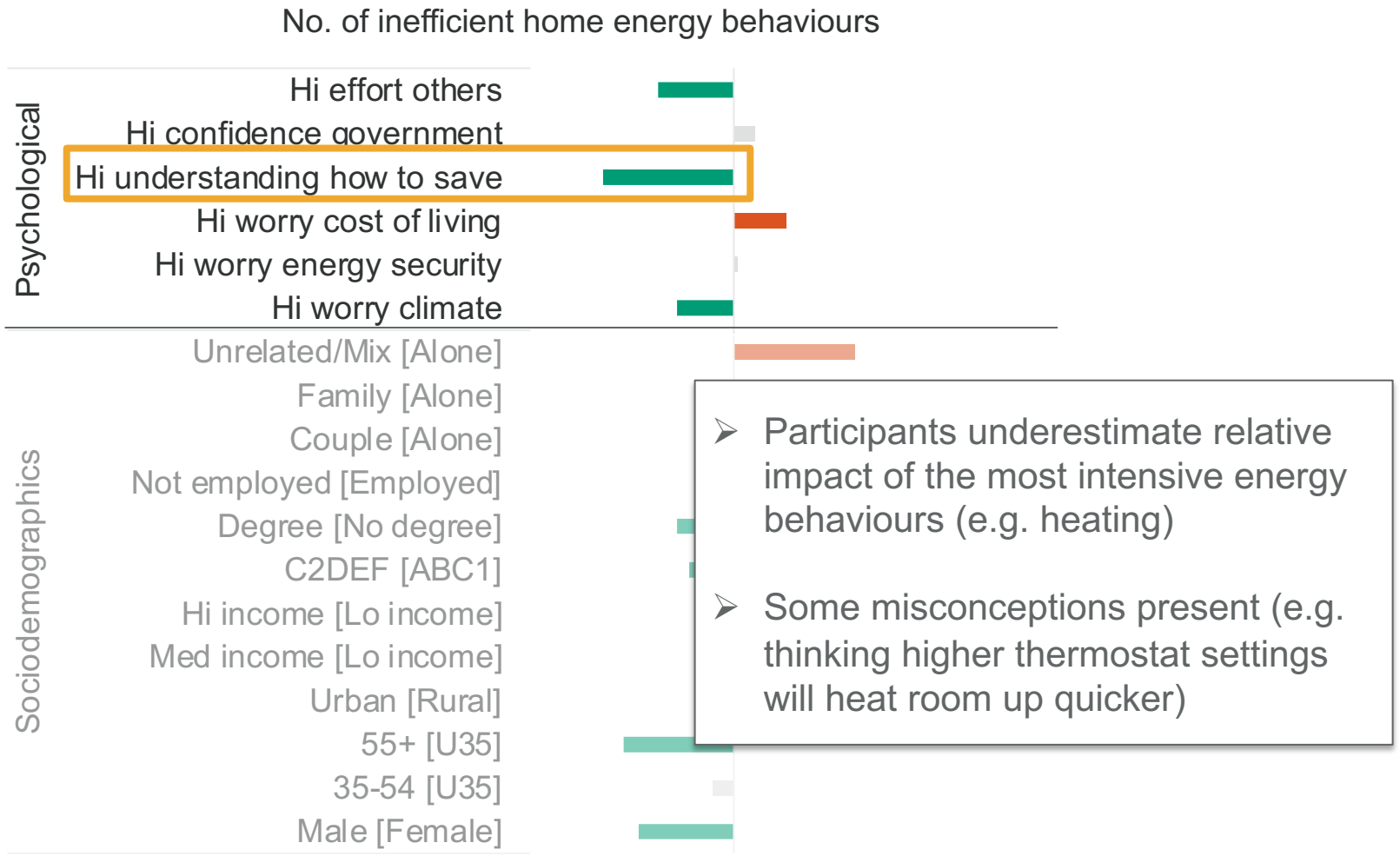
2. Different types of people engage in different inefficient behaviours



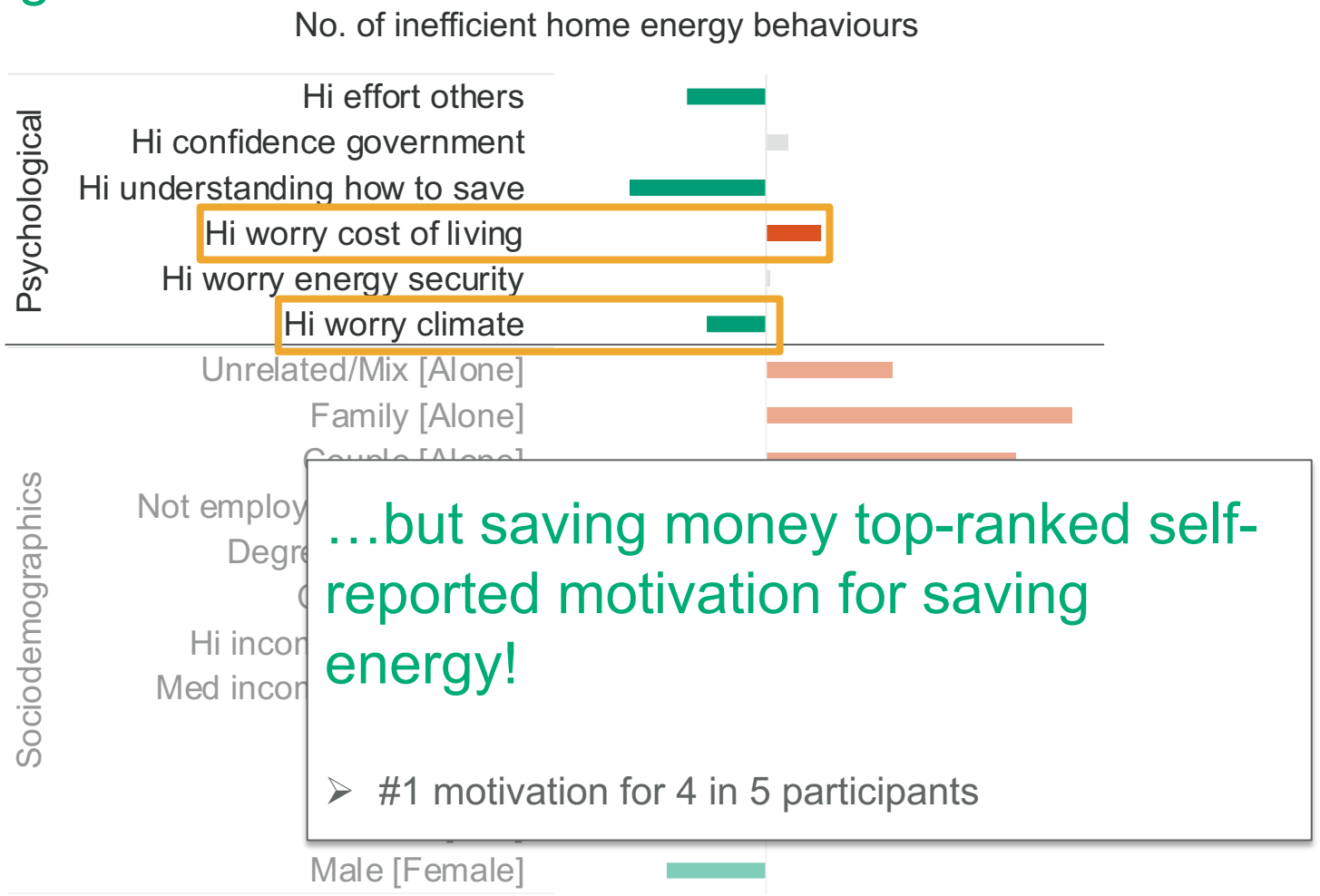
3. Sociodemographic factors more influential than psychological factors



