

PRIMARY SCHOOL MEALS REPORT 2021

AN OPPORTUNITY FOR CHANGE:
MEASURING PROGRESS TOWARDS OUR
VISION OF HEALTHIER SCHOOL MEALS
FOR CHILDREN IN SCOTLAND



INTRODUCTION

This is our fourth report on Primary school meals in Scotland. Getting school meals right for every child is vital if we are to create a healthy weight childhood for as many young people as possible and so, five years on from our first report, we are measuring progress towards our vision for school meals.



BACKGROUND

Our last School Meals Report in 2020, provided a snapshot of the school meal environment, exploring the challenges and obstacles presented by the coronavirus pandemic. The report also illustrated our future vision for the school dining experience, encompassing positive, vibrant physical and social environments, alongside the provision of the best nutrition to support the growth, development and health of Scotland's children.

In 2017, we called for Scotland's policymakers and local authorities to help transform our school feeding culture into an eating culture.¹ To achieve this, we made four recommendations for action, based on the findings of our review of Scottish Primary School menus:

- 1** Use unprocessed or minimally processed foods wherever possible
- 2** Prioritise vegetables, soup and salads over puddings
- 3** Reduce free sugar content in school meals towards those of the new Scottish Dietary Goals
- 4** Create a positive physical and social environment for school meals



This report therefore, gives an update of the current school meals environment using our 4 recommendations, where the primary school meal menus from the latter half of 2021 have been reviewed, to gauge whether any improvements have been made since 2020.

The 2020 report followed on from the work compiled in the 2017 and 2019 School Meals reports, which reviewed Scottish primary school menus and found encouraging improvements, including the continued reduction in the provision of red and processed meat. There were however, areas of concern where progress had either slowed or reversed from the improvements in the 2019 report. In our 2020 report, we therefore called upon local authorities to continue with the commendable progress which had been made, but called for improvements, particularly regarding the limited provision of oily fish, a reversal in the increased offering of chips and puddings, and for a reduction in the calorie content of puddings.

In February 2021, the Scottish Government published 'Healthy Eating in Schools: guidance 2020'² which highlighted the new Nutritional Requirements for Food and Drink in Schools (Scotland) Regulations 2020, aiming to align more

closely to the Scottish Dietary Goals. The new Regulations centred around three key themes to make primary school meals healthier, such as increasing access to fruit and vegetables, reducing the amount of sugar accessible within schools and ensuring provision of red and red processed meat were in line with the Scottish Dietary Goals.

The 2020 Regulations set different criteria compared to previous guidelines on primary school meals.² For example, fruit and vegetables now focus on full portions, in order to increase the amount of fruit and vegetables children eat within a school day. Furthermore, the Regulations now set a maximum level for the provision of red and red processed meat across the school week, in order to align with current nutritional advice. (No more than a total of 175g of red and red processed meat can be provided within school meals over the duration of the school week, of which no more than 100g can be red processed meat). Sugar is now defined as free sugar and total sugar, and in order to reduce the amount of free sugars provided across the school day, changes have been made such as the removal of fruit and vegetable juices, and smoothies from the school setting.

PRIMARY SCHOOL MEAL UPTAKE AND THE IMPACT OF COVID-19

COVID-19 has affected every aspect of our lives, including within the school environment. Our last report, in 2020, highlighted the steps taken by the Scottish Government to ensure all children and young people continued to be supported during the COVID-19 school closures. This included those who were entitled to the provision of free school meals, were still provided with nutritious food outside of the school environment. Initial legislation at the beginning of March 2020 allowed local authorities to make individual decisions regarding local free school meal delivery. In April 2020, the Scottish Government announced a £70 million food fund for local authorities, and £15 million was ringfenced for free school meal provision, with a cash-first approach emphasised in supporting guidance as the most appropriate. This is supported by research from The Child Poverty Action Group,^{3,4} who stated that many low-income families in Scotland preferred cash payments for free school meals as it provided them with flexibility, dignity, safety and convenience.⁵ In June 2020, 175,000 children and young people within Scotland were receiving free school meals, an increase of 53,000 since the beginning of the pandemic.⁶

New school food regulations were implemented in April 2021, and aimed to “strengthen current provision” and ensure that children and young people would “have access to balanced and nutritious food and drink at school.”⁷ The new standards included reducing the amount of sugar which could be consumed within the school day, providing more access to fruit and vegetables and ensuring good accessibility to an appropriate amount of nutrients, adhering to the updated advice from the Scottish Dietary Goals.⁸



Between 2014 and 2015, when the Scottish Government introduced free school meals to all pupils in Primaries 1-3, overall primary school meal uptake – whether free or paid – jumped by 12% to 65%. This has fallen in recent years, from a high of 66% in 2016, to 60% in 2019. In June 2021, the Scottish Government announced that more than 90,000 primary school pupils would be entitled to new free school meal support during term time. Together with local authorities, they agreed upon a £28 million commitment to introduce universal free school lunches for Primary 4 children by August 2021, and Primary 5 children by January 2022, and a further targeted £21.75 million support during school holidays for those who were eligible.^{9,10} This therefore, strengthens the need to ensure healthy and nutritious school meals if more children will be consuming them, in order to support the growth, development, and health of Scotland’s children.

