

# APPENDIX A

## 1 METHODOLOGY

### 1.1 Sampling

FSA Scotland required an achieved sample size of 1,600 Scottish children aged between 3 and 16. It was estimated (using past surveys) that 2,800 children should be selected to meet this target. The sample was drawn in two stages, at the first stage 80 postcode sectors<sup>1</sup> were sampled with probability proportional to the number of eligible children within them. At the second stage 35 eligible children were sampled from each selected postcode sector. This gave a sample of 2,800 Scottish children aged between 3 and 16 years.

#### 1.1.1 *The sampling frame*

The sample was drawn from the Child Benefit (CB) records held by the Department for Work and Pensions (DWP), on behalf of HM Revenue and Customs (HMRC). The Child Benefit records form a highly comprehensive sampling frame, with good coverage and up-to-date contact information. It also appears to have been a highly acceptable method of contact from respondents' perspectives.

Nevertheless, coverage is not perfect. A small percentage of parents do not claim Child Benefit and a number of claimants have to be excluded from the sample frame before selection can take place. The reasons for these exclusions are:

1. Exclusions due to death of a child. The family is checked for any children that have died. If such a case exists the whole family is excluded from the survey.
2. Exclusions due to correspondence with the Child Benefit Centre. Any family that has been in contact with the child benefit centre according to the latest scan is excluded from the sample frame. This is because the reason for correspondence cannot be ascertained and may sensitive.
3. Exclusions due to sensitivity. The remaining children are checked against a predetermined list of exclusion codes that indicate sensitive cases, such as the child being taken into care or put up for adoption, or cases where the child does not live at the same address as the claimant. Any children which match with these codes is excluded (only that child, not siblings or entire family).

In addition records are flagged because the record has been sampled for a previous survey. Currently any family that has already been contacted in the last 3 years via a previous CB sample is excluded from the sample frame.

The exclusion of records for participation in previous surveys means that samples selected from CB records may become unrepresentative of the general population of households with children. For example the Millennium Cohort Survey sampled certain ages, over-sampled deprived areas and areas with high rates of minority ethnic groups.

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<sup>1</sup> Postcode sectors with fewer than 500 delivery points were merged with neighbouring sectors. The grouped sectors were treated as single areas.

In total 302 children (11% of the sample) were excluded by DWP from the sample. This left 2,498 children available for the survey.

### **1.1.2 Sub-samples**

The survey included two randomly selected sub-samples: after the main survey one group of children were asked to complete a four-day diet diary; the second group was asked to complete a 24-hour recall interview. Children were allocated to the sub-samples once the exclusions had been made and DWP had delivered the sample. The two sub-samples were mutually exclusive - a child selected for one group was excluded from the other.

#### ***Four day diet diary sub-sample***

444 children were selected for sub-sample A. These children were asked to complete a 4-day diet diary. It was estimated that of these, 300 would be invited to complete the diary of which 200 would respond. These children were selected across the entire sample. The number of children per point varied; either 5 or 6 children per sample point were allocated to the diary.

#### ***24-hour recall sub-sample***

640 children were selected for the 24-hour recall with the aim of achieving 400 responses. The interviewers carrying out the 24-hour recall extension required special training; hence this sub-sample was only selected from half the sample points. 16 children in 40 points were allocated to the 24-hour recall.

## **1.2 Fieldwork procedures**

### **1.2.1 Making contact**

An initial letter was sent out on behalf of HM Revenue and Customs, holders of Child Benefit records, to the parents/guardian of the children sampled to inform them that they had been selected to take part and briefly explaining what they would be asked to do. At this stage recipients were given a period of two weeks to opt out of the study by ringing a Freephone number or writing to a Freepost address.

All those who had not opted out in the two week period were sent a letter from the research team and the Food Standards Agency Scotland (FSAS) and a copy of a Food Frequency Questionnaire (FFQ) which they were asked to complete. The letter informed participants that the completed questionnaire was to be picked up by an interviewer who would also conduct a short face to face interview with them. There were two versions of the FFQ: one was to be completed by the parent or guardian of children between the ages of 3 and 11; the other, for children over 12 was to be completed by the child themselves.

A high street shopping voucher was included with the letter and the FFQ as an incentive to take part in the survey and complete the FFQ. All those on the sample file with an

even serial number were sent a £5 high street voucher, those with an odd serial number were given a £1 high street voucher.

### 1.2.2 Collecting data

All interviews were conducted in the participant's own home by experienced social survey interviewers using laptop computers (otherwise known as computed assisted personal interviewing, CAPI). The interviewer initially asked for the named parent or guardian to whom the advance letters were addressed. Interviews were conducted with the Main Food Provider (MFP) for the named child if the child was under 12. In some cases another eligible adult provided the information if the MFP was not available. If the named child was 12 or over some components of the interview were addressed directly to them as detailed in Figure A.1.

**Figure A1. Informants for different components of survey**

<b>Survey Component</b>	<b>Respondent</b>
<b>Face to face (CAPI) interview</b>	
Collection of self-completed FFQ	Collect from MFP/Eligible adult if child is under 12 Child if 12 and over
Household information	MFP/Eligible adult
Information on physical activity, dental health	MFP/ Eligible adult if child is under 12 Child if 12 and over
Collection of socio-demographic information: Employment, income, education, ethnicity	Collect from MFP/Eligible adult
<b>Measurements</b>	
Height measurement	Children of all ages
Weight measurement	Children of all ages
<b>Collection of dietary data (for two different sub-samples)</b>	
24-hour recall	MFP/Eligible adult if child under 12 Child if 12 and over
Placement of 4 day diet diary	MFP/Eligible adult if child under 12 Child if 12 and over

The interviewer first collected and checked the FFQ for completeness. If whole lines of information or sections had been omitted the interviewer asked the respondent to complete these.

If the FFQ was not complete when the interviewer conducted the face to face element of the survey the participant was asked to return the completed FFQ by post. An addressed Freepost envelope was given to the participant for this purpose.

The interviewer then conducted the CAPI component of the survey. This collected information on the household composition and sought information on a range of socio-demographic topics such as occupation of the household reference person<sup>2</sup> (HRP), household income, education of the HRF and MFP etc.

The interview then went on to ask about physical activity undertaken by the child in the previous week and details of their dental health. Height and weight measurements were also taken towards the end of the interview.

Those participants who had been selected to take part in the 24-hour recall were then asked if they were willing to take part in this further interview.

Interviewers asked those participants who had been selected to complete a 4 day diet diary if they were willing to do this. If they agreed they were given instructions on how to do this and how to return the completed diary. Consent was also sought from these participants to pass on their contact details to the researchers from the University of Aberdeen who would be following them up to remind them to return the completed diaries.

### ***1.2.3 Interviewing and measuring children***

Children aged 12-15 were interviewed directly by interviewers, written permission having first been obtained from the child's parent or guardian. Interviewers were instructed to ensure that for children aged 12 that the parent or guardian should be in the same room during the interview. For those aged 13 and over the parent or guardian should be in the home and be aware that the interview was being carried out. Although not strictly necessary that a parent/guardian in the home when interviewing those aged 16 and over as they are regarded as adults in law, interviewers were advised that it was preferable that another adult was present in the house and was aware that the interview was being conducted.

Information about children aged 3-11 was collected directly from a parent/guardian. Younger children were present while their parent/guardian answered questions about their diet, physical activity and dental health. This was partly because the interviewer needed to measure their height and weight and partly because children, particularly in upper end of the age range, could contribute information.

Written consent for height and weight measurements for a child aged under 16 also had to be obtained from the child's parent or someone else with legal parental responsibility for that child.

### ***1.2.4 Length of interview***

The average length of interview was 29 minutes for those interviews in which the FFQ was collected and the CAPI interview conducted. This extended to 51 minutes for those interviews which included a 24-hour recall. Interviews which involved placing a diary and

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<sup>2</sup> Household Reference Person (HRP) is defined as the householder (i.e. the person in whose name the property was owned or rented) with the highest income. If there is more than one householder and they have equal incomes, then the HRP is the eldest.

giving instructions on how to complete and return it took an average of 33 minutes to complete.

### **1.2.5 Fieldwork timing**

Advance letters were sent out to all participants in early May 2006 and fieldwork began in mid-May 2006. Fieldwork continued until early September. The extended fieldwork period ensured that participants who were on holiday over the summer period could be included.

### **1.2.6 Fieldwork quality control**

#### ***Training interviewers***

All interviewers working on the survey were fully briefed on: the collection and checking of FFQs, placing of the 4 day diet diary and giving instructions for its completion, administering the face to face interview and taking height and weight measurements. Practice sessions on each of these components were included in the briefings for interviewers.

For those interviewers who were also to carry out the 24-hour recall interview there was additional training and practice sessions in conducting the recall. Prior to starting work on the survey interviewers were required to complete one practice recall shortly after the briefing. This was sent to the nutritionists at Kings College London for checking. Interviewers received feedback on the quality of the detail collected in the practice recall.

Full sets of written instructions covering both survey procedures and measurement protocols were provided to interviewers.

New interviewers were accompanied by an interviewer supervisor during the early stages of the survey to ensure that interviews and protocols were being correctly administered.

#### ***Checking interviewer and measurement quality***

A number of quality control measures were built into the survey at both data collection and subsequent stages to check the quality of interviewer performance.

Calls were made to 10% of respondents to the face to face interviews to check interviewers work.

The computer programme used by interviewers had in-built soft checks (which can be suppressed) and hard checks (which cannot be suppressed) which included messages querying uncommon or unlikely answers. For example if an unlikely weight was entered a soft check asked the interviewer to confirm that the entry was correct. There were also prompts to the interviewer if the child had been selected to complete a 24-hour recall or 4 day diet diary.

## **1.3 Weighting**

The data was weighted so that the estimates generated from the responding sample more accurately reflect the characteristics of the population of children aged 3-16 years, in Scotland in 2006. Weights were calculated to take account of selection and non-response bias and then these composite weights were adjusted to create a calibration weight.

### **1.3.1 Selection weights**

Selection weights are required when a certain group or area has been selected at a different rate to the rest of the sample. This group or area is subsequently over-represented in the final sample and any analyses carried out on the sample will be biased. In these instances a weight is needed to give unbiased survey estimates.

#### ***Whole sample***

The main-stage sample was drawn with equal probability; each child had the same chance of being included in the sample, as such it did not require selection weights.

#### ***Sub-samples***

The selection for the sub-samples was carried out after the exclusions and the opt-out. This means there were slightly different numbers of children available per area, so the chance a child had of being selected varied slightly between different areas. In addition we were required to vary the numbers allocated to the diary per area to get the target of 200 completed diaries. The selection weights for the sub-samples were calculated as the inverse of the selection probabilities.

### **1.3.2 Weights for non-response**

A number of checks on the achieved sample were carried out to look for possible sources of bias. The checks indicated there were small differences between the age and sex breakdown of the sample and the population of Scottish children aged 3-16. This was likely to be due to both the exclusions made by DWP and the effects of non-response. There were also differences in the age profile of the mother, the local area type and the level of rural areas in the sample. Younger mothers and urban areas were under represented. A set of non-response weights were generated to address these differences, these are described in more detail below.

#### ***Modelling household non-response***

The response behaviour of the sample was modelled using logistic regression. The results of the model were used to generate a household non-response weight. The dependent variable (whether or not the selected household took part in the survey) was predicted using variables from the CB records, publicly available area-level data and interviewer observation variables. Area-level variables included the 2006 Scottish index of multiple deprivation, region, the Office of National Statistics (ONS) local authority-level area classification, urban/rural indicators and data from the 2001 Census. Interviewer observation variables included dwelling type, whether there were barriers to entry of the selected address and general condition of the selected address and surrounding area.

Variables such as age and sex of child, age of child benefit recipient (usually the mother), household size and method of benefit payment were taken from the CB records.

Logistic regression models generate the probability of a household participating in the survey given their 'type' (based on information available from the CB, area and observation variables). The non-response weights were then calculated as the inverse of these predicted probabilities. Households of a type that were reluctant to take part in the survey will have a smaller probability and a larger weight.

The model shows that households reluctant to take part in the survey tended to have older children (male or female), a younger recipient of child benefit, live in urban areas and have barriers to entry, such as door entry systems and locked gates. The full model is given in Table A2.

**Table Error! No text of specified style in document..2 The household non-response model**

	B	S.E.	Wald	df	Sig.	Exp(B)
ONS local authority area indicator			10.1	3	0.018	
Cities and Services					(Baseline)	
Prospering UK	0.07	0.22	0.1	1	0.756	1.07
Coastal and Countryside	0.44	0.14	9.6	1	0.002	1.56
Mining and Manufacturing	0.15	0.11	1.7	1	0.191	1.16
Interviewer observation variables:			12.9	1	0.009	
barriers to address					(Baseline)	
No barriers to entry						
Barrier to entry	-0.27	0.16	12.9	1	0.009	0.77
Age of Child Benefit recipient			17.4	4	0.002	
19-29					(Baseline)	
30-34	0.05	0.18	0.1	1	0.781	1.05
35-39	0.32	0.17	3.7	1	0.053	1.38
40-44	0.53	0.18	8.6	1	0.003	1.69
40+	0.59	0.20	8.3	1	0.004	1.80
Age and sex of selected child			29.2	9	0.001	
Male 3-4					(baseline)	
Male 5-7	0.18	0.22	0.7	1	0.405	1.20
Male 8-10	0.32	0.22	2.1	1	0.145	1.37
Male 11-13	0.03	0.22	0.0	1	0.898	1.03
Male 14-16	-0.45	0.23	4.0	1	0.047	0.64
Female 3-4	0.16	0.25	0.4	1	0.529	1.17
Female 5-7	0.24	0.23	1.1	1	0.290	1.27
Female 8-10	0.40	0.23	3.1	1	0.079	1.49
Female 11-13	0.16	0.22	0.5	1	0.466	1.18
Female 14-16	-0.27	0.23	1.4	1	0.240	0.76
Constant	0.34	0.22	2.3	1	0.129	1.41

- Notes:
1. The response is 1 = household response, 0 = household non-response.
  2. Only variables that are significant at the 0.05-level are included in the model.
  3. The model R<sup>2</sup> are 0.025 (Cox and Snells).

4. **B** is the estimate coefficient with standard error **S.E.**
5. The **Wald**-test measures the impact of the categorical variable on the model with the appropriate number of degrees of freedom **df**. If the test is significant (**sig** < 0.05) then the categorical variable is considered to be 'significantly associated' with the response variable and therefore included in the model.
6. The **Wald** test for each level of the categorical variable is also shown. This tests the difference between that level and the baseline category.

### 1.3.3 Calibration weighting

The age and sex of the selected child was included in the household non-response model, this means any biases in the age and sex profile of the sample due to non-response should be removed. However, the household non-response weight will not remove any biases that may be due to the exclusions made by the DWP.

We made a further adjustment after the household non-response weight to correct any biases resulting from the exclusions. The sample was weighted to the marginal age/sex distribution using raking-ratio (or rim) weighting. The age/sex profile of the children before and after weighting is given in Table A.3. It can be seen how the calibration weights make the weighted sample exactly match the population of Scottish Children aged 3-16<sup>3</sup> in terms of age and sex. The calibration weight (main\_wt) is the final non-response weight used in the analysis of the core data

**Table A3 The age/sex breakdown of children in the sample and the population**

Age and sex of selected child	All children sent to NatCen from DWP (minus exclusions)	Unweighted respondents	Respondents weighted by household wt	pop (mid year 2005 from GROS)	Respondents weighted by final calibrated wt
	%	%	%	%	%
Male 3-4	6.62	6.18	6.56	6.36	6.36
Male 5-7	10.45	10.47	10.43	10.31	10.31
Male 8-10	12.41	13.12	12.44	10.93	10.93
Male 11-13	11.78	11.82	11.76	11.64	11.64
Male 14-16	10.20	8.94	10.21	11.94	11.94
Female 3-4	6.24	6.12	6.23	6.19	6.19
Female 5-7	9.62	9.76	9.61	9.77	9.77
Female 8-10	11.07	12.12	11.09	10.37	10.37
Female 11-13	12.03	12.53	12.08	11.18	11.18
Female 14-16	9.58	8.94	9.59	11.31	11.31
Total	2,402	1,700	2,402	831,900	1,700

### 1.3.4 Weighting the FFQ

An additional weight was created for the analysis of data from the food frequency questionnaire. Non-response to the food frequency questionnaire was modelled using the same method outlined in Section 1.3.2. The outcome was whether or not a respondent had completed and returned a food frequency questionnaire. The variables used to model the response behaviour were taken from the main questionnaire. These were; tenure, ethnicity of the main food provider, ethnicity of the selected child, activity status of the household reference person, marital status of the household reference

<sup>3</sup> Population figures taken from GROS 2005 mid-year population estimates



person, the number of dependent children in the household and total number of persons in the household. The variables used in Section 1.3.2 to model household non-response were also included.

The final model is given in Table A.4 below. The model shows that respondents who returned a completed food frequency questionnaire were more likely to live in private rented households, come from a non-Scottish white background and to live with a household reference person who was married and living as a couple.

**Table A.4 Model for response to the Food Frequency Questionnaire**

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Tenure			16.7	2	0.000	
Owner occupier					(baseline)	
Council / HA renting	-0.66	0.17	14.7	1	0.000	0.52
Private renting	0.18	0.37	0.2	1	0.623	1.20
Marital status of HRP			12.0	2	0.003	
Single, never married					(baseline)	
Married and living as a couple	0.63	0.20	10.1	1	0.001	1.88
Separated, divorced or widowed	0.12	0.20	0.4	1	0.551	1.13
Ethnicity of Main Food Provider			9.5	2	0.008	
Scottish					(baseline)	
Other white	0.95	0.31	9.4	1	0.002	2.58
Other non-white	0.22	0.45	0.2	1	0.629	1.25
Constant	1.67	0.19	75.8	1	0.000	5.33

R squared = 0.039

### **1.3.5 Weighting the sub-samples**

Separate weights were generated for analyses of the two sub-samples.

A weight was generated for the 24 hour recall sub-sample that was the product of the main state weight (main\_wt) and the recall sub-sample selection weight. This weight, the recall\_wt was used for analyses involving data from the recall sub-sample. If the levels of non-response to the sub-samples were sufficiently high then additional non-response weights would be needed before any sub-sample analyses could be carried out. The level of non-response to the 24-hour recall was very low; of the 429 respondents who completed the main stage questionnaire and who were asked to carry out a 24-hour recall, 424 agreed and 5 refused. This gives a response rate of 98.8%. The low level of non-response means the amount of bias introduced was negligible and a separate stage for non-response weighting was not needed.

The level of non-response was much higher for the 4-day diary, even with the additional incentive given to respondents. This was due to the greater respondent burden involved in keeping a 4-day diet diary. There were 317 children who had completed the main questionnaire and were asked to keep a 4-day diary. Of these 186 (58.7%) completed

and returned the diary. The lower response meant a further stage of non-response weighting was needed.

The information collected at the main stage was used to model non-response using the same method as described in Section 1.3.2. Information used included ethnicity of the main food provider, marital status of household reference person, tenure, activity status of household reference person and household size. The variables used to model household non-response were also used, including age of benefit recipient and age and sex of selected child.

The variables most strongly related to probability of the child completing the 4-day diet diary were the marital status of the household reference person and tenure. Children were more likely to fill in the diary if they lived in owner occupied housing and their parents lived as a couple. Children were least likely to agree to fill in a diary if their head of household had never been married and they lived in council or social housing. The full model is given in Table A.5

**Table A.5 Non-response model for the diary sub-sample**

	B	S.E.	Wald	df	Sig.	Exp(B)
Tenure			7.5	2	0.024	
Owner occupier					(baseline)	
Council / HA renting	-0.76	0.28	7.3	1	0.007	0.47
Private renting	-0.49	0.49	1.0	1	0.321	0.61
Marital status of HRP			11.0	2	0.004	
Single, never married					(baseline)	
Married and living as a couple	0.89	0.34	6.9	1	0.009	2.44
Separated, divorced or widowed	0.04	0.39	0.0	1	0.908	1.05
Constant	0.03	0.33	0.0	1	0.926	1.03

- Notes:
1. The response is 1 = child completed a 4-day diary, 0 = diary non-response.
  2. Only variables that are significant at the 0.05-level are included in the model.
  3. The model R<sup>2</sup> are 0.091 (Cox and Snells).
  4. **B** is the estimate coefficient with standard error **S.E.**
  5. The **Wald**-test measures the impact of the categorical variable on the model with the appropriate number of degrees of freedom **df**. If the test is significant (**sig** < 0.05) then the categorical variable is considered to be 'significantly associated' with the response variable and therefore included in the model.
  6. The **Wald** test for each level of the categorical variable is also shown. This tests the difference between that level and the baseline category.

The final diary weight is the product of the main weight (main\_wt), the diary selection weight and the non-response weight from the model. The weight was called diary\_wt and was used for any analyses involving data collected in the 4-day diary. (Table A.6)

**Table A.6 Final weights**

	N	Minimum	Maximum	Mean	Std. Deviation
Weight for main stage analysis (main_wt)	1700	0.67	2.33	1	0.242
Final weight for the Food Frequency Questionnaire (FFQ_wt)	1490	0.60	2.78	1	0.261
Weight for analyses of 24hr recall sub-sample (recall_wt)	424	0.58	2.03	1	0.230
Weight for analyses of diary sub-sample (diary_wt)	185	0.52	2.87	1	0.389

### **1.3.6 Sample precision**

Ideally weights are needed which reduce bias in the sample whilst also keeping any reduction in precision to a minimum. If the weights are too variable the standard errors are inflated, this widens the confidence intervals around the survey estimates, making them less precise. The effective sample size can be used to measure the effects the weights are having on the sample precision. The effective sample size is the size a simple random sample would have to be to give estimates of the same precision as the sample design in question. If the effective sample size is close to the actual sample size then the sample is efficient and there is little loss in precision due to the weights. The main sample had an effective sample size of 1,606. The responding unweighted sample was 1,700; this gives the sample an efficiency of 94%. The 24-hour recall sample has an effective sample size of 403 and an efficiency of 95%. The diary sample has an effective sample size of 161, giving an efficiency of 87%.

## 1.4 Food groups in the Food Frequency Questionnaire

The data from the FFQ was categorised into 33 food groups as shown in Table A6.