4. Self-reported understanding is most influential psychological factor

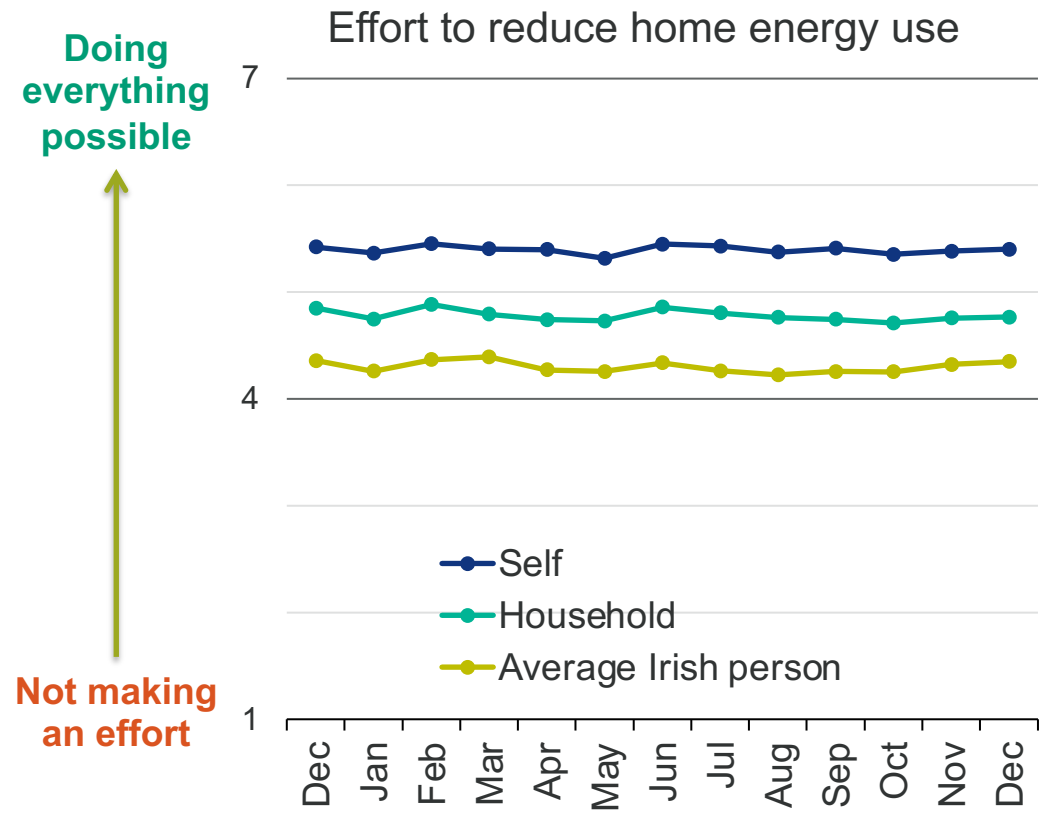


5. Worry about climate stronger relationship with efficiency than worry about cost living…



6. The effort others are making matters…

… but people systematically underestimate this



Same for effort to use sustainable transport & shift electricity use away from peak times

Future directions

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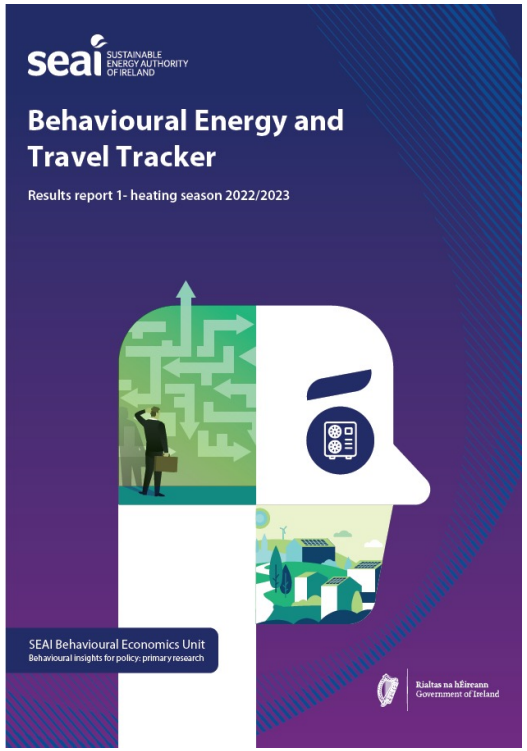
Outputs

