

# A fruit and vegetable cart – effects of offering free fruits and snack vegetables at the university campus on Dutch students' intakes.

<b>Submission date</b> 31/08/2018	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 04/10/2018	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
<b>Last Edited</b> 26/10/2020	<b>Condition category</b> Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Previous studies have shown that students have low fruit and vegetable intakes, and that there are very few interventions targeting fruit and vegetable consumption in students. The aim of this study is to test an intervention in the campus environment aiming to increase students' fruit and vegetable intakes.

### Who can participate?

First and second year students at HAS University of Applied Science

### What does the study involve?

Fruits and snack vegetables are provided in the afternoon in a mobile cart in the form of a miniature wooden house which is placed in the central hall of the university building. By means of questionnaires students self-reported intakes of fruit, snack vegetables, total vegetables, cooked vegetables, and side dish vegetables are assessed before and after the intervention.

### What are the possible benefits and risks of participating?

Benefits of the intervention are a possible higher fruit and vegetable consumption and the health benefits of this higher consumption. The risk of the intervention are food allergies, but students can choose if they take the fruits and vegetables out of the cart. Participating in the questionnaire has a minimal burden.

### Where is the study run from?

HAS University of Applied Science (Netherlands)

### When is the study starting and how long is it expected to run for?

February 2017 to May 2018

### Who is funding the study?

Topsector Horticulture and Starting materials, with co-funding of the Triodos Foundation and Royal FloraHolland

Who is the main contact?  
Ms Nicole van den Bogerd

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Ms Nicole van den Bogerd

**ORCID ID**  
<https://orcid.org/0000-0002-2162-8580>

**Contact details**  
De Boelelaan 1085  
Amsterdam  
Netherlands  
1081 HV

## Additional identifiers

**Protocol serial number**  
Has to GO

## Study information

**Scientific Title**  
A fruit and vegetable cart – effects of offering on-site free fruits and snack vegetables on Dutch students' intakes.

**Acronym**  
HAS to GO

**Study objectives**  
Primary hypothesis: the food environment intervention will increase students' fruit, snack vegetable, and total vegetable intakes, but not students cooked vegetable and side dish vegetable intakes. Secondary hypotheses: (1) students will evaluate the food environment intervention positively; (2) intervention effects might differ between subgroups.

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**  
Scientific and Ethical Review Board of the Faculty of Behavioral and Movement Sciences of the Vrije Universiteit Amsterdam, the Netherlands, 28/04/2017, ref: VCWE-2017-034R1

**Study design**  
Single-arm food environment intervention study

**Primary study design**

Interventional

**Study type(s)**

Prevention

**Health condition(s) or problem(s) studied**

Fruit and vegetable intake

**Interventions**

Fruits and snack vegetables were provided in the afternoon in a mobile cart in the form of a miniature wooden house which was placed in the central hall of the university building. This intervention has been tested three times, each time for three weeks, with a pretest-post-test design without a control group. By means of questionnaires students self-reported intakes of fruit, snack vegetables, total vegetables, cooked vegetables, and side dish vegetables were assessed.

**Intervention Type**

Behavioural

**Primary outcome(s)**

Self-reported fruit and snack vegetable intake, assessed using a Food Frequency Questionnaire at the pretest and post-test, and the follow-up in experiment 2 (6 weeks after the intervention)

**Key secondary outcome(s)**

1. Self-reported total vegetable intake, cooked vegetable intake, side dish vegetable intake, assessed with questionnaires at the pretest and post-test, and the follow-up in experiment 2
2. Perceived taste of the fruits and vegetables that were offered and effectiveness of the intervention evaluated with new developed questionnaires during the post-test of experiment 2

**Completion date**

01/05/2018

**Eligibility****Key inclusion criteria**

First and second year students at HAS University of Applied Science

**Participant type(s)**

Other

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Total final enrolment**

453

**Key exclusion criteria**

1. If students did not provide a student number on the questionnaire: this was needed to match data of pretest and the post-test
2. If a student indicated at any point that they did not want to participate

**Date of first enrolment**

13/03/2017

**Date of final enrolment**

26/02/2018

**Locations****Countries of recruitment**

Netherlands

**Study participating centre**

**HAS University of Applied Science**

Onderwijsboulevard 221

's-Hertogenbosch

Netherlands

5223 DE

**Sponsor information****Organisation**

Vrije Universiteit Amsterdam

**ROR**

<https://ror.org/008xxew50>

**Funder(s)****Funder type**

Other

**Funder Name**

Topsector Horticulture and Starting materials (KV-1604-050), with co-funding of the Triodos Foundation and Royal FloraHolland

# Results and Publications

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Nicole van den Bogerd. Questionnaire and observational data (amount of fruits and vegetables provided and used) is available at any reasonable request from researchers affiliated with a university or research institute with an ORCID. All participants in the questionnaires provided informed consent at the pretest, and data is only available without identifying information of the participants. Reasonable requests include additional data analysis of, for example, fruits and vegetable intakes, adherence to fruit and vegetable guidelines or meta-analysis. Data will be available as soon as the researchers involved in the project approve the request. Data is available in a .sav or .xlsx format, and only in Dutch.

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/04/2020	26/10/2020	Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes