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# Can messages based on behavioral economics increase participation in colorectal cancer screening programmes?

**Submission date**
28/05/2021

**Recruitment status**
No longer recruiting

**Registration date**
17/06/2021

**Overall study status**
Completed

**Last Edited**
12/04/2022

**Condition category**
Cancer

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[X] Individual participant data

## Plain English summary of protocol

Background and study aims
While colorectal cancer (CRC) screening can detect cancer at an early stage, participation in CRC screening programmes is often below recommended levels. In order to be effective, CRC screening programs high participation. There is therefore an interest in studying possible interventions to achieve high participation. While interventions such as pre-notification letters, tailored reminder letters and telephone contact can increase participation, they are often too costly for the screening programmes. Interventions based on behavioural economics only manipulate the decision setting and are therefore potentially cost-neutral. The aim of this study is to test whether messages derived from behavioral economics can increase participation in the context of the Cypriot pilot program for colorectal cancer screening.

Who can participate?
All residents aged 50-69 years who are eligible for colorectal cancer screening.

What does the study involve?
In the first study participants are randomly allocated to receive the standard invitation letter with one of six additional behavioral economics-based messages included, or the standard invitation letter with no manipulation. The additional behavioural economics-based messages are built on the following principles: (1) social responsibility to look after own health, (2) anticipated regret of non-attendance, (3) financial opportunity costs of non-attendance, (4) benefit of early detection, (5) limited duration of the offer and (6) social norms. In the second study participants are randomly allocated to receive either the standard invitation letter with the most effective message from the first study, or the standard invitation letter with no manipulation.

What are the possible benefits and risks of participating?
This study presents participants with an invitation for CRC screening. Cancer can often evoke mild anxiety in people. The invitation letter clearly outlined the topic which allowed participants

to decide whether they want to participate in the screening programme. In terms of benefit, the participants will help to test invitation material that will hopefully increase participation rates. This would speed up the diagnostic pathway of CRC as well as have financial implications.

When is the study running?
February 2013 to March 2015

Who is funding the study?
1. The Ministry of Health (Cyprus)
2. European Commission

Who is the main contact?
Sandro Stoffel
sandro.stoffel@unibas.ch

# Contact information

### Type(s)
Scientific

### Contact name
Dr Sandro Stoffel

### ORCID ID
https://orcid.org/0000-0002-0124-0941

### Contact details
Klingelbergstrasse 61
Basel
Switzerland
4056
+41 (0)792190931
sandro.stoffel@unibas.ch

# Additional identifiers

### Protocol serial number
BET2013CYP

# Study information

### Scientific Title
Testing messages from behavioral economics to improve participation in the Cypriot colorectal cancer screening program in two field experiments

### Study objectives
Messages derived from behavioral economics can increase participation in colorectal cancer screening.

### Ethics approval required

Old ethics approval format

## Ethics approval(s)
Approved 14/9/2013, ethics committee of the Cyprus Ministry of Health (National Bioethics Committee of Cyprus, Laertou 22, 2365 Agios Dometios, Nicosia, Cyprus; +357 (0)22809038 /+357 (0)22809039; cnbc@bioethics.gov.cy), ref: not applicable

## Primary study design
Interventional

## Study design
Two interventional single-blinded randomized controlled trials

## Study type(s)
Screening

## Health condition(s) or problem(s) studied
Colorectal cancer

## Interventions
The intervention consists of adding an additional paragraph, containing a message based on behavioural economics, in the invitation letter for colorectal cancer screening.

The researchers perform two randomized controlled trials (RCTs). The first RCT is a seven-arm RCT in which individuals are randomly allocated to receive the standard invitation letter with one of six additional behavioral economics-based messages included, or the standard invitation letter with no manipulation (i.e. control). The additional behavioural economics-based messages are built on the following principles: (1) social responsibility to look after own health, (2) anticipated regret of non-attendance, (3) financial opportunity costs of non-attendance, (4) benefit of early detection, (5) limited duration of the offer and (6) social norms.

The second RCT is a two-arm RCT, in which individuals are randomly allocated to receive either the standard invitation letter with the most efficacious message from the first RCT, or the standard invitation letter with no manipulation (i.e. control). The primary aim of the first RCT is to identify the most efficacious message, which is then tested in the second RCT with more participants per trial arm.

## Intervention Type
Behavioural

## Primary outcome(s)
Participation (i.e. return of a completed FIT kit) measured 8 weeks after sending out the screening invitation

## Key secondary outcome(s)
There are no secondary outcome measures

## Completion date
31/03/2015

# Eligibility

**Key inclusion criteria**
Men and women aged 50 to 69 years

**Participant type(s)**
All

**Healthy volunteers allowed**
No

**Age group**
Adult

**Sex**
All

**Total final enrolment**
6286

**Key exclusion criteria**
Not resident in Cyprus

**Date of first enrolment**
01/10/2013

**Date of final enrolment**
31/12/2014

# Locations

**Countries of recruitment**
Cyprus

**Study participating centre**
**MInistry of Health**
Prodromou 1
Nicosia
Cyprus
1148

# Sponsor information

**Organisation**
Joint Research Center

**ROR**
https://ror.org/05a4nj078

# Funder(s)

**Funder type**
Government

**Funder Name**
Ministry of Health (Cyprus)

**Funder Name**
European Commission

**Alternative Name(s)**
European Union, Comisión Europea, Europäische Kommission, EU-Kommissionen, Euroopa Komisjoni, EC, EU

**Funding Body Type**
Government organisation

**Funding Body Subtype**
National government

**Location**

# Results and Publications

**Individual participant data (IPD) sharing plan**
Anonymous data will be stored in a repository and made available for all researchers at https://osf.io/wx7je/.

**IPD sharing plan summary**
Stored in publicly available repository

**Study outputs**

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Results article | | 28/07/2021 | 12/04/2022 | Yes | No |
| Dataset | | 30/01/2020 | 12/04/2022 | No | No |