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# Effects of a smartphone intervention targeting fruit and vegetable consumption

**Submission date**
04/02/2015

**Recruitment status**
No longer recruiting

**Registration date**
12/02/2015

**Overall study status**
Completed

**Last Edited**
13/06/2016

**Condition category**
Nutritional, Metabolic, Endocrine

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

## Plain English summary of protocol

Background and study aims
High percentages of people do not adhere to the recommendations to eat enough fruit and vegetables. The aim in this study is to apply tailored auditory and textual persuasive health communication to increase fruit and vegetable intake.

Who can participate?
Dutch adults, who own a smartphone (Android) and do not always eat two pieces of fruit and 200 grams of vegetables per day

What does the study involve?
After downloading the smartphone application in Google Play, participants can complete baseline questions about their own health. All questions and stimuli are presented in the smartphone application. Respondents will be randomly allocated to a tailored (textual or auditory) message and additional evaluation measures (intervention group) or measurements at the start and beginning of the study, and they will not have access to the general content of the smartphone application (control group). Additionally, the intervention group will have access to the general smartphone application content (consisting of recipes and additional information). They can also expect reminders during the 6 months of the study to log in again and they will be asked to answer some new questions and read or listen to new information that is added every month to the application. After 6 months, participants will receive an email reminder for the final questionnaire.

What are the possible benefits and risks of participating?
Participants will gain an insight into their fruit and vegetable intake, and, in future, persuasive health messages might increase fruit and vegetable intake within a smartphone application. There are no known risks to participants taking part in this study.

Where is the study run from?
Netherlands: University of Groningen and the Netherlands Nutrition Centre

When is the study starting and how long is it expected to run for?
October 2013 to June 2014

Who is funding the study?
Netherlands Organisation for Health Research and Development

Who is the main contact?
Ms Sarah Elbert
Professor Arie Dijkstra

# Contact information

### Type(s)
Scientific

### Contact name
Ms Sarah Elbert

### ORCID ID
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### Contact details
Faculty Behavioral and Social Sciences
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Netherlands
9712 TS

# Additional identifiers

# Study information

### Scientific Title
Effects of a smartphone intervention targeting fruit and vegetable consumption among Dutch adults: a randomised controlled trial

### Study objectives
1. A tailored health intervention may be more effective than a control in which no health information is given
2. To test the possible difference in effects between the more classic textual mode of communication and the auditory mode of communication (reading versus listening)

### Ethics approval required
Old ethics approval format

### Ethics approval(s)
Ethical committee of the Faculty of Behavioral and Social Sciences, 05/09/2013, ref: 13012-N

### Primary study design
Interventional

### Study design
Interventional randomised controlled study

### Study type(s)
Other

### Health condition(s) or problem(s) studied
Fruit and vegetable intake in the general population

### Interventions
1. Text-based and audio-based tailored health information based on psychological factors that are known to predict fruit and vegetable intake
2. Control (no health information)

Respondents will complete baseline and post-test measures at 6-month follow-up (between-participants design).

### Intervention Type
Other

### Primary outcome(s)
Self-reported fruit and vegetable intake at 6-month follow-up, measured with a detailed and validated food frequency questionnaire

### Key secondary outcome(s)
After the frequency questionnaire on fruit and vegetable intake at 6-month follow-up, questions will be added to evaluate the information and smartphone application as a whole on a range of measures:
1. Personal applicability
2. Novelty
3. Credibility
4. Extent to which it is perceived as intense
5. Usefulness
6. Comprehensibility
7. Visual attractiveness

### Completion date
15/06/2014

## Eligibility

### Key inclusion criteria
1. Age 16 years or older
2. Living in the Netherlands
3. Owning an Android device (smartphone or tablet, Android version 2.2 or more) with an installed version of Adobe Air (if necessary, they were automatically directed to Google Play to install it safely)
4. Not yet consuming two pieces of fruit and 200 grams of vegetables per day

### Participant type(s)

Healthy volunteer

**Healthy volunteers allowed**
No

**Age group**
Adult

**Sex**
All

**Key exclusion criteria**
Intolerance to fruit

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

**Date of final enrolment**
30/11/2013

# Locations

**Countries of recruitment**
Netherlands

**Study participating centre**
**Netherlands Nutrition Centre**
Den Haag
Netherlands
2517 KL

**Study participating centre**
**University of Groningen**
Faculty of Behavioral and Social Sciences
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9712 TS

# Sponsor information

**Organisation**
University of Groningen (Netherlands)

**ROR**
https://ror.org/012p63287

# Funder(s)

**Funder type**
Research organisation

**Funder Name**
Netherlands Organisation for Health Research and Development

**Alternative Name(s)**
Netherlands Organisation for Health Research and Development

**Funding Body Type**
Private sector organisation

**Funding Body Subtype**
Other non-profit organizations

**Location**
Netherlands

# Results and Publications

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**
Available on request

**Study outputs**

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Results article | results | 10/06/2016 | | Yes | No |