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Testing the effects of availability and ecolabels on the environmental impact of food purchases in worksite cafeterias

Submission date
30/12/2021

Recruitment status
No longer recruiting

Registration date
06/01/2022

Overall study status
Completed

Last Edited
14/01/2025

Condition category
Nutritional, Metabolic, Endocrine

[X] Prospectively registered

[X] Protocol

[_] Statistical analysis plan

[X] Results

[_] Individual participant data

Plain English summary of protocol

Background and study aims
Food consumption can have significant environmental impacts. Previous studies have shown that both eco-labels and the relative availability of meat-free options can influence the food products people select. However, most of these studies have been conducted in online experimental settings, while those in real-world contexts often involved a narrow range of customers (e.g. university staff and students). This study aims to test the effect on environmental impacts of food when (a) eco-labels are added and (b) the availability of meat-free options is increased in a range of worksite cafeterias.

Who can participate?
Great Britain-based worksites that have electronic point-of-sale tills, are catered by the researchers' foodservice partner, and are able to provide data at a detailed enough level to identify specific meals sold.

What does the study involve?
The main study involves either displaying eco-labels on cafeteria menus for hot meal foods or offering increased meat-free options, compared to making no changes. To test the effectiveness of these interventions, 90 worksite cafeterias will be randomly allocated to one of three groups for a 12-week study. One group will start with no changes (no eco-labels and no increased meat-free availability), another group will start with only eco-labels, and the last group will start with only increased availability. After 4 weeks, all sites will include increased meat-free options, and in the last 4 weeks, all sites will have eco-labels added to products. The researchers will use the sales data recorded from the worksite cafeterias' tills to examine whether the environmental impact of purchases change when the eco-labels are displayed or the availability of meat-free options increases.

What are the possible benefits and risks of participating?
There are no foreseeable risks in taking part. Similarly, there are no specific benefits to

individuals taking part. The participating caterer will gain insights into whether ecolabels and offering increased meat-free options influence consumer behaviour, which may inform their sustainability strategy.

Where is the study run from?
The University of Oxford (UK) is running the study in collaboration with a foodservice partner company.

When is the study starting and how long is it expected to run for?
November 2021 to April 2022

Who is funding the study?
This research is funded by the Wellcome Trust (UK): Our Planet Our Health (Livestock, Environment and People - LEAP), award number 205212/Z/16/Z; Royal Society and Wellcome Trust Sir Henry Dale fellowship 222566/Z/21/Z.

Who is the main contact?
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Contact information

Type(s)
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Additional identifiers

Protocol serial number
205212/Z/16/Z

Study information

Scientific Title

Testing the effects of availability and ecolabels on the environmental impact of food purchases in worksite cafeterias: a randomised controlled trial

Study objectives
1. Ecolabels will decrease the environmental impact of food purchased in worksite cafeterias
2. Increased availability of plant-based options will decrease the environmental impact of food purchased in worksite cafeterias

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 05/01/2022, Central University Research Ethics Committee, University of Oxford (Wellington Square, Oxford, OX1 2JD, UK; +44 (0)1865 616577; ethics@medsci.ox.ac.uk), ref: R72710/RE004

Primary study design
Interventional

Study design
Interventional randomized controlled trial for a period of 4 weeks; then natural experiment as interventions are introduced across all sites in a stepwise manner during weeks 4-12

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Improving diet sustainability

Interventions
Worksite cafeterias will be allocated according to stratified randomisation (based on mean transactions per day) to one of three conditions initially: Control (no increased meat-free availability or ecolabels); Ecolabels only; Increased Availability Only for a period of 4 weeks.

As the catering provider is planning to introduce both increased meat-free availability and ecolabels across all sites, these interventions will then be introduced in the sites in which they were absent during the 4-week randomised controlled trial in a stepwise manner. Following this initial 4-week period, meat-free availability will be increased across all sites, and then ecolabels will be introduced in the remaining sites after 8 weeks, so that all sites will have both ecolabels and increased meat-free availability in the final 4-week period.

In the ecolabel condition, labels indicating the relative environmental impact of food options (in the form of a grade from ‘A’ to E’, displayed on a colour-coded globe logo) will be placed on main meals and other hot menu options.

In the increased plant-based options condition, the proportion of main meal options (relative to the previous menu cycle) that do not contain meat or fish will be increased.

Intervention Type
Behavioural

Primary outcome(s)
Environmental impact of purchases, measured by the mean environmental impact score (taken across standardised values for the four environmental indicators listed below) for purchased products from hot meal categories in each worksite cafeteria for the period of interest. The outcome will be calculated from sales data, recorded via electronic point-of-sale tills throughout the 12 weeks of the study, combined with data on the environmental impact of each food option.

Key secondary outcome(s)
1. Total energy (kcal) purchased from hot meal categories in each worksite cafeteria, calculated from sales data recorded via electronic point-of-sale tills throughout the 12 weeks of the study, combined with data on the energy content of each food option.
2. Nutrient content (total fat [% energy purchased], saturated fat [% energy purchased], protein [% energy purchased], and fibre [g/100g]) of purchases from hot meal categories in each worksite cafeteria throughout the 12 weeks of the study – if possible to obtain nutrient data.
3. Total weekly revenue (£GBP) from each cafeteria, based on sales data recorded via electronic point-of-sale tills throughout the 12 weeks of the study
4. Total number of transactions per week in each cafeteria, based on sales data recorded via electronic point-of-sale tills throughout the 12 weeks of the study

Completion date
30/04/2022

Eligibility

Key inclusion criteria
UK-based worksite cafeterias that:
1. Have electronic point-of-sale tills operated by the researchers' foodservice partner
2. Are able to provide data at a detailed enough level to identify specific meals sold
3. Have a minimum of 50 transactions/day at baseline

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Total final enrolment
96

Key exclusion criteria
Not offering main meal options

Date of first enrolment
10/01/2022

Date of final enrolment
23/01/2022

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
University of Oxford
Nuffield Department of Primary Care Health Sciences
Radcliffe Observatory Quarter
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Sponsor information

Organisation
University of Oxford

ROR
https://ror.org/052gg0110

Funder(s)

Funder type
Research organisation

Funder Name
Wellcome Trust

Alternative Name(s)
Wellcome, WT

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are not expected to be made available due to confidentiality.

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		11/01/2025	14/01/2025	Yes	No
Protocol file			06/01/2022	No	No