Scottish school meal data, such as school meal uptake – whether free or paid – was not collected for 2021 due to the impact of the COVID-19 pandemic, and the resulting disruption to schools at the time of collection.¹¹ All pupils from Primary 1 to Primary 5 are now eligible for free school meals in Scotland. Data from the Scottish Government (2020) states that this equates to 274,938 primary school children but it is unknown specifically how many of these took up free school meals in 2021.¹² Our last report¹³ stated that in 2020, 175,000 children and young people in Scotland were receiving free school meals, vouchers or cash, which was an increase of 53,000 since the beginning of the pandemic.⁶

The impact on households, as a result of the COVID-19 pandemic, has been stark. The pandemic has adversely impacted household incomes for those that are most vulnerable, as



many individuals have been made redundant, furloughed or had their wages or hours cut, resulting in “unprecedented levels of financial distress and hardship, particularly for those experiencing socio-economic disadvantage.”¹⁴⁻¹⁶ Findings from the 2020 Scottish Health Survey,¹⁷ stated that 8% of adults surveyed were worried about their own food provisions, due to a lack of money or other resources, with 4% reporting to have eaten less and 2% running out of food due to insufficient funds or a lack of other resources.¹⁷ These financial impacts continued into 2021, as the pandemic “shifted the fiscal landscape.”¹⁸ This is supported by UK-wide research undertaken at the beginning of 2021,^{19,20} which highlighted the severity of the COVID-19 pandemic restrictions upon food insecurity and income instability.⁵ These trends will only deteriorate as a result of the more recent sharp rise in the cost of living.

SCOTTISH CHILDREN'S DIET

Data from Public Health Scotland first published in December 2021²¹ reported that, between 2019/20 and 2020/21, there had been a notable increase in the overall proportion of Primary 1 children who were at risk of overweight or obesity, from 23% in recent years, to 29.5% in 2021. Furthermore, for children living in the most deprived areas of Scotland, this increase was two times as large as those living in the least deprived areas.²¹ For children aged 2–15, 30% were at risk of either being overweight or having obesity with just under a fifth (16%) of children at risk of obesity in 2019.²² In 2018, 29% of children aged 2–15 were at risk of overweight or obesity, with 16% of them at risk of obesity.¹³ These figures indicate that we have an even longer way to go in terms of halving the childhood obesity rate by 2030, as is the ambition of the Scottish Government. COVID-19 and the pandemic's

subsequent restrictions, have created huge challenges for achieving this goal, together with a lack of progress on improving food environments. Worryingly, we look to be heading in the wrong direction with regards to tackling childhood obesity rates.²³

Children's diets in Scotland have not changed or improved over recent years. The most recent data from the 2019 Scottish Health Survey²⁴ states that children in Scotland aged 2–15 consumed between 2.6–2.8 portions of fruit and vegetables per day on average, which is similar to 2018's average of 2.8 portions, well short of the five-a-day recommendation, with only one in seven children (14%) of this age group meeting these recommendations in 2019.^{22,24,25} This further strengthens the need to ensure nutritious meals within school settings, in order to increase availability of fruit and vegetables to children and help them to reach the five-a-day fruit and vegetable recommendation.



OUR NEW RESEARCH

METHODS

For this report, in October 2021, we searched the websites of all 32 Scottish local authorities for information on primary school menus. All local authorities except for 3 (Comhairle nan Eilean Siar, Orkney Islands and Shetland Islands) provided menu information on their websites. To eliminate bias, we used an online number generator to select one week for each menu to analyse. Microsoft Excel was used to record and analyse the frequency of food offered during the chosen week. Following the entry of all the data in the spreadsheet, a different member of staff conducted quality assurance of the data.

Nutrition information was only available from the websites of 11 local authorities, 3 of which provided nutritional information of carbohydrate content only. The methodology used in this report remained the same as in previous years (2020, 2019 and 2017).

RESULTS

MENU ANALYSIS

1 Use unprocessed or minimally processed foods wherever possible

The NOVA system of classification, which categorises food into four groups as highlighted below, is now used extensively within the research community,^{26,27} national government and international

organisations, to classify food and beverages in relation to the extent and purpose of industrial processing.^{28,29}

1. Unprocessed or minimally processed foods
2. Processed culinary or food ingredients
3. Processed foods
4. Ultra-processed food products

Unprocessed or minimally processed foods are defined as “unprocessed foods altered by industrial processes such as removal of inedible or unwanted parts.”^{26,27} These processes do not incorporate the addition of salt, sugar, oil or fat, but are used to extend food shelf life, making preparation easier, more varied, safer or more palatable.^{26,27,30}

Examples of unprocessed or minimally processed foods include natural, packed or frozen vegetables, fruits, potatoes and other roots or tubers; dried fruits; packaged grains such as brown or white rice and grains of other cereals (wheat, oats); pasta; eggs; fresh and dried beans and legumes (lentils, chickpeas); fresh and dried herbs and spices; fresh, chilled or frozen meat, poultry, fish and seafood; fresh or pasteurised milk and natural yoghurt without sugar; coffee, tea, herbal infusions and bottled spring water.³⁰

Ultra-processed foods can be defined as “formulations of ingredients made by a series of industrial processes.” They are ready to consume or require heating and contain minimal or no whole foods. Furthermore, they are high in fat, sugar and salt (HFSS) and low in dietary fibre. Finally, they are produced using “industrial additives and processes that would not be found in a household kitchen.”²⁸

Examples of ultra-processed foods include sweet and savoury snacks, reconstituted meats, pizza dishes and confectionery.^{26,27}

Our 2021 report observed how many local authorities were serving ultra-processed hot main courses. Although the science around ultra-processed foods is still emerging, there is now a large body of evidence suggesting a link between ultra-processed foods and prevalence of obesity, as well as worsening health outcomes, with the consumption of ultra-processed foods, for children in particular, linked to cardio-metabolic risks and asthma.^{28, 29}

- » 12 local authorities served ultra-processed hot main courses 5 days per week, and were available on average four days per week across the local authorities studied, including meals such as pulled pork wraps, pizza and hot dogs.
- » These types of meals, including chips, meat burgers and chicken nuggets, have low nutritional value, and are high in calories. Consumption of ultra-processed food should be minimised, with a focus towards fresh, natural and minimally processed foods to ensure healthy eating habits are maintained.²⁸
- » As a way to improve the nutrient content of the school meals, we recommend using more whole, unprocessed, or minimally processed foods in meal preparation.

