# PortionControl@HOME: The development and evaluation of a comprehensive intervention aimed at food portion size to prevent weight gain or stimulate weight loss in overweight and obese adults

| Submission date               | Recruitment status  No longer recruiting                    | <ul><li>Prospectively registered</li></ul> |  |
|-------------------------------|---|--|--|
| 20/02/2013                    |   | ☐ Protocol                                 |  |
| Registration date             | Overall study status  | Statistical analysis plan                  |  |
| 08/04/2013                    | Completed   | [X] Results                                |  |
| <b>Last Edited</b> 26/08/2014 | <b>Condition category</b> Nutritional, Metabolic, Endocrine | [] Individual participant data             |  |
| 20/00/201 <del>4</del>        | Nuclicional, Metabolic, Endocrine                           |  |  |

### Plain English summary of protocol

Background and study aims

Overweight and obesity are increasingly prevalent in the Netherlands and contribute to the development of cardiovascular diseases, diabetes type II and some types of cancer. Food portion sizes have increased in the last decades and are a powerful determinant of energy intake. Interventions that address peoples selection of food portion sizes are scarce, and more research into effective interventions is needed. So far, some interventions targeted at portion sizes have been evaluated that were situated in point-of-purchase settings. However, educational interventions directed at portion size are scarce. Therefore the aim of this study is to develop and evaluate an intervention aimed at portion size to prevent weight gain or stimulate weight loss in overweight and obese adults and to assess how well this portion control program works.

### Who can participate?

Adult (18-60 years) having a body mass index (BMI) above 25 who are the nutritional gatekeeper of the family (being responsible for groceries and preparing dinner within the family) and residing in or within a distance of 15 kilometres of one of the participating six municipalities in the Netherlands.

### What does the study involve?

Participants will be randomly allocated to one of two groups: an intervention group and a control group. The intervention group will receive the PortionControl@HOME intervention program over a three month period whereas the control condition will not (usual care condition). Measurements will take place before the start of the intervention (baseline), and at three, six and twelve months after the start of the intervention. At baseline weight and length will be objectively measured by the research team during a home visit using the Marsden MPMS-250 digital scale and a SECA 214. Weight was also objectively measured at six months (Marsden MPMS-250 digital scale). At three and twelve months, self reported measures of weight will be

used. Moreover, during the four measurements, participants will complete questionnaires to determine intervention related outcomes (e.g. portion control behaviour).

What are the possible benefits and risks of participating?

It the intervention is effective, benefits of participating are weight loss or weight maintenance. Individuals who are allocated to the control group will receive the intervention program once the study is completed and are able to complete the program if they wish to do so. There will be no risks to those taking part.

Where is the study run from?

The PortionControl@HOME study has been set up by the VU University Amsterdam, Department of Health Science and EMGO+ Institute for Health and care research, The Netherlands

When is the study starting and how long is it expected to run for? The study started in January 2012 and ran for twelve months.

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

Who is the main contact? Dr. Ingrid Steenhuis Ingrid.steenhuis@vu.nl

# Contact information

### Type(s)

Scientific

### Contact name

Dr Ingrid Steenhuis

### Contact details

De Boelelaan 1085 Amsterdam Netherlands 1081HV ingrid.steenhuis@vu.nl

# Additional identifiers

EudraCT/CTIS number

**IRAS** number

ClinicalTrials.gov number

Secondary identifying numbers 50-50105-96-613

# Study information

### Scientific Title

PortionControl@HOME: The development and evaluation of a comprehensive intervention aimed at food portion size to prevent weight gain or stimulate weight loss in overweight and obese adults a randomized controlled trial

### Acronym

PortionControl@HOME

### Study objectives

- 1. The PortionControl@HOME intervention will be more effective in preventing gain or achieving modest weight loss among overweight and obese adults compared to no intervention.
- 2. The PortionControl@HOME intervention will be more effective in improving portion control behaviour in overweight and obese adults compared to no intervention.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

The study was approved by the Medical Ethical Committee VU medical Center Amsterdam, 2010 /75

### Study design

Randomised controlled trial

### Primary study design

Interventional

### Secondary study design

Randomised controlled trial

### Study setting(s)

Other

### Study type(s)

Prevention

### Participant information sheet

Not available in web format, please use the contact details below to request a patient information sheet

