**Additional file 1**

**Table S1: Details of the constituent foods comprising the 55 foods/food groups entered into the PCA**

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| --- | --- |
| F**ood groups entered into the PCA** **(n = 55)** | **Original food groups from the FFQ (n = 111)** |
| **White bread** | White bread  |
| **Non white bread** | Brown, 50/50 or wheatgerm breadWholemeal bread or chapatis |
| **Other bread** | Other bread (e.g. rolls, teacakes, crumpets, etc) |
| **Crispbread (etc.)** | Crispbread, ryvita or cream crackers |
| **Jam, marmalade & honey (i.e. on toast)** | Jam, marmalade or honey on bread |
| **Oat/bran based breakfast cereal** | Bran flakes or sultana branPorridge or ready brekAll bran |
| **Other breakfast cereal** | CornflakesSugar-or chocolate coated cereal (e.g. frosties, coco pops etc)Rice krispies or Special KMuesli, fruit & fibre or CheeriosWeetabix, wheatflakes or shredded wheat |
| **Wheat bran** | Wheat bran |
| **Red meat & offal** | Beef (roast, steak, stewed, burgers, lasagne, bolognese, chilli, curry)Lamb (roast, chops, stews, curry)Pork (roast, chops, stewed, sweet & sour)Liver, kidney, heart |
| **Chicken & other poultry** | Chicken/other poultry (roast, casserole, curry, sweet & sour) |
| **Processed meat (including meat pies & sausage rolls etc.)** | BaconHam or gammon (including consumption in composite dishes)Canned meat (e.g. corned beef), pate or meat spreadSausagesMeat pie, pastie, sausage roll, samosa - shop boughtMeat pie, pastie, sausage roll, samosa - homemade |
| **White fish & shell fish** | White fish (cod, haddock, plaice, fish fingers, fish cakes)Shellfish (e.g. prawns) |
| **Fatty fish & canned tuna** | Kipper, herring, mackerel, trout (including canned)Pilchards, sardines, salmon (including canned)Tuna (including canned) |
| **Potatoes (boiled, roast, mashed, jackets)** | Boiled or mashed potatoesJacket potatoesRoast potatoes |
| **Chips**  | Shop bought chips, oven chips, hash brownsHome-cooked chips |
| **Peas** | Peas |
| **Other green vegetables, onions, salad or tomatoes** | Other green vegetables, salad or tomatoesOnions (raw, cooked, pickled) |
| **Root vegetables & sweetcorn** | CarrotsParsnips, swedes, turnips or sweetcorn |
| **Baked beans** | Baked beans |
| **Pulses, beans (non-baked) & lentils** | Butter beans, broad beans or red kidney beansLentils, chick peas or dahl |
| **Pasta & rice** | Spaghetti, other pasta, noodlesRice |
| **Quiche** | Quiche |
| **Pizza** | Pizza |
| **Meat alternatives** | Vegetarian burgers/sausagesDishes made with TVP (soya mince) or Quorn |
| **Tofu** | Tofu |
| **Hummus** | Hummus |
| **Biscuits, cakes & sweet pastries** | Digestive biscuits/plain biscuitsOther sweet biscuitsFruit cake/sponge cake/sponge pudding - shop boughtFruit cake/sponge cake/sponge pudding - homemadeFruit tart, jam tart, doughnut, danish pastry - shop boughtFruit tart, jam tart, doughnut, danish pastry - homemade |
| **Confectionery** | Chocolate (e.g. Galaxy, Mars Bar, Twix, Kit Kat)Sweets (e.g. fruit gums, pastilles, mints) |
| **Crisps & savoury snacks** | Crisps/savoury snacks (e.g. Quavers& tortilla chips) |
| **Nuts** | Nuts |
| **Milk- and cream-based desserts** | Ice cream, iced dessert, fool, mousse, trifleMilk pudding (e.g. rice/tapioca/macaroni) |
| **Low fat / low calorie yogurts** | Low fat yogurtLow calorie yogurt (e.g. Shape) |
| **Other yogurts** | Other yogurts / fromage frais |
| **Canned fruit** | Fruit canned in syrupFruit canned in juice |
| **Fresh fruit** | ApplesPearsOranges or grapefruitBananasOther fruit (e.g. melon, strawberries, kiwi, grapes, peach/nectarine) |
| **Eggs** | Eggs |
| **Milk** | Milk |
| **Cream** | Cream |
| **Cheese**  | Cheese (excluding cottage cheese)Cottage cheese |
| **Butter** | Butter |
| **Low fat/olive/pufa spread** | Polyunsaturated margarine/spreadOlive oil spreadVery low fat spread (25% fat)Low fat spread - otherLow fat spread - polyunsaturated |
| **Other spread** | Other soft margarine/spread (not olive)Hard margarine |
| **Food that is fried** | Food that is fried (e.g. fish/onions/mushrooms/tomatoes/eggs) |
| **Tea & coffee** | Tea (non-herbal/non-green)Coffee |
| **Herbal / green tea** | Herbal or green tea |
| **Added sugar (on cereal or toast)** | Honey or sugar on cerealSugar/honey in coffee/tea |
| **Fruit juice** | Fruit juice |
| **Fruit squash (not low calorie)** | Fruit squash (not low calorie) |
| **Fizzy drinks (not low calorie)** | Fizzy drinks (not low calorie) |
| **Low calorie squash & fizzy drinks** | Low calorie squash/fizzy drinks |
| **Water** | Water |
| **Alcoholic drinks** | Beer/larger/stoutCiderWineSherry/port/vermouthSpirits/liqueurs |
| **Soups** | Vegetable-based soupsCream of' soups |
| **Sauces (ready-made)** | Sauces (e.g. curry, sweet & sour) |
| **Mayonnaise, salad cream & other dressings** | MayonnaiseSalad creamOther dressings (e.g. French/thousand island/blue cheese) |
| *Not included as a food group/part of a food group for entry into the PCA* | Bread eaten dryFat on meat |