Setting A Good Example ✓

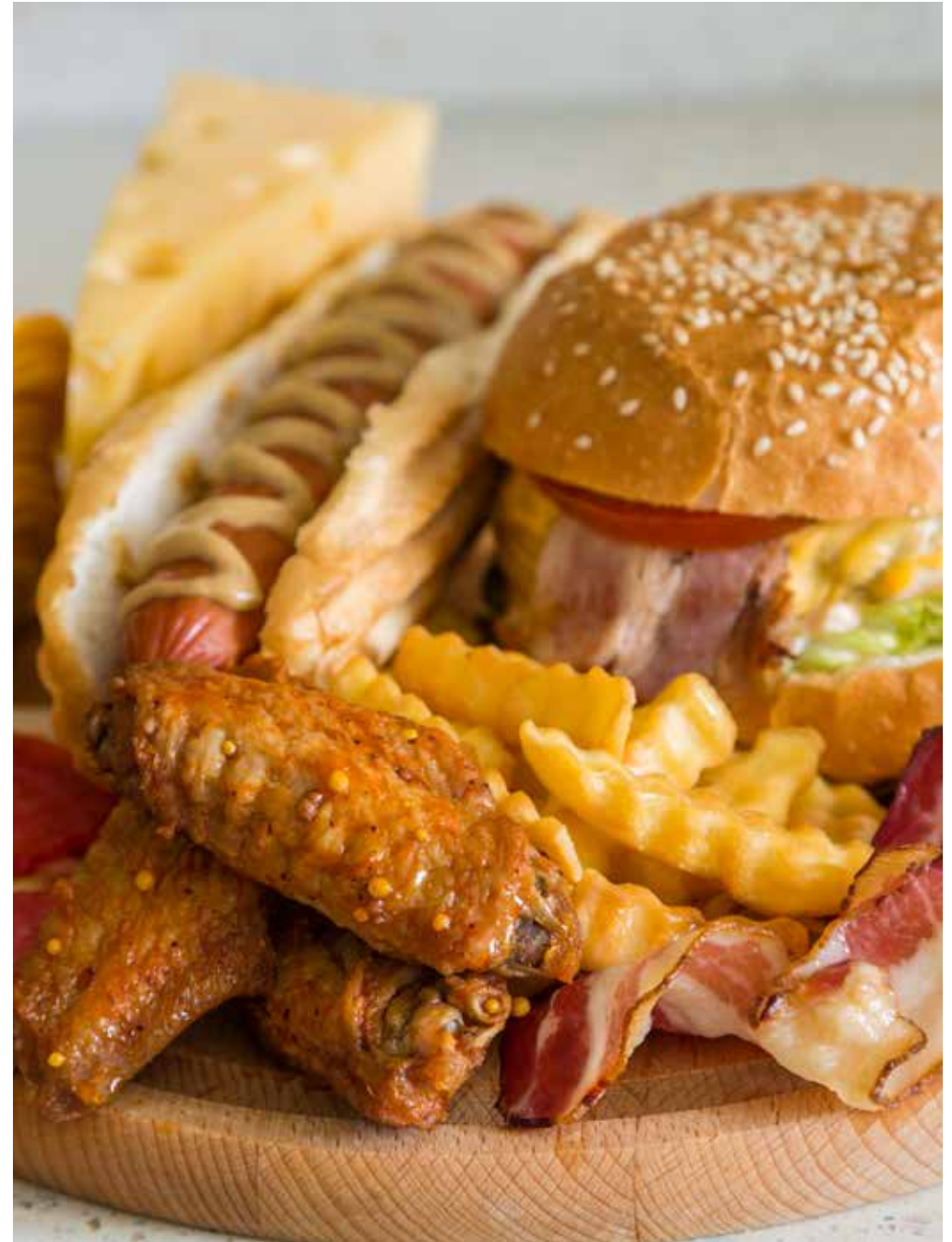
The UK Eatwell Guide recommends choosing whole food sources of carbohydrates such as wholegrain cereals and wholegrain bread over refined carbohydrates.³¹ City of Edinburgh Council used multiple whole food sources of carbohydrates during the chosen week. Wholegrain rice was used in one of the meals offered during the chosen week, and a plant-based burger was served in a wholemeal bun.

The Scottish Government pledged to amend the school nutrient standards to set a maximum limit for processed red meat consumption in schools, ensuring “no more than 175g of red and red processed meat can be provided over the course of the school week, of which no more than 100g should be red processed meat.”² Our 2021 analysis of **red and processed meats** highlights a mixed picture, and although small progress is being made towards offering less on primary school menus,² more needs to be done to reduce this and provide menus which are nutritious.³²

Red meat can be defined as “all types of muscle meat from a mammal” and in this report includes beef, lamb and pork.^{33, 34}

Processed meat has undergone methods other than freezing to enhance flavour or improve preservation such as salting, smoking, marinating, air-drying or heating.³⁴ Within this report therefore, this includes foods such as beef, chicken and turkey burgers; chicken and pork sausages; meatballs; pulled pork; hot dogs; gammon; chicken, ham and turkey slices, and chicken and turkey nuggets. This differs however from the Scottish Government’s definition, which only includes red processed meat such as beef burgers, meatballs and hotdogs, and does not include white processed meat such as chicken and turkey burgers or sausages.

