

# Appendix B:

## Methodology for National Diet and Nutrition Survey 2019 to 2023

### B.1 Overview of methodology

This appendix provides an overview of the methodology for years 12 to 15 of the National Diet and Nutrition Survey (NDNS). Interviewing for these fieldwork years was carried out between October 2019 and July 2023.

The NDNS has run continuously since 2008 and is a cross-sectional survey, designed to be representative of the UK population. As with all government surveys, the NDNS was impacted by the COVID-19 global pandemic, and from March 2020 the survey methodology and protocols had to be adapted in line with government advice and regulations. Further detail is provided in section [B.1.2](#).

Field documents for fieldwork year 15 are provided in the [appendices](#); earlier versions (fieldwork years 12 to 14) are available on request. Diary-related documents and protocols used prior to year 12 can be found in the [years 9 to 11 report](#).

#### B.1.1 Methodological changes introduced from Year 12

##### Dietary data collection

For years 1 to 11 (2008 to 2019) of the NDNS, dietary data was collected over 4 consecutive days using a paper food diary with estimated portion weights. In 2018 the consortium, in conjunction with Public Health England<sup>1</sup> and the UK Food Standards Agency (FSA), undertook a review to appraise whether this method continued to remain optimal from both a scientific and financial point of view. As a result, the introduction of an online dietary assessment tool was proposed to provide an automated data collection method, compatible with new technologies and with potential to improve data quality and reduce costs. A further review of available tools resulted in the selection of [Intake24](#) which was introduced from year 12 (2019) to replace the paper diary. There was a gap in fieldwork between the end of year 11 (May 2019) and the start of year 12 (October 2019) to allow for implementation of the method change. Table [B.4](#) at the end of this chapter provides an overview of methodological changes in years 12 to 15 and [appendix A](#) provides full details of the dietary data collection and change of methods.

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<sup>1</sup> From 1 October 2021, responsibility for the NDNS contract transferred from Public Health England to the Office for Health Improvement and Disparities (OHID).

## **Participant selection**

From year 12 a more cost-efficient model for the selection of participants within a household was introduced. The aim remained to achieve a representative sample of 500 adults (aged 19 years and over) and 500 children (aged 18 months to 18 years) from the core UK sample. To achieve these numbers in years 1 to 11, one adult and one child were selected in around one-third of addresses and one child (no adult) in around two-thirds of addresses. From year 12, the protocol was amended so that up to 2 adults and one child were selected from around one-third of addresses (referred to as 'basic addresses') and up to 2 children (no adults) were selected from the remaining two-thirds of addresses (referred to as 'young person addresses'). More detail on the issued sample sizes and participant selection is provided in section [B.2](#).

### **B.1.2 Methodological changes as a result of the COVID-19 pandemic**

Fieldwork was suspended on 18 March 2020 following UK government advice to avoid non-essential travel and contact with others due to the COVID-19 outbreak. On 23 March 2020 the government issued a 'stay at home' instruction and the first national UK lockdown began. The suspension was initially agreed for a 2-month period but was eventually extended until October 2020.

When stage one (interviewer) fieldwork recommenced in October 2020, it was with year 13 fieldwork (year 12 did not recommence) and a 'knock-to-nudge' methodology whereby an interviewer visited an address (but, in order to limit contact, did not enter the property). The interviewer provided information about the survey, completed required participant selections and arranged to complete the interview remotely, over the telephone. This approach was used throughout year 13 and for the first 5 months of year 14 fieldwork (April to August 2021). Face-to-face interviewing resumed in September 2021, although the option of a remote (telephone) interview was retained for participants who did not wish to have a face-to-face visit for the remainder of year 14 fieldwork and throughout year 15 fieldwork which commenced in April 2022. Table [B4](#) summarises how methods changed in each fieldwork year in order to accommodate the restrictions of the pandemic.

## **B.2 Sample design**

The aim of the NDNS is to achieve a representative sample of 500 adults (aged 19 years and over) and 500 children (aged 18 months to 18 years). As described in section [B.1.1](#), the participant selection method was adjusted from year 12 onwards to provide a more cost-efficient sample design. Further changes to the sample design were then necessary from year 13 onwards to compensate for lower achieved response rates due to the COVID-19 pandemic.