**Table A6 Food groups in the Food Frequency Questionnaires**

Food Group	FFQ question number	FFQ description
Pasta, rice, pizza and other cereals	7g 7h 7i 8a	Pasta or couscous Rice Noodles (all types) Pizza
Bread excluding wholemeal	2a 2b 2d 2e	White bread or rolls Brown or granary bread or rolls Croissants, garlic bread or Aberdeen Rolls Pitta, naan, tortilla, bagel etc
Wholemeal bread	2c	Wholemeal bread or rolls
Unsweetened breakfast cereals including muesli	1a 1c 1d	Unsweetened cereals Ready Brek or porridge Muesli
Sweetened breakfast cereals	1b	Sweetened cereals
Biscuits, cakes and pastries	13e 14a 14b 14c 14d 14e 14f 14g 14h 14i 14j	Savoury biscuits, crackers or breadsticks Plain biscuits Fancy biscuits Chocolate biscuits Cereal bars or flapjacks Scones or pancakes Doughnuts or muffins Fruit cake or malt loaf Plain cakes Cakes with icing Cream cakes or gateaux
Puddings	15a 15b 15c 15d 15e 15f 15g	Mousse Jelly Milk puddings Sponge puddings Fruit tarts, crumbles or pies Custard Cheesecake
Milk and cream	3a 3b 3c 3d 3e 4e 4f	Full fat cow's milk Semi-skimmed cow's milk Skimmed cow's milk Soya milk Flavoured milk Cream Full fat cream cheese
Cheese	4g 4h 4i	Cheddar cheese Edam, cheese spreads Low fat cheese

Yoghurt and fromage frais	4a 4b 4c 4d	Drinking yogurts Flavoured yogurts Fromage Frais Natural, low fat or low calorie yogurt
Ice cream	16c 16d	Wrapped ice creams Other ice cream
Eggs and egg dishes	4j 8b	Eggs Quiche
Fats and oils	12f	Butter or margarine
Meats and meat dishes, excluding processed meat	5b 5e 5f 5h 5j	Meat sauce Bacon or gammon Cold ham or turkey Stewed, fried or grilled meat Other chicken or turkey
Processed meat including sausages, burgers, coated chicken	5a 5c 5d 5g 5i 5k	Meat burgers or mince Frankfurters Sausages Salami etc. Chicken nuggets Meat or chicken pies, pasties, sausage roll
White fish, shellfish and fish dishes	6a 6b 6c 6d 6h 6j	Fish fingers Fish cakes or fish pie Grilled or poached white fish Fried or battered white fish or scampi Tuna Prawns
Oily fish and dishes	6e 6f 6g 6i	Grilled oily fish Fried oily fish Smoked oily fish Tinned salmon, sardines, mackerel, pilchards
Vegetables excluding potatoes and baked beans	8c 8d 8f 9a 9b 9c 9d 9e 9f 9g 9h 9i 9j 9k 9l 9m 9n 9o	Quorn, Soya or Tofu Nut roast, nut burgers or vegetable burgers Other beans or lentils (excluding soups) Mixed vegetable dishes (e.g. curry, stir-fry, bake) Peas or green beans Sweetcorn Broccoli Cabbage Spinach Other green veg. Cauliflower, swede (neeps) or turnip Raw carrots Cooked carrots Onions Tomatoes Peppers Other salad veg Coleslaw
Baked beans	8e	Baked beans
Chips, fried and roast potatoes and potato products	7b 7c	Potato croquettes or waffles Roast or fried potatoes

	7d 7e 7f	Oven chips Home cooked chips Bought chips
Other potatoes, potato salads and dishes	7a 9p	Boiled, mashed or baked potatoes Potato salad
Crisps and savoury snacks	13a 13b 13c	Regular crisps Reduced fat crisps Other savoury snacks
Fruit, excluding fruit juice	10a 10b 10c 10d 10e 10f 10g 10h 10i	Fresh fruit salad Tinned fruit (all kinds) Apples Oranges Bananas Grapes, melon, pear Kiwi Other fruit Dried fruit
Nuts and seeds	12c 13d	Peanut butter Nuts
Table sugar and preserves	12a 12b 12d	Sugar (added) Jam etc Chocolate spread
Confectionery	16a 16b 16e	Boiled, chewy sweets or chocolate Chocolate bars Iced lollies
Fruit juice including smoothies	11a 11b 11m (C2 - 11o)	Pure apple juice Other pure fruit juice Smoothies
Soft drinks, not diet	11c 11d 11f 11h 11j	High juice fruit drinks Regular fruit juice drinks Blackcurrant diluting juice Orange, lemon etc. diluting juice Regular fizzy drinks
Soft drinks, diet	11e 11g 11i 11k	Other fruit flavoured drinks including flavoured water No added sugar blackcurrant diluting juice No added sugar orange, lemon or other diluting juice Low calorie fizzy drinks
Alcoholic drinks (not in version C2)	11q 11r 11s 11t 11u	Alcopops Lager or beer Cider Wine Spirits or liqueurs
Tea, coffee and water  (coffee not in version C2)	11l (C2 – 11n) 11o (C2 – 11m) 11p	Water Tea (regular) Coffee
Powdered beverages *	11n (C2 – 11l)	Drinking chocolate
Soups and sauces	8g 8h 8i 8j 8k	Canned or dried soup Home made soup Bottled sauces (e.g. ketchup) Tomato sauce Other sauce

	8l 8m 12e	Gravy Mayonnaise or salad cream Marmite
--	-----------------	---

\*This is equivalent to the beverages (dry weight) group used in LIDNS<sup>i</sup> and NDNS<sup>ii</sup>

## 1.5 24-hour recall methodology<sup>iii</sup>

The 24-hour recall method used was the 'multiple pass' method in which information was collected in three phases in a single interview as follows:

I. A quick list of foods eaten or drunk.

Respondents were asked to report everything that they had to eat or drink on the previous day between midnight and midnight. This recall session was not interrupted. Respondents were then invited to add any additional items not initially recalled.

II. Collection of detailed information concerning the items in the quick list.

For each item of food or drink, respondents were asked to provide additional detail:

- The time at which the food or drink was consumed.
- A full description of the food or drink, including brand name where available.
- Any foods likely to be eaten in combination e.g. jam on toast.
- Recipes and other combinations of foods e.g. sandwiches.
- The quantity consumed, based on household measures, photographs of different portion sizes of foods, or actual weights.
- Any leftovers or second helpings.

III. A recall review in which respondents were given an opportunity to provide additional information and for the interviewer to prompt for information about foods or drink not mentioned.

The interviewer reviewed all the food eaten and drunk in chronological order, prompted for any additional eating or drinking occasions and foods or drinks consumed, and clarified any ambiguities regarding the type of food or drink consumed and portion size. Finally the interviewer asked the respondent to select a place name for each eating and drinking occasion from a show card. This identified where the food item was eaten (e.g. home) and where the food came from (e.g. takeaway outlet).

When the 24-hour recall had been completed, respondents were asked questions regarding drinking water and dietary supplements (including vitamin, mineral and sports supplements). Respondents were also asked whether or not the day recalled was typical of their usual food and drink consumption. Those who reported that their intake of food or drink was more or less than usual were asked to specify the reason why.

In order to standardise the method, interviewers followed a detailed protocol which provided full details on carrying out the recall, including what to say and in what order, what information was required and when to refer to other materials such as show cards. Interviewers were also supplied with a prompt sheet that specified the amount of detail that should be collected for many types of food in order to facilitate the accurate coding of these items later.

Before starting the 24-hour recall, interviewers recorded details on a few commonly consumed items that respondents had in their food store - bread, milk, spread, oil or other fat used for cooking and concentrated fruit juice/squash.

Examples of all documents used in the 24-hour recall method are provided in Appendix F.

### *Recipes*

For homemade recipes, interviewers recorded as much information as they could on the recipe sheets of the recall booklet: details of the ingredients and amounts used and the cooking method. Where recipes were eaten away from home interviewers were encouraged to collect as much detail as possible of the contents of the dish from the respondent. Foods/recipes eaten by minority ethnic groups were checked for spelling and labels were looked at (if available).

### *School meals*

In cases where a child ate a dish at school that was a recipe, it was important the interviewer confirmed the exact name of the dish so that, for example, a cottage pie would not be mistakenly recorded as a shepherd's pie. Interviewers were provided with menus for primary and secondary state schools. If a child found it difficult to remember what they had to eat at school and/or the quantity they had consumed, interviewers used the menus to prompt and confirm with the child which foods/how much she/he ate. Interviewers contacted private schools directly to obtain menus on the same day or the day after the interview in order to obtain menu information for the day being recalled. This was done as soon as possible after the 24 hour recall, sometimes over the phone. Interviewers made a note of any concerns over accuracy of the detail being recalled.

### *Estimation of portion size*

For each item of food and drink consumed, respondents were asked to give an estimate of the portion size. A portion size could be described in terms of:

- photographs in the Photographic Atlas of Food Portion Sizes<sup>iv</sup> ('the food atlas'),
- household measures (e.g. one level teaspoon of sugar, 1 kit kat (2 sticks)),
- weights (e.g. a 420g tin of baked beans, 125g pot of yoghurt).

For older children, preference was given to using the food atlas from the three options. Very young children often have difficulties with conceptualisation of the portion sizes in the food atlas and so household measures and weights from packaging were used as an alternative. Portion sizes were confirmed with the parent/carer where appropriate.

In addition, not all foods appear in the atlas, particularly those eaten by people from minority ethnic groups. Where this was the case respondents were asked to describe amounts using household measures. Weights were only used if the interviewer was shown the weight on packaging and not if respondents guessed weights.

Any leftovers could be estimated as a fraction of the original portion, using another photograph from the food atlas or from household measures.



## **1.6 Food coding and data entry of the 24-hour recall and 4-day diet diary**

Food coding and data entry of the 24-hour recalls was generally carried out in line with the Low Income Diet and Nutrition Survey (LIDNS).<sup>v, vi</sup> Similar methods were used for the 4-day diet diary.

### **1.6.1 Food coding and data entry**

The Blaise program was used to computerise and automate the entry of the 24-hour recall and the diary data (Rec24 program).

A food code list containing codes for about 4000 items provided a full description of each item taken from the National Diet and Nutrition Surveys nutrient databank (see Section 1.6.3). An additional check list (originally prepared for the LIDNS survey) was used to help correctly code particular food groups which required a lot of detail, for example soft drinks and fats used for spreading and cooking. For composite items<sup>vii</sup> which could be split into their component parts, for example sandwiches, each individual component was assigned a code.

#### **24-hour recall**

As well as assigning a food code for each item of food and drink consumed, a portion code was assigned relating to the *amount* for each item. If the amount consumed had been described using a photograph from the food atlas<sup>iv</sup> the photograph number was entered. If the amount consumed had been described in household measures (e.g. tablespoon), the corresponding portion code was determined using the 'food coding' program. If the amount consumed had been described as a weight (or volume), the weight in grams (or volume in ml) was entered. The Rec24 program would then automatically calculate the weight consumed (in grams) from the description of the amount consumed (photo atlas number, household measure or weight).

Additional information was also available for the 24-h recall coding for certain foods the respondent had in their food store (see Section 1.5). Reference was also made to food/recipe and portion size data collected from schools for the surveys of school meal as in primary<sup>viii</sup> and secondary<sup>ix</sup> schools in England for the accurate coding of school lunches. The FSA also supplied portion sizes for children of different ages for a range of foods eaten in the home, supermarket products and fast foods, which were also used for reference.<sup>x</sup> Formally agreed default values based on those from LIDNS were used to answer individual queries if no other information was available.

#### **Diet diaries**

For the diet diaries the amount consumed was converted into a weight in grams which was entered directly into the REC24 program. In a small number of cases the respondent was contacted by telephone to clarify details in their diet diary. Default values were used, as in the 24-hour recall, if no other information was available.

### **1.6.2 Recipes, new foods**

All homemade recipes recorded in the 24-hour recall were individually checked and the type and proportion of ingredients used was compared with existing recipes on the nutrient databank (see Section 1.6.3). If the ingredients differed from an existing recipe in a way that was nutritionally significant, a decision was made as to whether it required a new code, based on the nutritional composition compared with that of existing codes and the quantity consumed. If a new food code was allocated to the item, the recipe for each new food code was recorded. This comprised the gram weight for each ingredient, percentage vitamin losses for each ingredient where appropriate and, for a cooked dish, a percentage water loss for the whole dish. Each new recipe was added to the nutrient databank and the nutrient content calculated.

For any new products that arose from the 24-hour recalls or diaries not on the food code list, details were obtained by visiting supermarkets in person or supermarket websites and taking information from packaging or by contacting the manufacturer to obtain information on nutrient content in order to decide whether an existing food code could be used or if a new food code was needed.

### **1.6.3 The nutrient databank**

The databank contains nutritional information on over 8,000 foods and drinks, including manufactured products, homemade recipe dishes and many types of dietary supplements. Each food on the databank has values assigned for 54 nutrients and energy. The nutrient values assigned to the foods in the databank are based on data from the Agency's rolling programme of nutrient analysis of foods. These data are also incorporated into McCance and Widdowson's *The Composition of Foods* series.<sup>xi</sup> New analytical values were incorporated for LIDNS, along with data from the Food Standard Agency's (2004) 'catch-up' project, which analysed composite samples of a wide range of foods for which the Agency did not have detailed information.<sup>xii</sup> Further details of the nutrient databank have been published elsewhere.<sup>xii,xiii</sup>

## 1.7 REFERENCES

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- i Wells L and Holmes B. Food consumed. Ch 4, Vol 2. In: The Low Income Diet and Nutrition Survey: Nelson M, Erens B, Bates B, Church S, Boshier T [Editors]. London: TSO, 2007.
- ii Gregory JR, Lowe S, Bates CJ, Prentice A, Jackson LV, Smithers G, Wenlock R, Farron M. National Diet and Nutrition Survey: young people aged 4 to 18 years. Volume 1: Report of the diet and nutrition survey. London: TSO, 2000.
- iii For further details see: Roberts C. 24-hour recall methodology. Appendix H. *In: Low Income Diet and Nutrition Survey.* Nelson M, Erens B, Bates B, Church S, Boshier T (eds). London: TSO, 2007.
- iv Nelson M, Atkinson M, Meyer J. A Photographic Atlas of Food Portion Sizes. London: Food Standards Agency, 2002. This atlas contains 78 sets of photographs of portion sizes of a wide range of foods. It also provides additional guide photographs for other foods that come in defined portion sizes, e.g. bread rolls, and also photographs of a variety of household measures, e.g. mugs, glasses.
- v Roberts C. Food coding, data entry and editing of the 24-hour recall. Appendix I. *In: Low Income Diet and Nutrition Survey.* Nelson M, Erens B, Bates B, Church S, Boshier T (eds). London: TSO, 2007.
- vi A number of differences existed between this survey and LIDNS including the number of days of 24-hour recall data (NMES 1 day, LIDNS 4days), and the coding of the 24-hour recall data (NMES coders coded and entered all 24-hour recall data, LIDNS interviewers coded the 24-hour recall data, while coders entered the data).
- vii Composite items consist of more than one food, consumed together but not cooked together, that can be split into their component parts, for example a sandwich. Recipes differ from composite items since they consist of more than one food that has been cooked together for example a lasagne.
- viii Nelson M, Nicholas J, Suleiman S, Davies O, Prior G, Hall L, Wreford S, Poulter J. School Meals in Primary Schools in England. London: DfES; FSA, 2006.
- ix Nelson M, Bradbury J, Poulter J, McGee A, Msebele S, Jarvis L. School Meals in Secondary Schools in England. London: DfES; FSA, 2004.
- x Wrieden WL, Longbottom PJ and Barton KL. Children's food portion sizes: Estimation of typical portion sizes for children of different ages. Final technical report to the Food Standards Agency. London: FSA, 2007.
- xi Food Standards Agency. McCance and Widdowson's The Composition of Foods. Sixth summary edition. Cambridge: Royal Society of Chemistry, 2002.
- xii Further details are given in: The nutrient databank and details of nutrients measured. Appendix N. *Low Income Diet and Nutrition Survey.* Nelson M, Erens B, Bates B, Church S, Boshier T (eds). London: TSO, 2007.
- xiii Smithers G. MAFF's Nutrient Databank. *Nutr & Fd Science* 1993; 2:16-19.

## APPENDIX B      FIELDWORK DOCUMENTS



Dear M

### Study of Children's Diets in Scotland

I am writing to you to ask for your help. The Food Standards Agency (Scotland) is funding a study of what children in Scotland eat. The study will measure the amount of sugar in children's food. It will also measure the intake of other nutrients and ask questions about children's dental health and physical activity.

Your child,

has been randomly selected from our records of children living in Scotland and aged 3 to 16 years on 1<sup>st</sup> May 2006. Taking part in the survey is up to you but we very much hope that you will help us. It is important that the study collects information about as many children as possible so that we can get an accurate picture of what children in Scotland eat.

The Scottish Centre for Social Research (ScotCen) has been asked to carry out the study on behalf of the Food Standards Agency Scotland. ScotCen is part of the National Centre for Social Research, Britain's largest independent, not-for-profit social research organisation, and carries out many important studies for government departments.

For children under 12 years of age, interviews will be with an adult (usually a parent). For those aged 12 to 16 years the interview will be directly with them although in the presence of an adult.

The interviews will begin in late May and June and ScotCen will write to you nearer the time with further details. An interviewer will visit you to arrange a convenient time for the interview. You can choose for the interview to take place during the daytime, in the evening or at the weekend. The interview will be carried out in your own home. The interviewer will carry a ScotCen photographic identification card.

Whether or not you take part in this study will not affect your entitlement to any benefits or tax credits or any other dealings with HM Revenue & Customs (HMRC) or other Government departments, now or in the future. Anything you tell the interviewer will be treated in the **strictest confidence**. No report of the survey will identify you or your family.

I hope that you will be able to help with this study. However, if you do not wish an interviewer to contact you, or if you have any queries about the study please contact the Study of Children's Diets in Scotland helpline on **FREephone 0800 652 4572** between 9am and 4pm, Monday to Friday. Alternatively you can write to:

Study of Children's Diets in Scotland  
**FREPOST EH2075**  
5 Leamington Terrace  
EDINBURGH  
EH10 0NP

Please give your name and the serial number at the top of this letter to ensure that you are not contacted again about this study.

Thank you in advance for your help

Yours sincerely

Analysis  
HM Revenue & Customs

## Study of Children's diet in Scotland

The *Scottish Centre for Social Research* is carrying out the interviews for this important new study of what children in Scotland eat. The study is being conducted on behalf of the Food Standards Agency (Scotland).

Your child,

has been randomly selected from children living in Scotland and, aged 3 to 16 years on 1st May 2006, to be included in the study. A short while ago you should have received a letter telling you about the study and inviting you to take part. One of our interviewers will visit you shortly to ask for an interview at a time convenient to you. Our interviewers always carry an identification card, which includes their photograph and our logo, as shown at the top of this letter.

The interviewer will treat everything you say in strictest confidence in accordance with the Data Protection Act. We, too, will treat your answers as confidential and will not pass them on to anyone outside the research team.

Before the interviewer calls to carry out the interview with you, we would appreciate it if you could complete the enclosed questionnaire on behalf of the child named above. If your child is over 12 years of age then we would like them to complete the questionnaire themselves with help from you if needed. Please read the instructions before you/your child completes the questionnaire. When the interviewer calls they will pick up the completed questionnaire. They will also ask some additional questions including details of your child's physical activity and dental health. Some of you will also be asked some further questions about what your child has eaten in the previous 24 hours or be invited to complete a diet diary.

We have enclosed a voucher as a token of our thanks for completing the enclosed questionnaire and taking part in the study.

Your interviewer should be able to answer any further questions you may have about the study, however, if you have any questions or concerns, please do call us on 0800 652 4572. We would be happy to discuss them with you.

Thank you for helping us with this study.

Yours sincerely,



Christine Sheehy  
Senior Researcher

# Study of children's diets in Scotland

## 4 day food diary

I consent to my telephone number being passed onto researchers at Aberdeen University who are working on this study to enable them to contact me regarding completion of the 4 day food diary for:

Child's name: .....

Parent/guardian's name: .....

Parent's/Guardian's Signature: .....

Telephone number: .....(daytime) ..... (evening)

Please give any additional details here that might enable researchers to get in touch with you.

.....  
.....  
.....

---

### Receipt

I confirm that I have received a £10 High Street voucher as a token of appreciation for agreeing to complete the 4 day food diary for the child named below:

Name of child (print): .....

Name of parent/guardian (print): .....

Signature of parent/guardian: ..... Date:.....

### **OR, for respondents over 12 years of age:**

I confirm that I have received £10 High Street voucher as a token of appreciation for agreeing to complete the 4 day food diary

Name (print) .....

Signature:..... Date:.....

---

Interviewer use only

Serial no:

CHK

Interviewer number:

Thank you for your co-operation

Scottish Centre for Social Research  
5 Leamington Terrace  
Edinburgh EH10 4JW

Tel: 0131 228 2167

Serial number

--	--	--	--	--

P7015

**STUDY OF CHILDREN'S DIETS IN SCOTLAND**

**MEASUREMENT RECORD CARD**

FULL NAME: \_\_\_\_\_



Scottish Centre *for*  
Social Research

*Incorporating Scottish Health Feedback*

**Conversion Charts**

**Height**

5cm	2"
10cm	4"
50cm	1ft 7"
75cm	2ft 5"
100cm	3ft 3"
125cm	4ft 1"
150cm	4ft 11"
175cm	5ft 8"
200cm	6ft 6"

**Weight**

1kg	2lbs 3oz
5kg	11lbs
10kg	1 st 8lbs
20kg	3st 2lbs
30kg	4st 10lbs
40kg	6st 4lbs
50kg	7st 12lbs
60kg	9st 6lbs
70kg	11st
80kg	12st 8lbs
90kg	14st 2lbs

**Interviewer:** Name \_\_\_\_\_

Date of visit \_\_\_\_\_

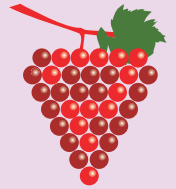
<b>HEIGHT:</b> _____ cm
_____ ft/ins

<b>WEIGHT:</b> _____ kg
_____ st/lbs





Scottish Collaborative Group Food Frequency Questionnaire version C2

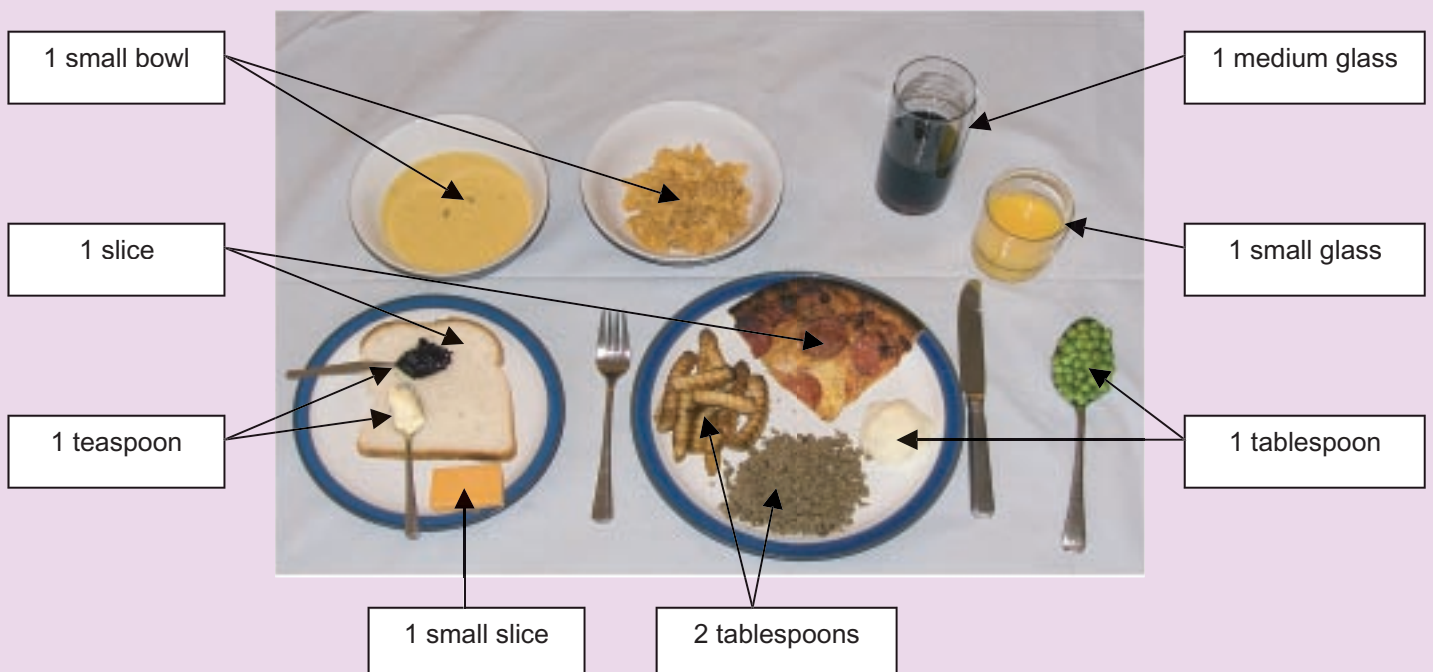


## Diet questionnaire for children

© University of Aberdeen, 2006

We would like you to describe your child's usual diet over the last 2-3 months. This should include all main meals, snacks, and drinks. You should also include any foods and drinks your child consumed outside your home, e.g. at school or nursery, at out of school clubs, at restaurants or cafes or with friends and other family members.

The questionnaire lists 140 types of foods and drinks. For each food or drink a measure is given which describes a small portion to help you estimate how much your child usually has. The photograph below gives examples of some of these measures.



If not collected by the interviewer please return the questionnaire in the FREEPOST envelope to:

National Centre for Social Research  
Operations Department  
Kings House, 101 - 135 Kings Road  
Brentwood, Essex CM14 4LX

## How to complete the questionnaire

**Please take a few minutes to read the instructions carefully.**

Please use **black or blue pen** to complete the questionnaire: do not use pencil.

For **every line** in the questionnaire, you need to tick **one box** to say how many times your child usually has this food or drink.

- If your child does not usually have any of this food or drink, please tick the first box (rarely or never).
- If your child has the food or drink more than once a month but less than once a week, please tick the next box (one or two per month).
- If your child has the food or drink every week but not every day, please tick one of the weekly boxes to indicate how many measures of this food or drink he/she has in a typical week (1 per week, 2-3 per week or 4-6 per week).
- If your child has the food or drink every day, please tick one of the daily choices (1 per day, 2-3 per day, 4-6 per day or 7 or more per day).

*For dishes that are made up of more than one food you may have to split it up into its separate parts e.g. a ham sandwich (2 slices of white bread, 1 teaspoon of butter and 2 slices of ham).*

*For a few foods, your child may have more than one measure on several days a week but not every day. For these foods please use the daily choices which give approximately the same total intake per week, e.g. for 8-10 measures per week please tick 1 per day (see example of white bread below).*

### **Example:**

If your child has a piece of Weetabix every day, three medium glasses of regular blackcurrant diluting juice every day, two slices of white bread 5 days a week, an apple twice a week, but never has peanut butter, your answers should look like this:

Food	Measure	Rarely or never	One or two per month	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day
Unsweetened cereals (e.g. Cornflakes, Shreddies, Weetabix, Rice Krispies)	1 small bowl, 3 tablespoons or 1 piece						√			
Regular blackcurrant diluting juice	1 medium glass							√		
White bread or rolls	1 slice or roll						√			
Apple	1 small apple				√					
Peanut butter	1 teaspoon	√								

If you want to change an answer, simply cross out your first tick and add another one in the right box.