Concerningly, the amount of processed meat in the form of sausages and burgers, served within school meals appears to have increased slightly in 2021. Sausages, (pork, chicken or hot dogs), were offered on 15 occasions in 2021 which is an increase of one, from 14 in 2020. In 2021, burgers (beef, chicken or turkey) were offered on 9 occasions, compared with 8 occasions in 2020. Despite this however, sausages and meat burgers were offered no more than once per week during our 2021 study.



Setting A Good Example ✓

7 local authorities (East Lothian Council, East Renfrewshire Council, Midlothian Council, West Dunbartonshire Council, South Ayrshire Council, Renfrewshire Council and Perth and Kinross Council) served no red processed meat on their menus during the weeks studied.

Promisingly, all local authorities (29) studied in 2021 offered a day without red or processed meat with the majority of local authorities (12) serving red or processed meat two days per week. Therefore, there has been an overall reduction in the number of occasions any red or processed meat was offered on the menus selected each week, from 114 times a week in 2017, to 92 times per week in 2019, 79 times in 2020 and 64 times per week in 2021. This is a 19% reduction in the provision of red and processed meat since our last report in 2020. Furthermore, this report highlighted that 5 local authorities served red or processed meat once a week, compared to 3 local authorities in 2019. The majority of local authorities in 2021 served red or processed meat between 2 and 3 times per week (12 local authorities and 10 local authorities, respectively). This is consistent with 2020's data.

Number of Local Authorities serving red or processed meat in 2017, 2019, 2020 and 2021

	2017	2019	2020	2021
EVERY SCHOOL DAY	11	4	3	0
4 DAYS A WEEK	6	7	2	2
3 DAYS A WEEK	10	11	11	10
2 DAYS A WEEK	2	4	10	12
1 DAY A WEEK	1	3	3	5
TOTAL	30	29	29	29

Setting A Good Example ✓

13 local authorities did not serve any sausages during the chosen week and **20** local authorities did not serve meat burgers during the chosen week either.

» Although sausage and meat burger offerings have increased slightly from 2020, our 2021 data still highlights a continuous effort by local authorities to decrease the amount of red or processed meats which are served throughout the school week, when compared

to our 2017 school meals report, to bring menus in line with School Nutrient Standards which sets a maximum limit for processed red meat consumption in schools.² As the recommended amount of red and processed meat intake is restricted, it is important to incorporate other sources of protein into primary school meals such as lean meat, fish, beans and legumes.

Pizza is now commonly regarded as 'junk food', despite it historically being a meal low in fat - containing only bread, tomatoes and a small amount of cheese.³⁵ In recent decades however as it has become more mass produced, pizza recipes now include poor quality ingredients and additives, high amounts of salt in order to enhance flavour and commonly used toppings high in saturated fat, such as pepperoni or ham^{35,36}. We therefore assume that pizza which is stated on primary school menus is not home-made and has been mass produced, therefore making it an unhealthy choice for children.

» 15 out of 29 local authorities offered pizza once per week from the weeks selected for the 2021 report. This is an **improvement** upon the number of local authorities who offered pizza between 2017 and 2020, which was consistent at around 21.

Setting A Good Example ✓

Almost half of the local authorities in Scotland (14/29) did not serve pizza during the chosen week.

In 2021, 21 out of 29 local authorities served **chips**. This is an **improvement from 2020** in which the number of local authorities serving chips was higher, at 23, and remains constant with 2019.

» Only 1 local authority served chips twice a week, and the remaining local authorities (20) who did serve chips on the chosen weeks, offered them only once. This is in keeping with the Scottish Government's School Nutrient Standards, which states that "food that has been deep fried in the cooking or manufacturing process shall not be permitted more than three times in a week."²

» Despite this however, chips are clearly linked to unhealthy diets, often high in salt and unhealthy saturated fat, contributing to a high calorie content.³⁷ Takeaway chip portions in Scotland, outside of the school environment, contain around half of the daily 2,000 calorie intake recommended for women.³⁸



- » It is important therefore for chips and other processed foods high in fat, sugar and salt (HFSS) to be reduced on primary school menus, in order to avoid these foods becoming accepted and normalised in children's diets. Following guidance from the Scottish Government, children should be encouraged to consume a "healthy balanced meal containing a variety of types of food. Chips should be an occasional item to be enjoyed as part of a meal."²
- » Furthermore, reducing chips and other HFSS foods, will help to meet the "nutrient standard for energy and fat for meals" whilst also helping to "reduce fat intakes across the school day."²

Setting A Good Example ✓

7 local authorities did not serve chips at all during the chosen week.

- » Our 2021 analysis explored how many **potato wedges** were offered across the local authorities. Five local authorities who did not serve chips, offered potato wedges instead.
- » Potato wedges can be a healthier alternative to regular chips, as they are baked in the oven, instead of fried, are cooked in less oil, and because of their size, absorb less oil compared to regular chips.³⁹ Despite this however, they can still be high in salt and low in fibre, and so using dried herbs as an alternative to salt before placing them in the oven, whilst keeping the skin on to provide more fibre, can help to alleviate this.^{40,41}
- » Only 1 local authority served potato wedges three times per week during the weeks studied.



- » Our data highlighted that 19 local authorities offered potato wedges across the weeks studied, with the majority of local authorities (14) offering potato wedges only once per week.

Even though the Scottish Government's School Nutrient Standards for primary schools restrict the intake for red and red processed meat, **chicken nuggets** are also classified as an ultra-processed meat.²

- » 8 local authorities served chicken nuggets once a week.