### **B.2.1 Selecting addresses**

A sample for each year was drawn from the PAF. [Table B.1](#) summarises the number of PSUs and addresses selected for the core, reserve and shortfall samples.

The core sample was the main, issued sample; the reserve sample refers to the PSUs (addresses) which would be issued in full or in part should the number of achieved (productive) cases and expected response rate fall below target in a given fieldwork year. The shortfall sample refers to a further set of PSUs and addresses which were drawn in year 14 to make up the shortfall due to the additional impact of COVID-19. This 'shortfall sample' was issued in England, Scotland and Wales between January and March 2022.

**Table B.1: Summary of selected addresses**

Sample type	Year 12 <sup>a</sup>	Year 13	Year 14	Year 15
Core UK sample	3,335 addresses from 115 PSUs	3,335 addresses from 115 PSUs	3,335 addresses from 115 PSUs	3,795 addresses from 115 PSUs
Reserve sample	522 addresses in 18 PSUs	522 addresses in 18 PSUs	522 addresses in 18 PSUs	660 addresses in 20 PSUs
Shortfall sample	Not applicable	Not applicable	3,800 addresses from 95 PSUs	Not applicable
Number of addresses per PSU	29 (8 basic, 21 young person)	29 (8 basic, 21 young person)	29 (8 basic, 21 young person)  40 (11 basic, 29 young person) in shortfall sample	33 (12 basic, 21 young person)

<sup>a</sup> Year 12 fieldwork was suspended in March 2020 due to the COVID-19 pandemic; a total of 2,553 addresses were issued to interviewers prior to the suspension.

At each address, the interviewer established the number of households and, in cases where there were 2 or more, selected one household at random.

### B.2.1 Selecting participants

As only around one-third of households contain children<sup>2</sup>, over-sampling of children was required to achieve, as far as possible, equal numbers of adult (19 years and over) and child (18 months to 18 years) participants in each fieldwork year. Selected addresses in each PSU were randomly allocated to one of 2 address types: a 'basic' or a 'young person' address. At 'basic' addresses interviewers randomly selected up to 2 adults (aged 19 years or over) and one child (aged 18 months to 18 years) and at 'young person' addresses, the interviewer conducted a doorstep screen to identify addresses with children and then selected up to 2 children, each from a different

<sup>2</sup> [Families and households in the UK - Office for National Statistics \(ons.gov.uk\)](#)

NDNS age group (18 months to 3 years, 4 to 10 years, 11 to 18 years) for interview. The number of addresses allocated to each address type in years 12 to 15 is shown in [table B.1](#).

Further details about the sample design are provided in [appendix BB](#).

## B.3 Ethics approval

Ethics approval for the study was obtained from the Cambridge South NRES Committee (Ref. No. 13/EE/0016).

## B.4 Fieldwork

Fieldwork was carried out by NatCen's panel of interviewers and biomedical fieldworkers. In Northern Ireland, stage 1 fieldwork for the core sample was carried out by interviewers working for the Northern Ireland Statistics and Research Agency (NISRA).

For year 12, stage 1 (interviewer) fieldwork commenced on the first weekday of the month, and interviewers were given 6 weeks in which to complete their assignment. Stage 2 (biomedical fieldworker) fieldwork for a particular month started 8 weeks after the interviewer deadline. Biomedical fieldworkers had up to 7 weeks to complete their work.

Following the COVID-19 pandemic and subsequent resumption of stage one in October 2020, fieldwork was conducted under a more flexible approach. Fieldwork points were allocated and worked as close as possible to their original issue date, with interviewers covering as much of a point as possible during the 6-week fieldwork period, however extensions were granted to help with fieldworker availability, coverage and response.

Biomedical fieldwork did not recommence until October 2021 as it was not possible for this stage, in particular blood sampling, to be conducted remotely. This meant that for many years 13 and year 14 participants the gap between stage one and 2 was much longer than in other fieldwork years (between one and 22 months and an average of 8 months). Letters were sent to participants who had agreed to a biomedical fieldworker visit, to remind them of the study before biomedical fieldworkers made contact. In year 15 (2022 to 2023) the impact of COVID-19 had further receded, and there was, on average, a much shorter gap (between one week and 11 months and an average of 3 months) between the stage one and stage 2 visits though the gap was still wider than in pre-pandemic fieldwork years. The disruption to fieldwork caused by the pandemic affected the seasonal distribution of collected data; the impact is discussed where relevant in the main report.