If your child has any foods or drinks which are not listed, or if you are not sure about where to add any foods or drinks, please use section 17 ('other foods') at the end of the questionnaire.

**It is very important that you put a tick on every line.**

**If your child rarely or never has the food, it is very important that you tick the box for rarely or never.**











### 17. Other foods

Please enter details of any foods or drinks which your child has at least once a week which have not been included in the questionnaire above

Food or drink description	Amount usually consumed	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day

### 18. Brand details

Please give full details of the types (including brand name if possible) of any of the following foods which your child usually has

Butter or Margarine (e.g. Flora Buttery)

..... Office code

..... Office code

Oil or fat used for home cooking (e.g. Tesco corn oil)

..... Office code

..... Office code

### 19. Dietary supplements

Please give as full details as possible (including brand name and amount used) of any supplements

	Brand name and strength	Amount usually taken per week (e.g. 7 tablets, 2 teaspoons)
Vitamins or multivitamins		
Cod liver oil or other oil		
Other supplement		

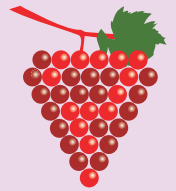
### 20. Any other information on your child's diet

**Date of completing questionnaire .....**





Scottish Collaborative Group Food Frequency Questionnaire version C2

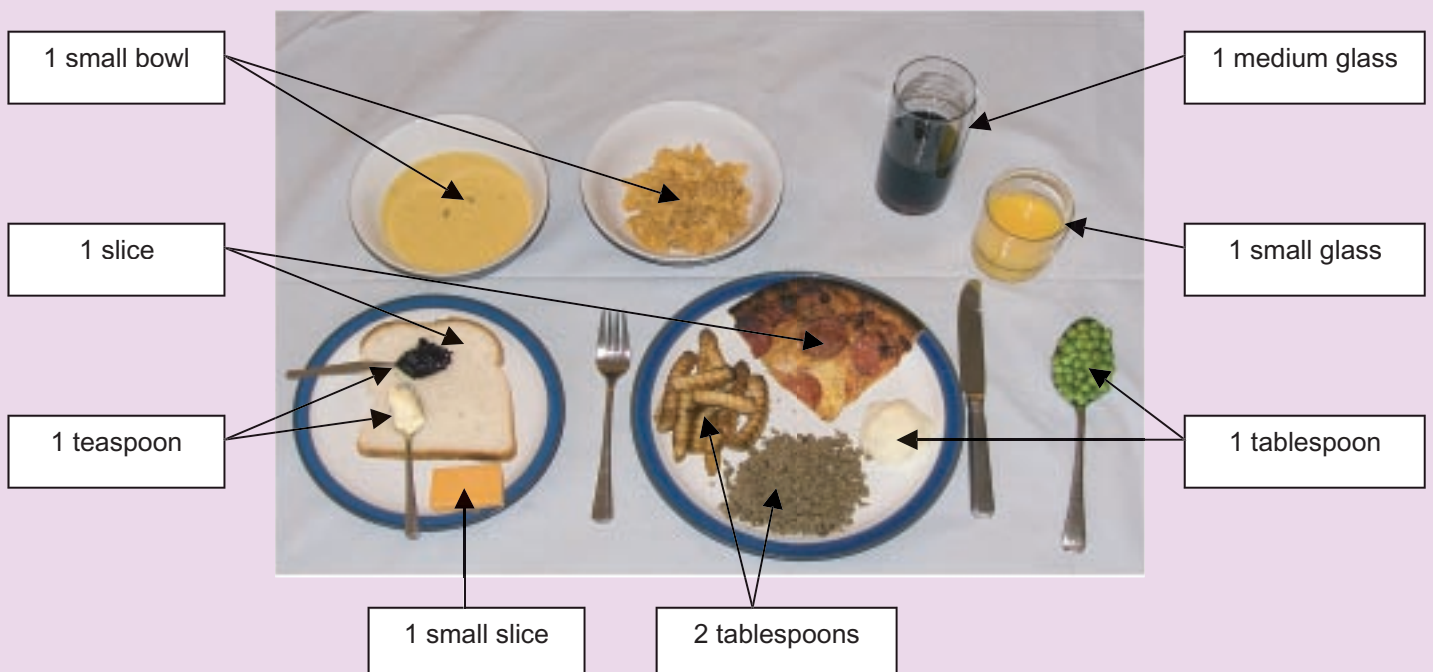


## Diet questionnaire for children

© University of Aberdeen, 2006

We would like you to describe your child's usual diet over the last 2-3 months. This should include all main meals, snacks, and drinks. You should also include any foods and drinks your child consumed outside your home, e.g. at school or nursery, at out of school clubs, at restaurants or cafes or with friends and other family members.

The questionnaire lists 140 types of foods and drinks. For each food or drink a measure is given which describes a small portion to help you estimate how much your child usually has. The photograph below gives examples of some of these measures.



If not collected by the interviewer please return the questionnaire in the FREEPOST envelope to:

National Centre for Social Research  
Operations Department  
Kings House, 101 - 135 Kings Road  
Brentwood, Essex CM14 4LX

## How to complete the questionnaire

**Please take a few minutes to read the instructions carefully.**

Please use **black or blue pen** to complete the questionnaire: do not use pencil.

For **every line** in the questionnaire, you need to tick **one box** to say how many times your child usually has this food or drink.

- If your child does not usually have any of this food or drink, please tick the first box (rarely or never).
- If your child has the food or drink more than once a month but less than once a week, please tick the next box (one or two per month).
- If your child has the food or drink every week but not every day, please tick one of the weekly boxes to indicate how many measures of this food or drink he/she has in a typical week (1 per week, 2-3 per week or 4-6 per week).
- If your child has the food or drink every day, please tick one of the daily choices (1 per day, 2-3 per day, 4-6 per day or 7 or more per day).

*For dishes that are made up of more than one food you may have to split it up into its separate parts e.g. a ham sandwich (2 slices of white bread, 1 teaspoon of butter and 2 slices of ham).*

*For a few foods, your child may have more than one measure on several days a week but not every day. For these foods please use the daily choices which give approximately the same total intake per week, e.g. for 8-10 measures per week please tick 1 per day (see example of white bread below).*

### **Example:**

If your child has a piece of Weetabix every day, three medium glasses of regular blackcurrant diluting juice every day, two slices of white bread 5 days a week, an apple twice a week, but never has peanut butter, your answers should look like this:

Food	Measure	Rarely or never	One or two per month	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day
Unsweetened cereals (e.g. Cornflakes, Shreddies, Weetabix, Rice Krispies)	1 small bowl, 3 tablespoons or 1 piece						√			
Regular blackcurrant diluting juice	1 medium glass							√		
White bread or rolls	1 slice or roll						√			
Apple	1 small apple				√					
Peanut butter	1 teaspoon	√								

If you want to change an answer, simply cross out your first tick and add another one in the right box.

If your child has any foods or drinks which are not listed, or if you are not sure about where to add any foods or drinks, please use section 17 ('other foods') at the end of the questionnaire.

**It is very important that you put a tick on every line.**

**If your child rarely or never has the food, it is very important that you tick the box for rarely or never.**











### 17. Other foods

Please enter details of any foods or drinks which your child has at least once a week which have not been included in the questionnaire above

Food or drink description	Amount usually consumed	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day

### 18. Brand details

Please give full details of the types (including brand name if possible) of any of the following foods which your child usually has

Butter or Margarine (e.g. Flora Buttery)

.....  
 .....

Office code    
 Office code

Oil or fat used for home cooking (e.g. Tesco corn oil)

.....  
 .....

Office code    
 Office code

### 19. Dietary supplements

Please give as full details as possible (including brand name and amount used) of any supplements

	Brand name and strength	Amount usually taken per week (e.g. 7 tablets, 2 teaspoons)
Vitamins or multivitamins		
Cod liver oil or other oil		
Other supplement		

### 20. Any other information on your child's diet

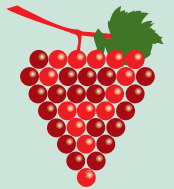
**Date of completing questionnaire .....**





Scottish Collaborative Group Food Frequency Questionnaire version C3

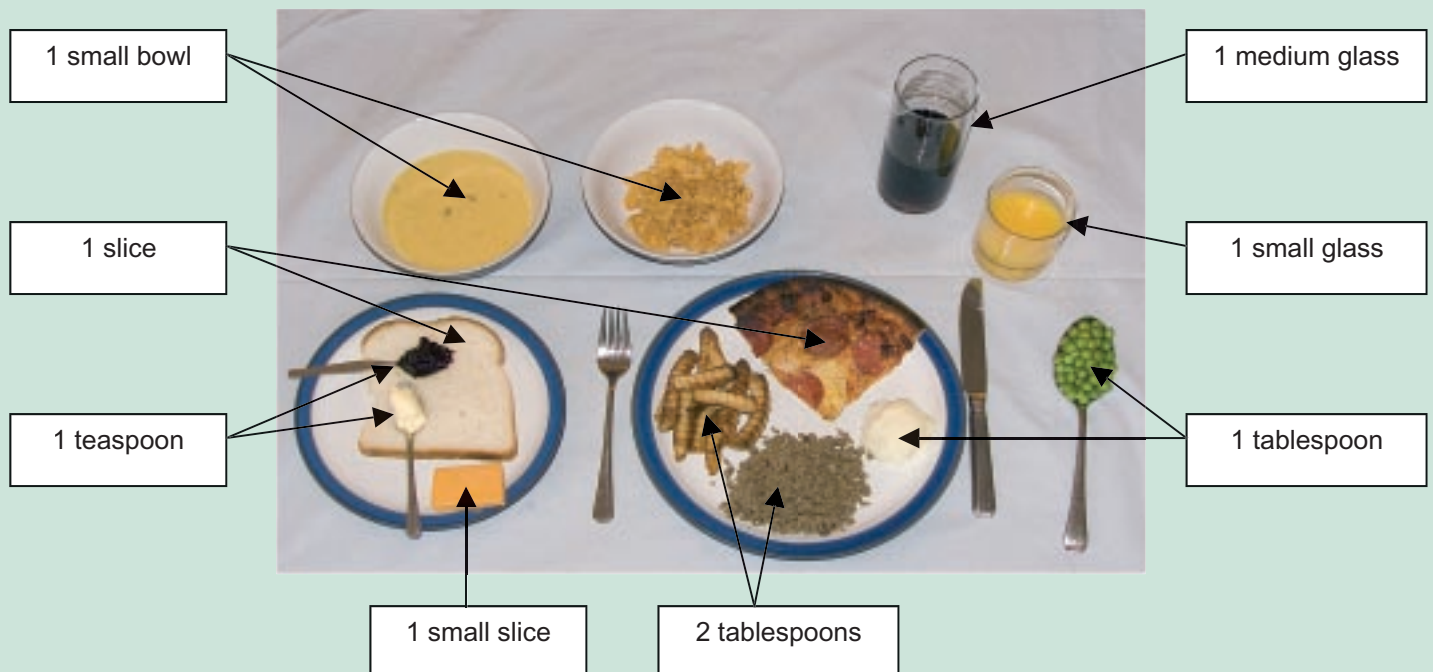
## Diet questionnaire for young people



© University of Aberdeen, 2006

We would like you to tell us about what you usually have to eat and drink in a typical week. This should include all main meals, snacks, and drinks. You should also include any foods and drinks you eat outside your home, e.g. at school, at out of school clubs, at restaurants or cafes or with friends and other family members. You may want to ask your parent or guardian to help you with completing the questionnaire or to check some of the answers.

The questionnaire lists 146 types of foods and drinks. For each food or drink a measure is given which describes a small portion to help you estimate how much you usually have. The photograph below gives examples of some of these measures.



If not collected by the interviewer please return the questionnaire in the FREEPOST envelope to:

National Centre for Social Research  
Operations Department  
Kings House, 101 - 135 Kings Road  
Brentwood, Essex CM14 4LX

## How to complete the questionnaire

**Please take a few minutes to read the instructions carefully.**

Please use **black or blue pen** to complete the questionnaire: do not use pencil.

For **every line** in the questionnaire, you need to tick **one box** to say how many times you usually have this food or drink.

- If you do not usually have any of this food or drink, please tick the first box (rarely or never).
- If you have the food or drink more than once a month but less than once a week, please tick the next box (one or two per month).
- If you have the food or drink every week but not every day, please tick one of the weekly boxes to tell us how many measures of this food or drink you have in a normal week (1 per week, 2-3 per week or 4-6 per week).
- If you have the food or drink every day, please tick one of the daily choices (1 per day, 2-3 per day, 4-6 per day or 7 or more per day).

*For dishes that are made up of more than one food you may have to split it up into its separate parts e.g. a ham sandwich (2 slices of white bread, 1 teaspoon of butter and 2 slices of ham).*

*For a few foods, you may have more than one measure on several days a week but not every day.*

*For these foods please use the daily choices which give approximately the same total intake per week, e.g. for 8-10 measures per week please tick 1 per day (see example of white bread below).*

### **Example:**

If you have a small bowl of cornflakes every day, three medium glasses of regular blackcurrant diluting juice every day, two slices of white bread 5 days a week, an apple twice a week, but never have peanut butter, your answers should look like this:

Food	Measure	Rarely or never	One or two per month	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day
Unsweetened cereals (e.g. Cornflakes, Shreddies, Weetabix, Rice Krispies)	1 small bowl, 3 tablespoons or 1 piece						√			
Regular blackcurrant diluting juice	1 medium glass							√		
White bread or rolls	1 slice or roll						√			
Apple	1 small apple				√					
Peanut butter	1 teaspoon	√								

If you want to change an answer, simply cross out your first tick and add another one in the right box.

If you have any foods or drinks which are not listed, or if you are not sure about where to add any foods or drinks, please use section 17 ('other foods') at the end of the questionnaire.

**It is very important that you put a tick on every line.**

**If you rarely or never have the food, it is very important that you tick the box for rarely or never.**

Food	Measure	Rarely or never	One or two per month	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day
<b>1. Breakfast cereals</b>										
Unsweetened cereals (e.g. Cornflakes, Shreddies, Weetabix, Rice Krispies)	1 small bowl, 3 tablespoons or 1 piece									
Sweetened cereals (e.g. Frosties, Sugar Puffs, Coco Pops, Honey Nut Loops)	1 small bowl or 3 tablespoons									
Ready Brek or porridge	1 small bowl or 3 tablespoons									
Muesli (all types)	1 small bowl or 3 tablespoons									
<b>2. Bread (including sandwiches and toast)</b>										
White bread or rolls	1 slice or roll									
Brown or granary bread or rolls	1 slice or roll									
Wholemeal bread or rolls	1 slice or roll									
Croissants, garlic bread or Aberdeen rolls	1 roll or 2 slices									
Other breads (e.g. pitta, naan, tortilla, bagel)	1 piece									
<b>3. Milk (in drinks and on cereals)</b>										
Full fat cow's milk	1 small glass or 1/4 pint									
Semi-skimmed cow's milk	1 small glass or 1/4 pint									
Skimmed cow's milk	1 small glass or 1/4 pint									
Soya Milk	1 small glass or 1/4 pint									
Flavoured milk (e.g. chocolate, strawberry)	1 small glass or 1/4 pint									
<b>4. Yogurt, cheese and eggs</b>										
Drinking yogurts (Actimel, Yakult)	1 bottle									
Flavoured yogurts (e.g. all fruit yogurts, Crunch Corners, Crunchie)	1 small pot									
Fromage frais (all flavours)	1 small pot									
Natural, low fat or low calorie yogurt	1 small pot									
Cream (all types)	1 tablespoon									
Full fat cream cheese (e.g. Philadelphia)	1 tablespoon									
Cheddar-type cheese (including Cheese strings)	1 small slice or 1 stick									
Edam, Brie or cheese spreads (e.g. Dairylea)	1 slice, 1 piece or 1 tablespoon									
Low fat hard or soft cheese	1 slice or 1 tablespoon									
Eggs (boiled, fried, scrambled or omelette)	1 egg									

Please make sure that you have put a tick on every line before leaving this page

Food	Measure	Rarely or never	One or two per month	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day
<b>5. Meat (excluding Quorn and Soya)</b>										
Meat burgers or mince	1 small burger or 1 tablespoon									
Meat sauce (e.g. on pasta)	1 tablespoon									
Frankfurters	1 sausage									
Fried or grilled sausages	1 sausage									
Bacon or gammon	1 slice									
Cold ham or turkey	1 slice									
Salami or continental sausage	1 slice									
Stewed, fried, grilled or roast beef, pork or lamb	1 tablespoon or 1 slice									
Chicken nuggets	1 serving									
Casseroled, fried, grilled or roast chicken or turkey	1 tablespoon or 1 slice									
Meat or chicken pies, pasties or sausage rolls	1 individual pie or 1 roll									
<b>6. Fish</b>										
Fish fingers	1 finger									
Fish cakes or fish pie	1 fish cake or 1 tablespoon									
Grilled or poached white fish (cod, haddock, plaice)	1 small fillet									
White fish fried or cooked in batter or scampi	1 small fillet or 1 serving									
Grilled oily fish (fresh tuna, salmon, mackerel, herring)	1 small fillet									
Fried oily fish (fresh tuna, salmon, mackerel, herring)	1 small fillet or slice									
Smoked oily fish (kipper, mackerel, salmon)	1 small fillet									
Tinned tuna	1 tablespoon									
Tinned salmon, sardines, mackerel, pilchards	1 tablespoon or 1 small fillet									
Prawns	1 tablespoon									
<b>7. Potatoes, rice and pasta</b>										
Boiled, mashed or baked potatoes	1 tablespoon or 1 potato									
Potato croquettes or waffles	1 piece									
Roast or fried potatoes	1 potato or 2 tablespoons									
Oven chips	2 tablespoons									
Home-cooked chips	2 tablespoons									
Chips from a chip shop, café or restaurant	1 small bag									
Spaghetti and other pasta or couscous	2 tablespoons (cooked)									
Rice (all types)	2 tablespoons (cooked)									
Noodles (all types)	2 tablespoons (cooked)									

Please make sure that you have put a tick on every line before leaving this page

Food	Measure	Rarely or never	One or two per month	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day
<b>8. Savoury dishes, soups and sauces</b>										
Pizza	1 small (6 inch) pizza or 1 slice									
Quiche	1 slice									
Quorn, Soya or Tofu products (all types)	1 serving									
Nut roast, nut burgers or vegetable burgers	1 serving									
Baked beans	1 tablespoon									
Other beans or lentils (excluding soups)	1 tablespoon									
Canned or dried soup	1 small bowl									
Home-made soup	1 small bowl									
Bottled sauces (e.g. tomato ketchup)	1 teaspoon									
Tomato sauce (e.g. for pasta)	1 tablespoon									
Other sauces (e.g. cheese, white, curry, sweet & sour)	1 tablespoon									
Gravy	1 tablespoon									
Mayonnaise or salad cream	1 teaspoon									
<b>9. Vegetables (fresh, frozen and tinned)</b>										
Mixed vegetable dishes (e.g. stir-fry, curry)	1 tablespoon									
Peas or green beans	1 tablespoon									
Sweetcorn	1 tablespoon or 1 small cob									
Broccoli	1 tablespoon or 2 pieces									
Cabbage	1 tablespoon									
Spinach	1 tablespoon									
Other green vegetables (e.g. leeks, courgettes)	1 tablespoon									
Cauliflower, swede (neeps) or turnip	1 tablespoon									
Raw carrots	1/2 carrot									
Cooked carrots	1/2 carrot									
Onions	1/4 onion or 2 teaspoons									
Tomatoes	1 tomato									
Peppers	1/4 pepper									
Other salad vegetables (e.g. lettuce, cucumber, celery)	1 small serving									
Coleslaw	1 tablespoon									
Potato salad	1 tablespoon									

Please make sure that you have put a tick on every line before leaving this page

Food	Measure	Rarely or never	One or two per month	1 per week	2-3 per week	4-6 per week	1 per day	2-3 per day	4-6 per day	7 or more per day
<b>10. Fruit (fresh, frozen and tinned)</b>										
Fresh fruit salad	1 tablespoon									
Tinned fruit (all kinds)	1 tablespoon									
Apples	1 small apple									
Oranges	1 small orange									
Bananas	1 small banana									
Grapes, melon, pear	1 small serving									
Kiwi	1 fruit									
Other fresh fruit (e.g. peaches, strawberries etc)	1 small serving									
Dried fruit (all kinds)	1 tablespoon									
<b>11. Juice and other drinks</b>										
Pure apple juice	1 small glass									
Other pure fruit juice (orange, pineapple etc.)	1 small glass									
High juice fruit drinks (Five Alive, Sunny Delight etc.)	1 small carton or medium glass									
Regular fruit juice drinks (e.g. Fruit Shoots, Capri Sun, Ribena cartons)	1 small bottle, pouch or carton									
Other fruit flavoured drinks including flavoured water (e.g. Calypso Cartoon)	1 carton, small bottle or medium glass									
Regular blackcurrant diluting juice	1 medium glass made-up									
No added sugar blackcurrant diluting juice	1 medium glass made-up									
Regular orange, lemon or other diluting juice	1 medium glass made-up									
No added sugar orange, lemon or other diluting juice	1 medium glass made-up									
Regular fizzy drinks (e.g. lemonade, Irn Bru, Cola)	1 medium glass or 1/2 can									
Low calorie or diet fizzy drinks	1 medium glass or 1/2 can									
Tap or mineral water (not in other drinks)	1 medium glass									
Smoothies (all kinds)	1 small bottle or carton									
Drinking chocolate powder	2 teaspoons or 1 sachet									
Tea (excluding fruit, herbal or green)	1 cup									
Coffee	1 cup									
Alcopops (e.g. Bacardi Breezer)	1 bottle									
Lager or beer	1 bottle or 1/2 pint									
Cider	1 bottle or 1/2 pint									
Wine	1 wine glass									
Spirits or liqueurs	1 pub measure									

Please make sure that you have put a tick on every line before leaving this page

Food	Measure	Rarely or never	One or two per month	1 per week	2 – 3 per week	4 – 6 per week	1 per day	2 – 3 per day	4 – 6 per day	7 or more per day
<b>12. Sugar, jam and other spreads</b>										
Sugar (on cereals and in drinks but not in cooking)	1 teaspoon									
Jam, honey or marmalade	1 teaspoon									
Peanut Butter	1 teaspoon									
Chocolate spread	1 teaspoon									
Marmite	1 serving									
Butter or margarine	1 teaspoon									
<b>13. Crisps, nuts and savoury snacks</b>										
Regular crisps (all types)	1 small bag									
Reduced fat crisps (all types)	1 small bag									
Other savoury snacks (Quavers, popcorn etc.)	1 small bag									
Peanuts and other nuts	1 small bag									
Savoury biscuits, crackers or breadsticks	1 biscuit or 2 sticks									
<b>14. Biscuits and cakes</b>										
Plain biscuits (e.g. Rich Tea, Digestive, ginger nuts)	1 biscuit									
Fancy biscuits (e.g. creams, iced biscuits)	1 biscuit									
Chocolate biscuits or cookies (all types)	1 biscuit									
Cereal bars or flapjacks	1 bar or slice									
Scones or pancakes	1 piece									
Doughnuts, muffins or pastries	1 piece									
Fruit cake or malt loaf	1 small slice									
Plain cakes	1 small slice									
Cakes with icing	1 small slice									
Cream cakes or gateaux	1 small slice									
<b>15. Desserts</b>										
Mousse, blancmange or trifle	1 small pot or 2 tablespoons									
Jelly	1 tablespoon									
Milk puddings (e.g. rice, semolina)	1 tablespoon									
Sponge puddings (jam, steamed, syrup etc.)	1 tablespoon									
Fruit tarts, crumbles or pies	1 small slice or 1 tablespoon									
Custard	1 tablespoon									
Cheesecake	1 small slice									

Please make sure that you have put a tick on every line before leaving this page

Food	Measure	Rarely or never	One or two per month	1 per week	2-3 per week	4-6 per week	1 per day	2-3 per day	4-6 per day	7 or more per day
<b>16. Sweets, chocolates and ice-creams</b>										
Boiled, chewy or chocolate sweets (e.g. toffee, chews, fruit gums)	1 small packet									
Chocolate bars (e.g. Mars, Milky Way, Dairy Milk)	1 small bar									
Wrapped ice creams (e.g. Solero, Cornetto, choc ice)	1 ice-cream									
Other ice cream (all flavours)	1 scoop or 1 small tub									
Iced lollies	1 lolly									

### 17. Other foods

Please enter details of any foods or drinks which you have at least once a week which have not been included in the questionnaire above

Food or drink description	Amount usually consumed	1 per week	2-3 per week	4-6 per week	1 per day	2-3 per day	4-6 per day	7 or more per day

### 18. Brand details

Please give full details of the types (including brand name if possible) of any of the following foods which you usually have

Butter or Margarine (e.g. Flora Buttery)

.....