Setting A Good Example ✓

21 local authorities did not serve chicken nuggets (including chicken goujons) during the chosen week.



The 2020 School Meals Report witnessed a **decline** in the amount of **fish including tuna**, offered on school menus every day, from 15 local authorities in 2019, to 9 local authorities in 2020. This trend has fallen further in 2021, to only 3 local authorities offering fish on their menus every day of the school week. This can also be highlighted in the amount of days fish was offered on menus, decreasing from 114 days in 2019 to 94 days in 2020, and 73 days in 2021. This is a decrease of 22% from 2020.

- » Following on from the decline of tuna offered within school meals in 2020, 2021 has also seen a reduction in the amount of **tuna** being offered within school menus. In 2021, only 3 local authorities offered tuna every school day, compared to 9 in 2020 and 14 in 2019. We focus upon tuna as an example here, as it is a fish that most commonly appears on school menus.

- » 17 local authorities did not serve any **oily fish** during the chosen week and 12 local authorities served oily fish in the form of salmon, once per week. Although this may be down to the random selection of the week analysed, this has decreased from 2019, where 13 local authorities offered salmon and one offered mackerel.
- » Salmon was the only type of oily fish that was served across different local authorities, which was in the form of fishcakes, fish fingers, fish bites. One local authority, Scottish Borders, offered salmon quiche.
- » Mackerel was not available on menus at all during the weeks studied in 2021.
- » These results are disappointing and are a step backwards from the progress made in 2019 where fish was offered more frequently within school meal menus. Fish is incredibly nutritious and high in protein, with oily fish offering a great source of vitamins, minerals and omega-3 fatty acids, which help to promote a healthy heart and healthy cognitive development amongst other health benefits.²
- » As children in Scotland do not eat enough oily fish within their diets currently, including more oily fish within primary school menus would expose and encourage children to consume more fish in their diets, and help towards achieving the Scottish Dietary Goal of consuming at least one portion (140g) of oily fish per person per week⁴²
- » In 2013-2015, the intake of oily fish in Scotland was only 29g per person per week, compared to the Scottish dietary goal of 140g of oily fish per week.⁴³

Setting A Good Example ✓

3 local authorities (East Renfrewshire, North Lanarkshire, and Scottish Borders) served fish including tuna every day during the chosen week.

MEAT FREE ALTERNATIVES

- » 27 out of 29 local authorities offered meat free alternatives during the school weeks studied.
- » Only 1 local authority served meat free alternatives 4 days per week, with the majority of local authorities (14) serving meat free alternatives once per week.



MEAT FREE HOT MAIN COURSES

Our 2021 report explored how many meat free (vegetarian, vegan or fish only) dishes were served on local authority menus. Whilst some local authorities served meat free dishes within hot meals (such as macaroni cheese, fish pies or vegetarian burgers), meat was still available within sandwiches, wraps, or baked potato fillings (ham, turkey or chicken). Therefore, in addition to meat free hot main courses, the 2021 report also explored complete meat free days which included no meat either within hot or cold meals.

- » Meat free hot main options included vegetarian or fish dishes in any form.
- » 14 local authorities offered meat free days 1-2 days per week (9 and 5, respectively).
- » 15 local authorities did not offer any meat free days during the chosen week studied.
- » 24 local authorities served meat free hot mains once or twice per week (13 and 11, respectively).
- » 4 local authorities did not offer any meat free hot main courses during the chosen week studied.

Whilst unprocessed meat is a valuable protein source, as well as an excellent source of minerals such as iron and zinc, and vitamins such as Vitamin B12,⁴⁴ introducing meat free days into school meals offers children a wider range of options, tastes and textures and reinforces the message that meals can be varied and meat-free. It also supports the Scottish Government's Food and Drink standards for primary schools of "no more than 175g of red and red processed meat (cooked weight) per school week, of which no more than 100g (cooked weight) can be red processed meat."²

Number of Local Authorities serving meat free days and meat free hot main courses in 2021

	Meat free days	Meat free hot mains
EVERY SCHOOL DAY	0	0
4 DAYS A WEEK	0	0
3 DAYS A WEEK	0	1
2 DAYS A WEEK	5	11
1 DAY A WEEK	9	13
DID NOT OFFER DURING THE CHOSEN WEEK	15	4
TOTAL	29	29



2 Prioritise vegetables, soups and salads over puddings

Overall, from the menus selected and studied, local authorities have prioritised vegetables, soups and salads over puddings.

- » 28 out of 29 local authorities served **soup** on their menu during the week studied.
- » 13 local authorities served soup every day of the school week.
- » The number of local authorities serving soup everyday **increased** in 2021 to **13**, from 10 in 2020 and 2019, and 12 in 2017.
- » Soup options were available on average 3.7 days per week.

Number of Local Authorities offering soup in 2017, 2019, 2020 and 2021

	2017	2019	2020	2021
EVERY SCHOOL DAY	12	10	10	13
4 DAYS A WEEK	3	4	4	5
3 DAYS A WEEK	1	3	6	3
2 DAYS A WEEK	7	7	5	5
1 DAY A WEEK	5	4	4	2
NO SOUP OFFERED	1	1	0	1
TOTAL	30	29	29	29

27 out of 29 local authorities served **puddings (that did not include fruit, plain/natural yoghurt, cheese and biscuits, and jelly)** on their menus during the week studied.

» In these local authorities, puddings were available on average 2.1 days per week.

This is a considerable **reduction** in their availability from 2020, in which puddings were available 2.7 days per week, and 2019 in which they were available 2.8 days per week. In 2017, puddings were available 4.2 days per week.

