

# Survey of people's eating habits in the UK

<b>Submission date</b> 08/08/2017	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 31/08/2017	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 28/01/2020	<b>Condition category</b> Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

Current plain English summary as of 28/01/2020:

### Background and study aims

Nutrition is an important public health issue because of its role in obesity and many diet-related diseases. The National Diet and Nutrition Survey Rolling Programme (NDNS-RP) asks a sample of people across the UK to record their food and drink intake for four days. This is used by the UK government to look at the types and quantities of foods people eat and the nutrients they take in. Anonymised data are also put onto the UK Data Service for use by researchers. NDNS has been carried out continuously since 2008 and the data help the government understand how the nation's diet is changing and make decisions that improve public health and protect food safety.

### Who can participate?

Participants are randomly selected from private households in the UK.

### What does the study involve?

The study is carried out in the participant's home and comprises two stages. For stage one, individuals are asked by a trained interviewer about their eating habits, health and physical activity levels and have their height and weight measured. They are also asked to provide a urine sample to test for iodine status. Participants are asked to record their food and drink intake for four days.

Stage two involves a visit a by a qualified nurse visits to measure their waist and hip circumference and take a blood sample to test for many nutrients including iron, vitamin D and cholesterol. For younger respondents other measures are undertaken, such as infant length and waist:hip ratio.

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

Participants are offered personalised feedback on their diet based on the dietary information that they have provided. This is available after completing four days of dietary recording. They are also offered clinically relevant results from their blood sample which highlight whether they are in range and any abnormal findings.

### Where is the study run from?

This study is being run by NatCen Social Research (NatCen) and the Cambridge NIHR BRC

Innovation Programme for the measurement of diet, physical activity and nutrition (hosted at the Medical Research Council Epidemiology Unit at the University of Cambridge) and takes place in private households in the UK.

When is the study starting and how long is it expected to run for?  
March 2007 to December 2022

Who is funding the study?  
Public Health England (PHE) and the Food Standards Agency (FSA)

Who is the main contact?  
1. Mrs Polly Page (Scientific)  
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2. Mrs Beverley Bates (Scientific)  
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Previous plain English summary:  
Background and study aims

Nutrition is an important public health issue because of its role in obesity and many diet-related diseases. The National Diet and Nutrition Survey (NDNS) asks a sample of people across the UK to record what they have eaten. This is used by the UK government to look at the types of food people eat and the nutrients they take in. NDNS has been carried out every year since 2008 and this helps the government understand how the nation's diet is changing and make decisions that improve public health and protect food safety.

Who can participate?  
Participants are randomly selected from private households in the UK.

What does the study involve?  
The study has two stages all of which are carried out in the participant's home. Individuals who take part in stage one do not have to take part in stage two. For stage one, individuals are asked by a trained interviewer about their eating habits, health and physical activity levels and have their height and weight measured. They are then asked to keep a food diary for four days and record everything they have to eat and drink in that period. They are also asked to provide a urine sample to test for iodine status. For stage two, a qualified nurse visits to measure their waist and hip circumference and take a blood sample to test for many nutrients including iron, vitamin D and cholesterol. All this takes place over two months.

What are the possible benefits and risks of participating?  
Participants may benefit from receiving personalized feedback on their diet based on their food diary. They are also able to receive results from their blood sample which highlights any abnormal findings. There are no risks with participating.

Where is the study run from?  
This study is being run by National Centre for Social Research (NatCen) (UK) and Medical Research Council Elsie Widdowson Laboratory (UK) and takes place in private households in the UK.

