# Appendix 3. Re-categorisation of meat and dairy items

## Appendix 3.1. Meat

Meat is disaggregated into the following mutually exclusive categories in the original Scottish Health Survey 2021 dataset: beef, lamb, pork, processed red meat, other red meat, burgers, sausages, offal, poultry, processed poultry, and game birds. To estimate intakes of animal type (beef, lamb, pork, poultry, and game), we manually identified and re-categorised items within processed red meat, other red meat, burgers, sausages, and offal.

Please note, if a dish contains >1 meat type, each type of meat is disaggregated into one of these mutually exclusive categories. For example, a chicken and ham sandwich is disaggregated into poultry and processed red meat. Hence, we have re-categorised chicken and ham sandwiches into ‘processed red meat’ into pork, and not chicken, as this relates to the ham only.

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| **Disaggregated meat variable** | **Food item** | **Animal type** |
| Processed Red Meat | Corned beef, not canned | Beef |
|  | Corned beef hash | Beef |
|  | Corned beef, canned | Beef |
|  | Pastrami | Beef |
|  | BLT sandwich with white/malted bread | Pork |
|  | BLT sandwich with wholemeal/oatmeal bread | Pork |
|  | Bacon and cheese grills | Pork |
|  | Bacon and egg in a bun/muffin (e.g., bacon and egg McMuffin) | Pork |
|  | Bacon cheese burger, in a bun | Pork |
|  | Bacon cheeseburger, including bun | Pork |
|  | Bacon sandwich with mayo wholemeal/oatmeal bread | Pork |
|  | Bacon sandwich with white/malted bread | Pork |
|  | Bacon sandwich with wholemeal/oatmeal bread | Pork |
|  | Bacon streaky, smoked, grilled | Pork |
|  | Bacon, back/middle, smoked, grilled (including fat) | Pork |
|  | Bacon, back/middle, smoked, grilled (fat removed) | Pork |
|  | Bacon, back/middle, unsmoked, grilled (including fat) | Pork |
|  | Bacon, back/middle, unsmoked, grilled (fat removed) | Pork |
|  | Bacon, smoked, fried (fat removed) | Pork |
|  | Bacon, smoked, fried (including fat) | Pork |
|  | Bacon, streaky, smoked, grilled | Pork |
|  | Bacon, streaky, unsmoked, grilled | Pork |
|  | Bacon, type and cooking method unknown | Pork |
|  | Bacon, unsmoked, fried (fat removed) | Pork |
|  | Bacon, unsmoked, fried (including fat) | Pork |
|  | Bacon/gammon joint, boiled (fat removed) | Pork |
|  | Bacon/gammon joint, boiled (including fat) | Pork |
|  | Beef bourguignon | Pork |
|  | Beef lasagne | Pork |
|  | Breakfast sandwich with white/malted bread | Pork |
|  | Breakfast sandwich with wholemeal/oatmeal bread | Pork |
|  | Breakfast sub roll/baguette | Pork |
|  | Burger King bacon cheeseburger | Pork |
|  | Carbonara pasta sauce | Pork |
|  | Charcuterie | Pork |
|  | Cheese and ham sandwich with white/malted bread | Pork |
|  | Cheese and ham sandwich with wholemeal/oatmeal bread | Pork |
|  | Chicken and bacon sandwich with mayo with wholemeal/oatmeal bread | Pork |
|  | Chicken and bacon sandwich with white/malted bread | Pork |
|  | Chicken and bacon sandwich with wholemeal/oatmeal bread | Pork |
|  | Chicken and bacon sub roll/baguette | Pork |
|  | Chicken and bacon wrap | Pork |
|  | Chicken and ham sandwich with mayo with white/malted bread | Pork |
|  | Chicken and ham sandwich with mayo with white/malted bread | Pork |
|  | Chicken mayonnaise sandwich fillers (e.g. chicken and sweetcorn, tikka, coronation) | Pork |