- » No local authorities served puddings every day which is an **improvement from 2020**, in which 4 local authorities offered puddings, other than fruit and yoghurt, every day of the school week. Two local authorities served puddings every day of the school week in 2019.

Setting A Good Example

2 local authorities, **City of Edinburgh and Glasgow City**, only served fruit and yoghurt as a choice of pudding, and did not serve any **unhealthier puddings**.



Number of Local Authorities offering puddings (not including fruit, plain/natural yoghurt, cheese and biscuits, and jelly) in 2017, 2019, 2020 and 2021

	2017	2019	2020	2021
EVERY SCHOOL DAY	12	2	10	0
4 DAYS A WEEK	14	9	4	0
3 DAYS A WEEK	2	6	5	10
2 DAYS A WEEK	2	8	8	13
1 DAY A WEEK	0	2	4	4
NO UNHEALTHY PUDDING OFFERED	0	2	2	2
TOTAL	20	29	29	29



Setting A Good Example

13 out of 29 local authorities provided soup every day during the week.

Soup can be a healthy and practical addition into a children's diet, as it can be a useful way of increasing vegetable intake in addition to being relatively cheap to prepare and available in a variety of flavours to suit varying tastes and preferences.



HEALTHIER OPTIONS FOR PUDDINGS (SUCH AS FRUIT, YOGHURT, CHEESE AND BISCUITS, AND JELLY)

- » All 29 local authority menus studied served fruit during the week.
- » 28 out of 29 local authorities served fruit every day of the week.
- » In 2021, 27 out of 29 local authorities offered healthier pudding options such as fruit, yoghurt, cheese and biscuits, and jelly at least once a week, or 2.7 days on average. This is an **increase** from 2020 and 2019, where 26 local authorities offered healthier pudding options such as fruit and yoghurt at least once a week, up from only 16 local authorities in 2017.
- » 2 local authorities offered healthier puddings every day in 2021, with no unhealthy pudding options to choose from. This remains the same as 2020 and 2019. In 2017, no local authorities offered this. Similarly, in 2021, 4 local authorities offered healthier puddings 4 days a week during the week studied, with no unhealthy pudding options to choose from.
- » It is encouraging to see the continuing efforts made by local authorities in providing healthier pudding options every day, such

as offering fruit on menus 5 days per week, in order to bring menus closer towards the revised School Nutrition Standard, calling for a minimum of one portion of fruit to be offered within a primary school lunch.

Local authorities are still very consistent in providing **salad** on menus every day. In 2021, during the weeks studied, 28 out of 29 local authorities offered salad 5 days a week on their menus. This is an **improvement** from 2020, in which 26 local authorities offered salad every day of the school week. Furthermore, during 2019 and 2017, 25 and 27 local authorities offered salads 5 days per week, respectively.

- » In 2021, the number of occasions that salad was available during the week studied and across all local authorities was considerably **higher at 144**, than what was offered in 2020 and 2017, at 130 and 139 respectively.
- » Vegetables and salads are fundamental components of healthy diets that should be widely provided within primary school meals, as they contribute to vegetable intake, and provide a wide variety of colours and textures to suit varying tastes, in addition to containing high amounts of beneficial nutrients for growth and development.

3 Reduce the free sugar content of meals towards the new Scottish Dietary Goals

In order to significantly reduce the amount of free sugar provided across the school day, changes have been made within the new Nutritional Requirements for Food and Drink in Schools (Scotland) Regulations 2020.² Free sugar is any sugar added to food such as confectionary, breakfast cereals or sauces, or sugars found within fruit juices and purees, honey and syrup.

- » Milk-based desserts, flavoured yoghurt, fromage frais, sweetened baked goods and desserts will now have to meet the new criteria, which states that a maximum portion size must be no more than 125g, total sugar should not exceed 100g, and there should be no more than 3g of fat per 100g.
- » Fruit juice, smoothies and drinks which consists of both fruit and vegetables can no longer be served due to the high free sugar content they contain, despite their contribution towards one of five a day. Therefore, by taking them away from a school setting, the “maximum recommended sugar intake can be applied across as wide a range of foods and drinks as possible, to ensure greater choice for children and young people.”
- » Semi-skimmed or skimmed milk drinks will no longer be allowed to contain added sugar. These include hot chocolate, flavoured milk and drinking yoghurts.²

NUTRITION INFORMATION

- » From the menus selected and studied, puddings were offered on average 2.1 days during the week. In 2021, 11 local authorities provided nutritional information on their websites, compared to only 7 in 2019. Four local authorities provided information on the carbohydrate content only.
- » The average calorie content of the puddings (excluding fruit, yoghurt, cheese and biscuits and jelly) was calculated for the 7 local authorities that provided nutrition information in 2021, as well as the previous years (2017, 2019, 2020) to allow for comparison. In 2021, the average calorie content of the puddings was found to be 161 kcal per serving, which remained relatively similar between 2017 and 2021 (177kcal, 186kcal, 147kcal, 161kcal, in 2017, 2019, 2020, 2021, respectively).
- » **Figure 1** shows the weekly average amount of sugar content in teaspoons in the puddings of the 7 local authorities that have provided nutritional information on their websites in 2017, 2019, 2020, and 2021. The data in the graph however is based on only 7 local authorities, (Aberdeenshire Council, Angus Council, City of Edinburgh Council, Dundee City Council, Fife Council, Perth and Kinross Council and South Lanarkshire Council) and thus should be interpreted with caution.
- » Although there was variation in the average weekly sugar content in the puddings at individual local authorities in 2017, 2019, 2020 and 2021, the average weekly sugar content in the puddings of all local authorities has been shown to decrease slightly, from an average of 13 (12.8) grams in 2017 to an average of 10 grams in 2021 (**Figure 2**).