Office code

.....

Office code

Oil or fat used for home cooking (e.g. Tesco corn oil)

.....

Office code

.....

Office code

### 19. Dietary supplements

Please give as full details as possible (including brand name and amount used) of any supplements

	Brand name and strength	Amount usually taken per week (e.g. 7 tablets, 2 teaspoons)
Vitamins or multivitamins		
Cod liver oil or other oil		
Other supplement		

### 20. Any other information on your diet

**Date of completing questionnaire .....**





P7015

IN CONFIDENCE

**STUDY OF CHILDREN'S DIETS IN SCOTLAND**

Food consumption record: individual 24-hour recall

(1-5)	(6)	(7-10)						
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<b>SERIAL NUMBER</b>	<b>CHK</b>							
Card No. (11-12)								
<b>First name:</b>								
<b>Sex:</b> Male / Female	<b>Date of birth:</b>	<table style="width: 100%; height: 20px;"> <tr> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> </tr> </table>						
<b>INTERVIEWER NUMBER:</b>	<table style="width: 100%; height: 20px;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table>					<b>INTERVIEWER NAME:</b>		
(13-18)								

**SUMMARY OF COMPLETED 24-HOUR RECALL**

	Completed (✓)	Date recalled	Day recalled							
<b>DAY</b>	<table border="1" style="width: 30px; height: 20px;"> <tr> <td></td> </tr> </table>		<table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> <td style="width: 16.6%;"></td> </tr> </table>							_____



## DETAILS FROM FOOD STORE

Please ask to see the following items (where possible) and record the relevant information from the packaging. If there is more than one type of food item per household, please record information for all types and specify in the recall which type was eaten or used.

---

### MILK

**Record:** Whole, semi-skimmed, skimmed?  
Fresh, UHT, sterilized, unpasteurised?  
Dried, condensed, evaporated?  
Soya - sweetened? Fortified with vitamins/minerals?

---

e.g. *Asda fresh semi-skimmed milk*

---

### BREAD FROM LOAF

**Record:** Name and brand.  
Type of flour?  
Thickness of slice: thin/medium/thick

---

e.g. *Kingsmill wholemeal medium sliced*

---

### PURE FRUIT JUICE

**Record:** Sweetened or unsweetened?  
Freshly squeezed or UHT/Longlife (come in tetrabrik cartons, not refrigerated in shop) or Pasteurised (come in tall purpak cartons, bought from fridge in shop)

---

e.g. *Del Monte orange juice UHT unsweetened*

---

### SQUASH/CORDIAL/CONCENTRATED FRUIT JUICE

**Record:** Name, brand and flavour.  
Is it "high juice"?  
Is it low calorie/sugar free/low sugar/no added sugar?

---

e.g. *Sainsbury's apple & blackcurrant squash, no added sugar*

---

### BUTTER/FAT SPREAD/MARGARINE

**Record:** Name and brand.  
If butter – salted or unsalted? Spreadable butter?  
If fat spreads – record % of fat. Is it reduced/low/very low fat?  
Is it polyunsaturated? Is it with olive oil e.g. Bertolli?  
If margarines – hard (block) or soft (tub)?

---

e.g. *St Ivel Utterly Butterly reduced fat spread 70% fat not polyunsaturated*

---

### COOKING FATS AND OILS

**Record:** Type of fat/oil and brand.

---

e.g. *Sainsbury's sunflower oil*

---

## Food Description

In general the following information is required:

- Type of food or drink
- How was it bought – fresh, canned, frozen, dehydrated etc?
- Was it home-made – if so – what was in it? *Don't forget to record any recipes on the Recipe Pages.*
- How was it cooked – boiled, grilled, fried etc?
- If it was cooked in fat, or fat was used in pastry or cakes or any other dish, what sort of fat or oil was used?
- If it was a dried / dehydrated product, was it reconstituted using water, milk or both?
- Was the item coated before cooking – if so – was it flour, batter, egg, breadcrumbs etc?
- Was it unsweetened, sweetened with sugar/honey, or artificially sweetened?
- Was it low fat / low calorie?

Remember to use neutral prompts to gather the above information and to prompt for foods that may be eaten in combination e.g. dressing on salad, jam on toast.

Many foods require additional, specific information. These are on the Food Description Prompt Sheet for Interviewers.





## RECIPE 1

Name of home-made dish: \_\_\_\_\_

Were ingredients added to a dish cooked before? Yes [  ] No [  ]

If yes, name of dish \_\_\_\_\_

Ingredients	Amount

<b>Cooking method</b>
-----------------------

## RECIPE 2

Name of home-made dish: \_\_\_\_\_

Were ingredients added to a dish cooked before? Yes [  ] No [  ]

If yes, name of dish \_\_\_\_\_

Ingredients	Amount

<b>Cooking method</b>
-----------------------

**RECIPE 3**

Name of home-made dish: \_\_\_\_\_

Were ingredients added to a dish cooked before? Yes [  ] No [  ]

If yes, name of dish \_\_\_\_\_

Ingredients	Amount

**Cooking method**

**RECIPE 4**

Name of home-made dish: \_\_\_\_\_

Were ingredients added to a dish cooked before? Yes [  ] No [  ]

If yes, name of dish \_\_\_\_\_

Ingredients	Amount

**Cooking method**



## 24-HOUR QUESTIONS

**Ring one**

Have you recorded the details from the respondent's food store at the start of the interview? If not, please go back and complete this section at the front of the recall booklet.

Yes/No

Did you use the **forgotten foods** list (item 3 of protocol)?

Yes / No

Did you **review** the day's food after completing the detailed record (item 5 of protocol)?

Yes / No

Have you **asked the respondent** to give you a **place** name for each eating occasion (item 6 of protocol)?

Yes / No

Have you **checked the respondent's** food store for any missing **brand** names (item 7 of protocol)?

Yes / No

**HAND SUBJECT CARD D2 AND ASK:**

1. Please look at Card D2 and tell me if yesterday you had any of the dietary supplements listed whether in tablets, capsules or liquid form.

**Yes / No**

If Yes, please record below

Supplement number (from card)	Name of supplement	Brand of supplement	Strength of supplement (if applicable)	Number of units taken

§ Unit may be a tablet, capsule or spoonful

**2a. ASK:** Did you have any plain drinking water yesterday, either from a tap or bottle, that you have not already mentioned (including water taken with medicines)?

- <sub>1</sub> Yes **(RECORD ON FOOD CONSUMPTION RECORD)**
- <sub>2</sub> No

**3a. ASK:** Was the amount of food that you had yesterday about what you usually have, less than usual, or more than usual?

- <sub>1</sub> Usual amount **(GO TO QUESTION 4a)**
- <sub>2</sub> Less than usual **(GO TO QUESTION 3b)**
- <sub>3</sub> More than usual **(GO TO QUESTION 3c)**
- <sub>4</sub> Don't know **(GO TO QUESTION 4a)**

**3b. ASK:** What is the main reason that the amount you had to eat yesterday was **less than usual?**

**CODE ONLY ONE. DO NOT PROMPT FOR RESPONSE**

- <sub>1</sub> Sickness
- <sub>2</sub> Short of money
- <sub>3</sub> Little food in the house
- <sub>4</sub> Travelling
- <sub>5</sub> At a special occasion or on holiday
- <sub>6</sub> On a special day
- <sub>7</sub> Weekend day
- <sub>8</sub> Too busy
- <sub>9</sub> Not hungry
- <sub>10</sub> Dieting
- <sub>11</sub> Fasting
- <sub>12</sub> Bored or stressed
- <sub>13</sub> Working shifts
- <sub>14</sub> Don't know
- <sub>15</sub> Some other reason (specify) \_\_\_\_\_

**GO TO QUESTION 4a.**

**3c. ASK:** What is the main reason that the amount you had to eat yesterday was **more than usual?**

**CODE ONLY ONE. DO NOT PROMPT FOR RESPONSE**

- <sub>1</sub> Just got some money
- <sub>2</sub> Travelling
- <sub>3</sub> At a special occasion or on holiday
- <sub>4</sub> On a special day
- <sub>5</sub> Weekend day
- <sub>6</sub> Very hungry
- <sub>7</sub> Bored or stressed
- <sub>8</sub> Working shifts
- <sub>9</sub> Don't know
- <sub>10</sub> Some other reason (specify) \_\_\_\_\_

**4a. ASK:** Was the amount of drink that you had yesterday about what you usually have, less than usual, or more than usual?

- <sub>1</sub> Usual amount (**GO TO QUESTION 5a**)
- <sub>2</sub> Less than usual (**GO TO QUESTION 4b**)
- <sub>3</sub> More than usual (**GO TO QUESTION 4c**)
- <sub>4</sub> Don't know (**GO TO QUESTION 5a**)

**4b. ASK:** What is the main reason that the amount you had to drink yesterday was **less** **than usual?**

**CODE ONLY ONE. DO NOT PROMPT FOR RESPONSE**

- <sub>1</sub> Sickness
- <sub>2</sub> Short of money
- <sub>3</sub> Little food in the house
- <sub>4</sub> Travelling
- <sub>5</sub> At a special occasion or on holiday
- <sub>6</sub> On a special day
- <sub>7</sub> Weekend day
- <sub>8</sub> Too busy
- <sub>9</sub> Not thirsty
- <sub>10</sub> Dieting
- <sub>11</sub> Fasting
- <sub>12</sub> Bored or stressed
- <sub>13</sub> Working shifts
- <sub>14</sub> Don't know
- <sub>15</sub> Some other reason (specify) \_\_\_\_\_

**4c. ASK:** What is the main reason that the amount you had to drink yesterday was **more** **than usual?**

**CODE ONLY ONE. DO NOT PROMPT FOR RESPONSE**

- <sub>1</sub> Just got some money
- <sub>2</sub> Travelling
- <sub>3</sub> At a special occasion or on holiday
- <sub>4</sub> On a special day
- <sub>5</sub> Weekend day
- <sub>6</sub> Very thirsty
- <sub>7</sub> Bored or stressed
- <sub>8</sub> Working shifts
- <sub>9</sub> Don't know
- <sub>10</sub> Some other reason (specify) \_\_\_\_\_

5a.

**RECORD:**

- <sub>1</sub> PRIMARY RESPONDENT IN 24-HOUR RECALL WAS CHILD
- <sub>2</sub> PRIMARY RESPONDENT IN 24-HOUR RECALL WAS PARENT/CARER
- <sub>3</sub> BOTH CHILD AND PARENT/CARER PROVIDED EQUAL AMOUNTS OF INFORMATION

**GO TO QUESTION 5b**

5b.

**ASK (If not already known):**

Name of parent/carer: \_\_\_\_\_

Relationship to child: \_\_\_\_\_

Is this person the main food provider for the child?

**Ring one**  
Yes<sub>1</sub> /No<sub>2</sub>

6.

**RECORD:**

Who else was present during the interview?

**CODE RELATIONSHIP TO RESPONDENT (i.e. person about whom recall is being conducted). CODE ALL THAT APPLY**

- <sub>1</sub> NO ONE ELSE PRESENT
- <sub>2</sub> CHILDREN
- <sub>3</sub> PARENT/CARER
- <sub>4</sub> OTHER FAMILY MEMBERS
- <sub>5</sub> VISITORS
- <sub>6</sub> OTHER (specify) \_\_\_\_\_

7. **RECORD:**

**TIME AT WHICH INTERVIEW FINISHED (24-HOUR CLOCK) \_\_\_\_\_:\_\_\_\_\_**



# INTERVIEWER FEED BACK QUESTIONNAIRE – 24-hour recall

PLEASE RECORD THE FOLLOWING IMMEDIATELY AFTER THE INTERVIEW

1. **What language was the interview conducted in?**

- <sub>1</sub> ENGLISH  
<sub>2</sub> OTHER .....SPECIFY LANGUAGE AND NAME OF TRANSLATOR

---

---

2. **Is this the respondent's first language?**

- <sub>1</sub> YES  
<sub>2</sub> NO

3. **Did you or the respondent have difficulty with this interview?**

- <sub>1</sub> YES (**GO TO QUESTION 4**)  
<sub>2</sub> NO (**GO TO QUESTION 5**)

4. **What was the reason for this difficulty?**

- <sub>1</sub> Did not understand questions  
<sub>2</sub> Did not prepare food  
<sub>3</sub> Foods were eaten away from home  
<sub>4</sub> Poor memory of food  
<sub>5</sub> Sick  
<sub>6</sub> Language barrier  
<sub>7</sub> Uncooperative / Impatient  
<sub>8</sub> Not ascertained  
<sub>9</sub> Frequent interruptions  
<sub>10</sub> Other (Specify .....)

5. **Overall, how well do you think the record reflects what the respondent ate and drank over this 24-hour period?**

- <sub>1</sub> Good  
<sub>2</sub> Moderate  
<sub>3</sub> Poor

6. **Please add any additional comments you have in the box below**

## 24 hour recall showcards

### CARD D1

<b>Place</b>	
<b>A</b>	Home, own food supply
<b>B</b>	Home, take-away brought in
<b>C</b>	Home, other food brought in, free
<b>D</b>	Friend's or Relative's house
<b>E</b>	Restaurant or Cafe
<b>F</b>	School (bought food or drink)
<b>G</b>	School (food or drink from home)
<b>H</b>	School (free/other)
<b>I</b>	Work (bought food or drink)
<b>J</b>	Work (food or drink from home)
<b>K</b>	Work (free/other)
<b>L</b>	Pub, bar, lounge, hotel, club
<b>M</b>	Take-away eaten away from home
<b>N</b>	Other place (bought food or drink)
<b>O</b>	Other place (food or drink from home)
<b>P</b>	Other place (free/other)

## CARD D2

<b>1</b>	Cod liver oil and other fish based supplements
<b>2</b>	Evening primrose oil type supplements
<b>3</b>	Vitamin C only
<b>4</b>	Other single vitamins NOT vitamin C
<b>5</b>	Vitamins A, C and D only
<b>6</b>	Vitamins with iron
<b>7</b>	Iron only
<b>8</b>	Non-prescribed folic acid only
<b>9</b>	Multivitamins and multi minerals
<b>10</b>	Multivitamins, NO minerals
<b>11</b>	Minerals ONLY; NOT fluoride or iron ONLY
<b>12</b>	Other (specify)



**Protocol for the completion of a food consumption record:  
Individual 24-hour recall**

The following instructions provide detailed prompts for obtaining information in the individual 24-hour recall of food and drink consumption. Please follow the sequence carefully. Where words appear in upper case inside parentheses, supply the appropriate word (e.g. if DAY appears, say the name of the appropriate day of the week). Words that appear inside square brackets are instructions to you.

**Introduction at beginning of 24 hour recall**

[Where interview being conducted with parent/eligible adult as the main food provider on behalf of child, insert child's name as appropriate]

*IF RESPONDENT IS MAIN FOOD PROVIDER FOR A CHILD AGED UNDER FIVE SAY*  
**I am going to ask you about everything that (NAME OF CHILD) ate and drank yesterday. By this I mean, 24 hours from midnight to midnight. I would like to know exactly what was eaten and drunk and how much (NAME OF CHILD) had.**

**OR**

*IF RESPONDENT IS MAIN FOOD PROVIDER FOR A CHILD AGED BETWEEN FIVE AND TWELVE SAY*  
**I am going to ask you about everything that (NAME OF CHILD) ate and drank yesterday. By this I mean, 24 hours from midnight to midnight. I would like to know exactly what was eaten and drunk and how much (NAME OF CHILD) had.**

[Addressing yourself to child, say]

**I will ask you to tell me about any foods and drinks which your (MUM, DAD (main food provider)) does not know about or cannot remember. Is that okay?**

[Wait for agreement].

**OR**

*IF RESPONDENT IS CHILD AGED TWELVE AND OVER SAY*  
**I am going to ask you about everything that you ate and drank yesterday. By this I mean, 24 hours from midnight to midnight. I would like to know exactly what was eaten and drunk and how much you had.**

[Say to Mum or Dad (main food provider)]

**I would prefer to ask (NAME OF CHILD) for information first and then ask you to fill in the details. Is that okay? [Wait for agreement].**

[Addressing yourself to child say]

**I will ask your (MUM, DAD (main food provider)) to tell me exactly what it was you ate when you are not sure.**

## Introducing portion size estimation

[Where interview being conducted with parent/eligible adult as the main food provider on behalf of child, insert child's name as appropriate]

*THE INTERVIEWER SAYS:*

- 1. When I ask you how much food and drink you /(NAME OF CHILD) had, I would like you to tell me in as much detail as possible in terms of the size of the package for example half a tin of baked beans. In this case also tell me the size of the tin for example a 420g tin.**
- 2. Or in terms of household utensils for example a glass of milk. In this case I would like you to tell me how big the glass was. Or number of spoons, in which case I would ask you for the size of spoon. This is a life size photograph of a teaspoon, dessertspoon and tablespoon [show photograph of spoons]**
- 3. To help you to tell me how much of a food you/(NAME OF CHILD) ate, I have a book here with photographs of different amounts of foods. [Show book and open book at page 1 (photograph of rice)]  
**As you can see there are eight photographs. I will ask you to pick one photograph that looks like the amount you/(NAME OF CHILD) had to eat.****
- 4. This is a life size photograph of the plate used in most of these photographs. [Show photograph of 10" plate]  
[Show other photographs of plates, as necessary during recall]**
- 5. Have a look at a few more photographs and then we can start.**  
[Allow subject to flick through book if they want and start when they are ready].
- 6. If you/(NAME OF CHILD) ate any homemade dishes for example a stew, I would like you to tell me the ingredients and how much was used. If you do not know the ingredients I may need to ask whoever prepared and cooked the dish**

## 24 hour recall itself

THE INTERVIEWER SAYS:

1. I would like you to tell me everything that you had to eat and drink yesterday. By yesterday I mean, from midnight to midnight. Include everything that you/(NAME OF CHILD) had to eat and drink at home and away from home, including snacks, tea, coffee, sweets, soft drinks [IF CHILD OVER 11] AND ALCOHOL.

- First we'll make a list of the foods you/(NAME OF CHILD) ate and drank all day yesterday (DAY).
- Next I'll ask you about the foods including amounts and then I'll ask you a few questions.
- It may help you to remember what you/(NAME OF CHILD) ate by thinking about where you/(NAME OF CHILD) were, whom you/(NAME OF CHILD) were with, or what you/(NAME OF CHILD) were doing yesterday; like going to school, eating out or watching television. Feel free to keep these activities in mind and say them aloud if it helps you.
- So... if you would like to start at midnight at the beginning of (DAY).  
[COMPLETE QUICK LIST WITHOUT INTERRUPTION]

[WHEN SUBJECT STOPS ASK]

- **What else?**

2. [Where interview is being addressed to child]  
[Say to parent/carer] **Can you think of anything else that (NAME OF CHILD) had to eat or drink yesterday?**

OR

2. [Where interview is being addressed to parent on behalf of child]  
[Say to child] **Can you think of anything else that you had to eat or drink yesterday?**  
[ADD ITEMS INTO QUICK LIST AT APPROPRIATE POINTS]

[THEN ASK]

- **What else?**

[CONTINUE UNTIL NO FURTHER ADDITIONS]

3. There are some foods that people often forget. In addition to what you have already told me about, did you/(NAME OF CHILD) have any:

- Coffee, tea, soft drinks or milk
- [IF CHILD OVER 11] Alcoholic drinks
- Biscuits, cakes, sweets, chocolate bars or other confectionery
- Crisps, peanuts or other snacks
- Sauces, dressings,
- Anything you have not already told me about?

4. Now I would like to go through the list you have just given me and ask you some details about each item of food and drink. If while we are talking you remember anything else that you/(NAME OF CHILD) had to eat or drink, please tell me.

4a. Was (FIRST FOOD FROM QUICK LIST) the first thing that you/(NAME OF CHILD) had to eat/drink yesterday?

*IF YES: [GO TO BOX 1, Step a and work through steps in box]*

*IF NO: What was the first thing you/(NAME OF CHILD) had to eat or drink yesterday?*

*[RECORD ITEM NAMED ON MAIN LIST]*

*[GO TO BOX 1, Step b]*

4b. Was (NEXT ITEM FROM QUICK LIST) the next thing you/(NAME OF CHILD) had to eat/drink?

*[CONFIRM IF FOOD IS OBVIOUSLY PART OF SAME MEAL (e.g. milk on cereal) AND GO TO BOX 1]*

4c. *[CONTINUE UNTIL ALL FOODS ON QUICK LIST HAVE BEEN TICKED]*

## **BOX 1**

- a. **TRANSFER ITEM FROM QUICK LIST AND TICK BOX.**
- b. *(If necessary) ASK: About what time was that?*
- c. **RECORD TIME (in 24-hour clock format e.g. 18.00 for 6pm)**
- d. **ASK FOR DETAILED DESCRIPTION (USE THE FOOD DESCRIPTIONS LISTED AT THE BEGINNING OF THE RECORD SHEET AND THE FOOD DESCRIPTION PROMPT SHEET)**
- e. **RECORD 'DESCRIPTION'**
- f. **ASK FOR BRAND NAME**
- g. **RECORD 'BRAND NAME' (if recalled at first request)**
- h. **ASK FOR AMOUNT (USE PHOTOS AND HOUSEHOLD MEASURES)**
- i. **RECORD 'AMOUNT'**
- j. *(If necessary) PROMPT FOR RECIPES. (Record on recipe pages including amounts of ingredients)*
- k. **GO TO 4b**

*Before moving on to the next meal/snack:*

- l. **ASK ABOUT SECOND HELPINGS. (Record on separate line)**
- m. **ASK ABOUT LEFTOVERS (Record in Leftovers column).**
- n. *(If necessary) PROMPT FOR ADDITIONS (USE COMMONLY CONSUMED ADDITIONAL FOOD PROMPTS)*

*REVIEW*

5. **Let's see if I have everything. I would like you to try and remember anything else that you/(NAME OF CHILD) had to eat or drink yesterday that you have not already told me about, including anything that you/(NAME OF CHILD) had to eat or drink while you were waiting to eat.**

*[USE THE FOLLOWING PROMPTS TO ELICIT ADDITIONAL FOODS]*

- 5a. **Did you/(NAME OF CHILD) have anything to eat or drink between midnight yesterday and (TIME / NAME OF FIRST OCCASION)?**
- 5b. **At (TIME / NAME OF OCCASION) you/(NAME OF CHILD) had (FOODS/DRINKS). Do you recall (NAME OF CHILD) having anything else to eat or drink?**
- 5c. **Did you/(NAME OF CHILD) have anything to eat or drink between (TIME / THIS OCCASION) and (NEXT OCCASION)?**

*[REPEAT STEPS 5b TO 5c UNTIL LAST OCCASION / TIME]*

- 5d. **At (TIME / NAME OF OCCASION) you/(NAME OF CHILD) had (FOODS/DRINKS). Do you recall (NAME OF CHILD) having anything else to eat or drink?**
- 5e. **Did you/(NAME OF CHILD) have anything else to eat or drink between (THIS OCCASION) and midnight last night?**

**PLACE NAMES**

6. **I would like to ask you to give me a place name from this card *[SHOW CARD D1]* for each occasion at which you/(NAME OF CHILD) ate or drank something.**

*[FOR EACH OCCASION / TIME ASK:]*

- 6a. **Where did you/(NAME OF CHILD) eat/drink that?**  
*[PROMPT WITH CARD D1]*
- 6b. *[ENTER "PLACE" LETTER]*

- 7 *[WHERE BRAND HAS NOT BEEN RECALLED AT FIRST REQUEST BUT RESPONDENT HAS PRODUCT IN CUPBOARD, FRIDGE ETC, ASK IF YOU CAN CHECK PRODUCT AND ENTER BRAND NAME ON RECALL]*

- 8 *[COMPLETE '24 HOUR QUESTIONS' IN THE BOOKLET]*

**STUDY OF CHILDREN'S DIETS IN SCOTLAND: FOOD & DRINK DESCRIPTION PROMPT SHEET**

<b>Food</b>	<b>Description</b>
<b>Baked beans</b>	Standard, Reduced sugar, reduced salt or both.
<b>Biscuits</b>	Name Chocolate covered, Iced, Sandwich (cream, jam)
<b>Bread</b>  <b>PROMPT:</b> Ask about spreads	White, High fibre white, Brown, Brown with added bran, Wholemeal, Wheatgerm, Granary, Soda, French Was it toasted? Thin or medium or thick sliced? If homemade, type of flour & oil/fat used If rolls: soft, crusty, hamburger, hot dog, iced or plain
<b>Breakfast cereals</b>  <b>PROMPT:</b> Amount of milk, sugar etc	Type e.g. corn, wheat, oats, rice, bran, mixed Added fruit and/or nuts Muesli – added sugar/fruit? Porridge – made with oats or cornmeal? Instant? Made with milk or water or both? Type of milk on cereal. <i>Amount of milk = damp/normal/drowned</i> Sugar/sweetener added?
<b>Butter, margarine and spreads</b>	Butter – salted or unsalted? Spreadable butter? Fat spreads – % of fat i.e. reduced/low/very low fat Is it polyunsaturated? Cholesterol lowering e.g. Benecol, Flora Pro-Activ With olive oil e.g. Bertolli Margarines – hard (block) or soft (tub)
<b>Cakes</b>	Sponge or fruit? If fruit: rich fruit cake? Icing, fresh cream, jam filling, buttercream filling. Flavour (esp. chocolate)
<b>Chocolates</b>	Name of product Type e.g. milk, plain, white Any filling and, if so, what type e.g. wafer, caramel etc? Any additions e.g. raisins, nuts etc?
<b>Meat including bacon</b>	Type of meat (name of animal, cut of meat, preparation e.g. minced) Fat removed. If not, was it eaten? Skin removed. If not, was it eaten? Bacon - Smoked or unsmoked? Cut e.g. back, middle, streaky
<b>Pies (Sweet and savoury)</b>	Number of crusts (base, lid or both) Filling e.g. apple and blackberry. If meat, what type e.g. mince beef. Any vegetables. In gravy/white sauce? Type of pastry e.g. short, puff

<b>Milk</b>	Whole, semi-skimmed, skimmed Fresh, UHT, sterilized, unpasteurised Dried, condensed, evaporated Fortified with vitamins and/or minerals? Soya - sweetened?
<b>Sweets</b>	Name of product Type e.g. jelly, boiled, foam, chews Sugar free?
<b>Yoghurt and fromage frais</b>	Yoghurt: Creamy (including Greek), low fat or very low fat (i.e. virtually fat free)? Natural or flavoured yogurt/fromage frais (what flavour)? Fruit pieces/fruit puree or just flavoured? Low sugar? Low calorie? Fortified – especially kiddies yoghurts

<b>Drinks</b>	<b>Description</b>
<b>Concentrated soft drinks/squash/cordial</b>	Name and flavour. Is it “High juice” drink? No added sugar/low calorie/sugar free? Fortified with vitamins and minerals?
<b>Carbonated soft drinks</b>	Diet/low calorie/sugar free? Canned? Cola - caffeine free?
<b>Mineral water</b>	Still/sparkling, flavoured. Sweetened with sugar or sweeteners.
<b>Pure fruit juice</b>	Sweetened or unsweetened? Freshly squeezed or UHT/Longlife (come in tetrabrik cartons, not refrigerated in shop) or Pasteurised (come in tall purpak cartons, bought from fridge in shop) Canned?
<b>Powdered drinks</b>	Made up with water and/or milk (type of milk) Sugar added? Low fat/low calorie?
<b>Ready to drink (RTD) still drinks</b>	Does it contain real fruit juice? If so, how much? Low calorie/sugar free/no added sugar? Fortified with vitamins or minerals?
<b>Tea/coffee</b>	Type of milk/whitener. <i>Amount of milk = milky/some/dash/no milk</i> Sugar/sweetener?