When is the study starting and how long is it expected to run for?  
March 2007 to December 2018

Who is funding the study?  
National Centre for Social Research (NatCen) (UK)

Who is the main contact?  
1. Mrs Polly Page (Scientific)  
Polly.Page@mrc-ewl.cam.ac.uk  
2. Mrs Beverley Bates (Scientific)  
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## Contact information

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## Additional identifiers

**Protocol serial number**  
NDNS RP Main Protocol

## Study information

**Scientific Title**

## Acronym

NDNS RP

## Study objectives

Current study hypothesis as of 28/01/2020:

The purpose of the survey is to provide data to enable monitoring of the diet and nutritional well-being of the UK population to provide the evidence base for developing Government policy. Specifically, the NDNS dataset must allow Public Health England (PHE; an executive agency of Department of Health) and the Food Standards Agency to:

1. Measure progress towards dietary recommendations
2. Monitor trends in food consumption, nutrient intake and nutritional status in different population age groups
3. Describe the characteristics of those with intakes and/or status of specific nutrients that are above or below the national average
4. Assess the extent to which the diet of the population as a whole and sub-groups deviates from that recommended by independent experts
5. Calculate likely exposure to natural toxicants, contaminants, additives and other food chemicals for risk assessment

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Previous study hypothesis:

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## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Years 1-5 - Oxford A REC, 30/03/2007, ref: 07/H0604/113

Years 6-10 - Cambridge South REC, 19/03/2013, ref: 13/EE/0016 (amended to include Years 11-14) (added 28/01/2020)

## Primary study design

Observational

## Study design

Observational cross-sectional study using complex survey design and probability sampling model with a continuous UK-wide fieldwork model designed to be nationally representative on an annual basis

## Study type(s)

Other

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

Diet and nutritional well-being of the UK population

## Interventions

Current interventions as of 28/01/2020:

The study is carried out in the participant's home and comprises two stages. For stage one, individuals are asked by a trained interviewer about their eating habits, health and physical activity levels and have their height and weight measured. They are also asked to provide a urine record their food and drink intake for four days (for Years 1-11 data was collected using an estimated paper diary and for Years 12

onwards using an online 24-hour recall) with the first day completed while the interviewer is in the house. Participants are then invited by text message or e-mail (according to their preference) to complete a further three recalls.

Stage two involves a visit a by a qualified nurse visits to measure their waist and hip circumference and take a blood sample to test for many nutrients including iron, vitamin D and cholesterol. For younger respondents, other measures are undertaken, such as infant length and waist:hip ratio.

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Previous interventions:

The survey has two stages all of which are carried out in the participant's home. Individuals who take part in stage one do not have to take part in stage two. For stage one, individuals are asked to do a face-to-face interview to collect information on general eating habits, physical activity and health and have their height and weight measured. Individuals are asked to keep an estimated (unweighed) food and drink diary for four days and provide a urine sample. For stage two, a nurse visits to carry out additional measures for waist and hip circumference and take a blood sample. Participation in both stages is over two months.

## Intervention Type

Behavioural

## Primary outcome(s)

Current primary outcome measure as of 28/01/2020:

1. Data on the food and nutrient intakes, sources of nutrients and nutritional status of the UK population is measured using an estimated (unweighed) food and drink diary (Years 1-11) and an online 24-hour recall (Year 12 onwards)
2. Food consumption data from the food and drink diaries will be used to calculate intakes of natural toxicants, contaminants, additives and other food chemicals
3. Evidence of nutritional status using dietary biomarkers measured using blood and urine tests. Physiological and social data are also collected

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Previous primary outcome measure:

1. Data on the food and nutrient intakes, sources of nutrients and nutritional status of the UK population is measured using the estimated (unweighed) food and drink diary
2. Food consumption data from the diaries will be used to calculate intakes of natural toxicants, contaminants, additives and other food chemicals
3. Evidence of nutritional status or dietary biomarkers, and to relate these to dietary, physiological and social data is measured using blood and urine tests

## **Key secondary outcome(s)**

Current secondary outcome measures as of 28/01/2020:

1. Anthropometric measurements are measured using a portable stadiometer, Tanita scales and an 'Easy Check Circumference Measurement' tape. Mid upper arm circumference was measured in Years 1-5 using a 'Lasso-o' tape
2. Physical activity level is assessed using an online Recent Physical Activity Questionnaire (RPAQ)

Previous secondary outcome measures:

1. Anthropometric measurements are measured using a portable stadiometer, Tanita scales and an 'Easy Check Circumference Measurement' tape
2. Physical activity level is assessed using the Recent Physical Activity Questionnaire (RPAQ) within three days of completing the food diary

## **Completion date**

31/12/2022

## **Eligibility**

### **Key inclusion criteria**

The NDNS Rolling Programme includes participants of all ages from 1.5 years upwards free-living in private households in the UK.