Table [B.2](#) shows fieldwork dates for each of the fieldwork years and stages.

### Table B.2 Fieldwork dates

Fieldwork stage	Year 12	Year 13	Year 14	Year 15
Stage 1 (Interviewer)	October 2019 to March 2020 <sup>a</sup>	October 2020 to November 2022	April 2021 to November 2022	April 2022 to April 2023
Stage 2 (Biomedical fieldworker)	November 2019 to March 2020 <sup>b</sup>	October 2021 to December 2022	November 2021 to April 2023	June 2022 to July 2023

a No fieldwork was carried out from March to October 2020 due to the COVID-19 pandemic.

b No biomedical fieldwork was carried out from March 2020 to November 2021 due to the COVID-19 pandemic.

## B.5 Overview of survey components and fieldwork procedures

The survey was delivered in 2 stages:

### Stage one: Interviewer

- 4 online dietary recalls (non-consecutive days)
- detailed background interview
- interview with MFP
- introduction to physical activity questionnaire (PAQ)
- height and weight measurements (face-to-face visits only) or self-reported (telephone interviews)
- collection of spot urine sample (face-to-face visits only)
- doubly labelled water (DLW) sub study (years 12 to 14; see [appendix X](#))
- placement of physical activity monitor (year 15 only)

In year 12, online PAQs were completed by participants during the visit. From October 2020 (year 13) participants completed the questionnaire later, via a link sent in a text or email after their fourth recall. From April 2021 (beginning of year 14) participants could access the questionnaire after their third (or their fourth) recall.

Year 15 participants were asked whether they were willing to wear a physical activity - Axivity - monitor (PAM) for 7 days and nights. At the end of the wear period, participants returned the PAM by post. Accelerometry data is not presented in this report but will be made available via the [UK Data Service](#).

### Stage 2: Biomedical fieldworker

- blood sample
- physical measurements, waist and hip, demispan and infant length
- collection of information about prescribed medicines
- placement of spot urine home collection kit (where interviewer visit was remote)

### **B.5.1 Stage 1: the interviewer visits**

As outlined in B.1.2, stage 1 (interviewer) fieldwork for year 12 was carried out face-to-face. For years 13 to 15, fieldwork operated with a mixed-mode approach: face-to-face and remote (telephone) methods. The differences between the 2 modes are summarised in [table B.3](#).

#### **Advance letters**

A letter and leaflet describing the purpose of the survey was sent to all sampled addresses before the fieldwork start date. A few days later, unless the household had contacted NatCen to state that they did not to take part, interviewers visited the addresses to determine whether each was 'eligible' (that is private, residential and occupied). At eligible addresses, they then carried out the selection process and, for children aged under 16 years, sought both the child's and their parent's (or guardian's) consent to interview.

#### **Main interview**

Where stage one was carried out face-to-face, interviewers were usually able to carry out a single visit to a household to interview all participants who had agreed to take part. Further visits were carried out as necessary, for example to interview participants who could not be present at the main visit or to carry out additional elements or provide assistance with the dietary recalls.

Further details about information collected during the interviewer stage (and the fieldwork documents used) can be found in [appendices C to F](#). The fieldwork documents included in the appendices are the most recent versions used during the fieldwork period covered by this report. Any earlier versions, for example, as adapted for use during the COVID-19 pandemic are available on request.

#### **Computer Assisted Personal Interview (CAPI) programme**

CAPI interviewing involves the interviewer reading questions from a laptop screen and entering the participants' responses into designated fields. The CAPI questionnaire had 3 main elements: household composition interview, MFP interview and individual interview. The content of the CAPI questionnaires is shown in [appendix D](#).

