ISRCTN10830335 https://doi.org/10.1186/ISRCTN10830335

Influence of front-of-pack labelling schemes on consumer health perceptions and purchase behaviours in Trinidad and Tobago

Submission date
20/08/2025

Recruitment status
No longer recruiting

Registration date
02/09/2025

Overall study status
Completed

Last Edited
26/08/2025

Condition category
Nutritional, Metabolic, Endocrine

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[_] Record updated in last year

Plain English summary of protocol

Background and study aims
Consumption of ultra-processed foods and of processed foods with excessive amounts of nutrients-to-limit such as sugars, sodium and fats can be harmful to health, and consumers may not be aware of such risk. One strategy that has been put forward is to encourage consumers to make healthier purchases through the implementation of nutrition front-of-package labeling (FOPL). These labels are simplified information aiming at improving consumers ability to identify unhealth food products and to reduce their consumption. Although nutritional labelling on the back of the package is already mandated by law in many countries it has been found that it is insufficient or not useful for most consumers. There are different FOPL schemes available and the evidence on the best performing ones in the Caribbean region still needs to be further developed. This study aims to examine the effect of various FOPL schemes on consumers' understanding of nutritional information and ability to make healthier food choices.

Who can participate?
Residents of Trinidad & Tobago over 18 years of age

What does the study involve?
Participants will be randomly assigned to one of eight groups each one being designated a FOPL scheme i.e. Black Octagonal Warning Labels (OWL), Traffic Light Labels (TLL), Magnifying Glass "High-In" Multiple Icons (MGM), Magnifying Glass "High-In" Single Icon (MGS), Nutrition Info Single Icon (NIS), Guideline Daily Amounts (GDA) system, QR Code (QR), and absence of an FOPL (control). Images of packages of ultra processed foods featuring different FOPL schemes will be developed and shown to participants who will be asked about their intention to purchase the product and their perception and understanding about the nutrition quality of the product.

What are the possible benefits and risks of participating?
There are no risks in participating in the study. Participants will not receive any direct benefit but will contribute to research that might contribute to evidence-based policies to which they will be beneficiaries.

Where is the study run from?
The University of the West Indies (Trinidad and Tobago)

When is the study starting and how long is it expected to run for?
June 2025 to November 2025

Who is funding the study?
1. Diabetes Association of Trinidad and Tobago
2. Pan American Health Organisation (USA)

Who is the main contact?
Prof. Brian Cockburn, brian.cockburn@sta.uwi.edu

Contact information

Type(s)
Principal investigator

Contact name
Prof Brian Cockburn

Contact details
Faculty of Science and Technology
The University of The West Indies
St Augustine
Trinidad and Tobago
868
+1 868 (0)662 2002 ext 83541
brian.cockburn@sta.uwi.edu

Type(s)
Scientific

Contact name
Dr Fabio Da Silva Gomes

Contact details
525 23rd St NW
Washington Dc
United States of America
20037
+1 (0)2029743695
gomesfabio@paho.org

Type(s)
Public

Contact name
Dr Andrew Dahanoo

Contact details

10-12 Success Street
Chaguanas
Trinidad and Tobago
500235
+1 868 (0)6073288
andrewdhanoo@hotmail.com

Additional identifiers

Protocol serial number
TTO-FOPL-1

Study information

Scientific Title
Effects of front-of-pack labelling schemes on consumer health perceptions and purchase behaviours in Trinidad and Tobago: a parallel randomized control trial

Study objectives
This study will investigate the impact of seven front-of-pack labelling (FOPL) schemes, i.e. Black Octagonal Warning Labels (OWL), Traffic Light Labels (TLL), Magnifying Glass "High-In" Multiple Icons (MGM), Magnifying Glass "High-In" Single Icon (MGS), Nutrition Info Single Icon (NIS), Guideline Daily Amounts (GDA) system and a QR Code linked to nutritional content (QR) on consumer perceptions of product healthfulness, purchase intentions and response times when evaluating pre-packaged foods in Trinidad and Tobago. Objectives: To assess the frequency with which participants choose the most healthful option across different product categories for each FOPL scheme. To evaluate the capacity of different FOPL schemes to help consumers recognize products with excessive levels of nutrients linked to non-communicable diseases. To measure consumer response times when interpreting nutrition information presented through each FOPL scheme. To explore consumer perceptions of various FOPL schemes among the Trinidad and Tobago population.