|  | Chicken mayonnaise sandwich fillers, low fat | Pork |
|  | Chicken with a tomato and cheese sauce | Pork |
|  | Dairylea Lunchables (includes cheese, meat and crackers) | Pork |
|  | Gammon steak, fried (fat removed) | Pork |
|  | Gammon steak, fried (including fat) | Pork |
|  | Gammon steak, smoked, grilled (fat removed) | Pork |
|  | Gammon steak, smoked, grilled (including fat) | Pork |
|  | Gammon steak, unsmoked, grilled (fat removed) | Pork |
|  | Glazed baked gammon | Pork |
|  | Ham and cheese slice/pie (with or without vegetable) | Pork |
|  | Ham and cheese sub roll/baguette | Pork |
|  | Ham and egg sub roll/baguette | Pork |
|  | Ham salad sandwich with mayo with white/malted bread | Pork |
|  | Ham salad sandwich with mayo with wholemeal/oatmeal bread | Pork |
|  | Ham salad sandwich with white/malted bread | Pork |
|  | Ham salad sandwich with wholemeal/oatmeal bread | Pork |
|  | Ham salad sub roll/baguette | Pork |
|  | Ham sandwich with mayo with white/malted bread | Pork |
|  | Ham sandwich with mayo with wholemeal/oatmeal bread | Pork |
|  | Ham sandwich with white/malted bread | Pork |
|  | Ham sandwich with wholemeal/oatmeal bread | Pork |
|  | Ham, low fat | Pork |
|  | Ham, not smoked | Pork |
|  | Ham, smoked | Pork |
|  | Ham, tinned | Pork |
|  | Loaded potato skins (e.g. with cheese & bacon) | Pork |
|  | Luncheon meat, not canned | Pork |
|  | Luncheon meat/chopped pork, canned (e.g. spam) | Pork |
|  | Mcdonalds bacon cheese burger | Pork |
|  | Meat based quiche (e.g. quiche lorraine) | Pork |
|  | Meat based quiche (e.g. quiche lorraine), reduced fat | Pork |
|  | Meat feast sub roll/baguette | Pork |
|  | Meat pizza (e.g. Hawaiian, pepperoni, meat feast) | Pork |
|  | Meat pizza (e.g. Hawaiian, pepperoni, meat feast), takeaway/restaurant | Pork |
|  | Meat pizza (e.g. Hawaiian, pepperoni, meat feast), stuffed crust, takeaway/restaurant | Pork |
|  | Meat pizza (e.g. Hawaiian, pepperoni, meat feast), stuffed crust | Pork |
|  | Meat savoury pastry (e.g. ham and cheese) | Pork |
|  | Mixed pizza (e.g. chicken and bacon) | Pork |
|  | Mixed pizza (e.g. chicken and bacon), takeaway/restaurant | Pork |
|  | Mixed pizza (e.g. chicken and bacon), stuffed crust | Pork |
|  | Mixed pizza (e.g. chicken and bacon), stuffed crust, takeaway/restaurant | Pork |
|  | Omelette with fish/seafood (e.g. prawn) | Pork |
|  | Omelette with ham & cheese | Pork |
|  | Omelette with meat (e.g. ham) | Pork |
|  | Parma Ham | Pork |
|  | Pasta carbonara (e.g. spaghetti) | Pork |
|  | Pasta carbonara (e.g. spaghetti), ready meal | Pork |
|  | Pasta with meat and creamy sauce | Pork |
|  | Pate sandwich with white/malted bread | Pork |
|  | Pate sandwich with wholemeal/oatmeal bread | Pork |
|  | Pea and ham soup | Pork |
|  | Pepperami or snack salami | Pork |
|  | Pigs in blankets | Pork |
|  | Prosciutto | Pork |
|  | Ready cooked savoury rice (e.g. Uncle Bens) | Pork |
|  | Salami | Pork |
|  | Sausage sandwich with ketchup with white/malted bread or roll | Pork |
|  | Sausage sandwich with ketchup with wholemeal/oatmeal bread or roll | Pork |
|  | Scotch egg (including mini/picnic size) | Pork |
|  | Serrano ham | Pork |
| Burgers | Bacon cheese burger, in a bun | Beef |
|  | Bacon cheeseburger, including bun | Beef |
|  | Beef burger, 100% beef, grilled (no bun) | Beef |