Summary reports



- Report 1 (heating season Dec-Apr) published Dec' '23
- Report 2 (summer season May-Sep) to be published Q1 '24

Data

- Year 1 data to be made publicly available

Deep dives on specific topics

- Peak electricity use
- Travel behaviour
- Energy poverty
- Heating behaviour

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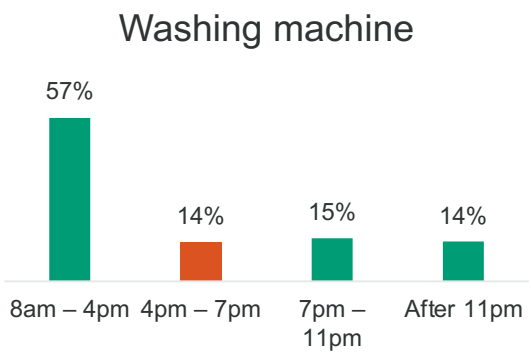
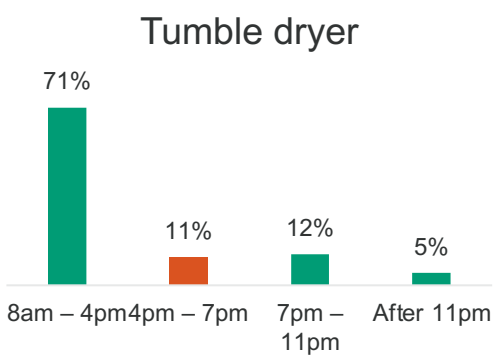
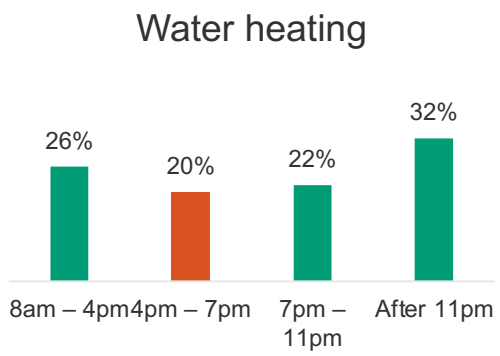
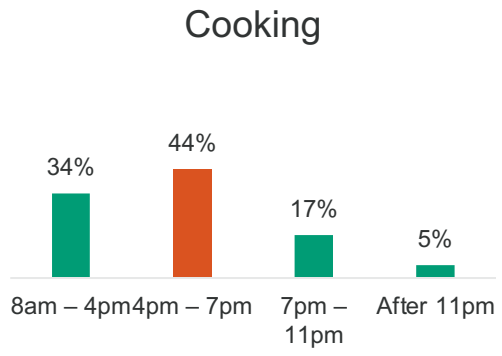
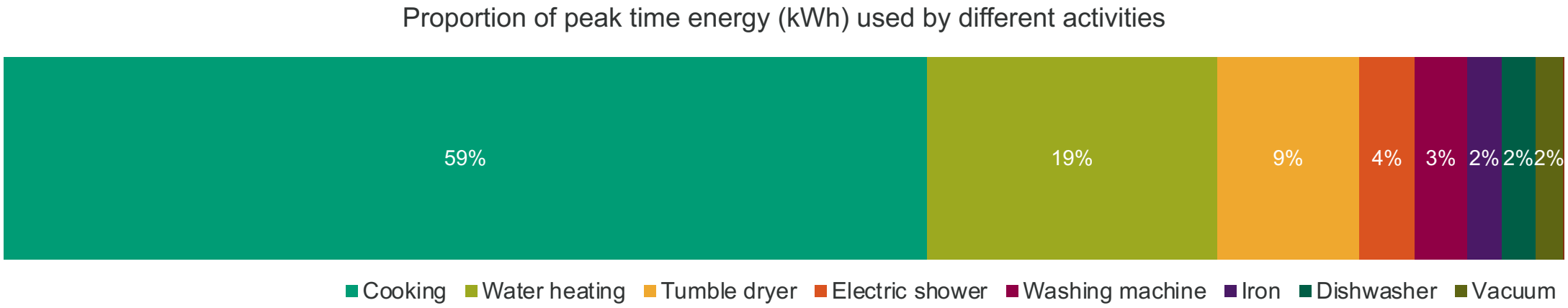
Peak electricity use