#### **Collection of dietary data: Intake24**

At the end of the CAPI questionnaire all participants were invited to complete the first of 4 dietary recalls using Intake24 via an embedded individual link. [Intake24](#) is an online 24-hour dietary recall tool based on multiple-pass dietary assessment methodology (Bradley and others 2016; Foster and others 2019). The method involves participants providing information about everything they have eaten and drunk over a 24-hour period (midnight to midnight), the preceding day (called a dietary recall). A unique URL routed the participant directly to the Intake24 webpage to complete their first dietary recall. At the start of Intake24, participants were prompted to watch a video showing them how to use the tool. Following completion

of their first dietary recall, participants were invited via email or text message, using contact information provided during the interview, to complete their subsequent dietary recalls (2, 3 and 4).

Participants received the invite to complete their next dietary recall one to 3 days (randomly allocated) after completion of their previous dietary recall. Up to 3 reminders were sent to prompt completion of the dietary recall, with a maximum period of 49 days over which all 4 dietary recalls could be completed. To balance the number of weekday and weekend dietary recalls, the Recall 3 invitation was scheduled to be sent on a weekend day if the previous 2 dietary recalls were completed on a weekday. If Recalls 1 to 3 were all completed on a weekday, the Recall 4 invitation was scheduled to be sent on a weekend day. Dietary recall invitations were sent in the morning at 7:30am asking for a recall of the previous day. If the requested dietary recall was not completed by late afternoon, a reminder was sent on the same day. Further reminders were sent on the day after the initial invitation and 4 days after the initial invitation if the requested dietary recall was still not completed.

Participants who did not have internet access, or who did not feel comfortable or confident completing the dietary recalls independently, could request assistance for their dietary data collection. Assistance with completing dietary recalls was carried out by the MRC Epidemiology Unit team over the telephone or via Zoom video conferencing.

On completion of all 4 dietary recalls, Intake24 provided participants with the option to view onscreen dietary feedback. The feedback provided an average daily personal intake for key foods and nutrients compiled from the 4 dietary recalls combined. Participants were also sent a thank you message via email or text. Participants received a £5 high street gift card as a token of appreciation for completing their first recall. Participants who completed 3 further recalls were sent a £20 high street gift card.

[Appendix A](#) provides full details of the dietary data collection and processing protocols.

### **Height and weight measurements**

Participants who were visited were asked if they were willing to have their height and weight measured by the interviewer. Participants who had a telephone interview were asked to self-report their height and weight.

Protocols for height and weight measurements are provided in [appendix L](#).

### **Physical Activity questionnaires (PAQs)**

In year 12, online PAQs were completed by participants during the interviewer visit. Year 13 participants completed the questionnaire later, via a link sent in a text or email after their fourth dietary recall. In order to increase the completion rate,



participants from years 14 and 15 were sent the link after their third recall and again, after their fourth if the PAQ had not been completed in the meantime.

[Appendix V](#) provides full details of the physical activity questionnaires and data processing.

### Spot urine sample

Participants aged 4 years and over who had a face-to-face visit were asked if they were willing to provide a single spot urine sample. Participants providing a spot urine sample received a £5 high street gift card as a token of appreciation. Protocols and documents for spot urine sampling are provided in [appendices C and H](#). The fieldwork documents included in the appendices are the most recent versions used during the fieldwork period covered by this report. Any earlier versions, for example, as adapted for use during the COVID-19 pandemic, are available on request.

### Differences between fieldwork modes

[Table B.3](#) outlines the differences between the face-to-face and telephone modes.

**Table B.3: Differences between fieldwork modes**

	<b>Face-to-face (in-home)</b>	<b>Telephone (remote)</b>
Participant recruitment	Advance letters sent to selected addresses, follow-up in-home visit by interviewer to select participant(s) and conduct interview(s)	Advance letters sent to selected addresses, follow-up doorstep visit from interviewer; including an option to telephone NatCen and schedule interview or decline participation
Participant selection	Household and participant selection on doorstep before in-home interview	Household and participant selection on doorstep before arranging telephone interview
CAPI interview (background and MFP)	In-person at participant's home; could interview multiple participants in the same visit	Remote interview conducted via telephone; separate calls for each participant
Introduction of dietary data collection	Explanation and first recall during interviewer visit; dates of subsequent recalls randomly allocated and invites and reminders sent via text or email	Explanation during telephone interview, first recall completed following interview, follow-up call to check for issues and prompt completion; subsequent recalls randomly allocated and invites and reminders sent via text or email
Dietary data collection assistance (if required)	Interviewer revisited to assist with subsequent	Assistance provided via telephone or Zoom from