### **Participant type(s)**

Other

### **Healthy volunteers allowed**

No

### **Age group**

Mixed

### **Sex**

All

### **Key exclusion criteria**

1. Infants and children aged under 18 months
2. Pregnant and lactating women
3. People living in institutions, e.g. children's homes, prisons, residential homes for older people, hospitals
4. Homeless people and others with no fixed address

### **Date of first enrolment**

03/12/2007

### **Date of final enrolment**

01/10/2022

## **Locations**

## **Countries of recruitment**

United Kingdom

England

## **Study participating centre**

### **NatCen Social Research**

35 Northampton Square

London

United Kingdom

EC1V 0AX

## **Study participating centre**

### **Medical Research Council Epidemiology Unit**

University of Cambridge School of Clinical Medicine

Level 3 Institute of Metabolic Science

Addenbrooke's Treatment Centre

Cambridge Biomedical Campus

Cambridge

United Kingdom

CB2 0SL

## **Sponsor information**

### **Organisation**

National Centre for Social Research (NatCen)

### **ROR**

<https://ror.org/057z98j75>

## **Funder(s)**

### **Funder type**

Government

### **Funder Name**

Public Health England

### **Alternative Name(s)**

PHE

## Funding Body Type

Government organisation

## Funding Body Subtype

National government

## Location

United Kingdom

# Results and Publications

## Individual participant data (IPD) sharing plan

Anonymised data from the interview, dietary data, physical measurements and blood and urine samples is made publicly available to registered users through the UK Data Service (<https://www.ukdataservice.ac.uk/>). Data are reported for combined survey years and are deposited on the archive around two to three years after each survey year has been completed. Participants are told in the information sheets that their data will be stored, made available to researchers and published but that they will not be identifiable.

### Previous publication and dissemination plan:

Data is available on the UK Data Archive. The next NDNS RP report will be for Years 7 and 8 and is due to be published 29/01/2018.

1. <https://www.gov.uk/government/statistics/national-diet-and-nutrition-survey-results-from-years-1-to-4-combined-of-the-rolling-programme-for-2008-and-2009-to-2011-and-2012>
2. <https://www.gov.uk/government/publications/assessment-of-dietary-sodium-levels-among-adults-aged-19-64-in-england-2011>
3. <https://www.gov.uk/government/statistics/national-diet-and-nutrition-survey-assessment-of-dietary-sodium-in-adults-in-england-2014>
4. <https://www.gov.uk/government/statistics/ndns-results-from-years-5-and-6-combined>
5. <http://www.foodstandards.gov.scot/publications-and-research/national-diet-and-nutrition-survey-rolling-programme-results-from-years-1-4>
6. <http://www.foodstandards.gov.scot/publications-and-research/national-diet-and-nutrition-survey-assessment-of-dietary-sodium>
7. <https://www.food.gov.uk/northern-ireland/researchni/ndns-ni>
8. <https://www.food.gov.uk/northern-ireland/nutritionni/national-diet-and-nutrition-survey-assessment-of-dietary-sodium>
9. <http://gov.wales/statistics-and-research/national-diet-nutrition-survey-rolling-programme/?lang=en>

### IPD sharing statement:

Anonymised data from the interview, food diary, physical measurements and blood and urine samples is made publically available through the UK Data Archive (<http://data-archive.ac.uk/>). Access is through registration with the UK Data Archive. Data is reported for combined survey years and so is deposited on the archive around two to three years after each survey year has been completed. Participants are told in the information sheets that their data will be shared but that they will not be identifiable. No formal consent is obtained.

## IPD sharing plan summary

Stored in repository

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/06/2018		Yes	No
<a href="#">Funder report results</a>	Updated reports (not peer reviewed)	11/12/2020		No	No
<a href="#">HRA research summary</a>			28/06/2023	No	No
<a href="#">Other publications</a>	Updated reports (not peer reviewed)	09/09/2016		Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes
<a href="#">Study website</a>	Study website	11/11/2025	11/11/2025	No	Yes