

Survey of people's eating habits in the UK

Submission date 08/08/2017	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 31/08/2017	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 28/01/2020	Condition category 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 by a qualified nurse 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)
Polly.Page@mrc-epid.cam.ac.uk
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)
Beverley.Bates@natcen.ac.uk

Study website
<http://nationaldiet.co.uk/how-ndns-works.aspx>

Contact information

Type(s)
Scientific

Contact name
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Type(s)
Scientific

Contact name
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Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

NDNS RP Main Protocol

Study information

Scientific Title

National Diet and Nutrition Survey Rolling Programme 2008/09 - 2017/18 (Years 1-10)

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

Previous study hypothesis:

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; previously Department of Health) and the Food Standards Agency to:

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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)

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

Primary study design

Observational

Secondary study design

Cross sectional study

Study setting(s)

Home

Study type(s)

Other

Participant information sheet

<https://www.gov.uk/government/statistics/ndns-time-trend-and-income-analyses-for-years-1-to-9>

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 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.

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 measure

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

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

Secondary outcome measures

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

Overall study start date

30/03/2007

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

Age group

Mixed

Sex

Both

Target number of participants

1,000 per year (plus country boosts where funded)

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**

England

United Kingdom

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)

Sponsor details

NatCen
35 Northampton Square
London
London
United Kingdom
EC1V 0AX
+44 207 549 7180
Gillian.Prior@natcen.ac.uk

Sponsor type

Research organisation

Website

<http://natcen.ac.uk/>

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

Publication and dissemination plan

Current publication and dissemination plan as of 28/01/2020:

Data are available on the UK Data Archive.

Reports on NDNS RP findings have been published since Year 1 (2008/09). The latest report for the UK as a whole was published in January 2019 with an analysis of changes in diet and nutrient intake over time (Years 1 to 9 (2008/09-2016/17)) and by equivalised income (Years 5 to 9 (2012/13-2016/17)): <https://www.gov.uk/government/statistics/ndns-time-trend-and-income-analyses-for-years-1-to-9>

The latest NDNS RP report is National Diet and Nutrition Survey: results for Years 5 to 9 of the Rolling Programme for Wales (2012/2013 – 2016/2017) and time trend and income analysis (Years 1 to 9; 2008/09 – 2016/17) : <https://gov.wales/national-diet-and-nutrition-survey-results-years-1-9>

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/research/national-diet-and-nutrition-survey-ndns/national-diet-and-nutrition-survey-ndns-assessment-of-dietary-sodium>
8. <https://www.gov.uk/government/statistics/national-diet-and-nutrition-survey-supplementary-report-blood-folate>
9. <https://www.gov.uk/government/statistics/ndns-results-from-years-7-and-8-combined>
10. <https://www.gov.uk/government/statistics/ndns-time-trend-and-income-analyses-for-years-1-to-9>
11. <https://www.food.gov.uk/research/national-diet-and-nutrition-survey-ndns/national-diet-and-nutrition-survey-ndns-report-for-northern-ireland>
12. <https://gov.wales/national-diet-and-nutrition-survey-results-years-1-9>

Intention to publish date

31/12/2020

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?
Other publications	Updated reports (not peer reviewed)	09/09/2016		Yes	No
Results article	results	01/06/2018		Yes	No
Funder report results	Updated reports (not peer reviewed)	11/12/2020		No	No
HRA research summary			28/06/2023	No	No