|  | Beef burger, fried (no bun) | Beef |
|  | Beef burger, grilled (no bun) | Beef |
|  | Beef burger, reduced fat, grilled (no bun) | Beef |
|  | Beef burger/hamburger, in a bun, not quarter pounder | Beef |
|  | Beef meatballs, grilled or oven baked | Beef |
|  | Beef rissoles | Beef |
|  | Burger King Double Whooper with cheese | Beef |
|  | Burger King Whooper, no cheese | Beef |
|  | Burger King Whopper with cheese | Beef |
|  | Burger King bacon cheeseburger | Beef |
|  | Cheese burger, in a bun, not quarter pounder | Beef |
|  | Cheese burger, in a bun, quarter pounder | Beef |
|  | Cheeseburger, in a bun, quarter pounder | Beef |
|  | McDonald's Big Mac | Beef |
|  | McDonalds Cheeseburger | Beef |
|  | Mcdonalds bacon cheese burger | Beef |
|  | Rustlers burger | Beef |
|  | Hot dog/frankfurter with sauce and onions in a bun | Pork |
|  | Lamb burger (no bun) | Lamb |
| Sausages | Beef Sausage, grilled | Beef |
|  | Venison sausage | Game |
|  | Chicken/turkey sausage | Poultry |
|  | Baked beans and sausages | Pork |
|  | Bierwurst/garlic sausage | Pork |
|  | Bratwurst, grilled | Pork |
|  | Breakfast sandwich with white/malted bread | Pork |
|  | Breakfast sandwich with wholemeal/oatmeal bread | Pork |
|  | Breakfast sub roll/baguette | Pork |
|  | Chicken and prawn paella, ready meal, reduced fat | Pork |
|  | Chorizo | Pork |
|  | Hot dog/frankfurter | Pork |
|  | Hot dog/frankfurter with sauce in a bun | Pork |
|  | Meat pizza (e.g. Hawaiian, pepperoni, meat feast) | Pork |
|  | Meat pizza (e.g. Hawaiian, pepperoni, meat feast), takeaway/restaurant | Pork |
|  | Mixed meat/seafood paella | Pork |
|  | Pasta with meat and tomato-based sauce, canned (e.g. pasta with sausages) | Pork |
|  | Pigs in blankets | Pork |
|  | Polony | Pork |
|  | Pork Sausage, reduced fat | Pork |
|  | Pork sausage, grilled | Pork |
|  | Sausage and egg in a bun/muffin (e.g. Sausage and egg McMuffin) | Pork |
|  | Sausage and egg in a bun/muffin (e.g. Bacon and egg McMuffin) | Pork |
|  | Sausage casserole | Pork |
|  | Sausage in batter, fried | Pork |
|  | Sausage meat stuffing | Pork |
|  | Sausage roll | Pork |
|  | Sausage sandwich with ketchup with white/malted bread or roll | Pork |
|  | Sausage sandwich with ketchup with wholemeal/oatmeal bread or roll | Pork |
|  | Sausage, fried | Pork |
|  | Smoked Sausage | Pork |
|  | Spaghetti bolognese, canned | Pork |
|  | Square/Lorne sausage | Pork |
|  | Toad in the hole | Pork |
| Offal | Calf liver | Beef |
|  | Ox Liver | Beef |
|  | Oxtail | Beef |
|  | Oxtail soup, canned | Beef |
|  | Lambs liver, fried | Lamb |
|  | Lambs liver, stewed | Lamb |
|  | Lambs liver, stewed in gravy | Lamb |
|  | Haggis | Lamb |
|  | Black pudding | Pork |
|  | Chicken and vegetable soup, homemade | Pork |
|  | Cup a soup, made up | Pork |
|  | Pate (e.g. brussels liver pate / duck and orange pate) | Pork |
|  | Pate, canned | Pork |
|  | Pate, reduced fat | Pork |
|  | Tongue (e.g. pork, ox) | Pork |
|  | Chicken liver | Poultry |
| Other red meat | Game pie (e.g. venison, rabbit, pheasant) | Game |
|  | Meat risotto (e.g. beef/ham) | Game |
|  | Roast/stewed rabbit | Game |
|  | Venison, roasted or stewed | Game |
| Processed poultry | Chicken mayo sandwich with wholemeal/oatmeal bread | Poultry |
|  | Mixed pizza (e.g. chicken and bacon), takeaway/restaurant | Poultry |
|  | Spicy/sweet chilli chicken wrap | Poultry |