	recalls (if, for example, the participant did not have a suitable device); for participants living in rural areas with no internet connection, assistance was provided via telephone from MRC Epidemiology Unit	MRC Epidemiology Unit for participants who completed their CAPI interview remotely and were unable to complete dietary recalls without assistance
Height and weight measurements	Taken by interviewers during visit	Self-reported
Spot urine sample (ages 4 years and older)	Participant asked to provide spot urine sample during interview, which interviewer then posted; option for spot urine home collection kit to be left with participant for them to post back later	Participants visited by a biomedical fieldworker and willing to provide a sample were left with a kit to take and post back the sample after the visit

### B.5.2 Stage 2: the biomedical fieldworker visit

Stage 2 of the survey was carried out by a qualified biomedical fieldworker. All individuals who had completed the CAPI interview and first recall at Stage 1 were eligible for a biomedical fieldworker visit. This excludes 214 participants from year 12 who agreed to have a biomedical fieldworker visit prior to fieldwork being halted in March 2020 but the visit did not take place as fieldwork did not resume. Biomedical fieldworker visits were always conducted face-to-face.

At the end of stage one, interviewers provided participants with information leaflets and, from year 13 onwards, collected information which helped determine eligibility to provide a blood sample (for example, recording whether participants were taking anticoagulant medication). The leaflets gave details of the biomedical fieldworker visit (including the blood sample component) and sought agreement for the biomedical fieldworker to make contact.

The biomedical fieldworker asked questions about prescribed medications before taking, with agreement or written consent as appropriate, a number of physical measurements and a venous blood sample.

### Measurements taken by the biomedical fieldworker

A summary of the measurements collected during stage 2 is provided in table [B.4](#). Some of the information collected by biomedical fieldworkers was limited to particular age groups.

**Table B.4 Summary of measurements collected during stage 2**

Measurement or procedure	Participant
Details of prescribed medications	All ages

Infant length measurement	Aged 18 to 23 months
Waist and hip circumferences	Aged 11 years and over
Demispan	Aged 65 years and over and those aged 16 to 64 years where height measurement was unreliable
Non-fasting blood sample	Aged 18 months to 3 years and people not willing to fast
Fasting blood sample	Aged 4 years and over

The biomedical fieldwork documents are provided in [appendices G and H](#). Measurement protocols are provided in [appendix L](#). The fieldwork documents included in the appendices are the most recent versions used during the fieldwork period covered by this report. Any earlier versions, for example, as adapted for use during the COVID-19 pandemic, are available on request.

## **Blood sample**

Participants aged 4 years and over were asked whether they were willing to give a blood sample by venepuncture after an overnight fast (those aged 18 months to 3 years were asked to provide a non-fasting blood sample). Blood samples were taken by the biomedical fieldworker from participants aged 11 years and over. Biomedical fieldworkers qualified and experienced in paediatric phlebotomy took blood samples from younger children. Otherwise, blood was taken by a NatCen paediatric phlebotomist who accompanied the biomedical fieldworker on the visit. Protocols and procedures are in line with official Royal College of Nursing guidelines.

The biomedical fieldworker obtained written consent from participants aged 16 years and over before the sample was taken. For children aged 18 months to 15 years, written consent of a parent or guardian was required and written assent from the child was also obtained where possible. Written agreement to store part of the blood sample for additional analyses at a future date was also sought.

Participants who provided a blood sample received a £20 high street gift card as a token of appreciation for agreeing to this part of the study.

## **B.6 Feedback to participants and GPs**

### **Dietary feedback**

After completing 4 dietary recalls, participants were provided with the option to receive detailed feedback on how their nutrient intakes compared to UK nutritional recommendations. The feedback was generated from Intake24 based on the 4 recalls and also included general information on sources of healthy eating advice and links to websites with such advice. Further information about the dietary feedback can be found in [appendix A](#) and an example of the dietary feedback is provided in [appendix J](#).