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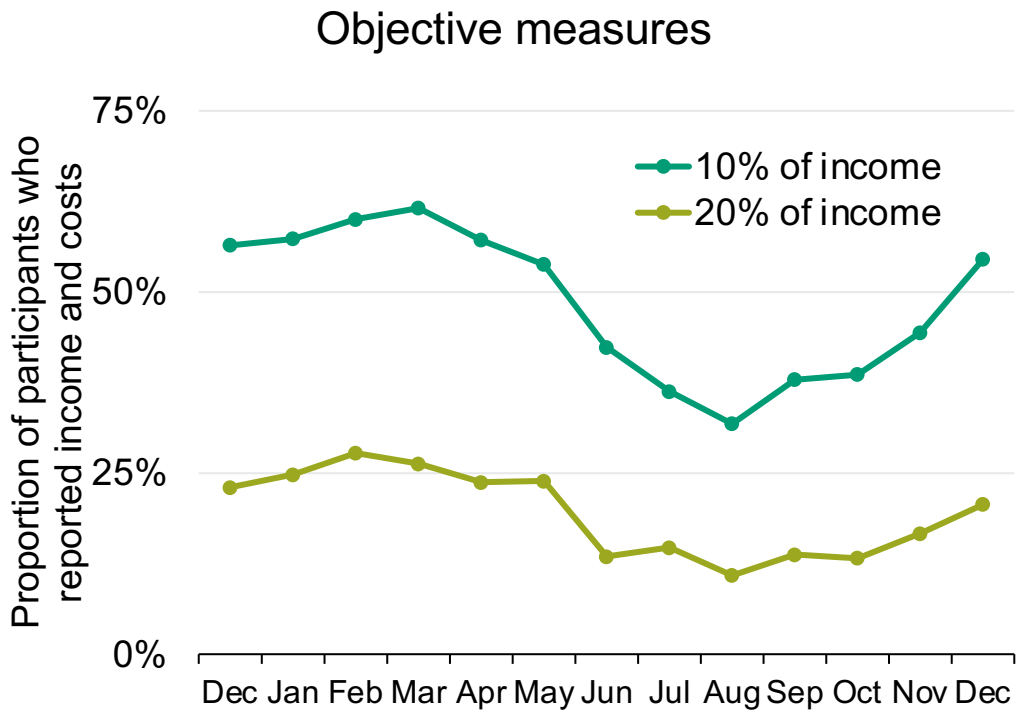
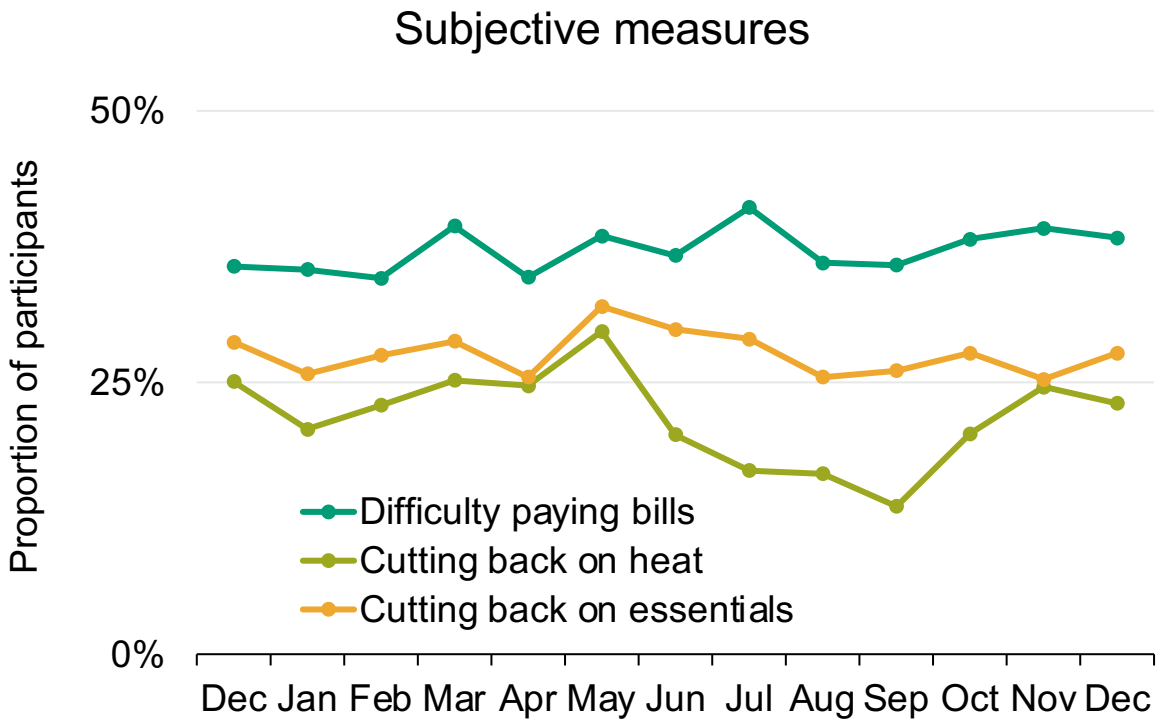
Energy poverty