## APPENDIX F FACE TO FACE (CAPI) INTERVIEW SCHEDULE

### CAPI Questionnaire documentation

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## **Notes**

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This is an edited documentation of the CAPI programme used in the survey. This documentation does not include the sections of the CAPI questionnaire used for survey administration but focuses on the sections relevant to the interview itself and the resulting data.

Instead of being numbered, each question has a name, identified in square brackets e.g. [HHldr]. In most cases these question names also provide variable names in the survey datafile. It should be noted that not all questions appear as variables in the final datafile. Similarly not all derived variables that are on the datafile are mentioned here. The final dataset documentation, including derived variable specification, will be produced separately and provided to dataset users.

Routing instructions are fully detailed in italics at appropriate points. The routing condition is displayed immediately before the first question to which it applies and is indicated by an 'IF' statement. The end of the influence of a particular routing condition is indicated by an 'ENDIF'

Textfills are used to tailor the question wording to individual respondents (for example by including the name the child or using an answer given earlier). Textfills are indicated by ^ and the use of italics. Sections of this questionnaire may have been asked of the named child him/herself, the Main Food Provider or another eligible adult (Appendix A gives full details of the methodology).

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## Household composition module

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### [Serial]

Serial Number

Answer must be in the range from 1 up to 99997

### [DMIntDat]

Interview date ..-.-.....

### [Names]

INTERVIEWER: COLLECT THE NAMES OF ALL THE PEOPLE IN THE HOUSEHOLD. START WITH THE OLDEST PERSON AND LIST OTHERS IN DESCENDING ORDER OF AGE.

## HOUSEHOLD COMPOSITION GRID ASKED ABOUT EACH HOUSEHOLD MEMBER

### [Person]

Person number in Household Grid.

Answer must be in the range from 0 up to 12: \_\_\_\_

### [Sex]

INTERVIEWER: Code *^name's^* sex.

1        Male

2        Female

### [DoB]

What is *^name's^* date of birth? ..-.-.....

### [DoBDay]

Date of Birth: Day

Answer must be in the range from 1 up to 31: \_\_\_\_

### [DoBMont]

Date of Birth: Month

Answer must be in the range from 1 up to 12: \_\_\_\_

### [DoBYear]

Date of Birth: Year

Answer must be in the range from 1 up to 9997: \_\_\_\_\_

### [AgeOf]

Can I check, what was *^name's^* age last birthday?

Answer must be in the range from 0 up to 120: \_\_\_\_

*IF Age=don't know/refused*

### [AgeEst]

INTERVIEWER CODE: Ask if necessary: Are you (is he/she) aged under 2 years, at least 2 up to 15 years, or 16 years or older?

INTERVIEWER: If not known, try to get best estimate.

1        Under 2 years

2        2 to 16 years

3        17 to 64 years

4        65 and over

*END IF*

*If Age is 16 or over*

**[Marital]**

Are you (is he/she)...

INTERVIEWER: Ask or record. Code first that applies.

- 1 ...single, that is never married,
- 2 married and living with husband/wife,
- 3 married and separated from husband/wife,
- 4 divorced,
- 5 or, widowed?

*END IF*

*If more than one person aged 16+ in household And marital status=code 1,3,4 or 5*

**[Couple]**

May I just check, are you (is he/she) living with anyone in this household as a couple?

INTERVIEWER: Ask or record.

- 1 Yes
- 2 No
- 3 **(Spontaneous only)** - same sex couple

*END IF*

*If Age is 0 to 15 year*

**[LegPar]**

Can I check, do either of ^name's^ parents, or someone who has legal parental responsibility for him/her, live in this household?

- 1 Yes
- 2 No

**[Par]**

Which of the people in this household are ^name's^ parents or have legal parental responsibility for him/her on a permanent basis?

**[Par]**

Which other person in this household is ^name's^ parent or has legal parental responsibility for him/her on a permanent basis?

*END IF*

***(Relationship between household members collected for all)***

**[R]\***

SHOW CARD A1

What is *^name's^* RELATIONSHIP TO (*other household member*).

Just tell me the number on this card.

- 1 husband/wife
- 2 partner/cohabitee
- 3 natural son/daughter
- 4 adopted son/daughter
- 5 foster child
- 6 stepson/daughter/child of partner
- 7 son/daughter-in-law
- 8 natural parent
- 9 adoptive parent
- 10 foster parent
- 11 stepparent/parent's partner
- 12 parent-in-law
- 13 natural brother/sister
- 14 half-brother/sister
- 15 step-brother/sister
- 16 adopted brother/sister
- 17 foster brother/sister
- 18 brother/sister-in-law
- 19 grandchild
- 20 grandparent
- 21 other relative
- 22 other non-relative
- 96 (This code not used)

**IDENTIFYING CORRECT PEOPLE FOR INTERVIEWS**

**HOUSEHOLD REFERENCE PERSON<sup>1</sup>**

**[HHldr]**

In whose name is the accommodation owned or rented?

Anyone else?

***IF MORE THAN ONE HOUSEHOLDER***

You have told me that *^HHNames* jointly own or rent the accommodation.

Which of you/who has the highest income (from earnings, benefits, pensions and any other sources)?

***IF MORE THAN ONE HOUSEHOLDER WITH SAME INCOME***

INTERVIEWER: Enter person number of the eldest joint householder.

**NAMED CHILD**

**[ChildSel]**

INTERVIEWER: ENTER THE PERSON NUMBER OF THE CHILD BEING INTERVIEWED/ASKED ABOUT.

Child named on Address Record Form<sup>2</sup>

---

<sup>1</sup> The Household Reference person was the householder (i.e. the person in whose name the property was owned or rented) with the highest income. If there was more than one householder and they had equal incomes, the the household reference person was the eldest.

**[ChildAge]**

Age of named child

**MAIN FOOD PROVIDER**

**[MFP]**

Can I ask who is the main food provider. This is the person who has the main responsibility for shopping and preparing food for the child?

INTERVIEWER: ENTER CODE 97 IF THIS PERSON IS NOT A HOUSEHOLD MEMBER

**[SocDemWh]**

INTERVIEWER: WHO WILL COMPLETE THE QUESTIONS ON HOUSEHOLD INCOME; THE HOUSEHOLD REFERENCE PERSON'S OCCUPATION; EDUCATION AND ETHNICITY? CODE 97 IF NO ADULT AVAILABLE TO COMPLETE THE INTERVIEW

**[HHResp]**

INTERVIEWER CODE: Who was the adult responsible for answering the questions in this questionnaire?

97 : Not a household member

Answer must be in the range from 1 up to 97: \_\_\_

**[HQResp]**

Status of person answering

1 HRP

2 Spouse / partner of HRP

3 Other adult

**HOUSEHOLD SUMMARY**

**[HHSize]**

Household size.

Answer must be in the range from 0 up to 12: \_\_\_

**[NOFAd]**

Number of adults.

Answer must be in the range from 0 up to 12: \_\_\_

**[NOFCh]**

Number of children.

Answer must be in the range from 0 up to 12: \_\_\_

**[NOFInf]**

Number of infants.

Answer must be in the range from 0 up to 12: \_\_\_

---

<sup>2</sup> One child in the household was pre-selected for the study

## Physical Activity Module

**THIS SECTION IS ABOUT THE NAMED CHILD AND WAS ANSWERED BY THE NAMED CHILD IF AGED 12 OR OVER OR BY THE MAIN FOOD PROVIDER/ELIGIBLE ADULT IF THE NAMED CHILD WAS UNDER 12**

Intro - INTERVIEWER: THE FOLLOWING QUESTIONS ARE ABOUT THE CHILD.

*IF NAMED CHILD IS 4 YEARS OLD*

### [ChSch]

Can I just check, is *^child's name^* at school in Primary 1 yet?

- 1 Yes
- 2 No

*END IF*

### [Wik5Ch]

Now I'd like to ask you about some of the things *^child's name/you^*<sup>3</sup> have/has done **in the last week**. By last week I mean last *^day 7 days ago^* up to yesterday.

In the last week, have/has *^he/she/you^* done a **continuous** walk that lasted **at least 5 minutes**?

- 1 Yes
- 2 No

*[IF Wik5Ch=1]*

### [DaysWik]

On how many **days** in the last week did *^child's name/you^* do a continuous walk that lasted at least 5 minutes?

- 1 One day
- 2 Two days
- 3 Three days
- 4 Four days
- 5 Five days
- 6 Six days
- 7 Every day

### [DayWikT]

SHOW CARD B1

On each **day** that *^child's name/you^* did a walk like this for at least 5 minutes, how long did *^he/she/you^* spend walking altogether?

Please give an answer from this card.

INTERVIEWER NOTE: Count total time spent walking.

- 2 5 minutes, less than 15 minutes
- 3 15 minutes, less than 30 minutes
- 4 30 minutes, less than 1 hour
- 5 1 hour, less than 1 1/2 hours
- 6 1 1/2 hours, less than 2 hours
- 7 2 hours, less than 2 1/2 hours
- 8 2 1/2 hours, less than 3 hours
- 9 3 hours, less than 3 1/2 hours
- 10 3 1/2 hours, less than 4 hours
- 11 4 hours or more (please specify how long)

<sup>3</sup> Text substitution use *^child's name/you^* = 'you' if child answered questions or 'Child's name' if questions answered by adult

**[WikHrs]**

How long did *^child's name/you^* spend walking on each day?

INTERVIEWER: Record hours spent below.

Record minutes at next question.

Answer must be in the range from 4 up to 12:-

**[WikMin]**

INTERVIEWER: Record minutes spent walking.

Answer must be in the range from 0 up to 59: -

**[ChPace]**

Which of the following describes *^child's name/your^* **usual** walking pace ... READ OUT ...

- 1 ... a slow pace,
- 2 a steady average pace,
- 3 a fairly brisk pace,
- 4 or, a fast pace - at least 4 mph?
- 5 (None of these)

END IF

**[WEActDo]**

SHOW CARD B3

Now I would like to know about when *^child's name/you^* does/do active things, like the things on this card or other activities like these.

Did *^he/she/you^* do any active things like these at the weekend?

INTERVIEWER NOTE: Do not include any act

- 1 Yes
- 2 No

[IF WEActDo=1]

**[DWEact]**

Was that on Saturday or Sunday or on both days?

- 1 Saturday only
- 2 Sunday only
- 3 Both Saturday and Sunday

**[WEAct]**

SHOW CARD B1

On *^Saturday/Sunday/Saturday and Sunday^* when *^child's name/you^* did active things like these, how long did he/she spend *^on each day^*? Please give an answer from this card.

INTERVIEWER: If it varied, take the average

**[WeActH]**

How long did *^child's name/you^* spend doing active things like these?

INTERVIEWER: Record **hours** spent below.

Record minutes at the next question.

Answer must be in the range from 4 up to 12:-

**[WeActM]**

INTERVIEWER: Record here **minutes** spent doing active things like these.

Answer must be in the range from 0 up to 59:-

END IF

**[WkActDo]**

SHOW CARD B3

Still thinking about last week. On how many of the **weekdays** did *^child's name/you^* do active things, like the things on this card or other activities like these *^not counting things done as part of school lessons^*

INTERVIEWER NOTE: Do not include any activities already covered under sport

- 0 None in last week
- 1 1 day
- 2 2 days
- 3 3 days
- 4 4 days
- 5 5 days

*IF WkActDo=1]*

**[WkAct ]**

SHOW CARD B1

On each **weekday** that *^he/she/you^* did active things like these, how long *^he/she/you^* spend?

Please give an answer from this card.

- 1 Less than 5 minutes
- 2 5 minutes, less than 15 minutes
- 3 15 minutes, less than 30 minutes
- 4 30 minutes, less than 1 hour
- 5 1 hour, less than 1 1/2 hours
- 6 1 1/2 hours, less than 2 hours
- 7 2 hours, less than 2 1/2 hours
- 8 2 1/2 hours, less than 3 hours
- 9 3 hours, less than 3 1/2 hours
- 10 3 1/2 hours, less than 4 hours
- 11 4 hours or more (please specify how long)

**[WkActH ]**

How long did *^child's name/you^* spend doing active things like these on each weekday?

INTERVIEWER: Record **hours** spent below.

Record minutes at the next question.

Answer must be in the range from 4 up to 12:-

**[WkActM]**

INTERVIEWER: Record here **minutes** spent doing active things like these.

Answer must be in the range from 0 up to 59: -

*END IF*

**[HWkCh]**

In the last week have/has *^child's name/you^* done any housework or gardening which involved pulling or pushing, like hoovering, cleaning a car, mowing grass or sweeping up leaves for at least 15 minutes a time?

- 1 Yes
- 2 No



IF HWkCh=1

**[DHWkCh]**

On how many days in the last week have/has *^child's name/you^* done any housework or gardening of this type for at least 15 minutes a time?

- 1 One day
- 2 Two days
- 3 Three days
- 4 Four days
- 5 Five days
- 6 Six days
- 7 Every day

**[THWk]**

SHOW CARD B1

On each day that *^child's name/you^* did any housework or gardening of this type for at least 15 minutes a time, how long did he/she spend?

Please give an answer from this card.

- 3 15 minutes, less than 30 minutes
- 4 30 minutes, less than 1 hour
- 5 1 hour, less than 1 1/2 hours
- 6 1 1/2 hours, less than 2 hours
- 7 2 hours, less than 2 1/2 hours
- 8 2 1/2 hours, less than 3 hours
- 9 3 hours, less than 3 1/2 hours
- 10 3 1/2 hours, less than 4 hours
- 11 4 hours or more (please specify how long)

**[HWkHrs]**

How long did *^child's name/you^* spend doing housework or gardening on each day?

INTERVIEWER: Record **hours** spent below.

Record minutes at next question.

Answer must be in the range from 4 up to 12:-

**[HWkMin]**

INTERVIEWER: Record **minutes** spent DOING housework/gardening.

Answer must be in the range from 0 up to 59:-

END IF

**[TvWeek]**

Thinking first of weekdays, that is Monday to Friday, how much time on **an average day** do/does *^child's name/you^* spend sitting watching TV or another type of screen such as a computer, Game Boy, or video game?

Please do **not** include any time spent in front of a screen at nursery or school.

Answer must be in the range from 0 up to 24:-

**[MinTVWk]**

INTERVIEWER: Record **minutes** spent watching TV / a screen.

Answer must be in the range from 0 up to 59:-

**[TVWkEnd]**

Now thinking of the weekend, that is Saturday and Sunday, how much time on **an average day** do/does *^child's name/you^* spend sitting watching TV or another type of screen (such as a computer, Game Boy, or video game)?

Again, please do **not** include any time spent in front of a screen while at nursery or school.

Answer must be in the range from 0 up to 24:-

**[MinTVWe]**

INTERVIEWER: Record **minutes** spent watching TV / a screen.

Answer must be in the range from 0 up to 59:-

**[Sport]**

I would now like to ask you about any sports or exercise activities that *^child's name/you^* has/have done. I will then go on to ask about other active things *^he/she/you^* may have done like running about, riding a bike, kicking a ball around and things like that.

**[SportDo]**

SHOW CARD B2

In the last week, that is last *^day 7 days ago^* up to yesterday has/have *^child's name/you^* done any sports or exercise activities *^not counting things done as part of a school lesson^*

This card shows some of the things *^he/she/you^* might have done; please also include any other sports or exercise activities.

- 1 Yes
- 2 No

**[WESpDo]**

Did he/she do any of these sports or exercise activities at the weekend

- 1 Yes
- 2 No

*If WESpDo=1*

**[DWESp]**

Was that on Saturday or Sunday or on both days?

- 1 Saturday only
- 2 Sunday only
- 3 Both Saturday and Sunday

**[WeSpor]**

SHOW CARD B1

On *^Saturday/Sunday/Saturday and Sunday^* when *^child's name/you^* did these sports or exercise activities, how long did he/she spend *^on each day^*. Please give an answer from this card.

INTERVIEWER: If it varied, take the average.

- 1 Less than 5 minutes
- 2 5 minutes, less than 15 minutes
- 3 15 minutes, less than 30 minutes
- 4 30 minutes, less than 1 hour
- 5 1 hour, less than 1 1/2 hours
- 6 1 1/2 hours, less than 2 hours
- 7 2 hours, less than 2 1/2 hours
- 8 2 1/2 hours, less than 3 hours
- 9 3 hours, less than 3 1/2 hours

- 10 3 1/2 hours, less than 4 hours
- 11 4 hours or more (please specify how long)

**[WeSpH]**

How long did *^child's name/you^* spend doing these sports or exercise activities?

INTERVIEWER: Record **hours** spent below.

Record minutes at the next question.

Answer must be in the range from 4 up to 12:-

**[WeSpM]**

INTERVIEWER: Record **minutes** spent doing sports or exercise activities.

Answer must be in the range from 0 up to 59:-

**[WeSpT]**

**Computed total time from WeSpH and WeSpM**

**Answer must be in the range from 0 up to 9997:-**

*END IF*

**DaySp -**

Still thinking about last week. On how many of the **weekdays** did *^child's name/you^* do any of these sports or exercise activities? *^Please remember not to count things done as part of school lessons^*

0 None in last week

- 1 1 day
- 2 2 days
- 3 3 days
- 4 4 days
- 5 5 days

*IF DaySP greater than 0*

**[WkSpor]**

SHOW CARD B1

On each weekday that he/she did these sports or exercise activities, how long did he/she spend?

Please give an answer from this card.

- 1 Less than 5 minutes
- 2 5 minutes, less than 15 minutes
- 3 15 minutes, less than 30 minutes
- 4 30 minutes, less than 1 hour
- 5 1 hour, less than 1 1/2 hours
- 6 1 1/2 hours, less than 2 hours
- 7 2 hours, less than 2 1/2 hours
- 8 2 1/2 hours, less than 3 hours
- 9 3 hours, less than 3 1/2 hours
- 10 3 1/2 hours, less than 4 hours
- 11 4 hours or more (please specify how long)

**[WkSpH]**

How long did "name" spend doing these sports or exercise activities on each weekday?

INTERVIEWER: Record **hours** spent below.

Record minutes at the next question.

Answer must be in the range from 4 up to 12:-

**[WkSpM]**

INTERVIEWER: Record **minutes** spent doing sports or exercise activities  
Answer must be in the range from 0 up to 59:-

*END IF*

**[Usual]**

Were the activities *^child's name/you^* did last week different from what he/she would usually do for any reason?

IF YES PROBE: Would he/she usually do more physical activity or less?

- 1 NO - same as usual
- 2 YES DIFFERENT - usually do MORE
- 3 YES DIFFERENT - usually do LESS

**[DaysTot]**

Now thinking about all the activities during the past week you have just told me about including any walking, *^gardening, housework^*, sports or other active things. On how many **days** in the last week **in total** did *^child's name/you^* do any of these activities *^not counting things done as part of school lessons^*

- 0 None
- 1 One day
- 2 Two days
- 3 Three days
- 4 Four days
- 5 Five days
- 6 Six days
- 7 Every day

## Dental Health Module

**THIS SECTION IS ABOUT THE NAMED CHILD AND WAS ANSWERED BY THE NAMED CHILD IF AGED 12 OR OVER OR BY THE MAIN FOOD PROVIDER/ELIGIBLE ADULT IF THE NAMED CHILD AGED WAS UNDER 12**

Now a couple of questions about *^child's name's/your^* teeth.

### [FalseT]

Can I check, does *^child's name/you^* have all his/her/your own teeth including crowns and caps or are some of them false?

- 1 All own teeth
- 2 Some false/some own
- 3 All false teeth

*IF FalseT=1 or 2*

### [ToothP]

What type of toothpaste does/do *^child's name/you^* use ...READ OUT...

- 1 ...fluoride
- 2 or non-fluoride?
- 3 (Don't use toothpaste)

*END IF*

*IF ToothP=1 or 2*

### [TthFreq]

How frequently does/do *^child's name/you^* brush his/her/your teeth?

Does "name" brush them ...READ OUT...

- 1 ...more than once a day,
- 2 once a day,
- 3 or less than once a day?

*END IF*

### [Dentist]

On average, how often does *^child's name/you^* attend a dentist for a routine check-up ...READ OUT...

- 1 ...more frequently than once every six months,
- 2 every six months,
- 3 every 12 months,
- 4 every 24 months,
- 5 at longer intervals,
- 6 or never?

### [TNow]

Can I check, are *^child's name's/you're^* teeth ...READ OUT...

- 1 ...milk (or baby) teeth,
- 2 His/her second (or adult) teeth,
- 3 or a mixture of both?

**[Dentsurg]**

Has/have *^child's name/you^* ever been to the dentist's surgery, either for treatment or for a check-up?

- 1 Yes
- 2 No

*IF Dentsurg=1*

**[Dentage]**

Thinking about the first time that *^child's name/you^* ever went to the dentist, how old was he/she/you then?

INTERVIEWER: Enter number of years at the next question and the number of months at the following question otherwise if don't know (or refusal) then

- 1 Continue

**[AgeYrs]**

INTERVIEWER: Enter number of years.

Range from 0 up to 16: \_\_\_

**[AgeMths]**

INTERVIEWER: Enter number of months.

Range from 0 up to 11: \_\_\_

**[WhyDent]**

SHOW CARD C1

Why did *^child's name/you^* go to the dentist the first time? Please choose the phrase on this card which is the most appropriate.