### **Measurement record card**

Each participant was also offered a 'Measurement Record Card' on which the interviewer and, if appropriate, the biomedical fieldworker, recorded the person's height, weight, body mass index (BMI) (if aged 16 years and over), and other age-dependent physical measurements: waist and hip circumferences (if aged 11 years and over); demispan measurement (if aged 65 years and over, or measured height from interview was unreliable) and infant length (if aged 18 to 23 months).

### **Blood analysis results**

Participants who provided a blood sample were asked whether they wished to be sent results of the blood sample analyses. Participants were also asked if they wanted details of these analyses to be sent to their GP. If an individual wished to receive results (and/or have them sent to their GP), written consent was obtained (or from the parent or guardian in the case of a child). [Appendix J](#) contains an example of the letters providing clinical results.

## **B.7 Fieldwork quality control**

### **B.7.1 Project specific training for interviewers and biomedical fieldworkers**

All interviewers and biomedical fieldworkers working on NDNS were briefed and trained before undertaking an assignment and were monitored during their first assignment. They were also issued with comprehensive written instructions covering survey procedures and measurement protocols.

### **B.7.2 Training for interviewers**

In year 12, all interviewers attended a one-day in person training course where they were fully briefed on the protocols and administration of the survey. For year 13 onwards, interviewers who had worked on the previous survey year attended a half-day online refresher briefing (new interviewers attended a full day).

The full and refresher briefing sessions covered background and content, doorstep approach, questionnaire administration (including practice sessions) and the new protocols around the Intake24 dietary recall collection. All interviewers were accredited on taking consistent, accurate height and weight measurements, and those who had not worked on the survey in the preceding 12 months were re-accredited.

### **B.7.3 Training for biomedical fieldworkers**

Biomedical fieldworker in-person briefings lasted one day and covered equipment training, blood sampling and questionnaire administration (including practice sessions). Biomedical fieldworkers were also briefed on the demispan, waist and hip and infant length measurement protocols. All other physical measurements were either regularly taken by biomedical fieldworkers on NDNS and other NatGen surveys or the newer biomedical fieldworkers attended a general training session which covered these protocols.

Biomedical fieldworkers who were new to NDNS biomedical fieldwork completed 3 homework exercises (covering blood sample tube labelling, and consents and blood despatch) which were marked and individual feedback given prior to starting fieldwork.

## **B.8 Weighting the survey data**

It is necessary to apply weighting factors to the data collected in NDNS for 2 reasons: to remove any bias in the observed results which may be due to differences in the probability of households and individuals being selected to take part; and to attempt to reduce non-response bias.

Further details about the weighting strategy are available in [appendix BB](#).

## **References**

Bradley J and others. [Comparison of INTAKE24 \(an Online 24-h Dietary Recall Tool\) with Interviewer-Led 24-h Recall in 11-24 Year-Old](#) Nutrients 2016: volume 8 issue 6, page 358.

Foster E and others. [Validity and reliability of an online self-report 24-h dietary recall method \(Intake24\): a doubly labelled water study and repeated-measures analysis](#) Journal of Nutritional Science 30 August 2019: volume 8 e29.

**Table B4: Overview of methodological changes in years 12 to 15**

	<b>Year 12</b>	<b>Year 13</b>	<b>Year 14</b>	<b>Year 15</b>
<b>Fieldwork dates</b>	Interviewer: October 2019 to March 2020 <sup>3</sup>  Biomedical fieldworker: October 2019 to March 2020 <sup>4</sup>	Interviewer: October 2020 to November 2022  Biomedical fieldworker: November 2021 to December 2022	Interviewer: April 2021 to November 2022  Biomedical fieldworker: November 2021 to April 2023	Interviewer: April 2022 to April 2023  Biomedical fieldworker: July 2022 to June 2023
<b>Issued sample of addresses</b>	3,335 addresses from 115 PSUs for Core UK sample; 493 addresses in 17 PSUs for NI 'boost'; 522 addresses in 18 PSUs for reserve sample  29 addresses per PSU	3,335 addresses from 115 PSUs for Core UK sample; 493 addresses in 17 PSUs for NI 'boost'; 522 addresses in 18 PSUs for reserve sample  29 addresses per PSU	3,335 addresses from 115 PSUs for Core UK sample; 493 addresses in 17 PSUs for NI 'boost'; 522 addresses in 18 PSUs for reserve sample  29 addresses per PSU,  Shortfall sample of 3,800 addresses across 95 PSUs (GB only) with 40 addresses per PSU	3,795 addresses from 115 PSUs for Core UK sample; 561 addresses in 17 PSUs for NI 'boost'; 660 addresses in 20 PSUs for reserve sample  33 addresses per PSU
<b>Basic addresses</b>	8 addresses per PSU	8 Basic addresses in GB and 9 Basic addresses in NI <sup>5</sup>	8 Basic addresses in GB and 9 Basic addresses in NI  Shortfall sample PSUs: 11 Basic addresses	12 Basic addresses