Note not all participants reported energy costs & income so figures subject to some uncertainty

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Summary

Recap of findings

1. Inefficient travel & home energy behaviours are prevalent year-round
2. Different types of people engage in different inefficient behaviours
3. Sociodemographic factors more influential than psychological factors
4. Self-reported understanding is most influential psychological factor
5. Worry about climate stronger relationship with efficiency than worry about cost living but saving money is the top ranked self-reported motivation for saving energy
6. The effort others are making matters but this is systematically underestimated

Key takeaways

1. Behavioural science can help us improve how we measure behaviour as well as how we (try to) change it
   - ➢ Day Reconstruction Method invaluable tool for gathering granular & accurate data on energy behaviours

2. Communications should take a bespoke approach depending on specific behaviour targeted
   - ➢ Need for education combined with system change & structural supports

3. Communications need to highlight the effort that others are making to foster collective action

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Thank you!

Hannah Julienne
Programme Manager

Ciarán Lavin
Senior Behavioural Scientist

Robert Egan
Research Fellow

Mark Bohacek
Programme Executive

Lucy Kinnear
Programme Executive

www.seai.ie/data-and-insights/behavioural-insights/
beu@seai.ie

@ seai_ie

Ireland's European Structural and Investment Funds Programmes 2014-2020
Co-funded by the Irish Government and the European Union

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UsersTCP

Contact:
admin@userstcp.org

CampaignXchange Task

Overview

Task Duration:
1 June 2023 – 31 May 2024

Participating Countries:
Australia, Belgium, Canada, Finland, Ireland, Netherlands, Sweden, Switzerland, United Kingdom

Task Leaders:
International Energy Agency, Energy Efficiency Division

Webinars

User-Centred Energy Systems Academy

Tasks

- Social License to Automate
- Public Engagement for Energy Infrastructure
- Peer-to-Peer Energy Trading
- Hard-to-Reach Energy Users
- Behavioural Insights Platform
- Gender and Energy