- 1 He/She/I was having trouble with his/her/my teeth
- 2 Had a note from the school dentist
- 3 He/She/I went for a check up
- 4 He/She/I just went to get used to going to the dentist
- 5 Some other reason

Which of these kinds of treatment has *^child's name/you^* had on his/her teeth?

**[Treat1]**

Any fillings?

- 1 Yes
- 2 No

**[Treat2]**

Any teeth taken out due to decay?

- 1 Yes
- 2 No

*IF Treat2=1*

**[Treat2a]**

Was that done with or without general anaesthetic?

- 1 With a general anaesthetic
- 2 Without a general anaesthetic

*END IF*

**[Treat3]**

Any treatment to stop his/her/your teeth decaying or going bad, such as painting and/or sealing?

- 1 Yes
- 2 No

**[Treat4]**

Orthodontics, that is straightening of the teeth with a brace?

- 1 Yes
- 2 No

**[Treat5]**

Any other treatment?

- 1 Yes
- 2 No

END IF

**[DHealth]**

And how would you describe *^child's name/you^* dental health **at present**. Would you say his/her/your teeth ...READ OUT...

- 1 ...are perfectly healthy or,
- 2 ...have some decay or,
- 3 ...have a lot of decay?

INTERVIEWER: Code one only.

If respondent seeks clarification:

Perfectly healthy = no fillings, no obvious decay.

Some decay = fillings, some open decay.

Lot of decay = 5+ teeth affected by dental decay

**[AGEBRUSH]**

Thinking about the first time that *^child's name/you^* started brushing his/her/your teeth, how old were he/she/you then?

INTERVIEWER: Enter years at the next question and months at the following question otherwise if don't know (or refusal) then press CTRL K or CTR

**[AgeYrs]**

INTERVIEWER: Enter number of years

Range from 0 up to 16: \_\_\_

**[AgeMths]**

INTERVIEWER: Enter number of months

Range from 0 up to 11: \_\_\_

**[ChldAnsw]**

INTERVIEWER: DID *^child's name^* ANSWER THESE QUESTIONS ON PHYSICAL ACTIVITY AND DENTAL HEALTH?

- 1 Yes
- 2 No

## Height and Weight Module

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### HEIGHT AND WEIGHT OF NAMED CHILD WERE MEASURED BY THE INTERVIEWER

INTRODUCTION: I would now like to measure height and weight. There is interest in how people's weight, given their height, is associated with their health.

INTERVIEWER: Make out white Measurement Record Card

Answer must be in the range from 1 up to 1:-

#### [MeasCons]

INTERVIEWER: HAS THE CONSENT FORM FOR TAKING HEIGHT AND WEIGHT MEASUREMENTS BEEN SIGNED?

- 1 Yes
- 2 No

#### [RespHts]

INTERVIEWER: Measure height and code.

Include 'disguised' refusals such as 'It will take too long', 'I have to go out' etc, as code 2: height refused.

- 1 Height measured
- 2 Height refused
- 3 Height attempted, not obtained
- 4 Height not attempted

#### [StadNo]

INTERVIEWER: Please record the serial number of the **stadiometer** used for this interview.

Answer must be in the range from 1 up to 997:-

#### [Height]

INTERVIEWER: Enter height.

Answer must be in the range from -100 up to 1000:-

#### [ResNHt]

GIVE REASONS FOR REFUSAL.

- 1 Cannot see point/Height already known/Doctor has measurement
- 2 Too busy/Taken too long already/ No time
- 3 Respondent too ill/frail/tired
- 4 Considered intrusive information
- 5 Respondent too anxious/nervous/shy/ embarrassed
- 6 Refused (no other reason given)
- 7 Other

#### *IF HEIGHT NOT MEASURED BY INTERVIEWER*

#### [EHtCh]

INTERVIEWER: Ask *^adult's name^* for an estimated height. Will it be given in metres or in feet and inches?

If respondent doesn't know height use <Ctrl K>, if respondent isn't willing to give height use <Ctrl R>.

- 1 Metres
- 2 Feet and inches



**[EHtm]**

INTERVIEWER: Please record estimated height in metres.  
Answer must be in the range from -10 up to 100:-

**[EHtFt]**

INTERVIEWER: Please record estimated height. Enter feet.  
Answer must be in the range from 0 up to 7:-

**[EHtIn]**

INTERVIEWER: Please record estimated height. Enter inches.  
Answer must be in the range from 0 up to 11: -

**[EMHeight]**

*Final measured or estimated height (cm) Answer must be in the range from -100 up to 1000:-*

INTERVIEWER: Code reason for not obtaining height.  
CODE ALL THAT APPLY

**[NoHitM0]**

Child: away from home during fieldwork period (specify in a Note)

0 Not mentioned  
1 Mentioned

**[NoHitM1]**

Child is unsteady on feet

0 Not mentioned  
1 Mentioned

**[NoHitM2]**

Child cannot stand upright/too stooped

0 Not mentioned  
1 Mentioned

**[NoHitM3]**

Respondent is chairbound

0 Not mentioned  
1 Mentioned

**[NoHitM4]**

Subject would not stand still

0 Not mentioned  
1 Mentioned

**[NoHitM5]**

Ill or in pain

0 Not mentioned  
1 Mentioned

**[NoHitM6]**

Stadiometer faulty or not available

0 Not mentioned  
1 Mentioned

**[NoHitM7]**

Other – specify

END IF

**[RelHiteB]**

INTERVIEWER: Code one only:

- 1 No problems experienced, reliable height measurement obtained.
- Problems experienced - measurement likely to be:
- 2 Reliable
  - 3 Unreliable

*IF RelHiteB=3*

**[HiNRel]**

INTERVIEWER: What caused the height measurement to be unreliable?

- 1 Hairstyle or wig
- 2 Turban or other religious headgear
- 3 Respondent stooped
- 4 Child respondent refused stretching
- 5 Respondent would not stand still
- 6 Respondent wore shoes
- 7 Other, please specify
- 8 Difficulty standing

*END IF*

**[MBookHt]**

INTERVIEWER: Check height recorded on the Measurement Record Card.

HEIGHT: \*Height cm or \*Foot feet \*Inch inches.

- 1 Continue

**[RespWts]**

INTERVIEWER: Measure weight and code.

Include 'disguised' refusals such as 'It will take too long', 'I have to go out', etc, at code 2: Weight refused.

- 0 Child held
- 1 Weight obtained on own
- 2 Weight refused
- 3 Weight attempted, not obtained
- 4 Weight not attempted

**[SciNo]**

INTERVIEWER: Please record the serial number of the **scales** used for this interview.

Answer must be in the range from 1 up to 997:-

**[XWeight]**

INTERVIEWER: Record weight.

Answer must be in the range from -100 up to 1000:-

*IF RespWts=0*

**[WtAdult]**

INTERVIEWER: Enter weight of adult on his/her own.

Answer must be in the range from -100 up to 1000: -

**[WtChAd]**

INTERVIEWER: Enter weight of adult holding child.

Answer must be in the range from -100 up to 1000:-

*END IF*

*IF RespWts=2*

**[ResNWt]**

INTERVIEWER: Give reasons for refusal.

- 1 Cannot see point/Weight already known/Doctor has measurement
- 2 Too busy/Taken long enough already/No time
- 3 Respondent too ill/frail/tired
- 4 Considered intrusive information
- 5 Respondent too anxious/nervous/shy/embarrassed
- 6 Child refused to be held by parent
- 7 Parent refused to hold child
- 8 Refused (no other reason given)
- 9 Other - specify

*END IF*

*IF RespWts=3 or 4*

INTERVIEWER: Code reason for not obtaining weight.

CODE ALL THAT APPLY.:

**[NoWaitM0]**

Child: away from home during fieldwork period (specify in a Note)

- 0 Not mentioned
- 1 Mentioned

**[NoWaitM1]**

Child is unsteady on feet

- 0 Not mentioned
- 1 Mentioned

**[NoWaitM2]**

Child cannot stand upright

- 0 Not mentioned
- 1 Mentioned

**[NoWaitM3]**

Child is chairbound

- 0 Not mentioned
- 1 Mentioned

**[NoWaitM4]**

Child weighs more than 130 kg

- 0 Not mentioned
- 1 Mentioned

**[NoWaitM5]**

Ill or in pain

- 0 Not mentioned
- 1 Mentioned

**[NoWaitM6]**

Scales not working

- 0 Not mentioned
- 1 Mentioned

**[NoWaitM7]**

Parent unable to hold child

- 0 Not mentioned
- 1 Mentioned

**[NoWaitM8]**

Other - specify

- 0 Not mentioned
- 1 Mentioned

*END IF*

*IF REspWts=2 or 3 or 4*

**[EWtCh]**

INTERVIEWER: Ask *^Adult name^* for an estimated weight. Will it be given in kilograms or in stones and pounds?

If respondent doesn't know weight use <Ctrl K>, if respondent isn't willing to give weight use <Ctrl R>.

- 1 Kilograms
- 2 Stones and pounds

**[EWtkg]**

INTERVIEWER: Please record estimated weight in kilograms.

Answer must be in the range from -100 up to 1000: -

**[EWtSt]**

INTERVIEWER: Please record estimated weight. Enter stones.

Answer must be in the range from 1 up to 32: -

**[EWtL]**

INTERVIEWER: Please record estimated weight. Enter pounds.

Answer must be in the range from 0 up to 13: -

*END IF*

**[EMWeight]**

*Final measured or estimated weight (kg) Answer must be in the range from -100 up to 1000: -*

**[FloorM1]**

INTERVIEWER: Were the scales placed on...: ...uneven floor,

- 0 Not mentioned
- 1 Mentioned

**[FloorM2]**

INTERVIEWER: Were the scales placed on...: carpet,

- 0 Not mentioned
- 1 Mentioned

**[FloorM3]**

INTERVIEWER: Were the scales placed on...: or neither?

- 0 Not mentioned
- 1 Mentioned

**[RelWaitB]**

INTERVIEWER: Code one only:

1 No problems experienced, reliable weight measurement obtained

Problems experienced - measurement likely to be:

2 Reliable

3 Unreliable

**[MBookWt]**

INTERVIEWER: Check weight recorded on Measurement Record Card.

WEIGHT: \*FWeight kg or \*Stone stones \*Pound pounds.

If weight looks wrong, go back to 'Weight' and reweigh.

1 Continue

## Household Module

**THIS SECTION WAS ANSWERED BY THE MAIN FOOD PROVIDER OR THE ELIGIBLE ADULT.**

### [OwnORent]

Now, I'd like to get some general information about your household.

Does your household own or rent this accommodation?

PROBE FOR DETAILS.

- 1 Owns with mortgage/loan
- 2 Owns outright
- 3 Rents from local authority/new town
- 4 Rents from housing association
- 5 Rents - privately, unfurnished
- 6 Rents - privately, furnished
- 7 Rents from employer
- 8 Rents - other with payment
- 9 Rent free

### SHOW CARD E1

Please look at this card. There has been a lot of talk about health and income. We would like to get some idea of your household's income. This card shows various possible sources of income. Can you please tell me which of these you and your <sup>^</sup>husband/wife/partner<sup>^</sup> receive<sup>4</sup>

### [SrcInc1]

Earnings from employment or self-employment

- 0 Not mentioned
- 1 Mentioned

### [SrcInc2]

State retirement pension

- 0 Not mentioned
- 1 Mentioned

### [SrcInc3]

Pension from former employer

- 0 Not mentioned
- 1 Mentioned

### [SrcInc4]

SHOW CARD E1

Personal pensions

- 0 Not mentioned
- 1 Mentioned

---

<sup>4</sup> If the adult respondent was the HRP or their spouse/partner they were asked for the sources of income for both of them. However, if the respondent was neither the HRP nor their partner they were asked about their own income only

**[SrcInc5]**

SHOW CARD E1

Child Benefit

0 Not mentioned

1 Mentioned

**[SrcInc6]**

Job-Seekers Allowance

0 Not mentioned

1 Mentioned

**[SrcInc7]**

Income Support

0 Not mentioned

1 Mentioned

**[SrcInc8]**

Working Families' Tax Credit or other Tax Credit

0 Not mentioned

1 Mentioned

**[SrcInc9]**

Housing Benefit

0 Not mentioned

1 Mentioned

**[SrcInc10]**

Other state benefits

0 Not mentioned

1 Mentioned

**[SrcInc11]**

SHOW CARD E1

Interest from savings and investments (eg stocks &amp; shares)

0 Not mentioned

1 Mentioned

**[SrcInc12]**

Other kinds of regular allowance from outside your household (eg maintenance, student's grants, rent)

0 Not mentioned

1 Mentioned

**[SrcInc13]**

No source of income

0 Not mentioned

1 Mentioned

**[JntInc]<sup>5</sup>**

SHOW CARD E2

This card shows incomes in weekly, monthly and annual amounts.

Which of the groups on this card represents your income from all these sources, before any deductions for income tax, National Insurance, etc?

Just tell me the number.

**[OthInc]**

Can I check, does anyone else in the household have an income from any source?

1 Yes

2 No

**[HHInc]**

SHOW CARD E2

Thinking of the income of your household as a whole, which of the groups on this card represents the total income of the whole household before deductions for income tax, National Insurance, etc?

INTERVIEWER: Enter band number.

Answer must be in the range from 1 up to 97:-

---

<sup>5</sup> If the adult respondent is the HRP or their spouse/partner they were asked about combined income. However, if the respondent was neither the HRP nor their partner they were asked about their own income only



## HRP Economic Activity

**THE QUESTIONS ARE ABOUT THE HOUSEHOLD REFERENCE PERSON BUT COULD BE ANSWERED BY PROXY BY THE MAIN FOOD PROVIDER/ELIGIBLE ADULT IF THEY WERE NOT HRP**

Intro - INTERVIEWER: THE NEXT QUESTIONS ARE ABOUT HRP<sup>6</sup>

### [NHActiv]

SHOW CARD E3

Which of these descriptions applies to what you were/was doing last week, that is in the seven days ending *^(last Sunday, date e.g. last Sunday 4<sup>th</sup> June)^*

INTERVIEWER: Code **first** to apply.

- 1 Going to school or college full-time (incl on vacation)
- 2 In paid employment or self-employed (or temporarily away)
- 3 On a Government scheme for employment training
- 4 Doing unpaid work for a business that you own, or that a relative owns
- 5 Waiting to take up paid work already obtained
- 6 Looking for paid work or a Government training scheme
- 7 Intending to look for work but prevented by temporary sickness or injury (CHECK MAX 28 DAYS)
- 8 Permanently unable to work because of long-term sickness or disability (USE ONLY FOR MEN AGED 16-64 OR WOMEN AGED 16-59)
- 9 Retired from paid work
- 10 Looking after home or family
- 11 Doing something else (specify)

*IF NHActiv=1*

### [HStWork]

Did you do any paid work in the seven days ending *^(last Sunday, date e.g. last Sunday 4<sup>th</sup> June)^* either as an employee or self-employed?

- 1 Yes
- 2 No

*END IF*

*IF NHActiv=7 or 9 or 11*

### [H4WkLook]

Thinking now of the **4** weeks ending *^(last Sunday, date e.g. last Sunday 4<sup>th</sup> June)^*. Were/Was you looking for any paid work or Government training scheme at any time in those four weeks?

- 1 Yes
- 2 No

*END IF*

*IF NHActiv=6 or H4EkLook=1*

### [H2WkStrt]

If a job or a place on a Government training scheme had been available in the *^last week/last 4 weeks^* ending *^(last Sunday, date e.g. last Sunday 4<sup>th</sup> June)^* would you have been able to start within two weeks?

- 1 Yes
- 2 No

*END IF*

---

<sup>6</sup> If the adult respondent was the HRP then they answered questions about their own occupation. However, if the person answering was not the HRP then they were asked to give details of the HRP's occupation and not their own.

*IF NHActiv=7 or 11*

**[HEverJob]**

Have/Has you ever been in paid employment or self-employed?

1 Yes

2 No

*END IF*

*IF NHActiv=5*

**[HOthPaid]**

Apart from the job you are/is waiting to take up, have/has you ever been in paid employment or self-employed?

1 Yes

2 No

*END IF*

*IF HEverJob=1*

**[HPayAge]**

Age when last had a paid job.

Answer must be in the range from 0 up to 120:

**[HPayLast]**

INTERVIEWER: Write in year.

Answer must be in the range from 1920 up to 2999:-

**[HPayMon]**

Which month in that year did you leave?

1 January

2 February

3 March

4 April

5 May

6 June

7 July

8 August

9 September

10 October

11 November

12 December

13 Can't remember

*END IF*

**[HFtPtime]**

Are you working full-time or part-time?

INTERVIEWER: Full-time = more than 30 hours.

Part-time = 30 hours or less.

1 Full-time

2 Part-time

**[HEmploye]**

Are you ...READ OUT...

1 ...an employee,

2 ...or, self-employed?

INTERVIEWER: If in doubt, check "how this employment is treated" for tax & NI purposes.

*IF HEmploye=2*

**[HDirctr]**

Can I just check, in this job are/were you a Director of a limited company?

- 1 Yes
- 2 No

*END IF*

*IF HEmploye=1 or HDirector=1*

**[HEmpStat]**

Are you a ...READ OUT...

- 1 ..manager,
- 2 ...foreman or supervisor,
- 3 ...or other employee?

**[HNEmplee]**

Including yours, about how many people are/were employed at the place where you work

- 1 1 or 2
- 2 3-24
- 3 25-499
- 4 500+

*END IF*

*IF HEmploye=2 and HDirector=2*

**[HSNEmple]**

Do/did you have any employees?

- 1 None
- 2 1-24
- 3 25-499
- 4 500+

## **EDUCATION - ASKED ABOUT HRP AND MFP**

**[EducEnd]**

At what age did *^you/name^* finish continuous full-time education at school or college?

0 Not yet finished

- 1 Never went to school
- 2 14 or under
- 3 15
- 4 16
- 5 17
- 6 18
- 7 19 or over

SHOW CARD F1

Please look at this card and tell me which, if any, of the following educational qualifications *^you/name^* have/has

CODE ALL THAT APPLY.

**[TopQu01]**

School leaving certif/ NNQ Access Unit

- 0 Not mentioned
- 1 Mentioned

**[TopQu02]**

O grade / Standard grade / GCSE / CSE

- 0 Not mentioned
- 1 Mentioned

**[TopQu03]**

GSVQ found / SVQ level 1 or 2 / Scotvec module

- 0 Not mentioned
- 1 Mentioned

**[TopQu04]**

Higher grade / A level / CSYS

- 0 Not mentioned
- 1 Mentioned

**[TopQu05]**

GSVQ advanced / SQV lev 3 / ONC, OND

- 0 Not mentioned
- 1 Mentioned

**[TopQu06]**

City and Guilds

- 0 Not mentioned
- 1 Mentioned

**[TopQu07]**

HNC / HND / SQV lev 4 or 5

- 0 Not mentioned
- 1 Mentioned

**[TopQu08]**

First degree / Higher degree

- 0 Not mentioned
- 1 Mentioned

**[TopQu09]**

None of these qualifications

- 0 Not mentioned
- 1 Mentioned

## Ethnicity

---

### ASKED ABOUT MAIN FOOD PROVIDER AND SELECTED CHILD

#### [Ethnic1]

SHOW CARD F2

Can I check, to which of the groups on this card do you consider *^you/MFP^7* belongs?

CODE ONE ONLY.

- 1 White: Scottish
- 2 White: Other British
- 3 White: Any other white background (WRITE IN)
- 4 Mixed: Any mixed background
- 5 Asian, Asian Scottish or Asian British: Indian
- 6 Asian, Asian Scottish or Asian British: Pakistani
- 7 Asian, Asian Scottish or Asian British: Bangladeshi
- 8 Asian, Asian Scottish or Asian British: Any other Asian background (WRITE IN)
- 9 Chinese, Chinese Scottish or Chinese British
- 10 Black, Black Scottish or Black British: Caribbean
- 11 Black, Black Scottish or Black British: African
- 12 Black, Black Scottish or Black British: Any other black background (WRITE IN)
- 13 Any other ethnic group (WRITE IN)

#### [Ethnic12]

SHOW CARD F2

Can I check, to which of the groups on this card do you consider *^named child^* belong?

CODE ONE ONLY.

- 1 White: Scottish
- 2 White: Other British
- 3 White: Any other white background (WRITE IN)
- 4 Mixed: Any mixed background
- 5 Asian, Asian Scottish or Asian British: Indian
- 6 Asian, Asian Scottish or Asian British: Pakistani
- 7 Asian, Asian Scottish or Asian British: Bangladeshi
- 8 Asian, Asian Scottish or Asian British: Any other Asian background (WRITE IN)
- 9 Chinese, Chinese Scottish or Chinese British
- 10 Black, Black Scottish or Black British: Caribbean
- 11 Black, Black Scottish or Black British: African
- 12 Black, Black Scottish or Black British: Any other black background (WRITE IN)
- 13 Any other ethnic group (WRITE IN)

---

<sup>7</sup> If respondent was not the MFP then MFP name was inserted

**SHOWCARDS**

**STUDY OF CHILDREN'S DIETS IN  
SCOTLAND**

**SHOWCARDS**

## **CARD A1**

### **RELATIONSHIP**

- 1 Husband / Wife**
- 2 Partner / Cohabitee**
- 3 Natural son / daughter**
- 4 Adopted son / daughter**
- 5 Foster son / daughter**
  
- 6 Stepson / Stepdaughter / Child of partner**
- 7 Son-in-law / Daughter-in-law**
- 8 Natural parent**
- 9 Adoptive parent**
- 10 Foster parent**
  
- 11 Step-parent**
- 12 Parent-in-law**
- 13 Natural brother / Natural sister (i.e. both natural parents the same)**
- 14 Half-brother / Half-sister (i.e. one natural parent the same)**
- 15 Step-brother / Step-sister (i.e. no natural parents the same)**
- 16 Adopted brother / Adopted sister**
- 17 Foster brother / Foster sister**
- 18 Brother-in-law / Sister-in-law**
- 19 Grandchild**
- 20 Grandparent**
- 21 Other relative**
- 22 Other non-relative**

## **CARD B1**

**Less than 5 minutes**

**5 minutes, less than 15 minutes**

**15 minutes, less than 30 minutes**

**30 minutes, less than 1 hour**

**1 hour, less than 1 ½ hours**

**1 ½ hours, less than 2 hours**

**2 hours, less than 2 ½ hours**

**2 ½ hours, less than 3 hours**

**3 hours, less than 3 ½ hours**

**3 ½ hours, less than 4 hours**

**4 hours or more (please say how long)**



## CARD B2

### SPORTS AND EXERCISE ACTIVITIES

**INCLUDE** any sports and exercise activities like:

**Playing football, rugby or netball in a team,  
or any other organised team games**

**Playing tennis, squash or badminton**

*include playing in:  
a practice session  
a match  
a club  
out-of-school  
lesson*

**Going swimming or swimming lessons**

**Gymnastics (include Toddler Gym, Tumble Tots etc)**

**Dance lessons, ballet lessons, ice skating**

**Horse riding**

**Disco dancing**

**Any other organised sports, team sports or exercise activities**

## **CARD B3**

**Other active things like:**

**Ride a bike**

**Kick a ball around**

**Run about (outdoors or indoors)**

**Play active games**

**Jump around**

**Any other things like these**

## **CARD C1**

**Having trouble with their teeth**

**Had a note from the school dentist**

**Went for a check-up**

**Just went to get used to going to the dentist**

**Or for some other reason (PLEASE SAY WHAT)**

## CARD D1

<b>Place</b>	
<b>A</b>	APPENDIX A Home, own food supply
<b>B</b>	Home, take-away brought in
<b>C</b>	Home, other food brought in, free
<b>D</b>	Friend's or Relative's house
<b>E</b>	Restaurant or Cafe
<b>F</b>	School (bought food or drink)
<b>G</b>	School (food or drink from home)
<b>H</b>	School (free/other)
<b>I</b>	Work (bought food or drink)
<b>J</b>	Work (food or drink from home)
<b>K</b>	Work (free/other)
<b>L</b>	Pub, bar, lounge, hotel, club
<b>M</b>	Take-away eaten away from home
<b>N</b>	Other place (bought food or drink)
<b>O</b>	Other place (food or drink from home)
<b>P</b>	Other place (free/other)

## CARD D2

<b>1</b>	Cod liver oil and other fish based supplements
<b>2</b>	Evening primrose oil type supplements
<b>3</b>	APPENDIX B Vitamin C only
<b>4</b>	Other single vitamins NOT vitamin C
<b>5</b>	Vitamins A, C and D only
<b>6</b>	Vitamins with iron
<b>7</b>	Iron only
<b>8</b>	Non-prescribed folic acid only
<b>9</b>	Multivitamins and multi minerals
<b>10</b>	Multivitamins, NO minerals
<b>11</b>	Minerals ONLY; NOT fluoride or iron ONLY
<b>12</b>	Other (specify)