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

Overweight / Obesity

### **Interventions**

Participants in the intervention condition passed through the PortionControl@HOME intervention program within a three month period (spring 2012). PortionControl@HOME is a comprehensive lifestyle intervention program aimed at adequate portion size selection to control energy intake. The intervention is offered at home and in the neighbourhood (e.g. community centres) of the participants. The intervention includes four components:

- 1. PortionSize@warenessTool: The aim of the online interactive tool was to increase awareness about the relationship between portion size and energy intake and to increase awareness about recommended serving sizes and about contributing factors (i.e. value marketing) that contribute to the selection and intake of large food portions.
- 2. Portion Control Strategies: To stimulate adequate portion size selection and intake, the intervention group were provided with so-called portion control strategies that enable people to regulate the portion size they select and eat. The strategies were introduced in a short video introduction. An educational book delineated the influences of portion sizes, explored the strategies in more detail and included assignments that encouraged participants to review all strategies, to determine which strategies could be useful and to determine if the strategies were feasible to implement in daily life. Subsequently, assignments helped people to write down action and coping plans for their selected strategies and a self-monitoring form was provided by which participants could track their use of the strategies.
- 3. Portion control cooking class: An additional solution besides portion size reduction might be to keep the same portion size, but lower the energy density of portions. In doing so, one is still able to select a larger volume, with fewer consequences for energy intake. Providing knowledge and increase skills to prepare meals with a lower energy density and teach the necessary skills in doing so were part of the intervention by means of three subsequent bi-weekly cooking courses that was leaded by a trained dietician.
- 4. Portion control Home-Screener: The food home environment is an important factor in influencing energy intake and several aspects of this environment influence portion control mechanisms. To shape a food home environment that supports adequate portion control behavior, individuals could screen their home-environment by means of the so-called home-screener. Based on their screening, participants received tips to create a portion control food home environment.

### **Intervention Type**

Other

### Phase

Not Applicable

### Primary outcome measure

Weight/ Body Mass Index

Measurements will take place before the start of the intervention (baseline), and at three, six and twelve months after the start of the intervention. At baseline weight and length was objectively measured by the research team during a home visit using the Marsden MPMS-250 digital scale and a SECA 214. Weight was also objectively measured at six months (Marsden MPMS-250 digital scale). At three and twelve months, self reported measures of weight were used.

### Secondary outcome measures

Portion control behaviour measured at baseline, and at three, six and twelve months after the start of the intervention.

# Overall study start date

10/01/2012

### Completion date

01/04/2013

# **Eligibility**

### Key inclusion criteria

- 1. Adult (18-60 years), male and female
- 2. Body mass index (BMI) above 25
- 3. Residing in or within a distance of 15 kilometres of one of the participating six municipalities
- 4. Nutritional gatekeeper of the family (being responsible for groceries and preparing dinner within the family)

### Participant type(s)

Patient

### Age group

Adult

### Lower age limit

18 Years

### Upper age limit

60 Years

### Sex

Both

### Target number of participants

284

### Key exclusion criteria

- 1. Report taking medication for one of the four diseases associated with overweight/obesity: 1) Diabetes Mellitus. 2) Cardio vascular diseases. 3) Cancer, 4) Clinical depression.
- 2. Report Visiting a dietician / on a diet at the moment of registration
- 3. Report participating (or participated previously) in an intensive weight loss treatment
- 5. Report being pregnant
- 6. Only one family member could participate in the study

### Date of first enrolment

10/01/2012

### Date of final enrolment

01/04/2013

# Locations

### Countries of recruitment

Netherlands

## Study participating centre

### De Boelelaan 1085

Amsterdam Netherlands 1081HV

# Sponsor information

### Organisation

Netherlands Organisation for Health Research and Development (ZonMw) (Netherlands)

### Sponsor details

Laan van Nieuw Oost-Indië 334 Den Haag Netherlands 2593 CE info@zonmw.nl

### Sponsor type

Research organisation

### Website

http://www.zonmw.nl/

### **ROR**

https://ror.org/01yaj9a77

# Funder(s)

### Funder type

Government

### **Funder Name**

Netherlands Organisation for Health Research and Development (ZonMw) (Netherlands) 50-50105-96-613

# **Results and Publications**

### Publication and dissemination plan

Not provided at time of registration

### Intention to publish date

# Individual participant data (IPD) sharing plan

**IPD sharing plan summary**Not provided at time of registration

# Study outputs

| Output type     | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|-----------------|---------|--------------|------------|----------------|-----------------|
| Results article | results | 01/02/2015   |            | Yes            | No              |