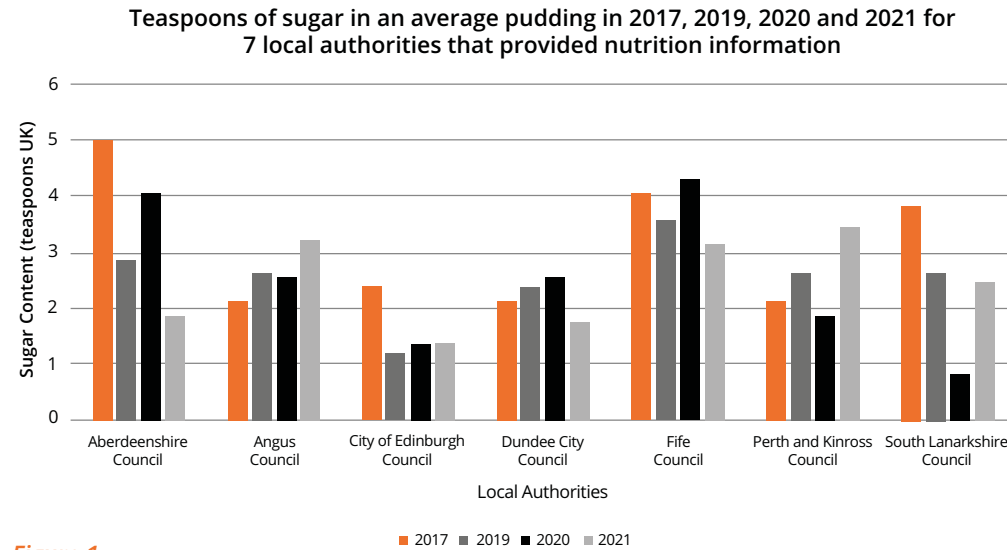


Figure 1

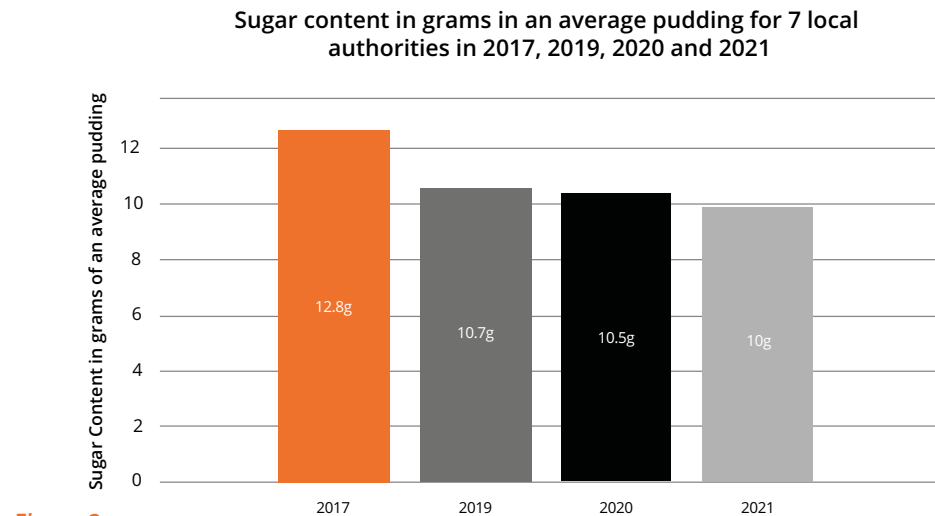


Figure 2

- » In 2021, there were still many high-sugar options available on the menus. For example, 2 out of the 7 local authorities (Angus Council, Perth and Kinross Council) served tiffin with a sugar content as high as 15 grams per serving, and 1 local authority (Perth and Kinross) served raspberry and apple cake with 14 grams of sugar per serving. For children aged 4-6 years old, this contributes to almost their entire daily recommended intake of free sugars (<19g), and for children aged 7-10 years old, to over half of their daily recommended sugar intake (<24g).⁴⁵
- » No more than 19g/day of free sugars should be consumed by children aged 4 to 6 and no more than 24g/day for 7- to 10-year-olds.





CONCLUSION

The 2021 data indicates that progress continues to be seen within primary school meals since our 2020 report. However, over the five-year period since these reports began, reported improvements have been marginal in many indices, and there are recent setbacks in specific areas such as the offer of fish.

- » In line with the Scottish Dietary Goals, the provision of red and processed meat has been shown to decline by 19% from 2020 to 2021. The provision of sausages and burgers however has increased slightly.
- » There was an increase in the number of local authorities serving soup every day. Local authorities were also good at serving fruit and salad every day.
- » Local authorities served fewer pizzas and chips during the week in 2021, than in 2020.
- » There was an overall decrease in the number of days puddings were served, at an average



of 2.1 days in 2021, compared to 2.7 days in 2020. The sugar content of the puddings has also shown a decline from 2017 to 2021 (although this is based on only seven local authorities).

- » 19 local authorities served potato wedges, which are a healthier alternative to chips, as they are baked and not fried.
- » Most (24) local authorities served meat free options, which can encourage children to choose vegetable-based options, which can be equally as tasty and interesting, however these are currently not available every day.
- » Not enough local authorities are serving fish and/ or oily fish on menus. Only 3 local authorities offered fish including tuna on their menus every day of the school week in 2021 and similarly only 12 local authorities served oily fish on their menus.
- » Even though the average weekly sugar content in puddings has decreased slightly, there are still too many high-sugar puddings available on school menus (an average of 10 grams in 2021).