## **CARD E1**

- 1 Earnings from employment or self-employment**
- 2 State retirement pension**
- 3 Pension from former employer**
- 4 Personal pensions**
- 5 Child Benefit**
- 6 Job-Seekers Allowance**
- 7 Income Support**
- 8 Working Families' Tax Credit, Child Tax Credit or other Tax Credit**
- 9 Housing Benefit**
- 10 Other State Benefits**
- 11 Interest from savings and investments (eg. stocks and shares)**
- 12 Other kinds of regular allowance from outside your household (eg. maintenance, student grants, rent)**
- 13 No source of income**

## CARD E2

### GROSS INCOME FROM ALL SOURCES (before any deductions for tax, national insurance, etc.)

WEEKLY	or	MONTHLY	or	ANNUAL
Less than £10 ..... 1		Less than £40 ..... 1		Less than £520 ..... 1
£10 less than £30..... 2		£40 less than £130 .....2		£520 less than £1,600.....2
£30 less than £50..... 3		£130 less than £220 .....3		£1,600 less £2,600 .....3
£50 less than £70..... 4		£220 less than £300 .....4		£2,600 less than £3,600.....4
£70 less than £100 ..... 5		£300 less than £430 .....5		£3,600 less than £5,200.....5
£100 less than £150 ..... 6		£430 less than £650 .....6		£5,200 less than £7,800.....6
£150 less than £200 ..... 7		£650 less than £870 .....7		£7,800 less than £10,400.....7
£200 less than £250 ..... 8		£870 less than £1,100 .....8		£10,400 less than £13,000.....8
£250 less than £300 ..... 9		£1,100 less than £1,300 .....9		£13,000 less than £15,600.....9
£300 less than £350 ..... 10		£1,300 less than £1,500 ..... 10		£15,600 less than £18,200..... 10
£350 less than £400 ..... 11		£1,500 less than £1,700 ..... 11		£18,200 less than £20,800..... 11
£400 less than £450 ..... 12		£1,700 less than £2,000 ..... 12		£20,800 less than £23,400..... 12
£450 less than £500 ..... 13		£2,000 less than £2,200 ..... 13		£23,400 less than £26,000..... 13
£500 less than £550 ..... 14		£2,200 less than £2,400 ..... 14		£26,000 less than £28,600..... 14
£550 less than £600 ..... 15		£2,400 less than £2,600 ..... 15		£28,600 less than £31,200..... 15
£600 less than £650 ..... 16		£2,600 less than £2,800 ..... 16		£31,200 less than £33,800..... 16
£650 less than £700 ..... 17		£2,800 less than £3,000 ..... 17		£33,800 less than £36,400..... 17
£700 less than £800 ..... 18		£3,000 less than £3,500 ..... 18		£36,400 less than £41,600..... 18
£800 less than £900 ..... 19		£3,500 less than £3,900 ..... 19		£41,600 less than £46,800..... 19
£900 less than £1,000 ..... 20		£3,900 less than £4,300 .....20		£46,800 less than £52,000.....20
£1,000 less than £1,150 ... 21		£4,300 less than £5,000 .....21		£52,000 less than £60,000.....21
£1,150 less than £1,350 ... 22		£5,000 less than £5,800 .....22		£60,000 less than £70,000.....22
£1,350 less than £1,550 ... 23		£5,800 less than £6,700 .....23		£70,000 less than £80,000.....23
£1,550 less than £1,750 ... 24		£6,700 less than £7,500 .....24		£80,000 less than £90,000.....24
£1,750 less than £1,900 ... 25		£7,500 less than £8,300 .....25		£90,000 less than £100,000.....25
£1,900 less than £2,100 ... 26		£8,300 less than £9,200 .....26		£100,000 less than £110,000....26
£2,100 less than £2,300 ... 27		£9,200 less than £10,000 .....27		£110,000 less than £120,000....27
£2,300 less than £2,500 ... 28		£10,000 less than £10,800 .....28		£120,000 less than £130,000....28
£2,500 less than £2,700 ... 29		£10,800 less than £11,700 .....29		£130,000 less than £140,000....29
£2,700 less than £2,900 ... 30		£11,700 less than £12,500 .....30		£140,000 less than £150,000....30
£2,900 or more..... 31		£12,500 or more.....31		£150,000 or more .....31

## **CARD E3**

- 1 Going to school or college full-time (including on vacation)**
- 2 In paid employment or self-employment (or away temporarily)**
- 3 On a Government scheme for employment training**
- 4 Doing unpaid work for a business that you own, or that a relative owns**
- 5 Waiting to take up paid work already obtained**
- 6 Looking for paid work or a Government training scheme**
- 7 Intending to look for work but prevented by temporary sickness or injury**
- 8 Permanently unable to work because of long-term sickness or disability**
- 9 Retired from paid work**
- 10 Looking after the home or family**
- 11 Doing something else (PLEASE SAY WHAT)**



## **CARD F1**

- 1. School Leaving Certificate, new National Qualification Access Unit**
- 2. O Grade, Standard Grade, GCSE, CSE, Senior Certificate or equivalent**
- 3. GSVQ Foundation or Intermediate, SVQ Level 1 or 2, SCOTVEC Module or equivalent, new National Qualification Higher Still Access 3 Cluster, Intermediate 1 or 2**
- 4. SCE Higher Grade / new National Qualification Higher or Advanced Higher / CSYS / A level, Advanced Senior Certificate or equivalent**
- 5. GSVQ Advanced, SVQ Level3, ONC, OND, SCOTVEC National Diploma or equivalent**
- 6. City and Guilds**
- 7. HNC, HND, SVQ Levels 4 or 5 or equivalent**
- 8. First Degree, Higher degree**
- 9. Professional qualifications e.g. teaching, accountancy**
- 10. None of these**

## CARD F2

- 1 **White:** Scottish
- 2 **White:** Other British
- 3 **White:** Any other white background (PLEASE SAY WHICH)
  
- 4 **Mixed:** Any mixed background
  
- 5 **Asian, Asian Scottish or Asian British:** Indian
- 6 **Asian, Asian Scottish or Asian British:** Pakistani
- 7 **Asian, Asian Scottish or Asian British:** Bangladeshi
- 8 **Asian, Asian Scottish or Asian British:** Any other Asian background (PLEASE SAY WHICH)
  
- 9 **Chinese, Chinese Scottish or Chinese British**
  
- 10 **Black, Black Scottish or Black British:** Caribbean
- 11 **Black, Black Scottish or Black British:** African
- 12 **Black, Black Scottish or Black British:** Any other black background (PLEASE SAY WHICH)
  
- 13 **Any other ethnic group** (PLEASE SAY WHICH)

## **APPENDIX G PILOT STUDIES FOR FFQ AND 4 DAY DIARIES**

**Survey to measure intake of non-milk extrinsic sugar in Scottish children (FSA S14R0004)**

### **A pilot study of the completion of a food frequency questionnaire and food diary by children and young people (deliverable MS 03/01)**

**Department of Environmental and Occupational Medicine,  
University of Aberdeen, April 2006**

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# **1 INTRODUCTION**

Currently in Scotland there is insufficient data on the dietary intake of non-milk extrinsic sugar (NMES) in children, and as such it is impossible to monitor progress towards the target set of less than 10% of total energy in the Scottish Diet Action Plan (1). It is important that the survey is carried out in a sufficiently large and representative sample of the Scottish population but also that results from this survey can be compared with the findings from other UK-wide surveys. This requires the use of different instruments.

The primary instrument for data collection in this survey will be a food frequency questionnaire (FFQ). While the use of FFQs is well established, there are recognised limitations of this methodology and therefore two alternative methods will be used with a sub-sample of the population for comparison: a 4-day non-weighed food diary and a 24-hour multiple-pass recall. The 4-day food diary will be used to calibrate the results of the FFQ, and the 24-hour multiple-pass recall will allow direct comparisons with other national surveys, such as the National Diet and Nutrition Survey (NDNS).

The Scottish Collaborative Group FFQ has known validity for adults and has been adapted for use with children aged 3 to 5 years (version C1). This FFQ needs to be appropriate for the age groups being studied in the present survey, and adapted to ensure that the range of food and drinks included reflect the intake of the target populations. The present survey will include children ranging from 3 to 16 years. Existing versions of the Scottish Collaborative Group FFQ (University of Aberdeen) have been adapted for use with the two age groups in this survey; children aged 3-11 years (version C2) and young people aged 12-16 years (version C3). Pilot studies of these questionnaires with these two age groups to identify any difficulties in completing the questionnaire or omission of foods or drinks that may be consumed by these age groups are the subject of this report.

## **2 AIMS**

The aim of the pilot study was to test versions C2 and C3 of the Scottish Collaborative Group FFQ with the two different age groups and to obtain feedback on any difficulties they experienced in completing the FFQ. A secondary aim was to trial the non-weighed food diary, again to identify any problems these age groups may have completing the food diary.

## **3 METHODS**

### **3.1.1**

#### **3.1.2 Recruitment of participants**

The aim was to obtain feedback from 20 primary school pupils and 80 secondary school pupils. More secondary schools pupils were selected as this FFQ was more different from version C1 and the secondary school pupils themselves would be the primary person completing the FFQ, rather than the parents for version C2.

Schools within Aberdeen City and Aberdeenshire were used for the pilot study. Two age groups were targeted for the pilot study; 5-11 year olds (primary school pupils) and 12-16 year olds (secondary school pupils). Three to four year olds were not included in the pilot study since the FFQ (version C1) has been validated for this age group in a previous study (unpublished). In this report the 5-11 year old pupils are referred to as 'children' and the 12-16 year olds as 'young people'.

Permission was obtained from Aberdeen City and Aberdeenshire councils to approach schools within these areas and invite them to take part in this study. The Data Protection Act prevented us from accessing names and addresses of children and young people directly. Letters were sent to head teachers at selected schools at the start of January 2006, explaining the nature of the study and asking them to distribute information packs to pupils. The information packs contained a letter describing the study and what would be involved, and inviting pupils to take part. A consent form was also included, which was to be returned to the researchers if they chose to take part. In the case of the primary school children the information packs were address to the child's parent/guardian. Teachers distributed these packs to pupils in their class, with the exception of one secondary school, which requested that a study researcher attended the school and spoke to the pupils directly. The researcher described the study and what would be involved and then handed out the information packs. In addition the deputy head teacher spoke to the pupils encouraging them to take part in the study.

For those wishing to participate in the study the child's parent/guardian signed the children's consent form, and both the young person and the parent/guardian signed the young person's consent form. On the return of the consent form, a FFQ, food diary and feedback questionnaire were sent to the child's parent/guardian or to the young person, along with a pre-paid return envelope.

The initial letter in the information pack also stated that if they completed and returned all three parts of the study (FFQ, food diary and the feedback questionnaire) they would receive a £5 gift voucher. This was used as an incentive to take part in the study.

Head teachers at eight primary schools within Aberdeen City were sent letters inviting their school to take part in the study. Three primary schools expressed interest, of which two were selected (Primary A and Primary B). All the pupils in these schools were invited to take part in the study (P1 through P7) (Primary A, n=209, Primary B, n=177). The number of pupils in each class was similar across each year within the schools.

Ten secondary schools from both Aberdeen City and Aberdeenshire were contacted, of which six agreed to take part in the study. The first four schools to contact us were selected, one in Aberdeen City (Secondary A n=72) and three in Aberdeenshire (Secondary B n=100, Secondary C n=119, Secondary D n=97). Pupils from one class in S1 through S5 were selected from all the schools, except at Secondary A where the head teacher excluded s5 as these pupils were sitting exams at the time of the study. In addition, a teacher at Secondary E received a copy of the information pack from a teacher at one of the participating schools and distributed the packs to their class (S2 class, n=28). These extra pupils were included in the study.

### **3.1.3 Instruments**

Three instruments were used in the pilot study; a FFQ, a one-day non-weighed food diary and a feedback questionnaire. Different versions of these instruments were used for the children and young people in the study:

#### **◆ FFQ**

The **children's FFQ (version C2)** contained 139 types of food and drink, and the parent/guardian was asked to describe the child's typical diet over the previous 2-3 months.

The **young people's FFQ (version C3)** contained 145 types of food and drink, and the young person was asked to describe their diet in a typical week. Unlike the children's FFQ, the FFQ for young people included alcoholic drinks. For the Scottish Collaborative Group FFQ, the standard time over which a participant averages their typical diet is over the previous 2-3 months. The aim was to obtain feedback from 20 primary school pupils and 80 secondary school pupils. More secondary schools pupils were selected as this FFQ was more different from version C1 and the secondary school pupils themselves would be the primary person completing the FFQ, rather than the parents for version C2.

#### **◆ FOOD DIARY**

The format of the food diary was the same for both groups, but smaller portion sizes were used in the pictures for children. As with the FFQ a parent/guardian completed the diet diary for children and the

young person completed it for themselves. Participants were asked to complete the food diary for just one day. It was not necessary to complete the diary for longer since the purpose of the pilot study was to identify any difficulties that participants experienced following the instructions and filling in the diary rather than to assess dietary intake. Participants were asked to estimate portion sizes of foods and drink rather than weigh them.

#### ◆ *FEEDBACK QUESTIONNAIRE*

A feedback questionnaire was developed to obtain feedback from the participants on the completion of the FFQ and the food diary. The feedback questionnaire asked about the clarity of the instructions, the ease of filling in both instruments and the use of pictures to estimate food portions (Appendix 1).

#### **3.1.4 Data analysis**

The feedback questionnaire consisted of closed multiple-choice questions, with additional space to provide any comments relating to each question. The analysis of the responses with respect to age and sex were only performed for young people, since this would have had little meaning for the children as the children's questionnaire was completed by their parent/guardian. Comparisons of responses were made between girls and boys using chi-squared tests and with age using t-tests.

## **4 RESULTS**

### **4.1.1**

#### **4.1.2 Response rate**

The response rate is illustrated in Figure 1. Sixteen percent of children and 23% of young people returned the consent form stating that they were willing to take part in the study. Since feedback was only needed from 20 primary school children, 39 were selected from the 62 consenting to take part in the study. Only one child per household was included in the sample to prevent duplication of the feedback as the parent/guardian would be completing the forms for each child in the home. Ten children were excluded on this basis and another 13 were excluded, as there were already sufficient numbers for the study. Siblings were included in the sample of young people because the young people completed the forms themselves; hence information would not be duplicated.

Sixty-nine percent of the primary and 64% of secondary school pupils who were sent the questionnaires and food diary returned them. The response rate from Secondary A, where the study was described to the pupils by a project researcher, was no higher than the response rate in schools where information packs were simply distributed by teachers (Appendix 2).

Overall, 11% of children and 14% of young people given the information pack completed the study. The response rate (%) for children was adjusted for the fact that only 39 of the 62 respondents to the information pack were selected to take part in the study.



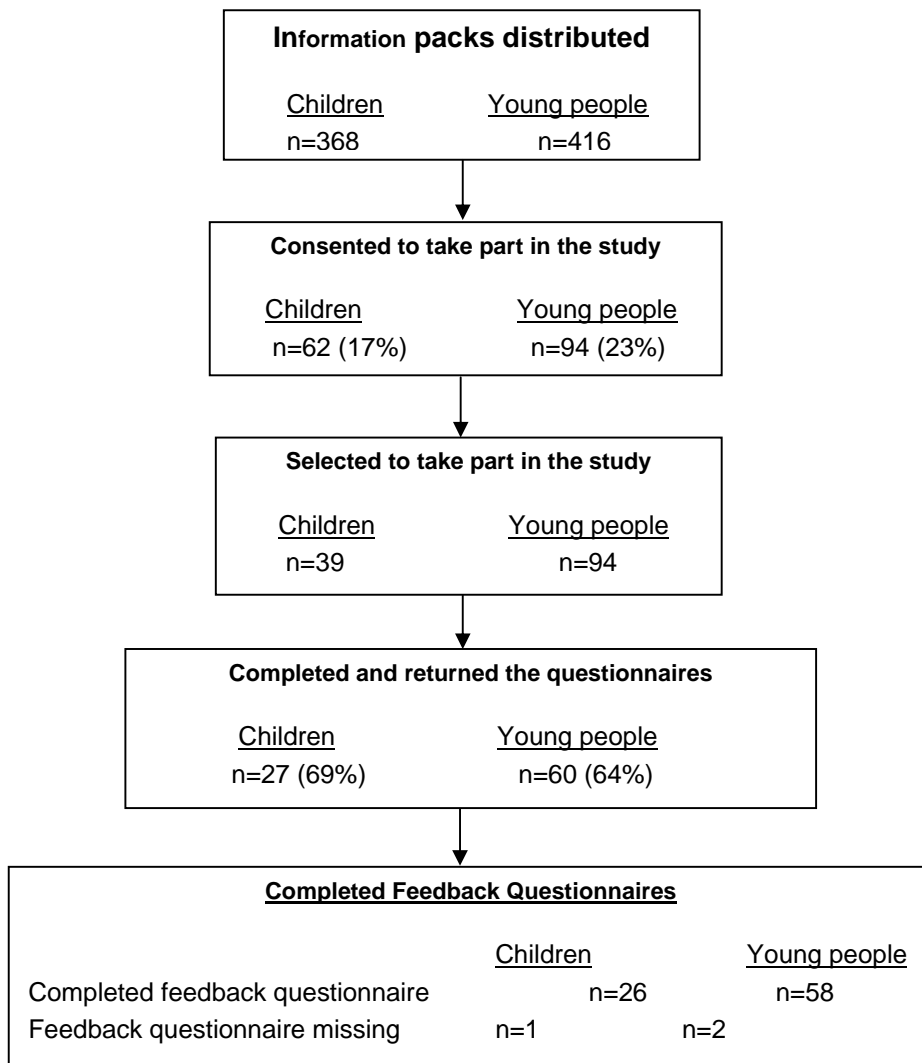


Figure 1: Response rate of children and young people

### **Age and Sex of the sample**

The age and sex distribution of the sample is shown in Table 1. There was no difference in the age of girls and boys who completed the study [ $t(82)=0.88$ ,  $p=0.38$ ]. Younger secondary school pupils (12-13 years) were more likely than older secondary school pupils (14-16 years) to take part in the study.

Table 1: Age and sex of children and young people participating in the study

	Children (n=26)	Young people (n=58)
AGE (years)		
range	5 - 11	12 - 16
mean (95%CI)	8.2 (7.3-9.1)	13.4 (13.1-13.8)
Girls n (%)	14 (54%)	34 (59%)
Boys n (%)	12 (46%)	24 (41%)

### **Feedback on the completion of the FFQ**

#### **1. Who filled in the diet questionnaire?**

A parent/ guardian filled in the children's FFQ, with the majority completing it with help from the child (Table 2). Whether it was completed with or without help from the child was not dependent on the child's age [t(24)=1.02, p=0.32].

FFQs were sent directly to young people and in 95% of cases they were the primary person completing it. Only in three cases did the parent complete the FFQ for the young person (one younger pupil and two older pupils). Most young people completed it either themselves or with help from an adult. Within the young people, older pupils were more likely than young pupils to complete the FFQ alone than with help from an adult (60% vs 31%) [ $\chi^2(1)=4.3$ , p=0.04]. Girls were more likely than boys to complete it without help from an adult (56% vs 19%) [ $\chi^2(1)=7.2$ , p=0.007] and none of the younger boys filled in the FFQ without help.

Table 2: Description of who filled in the FFQ

<b><u>CHILDREN (n)</u></b>	
Parent with help from child	15 (58%)
Parent with NO help from child	11 (42%)
<b><u>YOUNG PEOPLE (n)</u></b>	
Young person with NO help from an adult	23 (40%)
Young person with help from an adult	32 (55%)
Parent with help from young person	3 (5%)
Parent with NO help from young person	0 (0%)

#### **2. How long did it take to fill in the diet questionnaire?**

Half the sample took less than 20 minutes to complete either the children's or the young people's FFQ (Table 3) and only a very small proportion took more than 40 minutes. The time taken to complete the FFQ by young people was not dependent on age [ $t(51)=1.03$ ,  $p=0.31$ ] and did not differ between girls and boys [ $\chi^2(1)=0.3$ ,  $p=0.58$ ].

Table 3: Time taken to complete the children's and young people's FFQ

	Children (n (%))	Young people (n (%))
less than 20 minutes	13 (50%)	30 (52%)
20-40 minutes	9 (35%)	22 (38%)
more than 40 minutes	3 (11%)	1 (2%)
I don't know	0 (0%)	5 (8%)
missing	1 (4%)	-

### 3. How easy did you find the instructions on the diet questionnaire to follow?

The majority of parents and young people rated the instructions on the FFQ as either 'very easy' or 'quite easy' to follow (Table 4). No one found the instructions 'very difficult' to follow. The older secondary school pupils found the instructions easier to follow than the younger secondary school pupils (very easy: 65% vs 34%) [ $\chi^2(1)=4.8$ ,  $p=0.03$ ], but the response to this question was similar for boys and girls.

Table 4: Ease of following the instruction on the FFQ

	Primary (n (%))	Secondary (n (%))
Very easy	14 (54%)	25 (43%)
Quite easy	10 (38%)	30 (52%)
Not very easy	2 (8%)	3 (5%)
Very difficult	0 (0%)	0 (0%)

Comments relating to the clarity of the instructions mainly concerned the issues of estimating the portion of food eaten:

*"portion size – I don't usually know exact amounts of what I am eating"* (16 year-old girl)

*"the portions, but only a bit"* (13 year-old boy)

*"homemade dishes - amounts for whole dish or individual portions - instructions unclear"* (parent of 10 year- old boy)

#### 4. How easy was the questionnaire to fill in?

The majority of participants found the FFQ ‘very easy’ or ‘quite easy’ to fill in. There were no differences between boys and girls or by age with respect to the ease of filling in the FFQ (Table 5).

Table 5: Ease of filling in the FFQ

	Children (n (%))	Young people (n (%))
Very easy	11 (42%)	25 (43%)
Quite easy	14 (54%)	28 (48%)
Not very easy	1 (4%)	5 (9%)
Very difficult	0 (0%)	0 (0%)

The parent that rated the questionnaire as ‘not very easy’ to complete said that they did not always know what their child had eaten at school: “*when I ask him what he eats at school, he sticks with ‘fish & veggies’, had to check with school, so difficult*” (parent of 5 year-old boy). Food prepared at school was an issue for one of the young people: “*I was unsure how food in school canteen was prepared*” (16 year-old boy).

Some of the young people said that some of the specific food sections were difficult to complete or that they were unsure what some foods were:

“*the amount of milk I have in a day*” (16 year-old girl)

“*bread and the type of rolls*” (13 year-old boy)

“*what some foods were (quorn etc)*” (12 year-old girl).

There was some suggestion that the instructions were not always read in advance of filling in the FFQ:

“*I had to change some answers when I re-read it*” (parent of 5 year- old girl)

“*I understood when I read it properly*” (parent of 6 year-old boy)

#### 5. How easy was it to work out how many measures of food you ate per week or per day?

As expected, this aspect of completing the questionnaire was less easy. While the majority found it ‘quite easy’ to work out how many measures of food or drink they consumed on average, a small percentage rated it as ‘not very easy’ (Table 6). A higher percentage of young people than the children’s parents found this task more difficult. For comparison the degree of difficulty was grouped into ‘very/quite easy’ and ‘not very easy/very difficult’. The difficulty did not depend on the age of the young people [ $t(52)=0.77$ ,  $p=0.79$ ] or whether they had completed the FFQ alone or with help from an adult [ $\chi^2(1)=1.9$ ,  $p=0.17$ ], but a higher percentage of girls than boys found it ‘not very easy or difficult’ to work out how many measures of food or drink they consumed (44% vs 15%) [ $\chi^2(1)=4.1$ ,  $p=0.03$ ].

Table 6: Ease of working out how many measures of food or drink were consumed

	Children (n (%))	Young people (n (%))
Very easy	6 (23%)	9 (15%)
Quite easy	17 (65%)	29 (50%)
Not very easy	3 (12%)	16 (28%)
Very difficult	0 (0%)	3 (5%)
missing	-	1 (2%)

Working out quantities of drinks appeared to be one aspect causing some difficulty:

*“amounts of drink would be easier in mls. All plates are different sizes would be easier in grams”* (parent of 7 year-old girl)

*“it was not always easy to work out drink consumption in a day as he eats and drinks at friends houses too - and doesn't always remember how many drinks he has had”* (parent of 11 year-old boy)

*“all of it”* (parent of 5 year-old boy)

Young people mainly related difficulties in estimating measures of specific food, for example, ‘chicken leg’, ‘Chinese takeaway’, ‘Dairylea lunchables’, ‘sweets’, ‘diluting juices’, ‘milk’, ‘sandwich fillings’, ‘seasonable fruit’ and ‘salad’.