**Table S2: Eating behaviours and other eating-related characteristics of the Phase 1 sample**

|  |  |  |
| --- | --- | --- |
|  | **Number** | **Percentage (%)γ** |
| **Consumption of animal foods** | Regular meat eaterOccasional consumption of meat/poultry/fishAvoids all meat/poultry/fish but consumes eggs & dairyAvoids all meat/poultry/fish/eggs but consumes dairyAvoids all animal-derived products including honey (vegan) | 878421952826 | 60.629.16.61.91.8 |
| **Cooking ability** | Wide range of meals from raw ingredientsLimited range of meals from raw ingredientsCan cook only using pre-prepared foodsUnable to cook at all | 7975795121 | 55403.51.5 |
| **Consumption of self-cooked meals from raw ingredients** | Every dayMost daysOccasionallyRarely/never | 40565030390 | 2844.920.96.2 |
| **Consumption of self-cooked meals using pre-prepared foods** | Every dayMost daysOccasionallyRarely/never | 64313735336 | 4.421.650.823.2 |
| **Consumption of ready-meals & take-aways** | Every dayMost daysOccasionallyRarely/never | 11121776540 | 0.88.453.637.3 |
| **Consumption of meals at university cafeteria** | Every dayMost daysOccasionallyRarely/never | 34103386925 | 2.37.126.763.9 |
| **Frequency of skipping breakfast** | Every dayMost daysOccasionallyRarely/never | 129291380648 | 8.920.126.244.8 |
| **Frequency of skipping lunch/dinner** | Every dayMost daysOccasionallyRarely/never | 21104505818 | 1.57.234.956.5 |
| **Money spent on food each week** | < £20£20-29£30-39£40-49≥£50 | 342524335146101 | 23.636.223.110.17.0 |
| ***Satisfaction with eating and dieting behaviour*** |  |  |
| **How student feels about his/her body** | Far too thinA little too thinJust rightA little overweightVery overweight | 1711761462377 | 1.28.142.443.05.3 |
| **Currently dieting to lose weight** | YesNo | 3081140 | 21.378.7 |
| **Currently dieting to bulk up/gain muscle mass** | YesNo | 2791169 | 19.380.7 |
| **Contentment with food intake** | 20%40%60%80% 100% | 17833512542189 | 12.323.18.629.16.1 |
| ***Use of dietary supplements*** |  |  |
| **Use of multivitamin supplements** | YesNo | 2431205 | 16.883.2 |
| **Use of mineral supplements** | YesNo | 631385 | 4.495.6 |
| **Use of vitamin supplements** | YesNo | 1101338 | 7.692.4 |
| **Use of protein shakes** | YesNo | 821366 | 5.794.3 |
| **Use of other fitness supplements**  | YesNo | 231425 | 1.698.4 |
| **Use of other dietary supplements**  | YesNo | 391409 | 2.797.3 |
| ***Major factors determining food choice*** |  |  |
| **Cost/value for money** | YesNo | 871577 | 60.239.8 |
| **Taste/preferences** | YesNo | 3741074 | 25.874.2 |
| **Health/nutritional value** | YesNo | 4051043 | 28.072.0 |
| **Dieting value/calorie content** | YesNo | 1671281 | 11.588.4 |
| **Vegetarianism** | YesNo | 221426 | 1.698.4 |
| **Ethical reasons** | YesNo | 201428 | 1.598.5 |
| **Quality/freshness** | YesNo | 981350 | 6.893.2 |
| **Ease of cooking/convenience** | YesNo | 2431205 | 16.883.2 |
| **Shelf-life of food** | YesNo | 211427 | 1.598.5 |
| **Hunger/cravings** | YesNo | 321416 | 2.297.8 |
| **Availability of food** | YesNo | 451403 | 3.196.9 |
| **Time available** | YesNo | 411407 | 2.897.2 |
| **Variety** | YesNo | 241424 | 1.798.3 |
| **Other** | YesNo | 1521296 | 10.589.5 |

γ percentages which do not total 100% is due to missing data