## Appendix 3.2. Modifications to milk and milk product food groups

For the purpose of this analysis, several modifications were made to the milk and milk product food category as well as main and sub food groups:

1) Dairy-free items were re-categorised into newly created dairy-free food groups (table below)

2) Milky coffees (dairy only), including lattes, cappuccinos, flat whites and mochas, were re-categorised into ‘other milk’ from ‘coffee’. This affected 13 items, reported 955 times, which constituted 14% of all coffee items reported.

3) Hot chocolates made with water within ‘other milk’ were re-categorised into ‘miscellaneous’, specifically ‘beverages dry weight’. This affected 2 items, reported 70 times, which accounted for 5% of the ‘other milk’ items before any modifications.

4) The main and sub food group ‘butter’ was re-categorised into ‘milk and milk products’ from ‘fat spreads’.

5) Two ice-lollies that did not contain dairy - ‘Twister’ and ‘Sorbet’ – were originally misclassified within ‘ice cream’. These were re-categorised into ‘Sugar confectionery’. The food group definition of sugar confectionery states it “includes […] ice lollies (without ice cream)”.

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| **Main food group** | **Sub food group** | **Food item** | **Unweighted freq.** | **Weighted %\*** |
| Other milk and cream | Cream (including imitation cream) | Non-dairy cream alternative (e.g. Alpro Soya) | 6 | 3% |
| Other milk | Almond milk / hazelnut milk | 188 | 12% |
| Coconut milk, fresh (e.g. Alpro) | 28 | 1% |
| Dairy free custard (e.g. alpro soya) | 3 | 0% |
| Hemp milk | 3 | 0% |
| Horlicks/Ovaltine, made with alternative milks (e.g. soya milk) | 2 | 0% |
| Hot chocolate, made with alternative milks (e.g. soya milk) | 13 | 1% |
| Oat milk | 396 | 27% |
| Rice milk | 17 | 1% |
| Soya milk drink, flavoured (e.g. Alpro chocolate) | 1 | 0% |
| Soya milk, light | 21 | 1% |
| Soya milk, sweetened | 60 | 6% |
| Soya milk, unsweetened | 152 | 8% |
| Cheese | Other cheese | Tofu/soya cheese | 16 | 2% |
| Yogurt fromage frais and dairy desserts | Yogurt | Soya yoghurt, plain (e.g. Alpro Soya) | 28 | 2% |
| Soya yoghurt, with fruit (e.g. Alpro Soya) | 19 | 1% |
| Fromage frais and dairy desserts (manufactured) | Soya dessert (e.g. Alpro chocolate, caramel (including free from soya fromage frais) | 5 | 4% |
| Ice cream | Ice cream | Dairy free ice cream | 19 | 4% |
| \*% contribution of all items within the sub food group. | | | | |