Estimating milk consumption seemed to be particularly difficult because of the wide range of foods and drinks to which milk can be added, usually in different quantities. One further comment was that *“things in multipacks don't have a weight”*, and often these are different to individually purchased produce.

## **6. How helpful did you find the food picture for working out how much you ate?**

The food picture on the front of the FFQ was helpful for estimating portions, with over 80% of both samples rating the picture as ‘very helpful’ or ‘quite helpful’, with only a minority not using the picture (Table 7). It was commented that there could have been more foods in the picture (12 year-old girl), and that for older pupils the portions looked small (15 year-old boy).

Table 7: Usefulness of the food picture on the front of the FFQ

	Children (n (%))	Young people (n (%))
Very helpful	12 (46%)	24 (41%)
Quite helpful	11 (42%)	24 (41%)
Not at all helpful	0 (0%)	1 (2%)
Did not use the pictures	2 (8%)	8 (14%)
missing	1 (4%)	1 (2%)

**7. Did you find any of the descriptions of food or drink unclear?**

Only 7% of the young people and none of the parents of the children found the description of the foods and drinks on the FFQ unclear (Table 8). There was some confusion with one pupil over the term ‘mince and meat burger’: “*confused by mince and meat burgers. I don’t eat mince, I was not sure if it meant either mince or burgers or types of burgers*” (16 year-old girl).

Table 8: Clarity of the description of the foods and drinks

	Primary (n (%))	Secondary (n (%))
Clear	25 (96%)	52 (90%)
Unclear	0 (0%)	4 (7%)
missing	1 (4%)	2 (3%)

**Completeness of the food frequency questionnaire**

It is important that there is an answer for every food and drink listed in the FFQ, but it is not uncommon for people to miss out sections, leave a response blank or place two ticks on the same line. It cannot be assumed that missing information means that the food or drink is not consumed. The number of lines on the FFQ not completed or containing more than one answer was very small in this sample (Table 9). Data was more likely to be missing from the children’s FFQ than the young people’s FFQ [ $\chi^2(1)=5.4$ ,  $p=0.02$ ]. Missing data was no more common for girls than boys and did not vary with age.

Table 9: Number of lines in the FFQ missing or containing more than one answer

Number of pieces of missing information	Children (n (%))	Young people (n (%))
0	13 (50%)	45 (77%)
1	6 (23%)	7 (12%)
2	3 (11%)	3 (5%)
3	-	1 (2%)
4	1 (4%)	-
7	-	1 (2%)
8	1 (4%)	-
13	-	1 (2%)
33	1 (4%)	-
FFQ not returned	1 (4%)	-

### **Alcohol consumption**

Prior to this study, there had been discussion about the appropriateness of adding a section on alcohol consumption in the young people's FFQ. It was decided to include this for the pilot study to determine whether this was appropriate or not. Twenty three percent of young people reported drinking alcohol. Those reporting drinking alcohol tended to be older pupils (14-16 years), and although not statistically significantly different it was more common among girls than boys (28% vs 17%). There was only one comment relating to the inclusion of alcohol and this came from a 13 year-old girl who was surprised it was included in the FFQ:

*"the bit about alcopops & drink. I do not take drink at 13 so I was surprised!"* (13 year-old girl)

### **Use of dietary supplements (as reported in FFQ)**

Twenty six percent of children and 30% of young people reported taking dietary supplements. The supplements were typically multi-vitamins (combination of vitamins A,C and D), vitamin C and omega-3 oils. The intake of dietary supplements among children or young people did not vary with age or between girls and boys.

### **Other foods and drinks consumed but not listed in the FFQ**

Only six children and nine young people reported additional foods or drinks that they consumed (Table 10). Some children and young people reported more than one food or drink, but apart from smoothies, only one

person reported each food or drink. Some of these foods and drinks were already in the FFQ (e.g. diluting Ribena, herbal tea, baked potatoes).

Table 10: Additional foods reported that were not included in the FFQ

<b>Children (n=6)</b>	<b>Young people (n=9)</b>
Dairylea lunchables	Vegetable dishes (with lentils and beans)
Homemade pasta	Cinnamon and raisin bagels
Homemade smoothies	Cookies
Meatpaste	Diluted Ribena
Oven cooked scampi	Herbal tea
Sandwich spread	Mango
Packet rice	No added sugar strawberry diluting juice
Potatohead crisps (cheeseheads)	Tortilla wraps
	Smoothies
	Baked potatoes
	Pepperami

### **Feedback on the completion of the food diary**

#### **1. Who filled in the food diary?**

For primary school pupils, children were more likely to help their parents with the completion of the food diary than for the FFQ (65% vs 58%). Whether the parent completed the diary with or without the child was not dependent on the child's age [ $t(24)=0.81$ ,  $p=0.43$ ]. Most young people completed the food diary without help from an adult (Table 10). More young people completed the food diary without help from an adult than had for the FFQ (60% vs 40%). Assistance from an adult with completing the food diary did not differ between girls and boys [ $\chi^2(1)=0.15$ ,  $p=0.70$ ], but was more common for younger secondary school pupils [ $t(48)=2.1$ ,  $p=0.04$ ].

Table 10: Description of who filled in the food diary

<b><u>Children (n)</u></b>	
Parent with help from child	17 (65%)
Parent with NO help from child	9 (35%)
<b><u>Young people (n)</u></b>	
Young person with NO help adult	35 (60%)
Young person with help from adult	15 (26%)
Parent with help from young person	8 (14%)
Parent with NO help from young person	0 (0%)



## 2. How easy did you find the instructions on the food diary to follow?

The instructions for completing the food diary were rated as ‘very easy’ or ‘quite easy’ by 96% of parents of the children and the young people themselves (Table 11), with only one person (12 year-old boy) rating them as ‘not very easy’ to follow. The ease of following the instructions did not differ with age or sex of the young people.

Table 11: Ease of following the instructions on the food diary

	Children (n (%))	Young people (n (%))
Very easy	10 (38%)	26 (45%)
Quite easy	15 (58%)	30 (51%)
Not very easy	0 (0%)	1 (2%)
Very difficult	0 (0%)	0 (0%)
missing	1 (4%)	1 (2%)

Specific comments about the instructions tended to refer to actually completing the food diary and estimating portion sizes:

*“giving exact amounts of food on a plate and food left”* (16 year-old girl)

*“picture guidelines were not a good comparison just had to give estimates”* (12 year-old boy)

*“the amounts but then I saw pictures and they really helped”* (13 year-old girl)

## 3. How easy was the food diary to fill in?

Approximately one third of the participants rated filling in the food diary as ‘very easy’ and nearly two thirds rating it as ‘quite easy’ (Table 12). The ease of completing the food diary did not differ with age or between girls and boys.

Table 12: Ease of filling in the food diary

	Primary (n (%))	Secondary (n (%))
Very easy	9 (34%)	21 (36%)
Quite easy	15 (58%)	35 (60%)
Not very easy	0 (0%)	1 (2%)
Very difficult	0 (0%)	0 (0%)
missing	2 (8%)	1 (2%)

Comments referring to difficulties in filling in the diary were minor and mainly concerned estimating portion sizes and having to constantly refer to the pictures at the back of the diary, for example:

*“just amounts were difficult to judge”* (12 year-old boy)

*“knowing how much or what to write for how big a serving you got especially if you're at school”* (12 year-old girl)

*“I didn't always know how much I had for the 'amount”* (15 year-old girl)

This question also raised some issues about using the food pictures for estimating portion sizes:

*“I had to flick back and forth to find the picture I wanted”* (15 year-old girl)

*“the main problem was constantly flicking pages to check the pictures for amounts to fill in”* (parent of 11 year-old boy)

*“transferring portions evenly to pictures”* (12 year-old girl)

Only one person commented on the inconvenience of having to complete the diary:

*“having to take it everywhere as you needed brands and times”* (12 year-old girl)

#### **4. How helpful did you find the pictures in the food diary to work out how much you ate?**

The majority of participants used the pictures in the food diary for estimating portion size and rated them as either very or quite helpful (Table 13). Among the young people, only boys (n=6) rated the pictures ‘not at all helpful’ or did not use the pictures. The reasons given were:

*“limited choice of portion sizes”* (13 year-old boy)

*“some pictures looked same amount as others guess work was needed”* (12 year-old boy)

*“they didn't apply to what I was eating. It would be easier just to have teaspoon, tablespoon, small, medium, large etc”* (15 year-old boy)

Table 13: Ratings of how helpful the pictures were in the food diary to estimate how much was consumed

	Primary (n (%))	Secondary (n (%))
Very helpful	10 (38%)	26 (45%)
Quite helpful	13 (50%)	26 (45%)
Not at all helpful	0 (0%)	4 (7%)
Did not use the pictures	1 (4%)	2 (3%)
missing	2 (8%)	-

Two of the children's parents and three young people said that they would prefer to use household measures (e.g. tablespoon) or actual weight of food than use the pictures. The instructions at the start of the diary does suggest using the pictures as an aid to estimating portion size but also states that weights on packaging and household measures can be used. This may need to be clarified, but it is also possible that the instructions were not always read fully: “*once you read book properly it was clear*”.

With respect to the difficulties of estimating portion size, one parent suggested that it might be easier if they could just take digital photographs of all the meals eaten and that way, the researcher rather than participants would estimate the portion sizes. This may reduce the burden on participants.

### **Pilot study of the main survey**

Prior to starting the main study, another pilot study was conducted which involved combining all the material being used, including the FFQ. A sub-sample of interviewers from the main study were trained in the correct way to check the completion of the FFQ and then carried out the pilot study with 11 children (5-11 years) and 5 young people (12-16 years). The FFQ was sent out before the interviewer visiting the home of the participant. At the visit the interviewer checked the completed FFQ. The interviewers reported that the FFQ was well received and there were no major problems with filling it in. They did find that some people had left gaps in the FFQ, which they were able to fill in at the visit. The gaps tended to be left when the food or drink was ‘rarely or never’ consumed. Unfortunately, there was still missing data in 3 of the 16 FFQs collected by the interviewers.

One interviewer at the training session questioned the use of the term ‘low calorie’ fizzy drinks and felt that the term ‘diet’ drinks was more commonly used.

### **Changes made for the main study**

### **Changes made to the FFQ**

As a result of comments received from the pilot study, a number of minor changes were made to the FFQs to be used in the main study. These minor changes included the addition of foods, and clarification of food descriptions and measures:

1. 'Bagels' has been added to the examples of 'other breads' (section 2)
2. 'Scampi' has been added to the examples of 'white fish fried' (section 6)
3. 'Smoothies (all kinds)' has been added as a new food (section 11)
4. 'Mince or meat burgers' has been reversed to say 'meat burgers or mince' (section 5)
5. 'Aberdeen rolls, croissants or garlic bread' has been reversed to say 'Croissants, garlic bread or Aberdeen rolls' (section 2)
6. 'Chocolate biscuits (e.g. Kit Kat, Jaffa cakes)' has been changed to 'chocolate biscuits or cookies (all types)' (section 14)
7. 'Low calorie fizzy drinks' has been changed to 'low calorie or diet fizzy drinks' (section 11)
8. 'drinking chocolate' has been changed to 'drinking chocolate powder' (section 11)
9. The measure for diluting juices was changed from '1 medium glass' to '1 medium glass made-up' (section 11)
10. The measure for other fruit flavoured drinks has been changed from '1 carton' to '1 carton, small bottle or medium glass' as it now includes flavoured water (section 11)
11. In the instructions a second example has been included describing how to record composite foods (e.g. a sandwich)

### **Changes made to the food diary**

There were no major changes made to the food diary. The one aspect that needed more attention was clarifying whether drinks were sugar free or not. In the revised copy of the food diary to be used in the main survey additional instructions have been added and the examples changed to emphasise the importance of stating if drinks are 'no added sugar', 'diet' or regular. A few changes were made to simplify the wording of the instructions. These points will also be emphasised in the training sessions for the interviewers prior to commencing the main survey, as will the choice of methods of estimating portion sizes (e.g. the pictures or household measures).

### **Changes to the protocol for administering the FFQ**

It was not specified in the original protocol for the main survey at what point the interviewer should check the FFQ. The FFQ should be completed before the interviewer's first visit to the participant's home. In the

pilot study the interviewer sometimes rearranged the visit for a more convenient time to conduct the full interview, however they collected the FFQ on this first visit but did not check it at this point. On a few occasions the interviewer was unable to contact the participant again and therefore unable to complete the interview. This may have meant they could not check the FFQ with the participant and hence could explain why there were still some gaps in a small number of the FFQs.

As a consequence the protocol for the main survey has been changed. For the main survey it now specifies that the FFQ must be checked at the time it is collected, that is the first visit, even if the interviewer has to return at a later date to conduct the rest of the interview. The interviewers will also be asked to initial the FFQ to confirm that they have checked it.

## **Summary**

The pilot study conducted in Aberdeen City and Aberdeenshire showed that children's parent/guardian and young people were able to follow the instructions and complete both the FFQ and food diaries with relative ease. The only recurring issue with both the FFQ and the food diary was the difficulty in estimating portion sizes, so more detailed information about this will be given when the food diaries are distributed in the main survey. There were very few differences between girls and boys when completing the FFQ and food diary, with the exception of girls finding it slightly more difficult to work out amounts of foods typically eaten. This, however, may be a reflection that girls were more likely than boys to complete the FFQ without help from an adult. As expected younger secondary school pupils, compared with older pupils, were more likely to need the help of an adult to complete the FFQ and food diary. Since alcohol was consumed by 23% of the young people this section will be included in the FFQ for the main survey.

The response rate in the pilot study (11% in primary and 14% in secondary schools) was similar to that of previous dietary assessment studies conducted in Aberdeen City and Aberdeenshire. In a similar study involving completion of FFQs and diet diaries for Aberdeen City nursery children aged 3-5 years, completed dietary information was returned from 9% of parents. In another study involving children from Aberdeen City and Aberdeenshire schools, the response rate was 13% in 8-10 year olds and 15% in 14-16 year olds (2). These similar response rates suggest that providing an incentive (£5 gift voucher) in the present study did not improve the response. Furthermore, a researcher attending the school and explaining the study in person did not improve the response rate. One school did deviate from our study protocol and the teacher gave out the information sheets and the pupils returned the consent form to the teacher rather than directly to the researchers. This produced the highest response rate of all the participating schools.

The results of the pilot study and the feedback from the parents of children and young people confirm that these dietary assessment instruments are appropriate for use within these age groups and should present no major difficulties in the main survey.

## REFERENCES

1. Eating for Health: a Diet Action Plan for Scotland. *The Scottish Office*;1996
2. Craig LCA. The relationship between body composition and health and lifestyle factors in school-age children (PhD thesis), Aberdeen (UK): Robert Gordon University; 2005

## Appendix 1 : Feedback questionnaire

**This questionnaire should be filled in by the same person who filled in the Diet Questionnaire and the Food and Drink Diary.**

Please fill in this questionnaire AFTER you have completed the other two parts.

It is very important for us to know how easy or difficult you found the Diet Questionnaire and the Food and Drink Diary to fill in. Please can you tell us if you think there are any ways we could improve them to make them easier for people to fill in.

*Please tick the box that best describes your answer:*

### **Part A: Diet Questionnaire**

1. **Who** filled in the Diet Questionnaire?
  - young person with no help from anyone else
  - young person with help from a parent, guardian or other adult
  - parent, guardian or other adult with help from the young person
  - parent, guardian or other adult with no help from the young person
  - other (please can you tell us who this was \_\_\_\_\_ )
  
2. **How long** did it take you to fill in the Diet Questionnaire?
  - less than 20 minutes
  - 20 to 40 minutes
  - more than 40 minutes
  - I don't know
  
3. How easy did you find **the instructions** on the Diet Questionnaire to follow?
  - very easy
  - quite easy
  - not very easy
  - very difficult

Can you tell us about any parts of the instructions you thought were unclear?

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4. How easy did you find the Diet Questionnaire **to fill in**?
  - very easy
  - quite easy
  - not very easy
  - very difficult

Can you tell us about any parts of the questionnaire you thought were not easy **to fill in**?

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5. How easy did you find it to **work out how many measures** of food you ate per week or per day?

- very easy
- quite easy
- not very easy
- very difficult

Can you tell us about any foods or drinks that were not easy to work out and why?

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6. How helpful did you find the **food picture** on the front of the Diet Questionnaire for working out how much you ate or drank?

- very helpful
- quite helpful
- not at all helpful
- I did not use the picture

If you did not find the picture helpful can you tell us why and suggest anything that you think would be more helpful?

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7. Did you find any of the **descriptions** of food or drink unclear? Yes  No   
If yes, can you tell us which ones you thought were unclear and why?

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**PART B: Food and Drink Diary**

8. **Who** filled in the Food and Drink Diary?

- young person with no help from anyone else
- young person with help from a parent, guardian or other adult
- parent, guardian or other adult with help from the young person
- parent, guardian or other adult with no help from the young person
- other (please can you tell us who this was \_\_\_\_\_ )

9. How easy did you find **the instructions** in the Food and Drink Diary to follow?

- very easy



- quite easy
- not very easy
- very difficult

Can you tell us about any parts of the instructions you thought were unclear?

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10. How easy did you find the Food and Drink Diary **to fill in**?

- very easy
- quite easy
- not very easy
- very difficult

Can you tell us about any problems you had filling in the diary?

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11. How helpful did you find the **pictures** included in the Food and Drink Diary for working out how much you ate or drank?

- very helpful
- quite helpful
- not at all helpful
- I did not use the pictures

If you did not find the pictures helpful can you tell us why and suggest anything you think would be more helpful?

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12. Is there anything else that you would like to tell us about the Diet Questionnaire, Food and Drink Diary or taking part in this study?

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13. How **old** is the young person who took part in this study? \_\_\_\_\_ years old

**Would you and your parent or guardian be happy for us to telephone you if we had any other questions we wanted to ask?**

Yes

*If you are happy for us to telephone:*

What is your telephone number? \_\_\_\_\_

When is the best time to phone? \_\_\_\_\_

Please return this questionnaire, along with the Diet Questionnaire and the Food and Drink Diary, in the freepost envelope we sent you.

***Thank you very much for taking the time to fill in these questionnaires and helping us with the study.***

## **Appendix 2: The response rate from individual schools**

The response rate from both the primary schools was similar, but varied between the secondary schools. The researcher and headmaster speaking to the pupils in advance of distributing the information sheets (Secondary A) did not improve the response rate compared with schools where class teachers distributed the information packs (Table 14). Secondary E, although not selected to take part in the study, received the information from one of the other schools and distributed the information in one class. Pupils returned the consent forms to the teacher rather than directly to the researchers. This produced the highest response rate for completed and returned questionnaires.

The Carstairs (2001) DEPCAT scores were based on the postcode of the school (Table 14).

Table 14: Response rate from the individual schools

	Carstairs DEPCAT score	Information packs distributed	Consented to take part	Selected for the study	Completed the study
Primary A	6	209	31	19	12 (9%)*
Primary B	4	177	31	20	15 (13%)*
<b><u>TOTAL PRIMARY</u></b>		<b>386</b>	<b>62</b>	<b>39</b>	<b>27 (11%)*</b>
Secondary A	4	72	20	20	9 (13%)
Secondary B	3	100	27	27	20 (20%)
Secondary C	4	119	14	14	8 (7%)
Secondary D	4	97	16	16	13 (13%)
Secondary E	4	28	17	17	10 (36%)
<b>TOTAL SECONDARY</b>		<b>416</b>	<b>94</b>	<b>94</b>	<b>60 (14%)</b>

\* the response rates (%) have been adjusted for the fact that only 39 of the 62 respondents were selected from primary schools for the study

## APPENDIX H: PERCENTAGE CONTRIBUTION OF FOOD GROUPS TO ENERGY, SUGAR AND FAT INTAKE

Mean percentage contribution of food groups to energy, sugar and fat intake

	Energy		Total sugars		NMES		Total fat		Saturated fatty acids	
	Trans-formed*	Untrans-formed	Trans-formed*	Untrans-formed	Trans-formed*	Untrans-formed	Trans-formed*	Untrans-formed	Trans-formed*	Untrans-formed
	%		%		%		%		%	
Pasta, rice, pizza & other cereals	5	5	<1	<1	<1	<1	4	5	3	3
Bread excluding wholemeal	8	9	1	2	<1	<1	3	4	3	3
Wholemeal bread	<1	2	<1	<1	0	0	<1	<1	<1	<1
Unsweetened breakfast cereals including muesli	2	3	1	2	1	2	<1	<1	<1	<1
Sweetened breakfast cereals	<1	1	<1	2	<1	3	<1	<1	<1	<1
Biscuits, cakes & pastries	9	10	8	9	12	13	10	11	10	12
Puddings	<1	1	1	2	1	2	<1	1	<1	1
Milk & cream	7	8	8	10	<1	2	8	10	12	14
Cheese	2	2	<1	<1	<1	<1	4	5	5	8
Yoghurt & fromage frais	4	5	7	9	7	10	4	5	6	7
Ice cream	2	2	2	3	3	4	2	3	3	5
Eggs & egg dishes	<1	1	<1	<1	0	0	2	3	1	2
Fats & oils	1	2	<1	<1	0	0	4	5	3	4
Meats & meat dishes, excluding processed meat	3	3	<1	<1	<1	<1	4	5	4	4
Processed meat including sausages, burgers, coated chicken	4	5	<1	<1	<1	<1	8	9	7	8
White fish, shellfish & fish dishes	1	1	<1	<1	-†	<1	1	2	<1	<1
Oily fish & dishes	-†	<1	-†	<1	-†	<1	-†	<1	-†	<1
Vegetables excluding potatoes & baked beans	2	3	1	2	<1	<1	3	4	<1	2
Baked beans	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chips, fried & roast potatoes & potato products	2	3	<1	<1	<1	<1	3	3	2	2
Other potatoes, potato salads & dishes	1	2	<1	<1	-†	<1	<1	<1	<1	<1
Crisps & savoury snacks	6	7	<1	<1	<1	<1	9	11	8	10
Fruits, excluding fruit juice	4	6	14	16	1	3	<1	<1	<1	<1
Nuts & seeds	-†	<1	-†	<1	-†	<1	-†	1	-†	<1
Table sugar & preserves	<1	<1	<1	2	2	3	<1	<1	-†	<1
Confectionery	4	5	8	10	12	15	4	6	5	7
Fruit juice including smoothies	1	2	4	6	6	10	<1	<1	<1	<1
Soft drinks, not diet	3	5	10	15	17	23	-†	<1	0	0
Flavoured water, diet and lower sugar drinks	<1	1	2	4	4	7	0	0	0	0

continued Mean percentage contribution of food groups to energy, sugar and fat intake

	Energy		Total sugars		NMES		Total fat		Saturated fatty acids	
	Trans-formed*	Untrans-formed	Trans-formed*	Untrans-formed	Trans-formed*	Untrans-formed	Trans-formed*	Untrans-formed	Trans-formed*	Untrans-formed
Alcoholic drinks	-†	<1	-†	<1	-†	<1	-†	<1	-†	<1
Tea, coffee & water	-†	<1	-†	<1	0	0	-†	<1	-†	<1
Powdered beverages	-†	<1	-†	<1	-†	1	-†	<1	-†	<1
Soups & sauces	2	2	1	2	1	2	2	3	2	2
<i>Base (weighted)</i>	<i>1379</i>	<i>1379</i>	<i>1379</i>	<i>1379</i>	<i>1379</i>	<i>1379</i>	<i>1379</i>	<i>1379</i>	<i>1379</i>	<i>1379</i>
<i>Base (unweighted)</i>	<i>1391</i>	<i>1391</i>	<i>1391</i>	<i>1391</i>	<i>1391</i>	<i>1391</i>	<i>1391</i>	<i>1391</i>	<i>1391</i>	<i>1391</i>

\*Due to the transformations which were carried out for skewed data, the sum of the mean percentage contributions from all food groups to nutrient intake does not equal 100%. Tables in the main body of the report present values from data that were transformed unless otherwise indicated.

†Variable not normally distributed, but could not be transformed using *lnskew0* command in Stata

Mean percentage contribution of food groups to NMES intake in different surveys (untransformed data)

	Present survey	LIDNS		NDNS	
	2006	2004		1997	
	(3-17y)	(4-18y <sup>1</sup> )		(4-18y)	
	All	Boys	Girls	Boys	Girls
	%	%	%	%	%
Breakfast cereals (all types)	5	6	5	8	7
Biscuits, cakes and pastries	13	11	13	14	14
Table sugar & preserves	3	11	11	10	9
Confectionery (all types)	15	15	17	21	21
Fruit juice including smoothies	10	5	7	6	7
Soft drinks (all types)	30	35	32	26	24

<sup>1</sup>Children aged 2-3y in LIDNS have been excluded