<sup>3</sup> This includes a 7-month period (March to October 2020) where no fieldwork was carried out due to the COVID-19 pandemic.

<sup>4</sup> Due to restrictions resulting from the COVID-19 pandemic, no biomedical fieldwork was carried out between March 2020 and November 2021.

<sup>5</sup> Response in Northern Ireland was higher amongst children than in Great Britain, so this split allows for more adults to be interviewed to balance the adult/child split.

National Diet and Nutrition Survey: 2019 to 2023 (years 12 to 15)

	Selection: up to 2 adults and (where present) one child	Selection: up to 2 adults and (where present) one child	Selection: up to 2 adults and (where present) one child	Selection: up to 2 adults and (where present) one child
<b>Young Person addresses</b>	21 YP addresses per PSU  Selection: up to 2 children	21 YP addresses in GB and 20 YP addresses in NI  Selection: up to 2 children from different NDNS age groups: 1.5 to 3, 4 to 10, 11 to 18	21 YP addresses in GB and 20 YP addresses in NI  Shortfall sample PSUs had 29 YP addresses  Selection: up to 2 children from different NDNS age groups: 1.5 to 3, 4 to 10, 11 to 18	21 YP addresses  Selection: up to 2 children from different NDNS age groups: 1.5 to 3, 4 to 10, 11 to 18
<b>Interview mode</b>	Face-to-face, CAPI  One visit in most cases (additional visits for recall assistance if required)	Telephone interview, CAPI  2 telephone interviews (initial interview, recall follow-up)	Flexible approach (with preference for face-to-face if possible)  April to August 2021: telephone interviews only (as year 13)  September 2021 onwards: face-to-face visits resumed (telephone option retained)	Face-to-face visit where possible; telephone interview permitted
<b>Dietary assessment method</b>	Intake24 – online dietary recalls, for 4 randomly allocated days	Intake24 – online dietary recalls, for 4 randomly allocated days	Intake24 – online dietary recalls, for 4 randomly allocated days	Intake24 – online dietary recalls, for 4 randomly allocated days

National Diet and Nutrition Survey: 2019 to 2023 (years 12 to 15)

	Assistance provided by MRC Epidemiology Unit for individuals who were unable to complete recalls independently	Assistance provided by MRC Epidemiology Unit for individuals who were unable to complete recalls independently	Assistance provided for individuals who were unable to complete recalls independently (by MRC Epidemiology Unit, or interviewer re-visit)	Assistance provided for individuals who were unable to complete recalls independently (by MRC Epidemiology Unit, or interviewer re-visit)
<b>Spot urine sample collection</b>	Participants aged 4+ asked by interviewer to provide sample	Participants aged 4+ asked to provide sample by biomedical fieldworker – kit was then left for them to post sample back	Face-to-face interview: asked by interviewer to provide sample (or left kit for participant to post back)  Telephone interview: kit left by biomedical fieldworker	Face-to-face interview: asked by interviewer to provide sample (or left kit for participant to post back)  Telephone interview: kit left by biomedical fieldworker
<b>Height and weight measurements</b>	Interviewer measured (during visit)	Self-reported	Self-reported	Interviewer measured or self-reported
<b>Northern Ireland</b>	Face-to-face as for GB	All points worked remotely	All points worked remotely	All points worked remotely