Ethics approval required
Ethics approval required

Ethics approval(s)
1. Approved 28/06/2025, The University of the West Indies - Campus Research Ethics Committee (The University of the West Indies at St Augustine, St Augustine, 868, Trinidad and Tobago; +1 868 (0)662 2002; principal@sta.uwi.edu), ref: CREC-SA.3427/07/2025

2. Approved 10/07/2025, Pan American Health Organization Ethics Review Committee (PAHOERC) (525 23rd St NW, Washington DC, 20037, United States of America; +1 (0) 2029743263; PAHOERC@paho.org), ref: PAHOERC.0380.04

Primary study design
Interventional

Study design
Single-center interventional single-blind parallel-group-assignment randomized controlled trial

Study type(s)
Efficacy

Health condition(s) or problem(s) studied
Consumer health perceptions and purchase behaviours

Interventions
The randomisation of the experimental conditions and groups is completed by adopting a Williams design to ensure the order of categories of products and the order of products within categories was random and balanced for all groups. This randomisation produced four random and balanced sequences of categories of products and products within categories used for each of the eight groups, resulting in 32 possible combinations of groups and sequences (4 × 8), equally balanced and ordered within each group.

Allocation is random at an equal rate (1/8) to eight study groups (seven experimental and the control group). Participants in each group are exposed to either one of the experimental conditions or allocated to the control group. Participants in the experimental groups are shown two-dimensional (2D) images of 12 different mock-up products presented in random and balanced orders between and within categories of products. The mock-up products do not correspond to real commercial products available in the Bolivian market but have similar characteristics in terms of package and graphic design and nutritional composition. Four sets of mock-ups are used. Each set includes three products from each of four product categories of ultra-processed products commonly consumed (3 × 4 = 12 mock-up products). The product categories are breakfast cereal extrudates, flavoured milk, crackers, and yoghurts. The same 12 mock-up products are used in each group; the only difference across groups is the front-of-package labelling (FOPL) scheme they feature. Mock-ups shown to participants feature solely one of the following FOPL schemes tested, according to the group they are allocated to: Black Octagonal Warning Label
(OWL), Traffic Light Labels (TLL), Magnifying Glass "High-In" Multiple Icons (MGM), Magnifying Glass "High-In" Single Icon (MGS), Nutrition Info Single Icon (NIS), Guideline Daily Amounts (GDA) system, the QR Code (QR), or no FOPL (control group).

Intervention Type
Behavioural

Primary outcome(s)
Contribution of the different front-of-package labeling (FOPL) schemes to improving the decision of participants to buy the least harmful option more often, the selection of the least harmful option more often and the correct identification of sugars, sodium and/or saturated fats found to be in excess in the products more often, measured comparing correct responses of participants to the stimuli in different experimental/control groups at one timepoint

Key secondary outcome(s)
The impact of sociodemographic variables, such as gender, age, and education level, on the differences observed in the performance of various front-of-package labeling schemes. This assessment will be measured by administering a structured questionnaire to respondents after they are shown mock-up products and provide their responses. The questionnaire will capture their opinions and perceptions of the labeling schemes at one timepoint. The goal is to determine the extent to which sociodemographic factors contribute to the variations observed in the respondents' evaluations of the labeling schemes.

Completion date
28/11/2025

Eligibility

Key inclusion criteria
1. Adult supermarket shoppers
2. Residing in Trinidad & Tobago
3. Aged 18 years old or older

Participant type(s)
Population

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Sex
All

Key exclusion criteria
1. Visually impaired people
2. Persons unable to give informed consent
3. People who deny being part of this study
4. People who do not meet the inclusion criteria

Date of first enrolment
08/09/2025

Date of final enrolment
24/10/2025

Locations

Countries of recruitment
Trinidad and Tobago

Study participating centre
The University of the West Indies
St Augustine
Trinidad and Tobago
868

Sponsor information

Organisation
World Health Organization Regional Office for the Americas

ROR
https://ror.org/008kev776

Organisation
University of the West Indies

ROR
https://ror.org/003kgv736

Funder(s)

Funder type
Charity

Funder Name
Diabetes Association of Trinidad & Tobago

Funder Name
Pan American Health Organization

Alternative Name(s)
Organización Panamericana de la Salud, PAHO

Funding Body Type
Private sector organisation

Funding Body Subtype
International organizations

Location
United States of America

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