If Scotland is going to address the growing risk of obesity in school-age children, and the significant adverse impacts of the pandemic on their health and wellbeing, there needs to be a focus on changing school meals to make them healthier. Major changes in food availability influenced by recent events and rising levels of food insecurity in a growing proportion of households with children, further emphasises this.

The COVID-19 pandemic has presented an opportunity to reshape the food environment, as it has changed the value we, as a society, place on food. This opportunity must now be taken to enable a society that values and places access to nutritious food as a priority, whilst also tackling inequality in approaches to improve the food environment, create healthier food systems and make positive changes to the health, diet and wellbeing of children.⁴⁶ Therefore, through delivering healthier school meals, we should expect to see positive improvement across all measures of diet and nutrition in children.

We recommend 9 themes for school meals, inspired by Better Eating, Better Learning.⁴⁶ A recent study exploring the impact of the universal infant free school meal (UIFSM) policy on dietary quality in English and Scottish primary school children,⁴⁸ found that although UIFSM demonstrated some improvements in dietary quality, overall school meal quality needs to be improved. This strengthens our call for primary school meal improvements together with our vision to positively influence children's diets in the school environment. For this to be undertaken, the dining experience must be considered so school meals are enjoyed in a positive, safe, vibrant and comfortable environment, where staff are approachable and there is sufficient time to enjoy the lunch on offer. Furthermore, food must be appealing and of high quality, with access to plentiful selection of fruit, vegetables and water and where menu feedback from children is given importance for school meal delivery moving forwards. We incorporate these themes, seen in the adjacent graphic, into our vision for the future school dining experience.



REFERENCES

- 1 Obesity Action Scotland. (2017). School Meals Transforming a Feeding Culture into an Eating Culture. Obesity Action Scotland.
- 2 Scottish Government. (2021). Healthy eating in schools: guidance 2020. Scottish Government. Available from: <https://www.gov.scot/publications/healthy-eating-schools-guidance-2020/pages/4/> [Accessed 2 March 2022].
- 3 Child Poverty Action Group in Scotland. (2020). The Cost of Learning in Lockdown. Family experiences of school closures in Scotland. Glasgow: Child Poverty Action Group. Available from: <https://cpag.org.uk/sites/default/files/files/The-cost-of-learning-in-lockdown-Scotland-FINAL.pdf> [Accessed 15 March 2022].
- 4 Child Poverty Action Group in Scotland. (2021). The Cost of Learning in Lockdown: March 2021 Update (Scotland). Glasgow: Child Poverty Action Group in Scotland. Available from: <https://cpag.org.uk/policy-and-campaigns/report/cost-learning-lockdown-march-2021-update-scotland> [Accessed 15 March 2022].
- 5 Scottish Government. (2021). Coronavirus (COVID-19): children, young people and families – evidence summary – June 2021. Edinburgh: The Scottish Government.
- 6 Scottish Government. (2020). Free school meals extended. Scottish Government. Available from: <https://www.gov.scot/news/free-school-meals-extended/> [Accessed 1 March 2022].
- 7 Scottish Government. (2021). Children and young people's voices matter: progress report on actions agreed at the Cabinet meeting with children and young people, March 2020. Edinburgh: The Scottish Government.
- 8 Parent Club. (2022). Changes to School Meals. Parent Club. Available from: <https://www.parentclub.scot/articles/all-about-school-meals> [Accessed 3 March 2022].
- 9 Scottish Government. (2021). Free school meals. Scottish Government. Available from: <https://www.gov.scot/news/free-school-meals-1/> [Accessed 2 March 2022].
- 10 Scottish Government (2021). Budget deal secured. Scottish Government. Available from: <https://www.gov.scot/news/budget-deal-secured/> [Accessed 2 March 2022].
- 11 Scottish Government. (2021). School Healthy Living Survey supplementary statistics. Scottish Government.
- 12 Scottish Government. (2022). Free school meals anticipated uptake and funding: FOI release. Scottish Government. Available from: <https://www.gov.scot/publications/foi-202200277797/> [Accessed 2 March 2022].
- 13 Obesity Action Scotland. (2020). Primary School Meals in Scotland 2020 report. Obesity Action Scotland.
- 14 Scottish Government. (2020). Scotland's Wellbeing: The Impact of COVID-19-Chapter 4: Communities, Poverty and Human Rights. Scottish Government.
- 15 Scottish Government. (2020). Coronavirus (COVID-19): impact on children, young people and families - evidence summary October 2020. Scottish Government.
- 16 Scottish Government. (2020). Scotland's Wellbeing: The Impact of COVID-19. Edinburgh: The Scottish Government.
- 17 Scottish Government. (2021). The Scottish Health Survey 2020 edition – telephone survey volume 1 main report. An Experimental Statistics Publication for Scotland. Edinburgh: The Scottish Government. Available from: <https://www.gov.scot/publications/scottish-health-survey-telephone-survey-august-september-2020-main-report/documents/> [Accessed 1 March 2022].
- 18 Scottish Government. (2021). COVID impacts Scotland's finances. Scottish Government. Available from: <https://www.gov.scot/news/covid-impacts-scotland-finances/> [Accessed 2 March 2022].
- 19 Goudie, S. and McIntyre, Z. (2021). A crisis within a crisis: The impact of COVID-19 on household food security. London: The Food Foundation.
- 20 Joseph Rowntree Foundation. (2021). UK Poverty 2020/21. York: Joseph Rowntree Foundation. Available from: <https://www.jrf.org.uk/report/uk-poverty-2020-21> [Accessed 15 March 2022].
- 21 Public Health Scotland. (2021). BMI levels increase for Primary 1 School Children during first year of the COVID-19 pandemic. Public Health Scotland. Available from: <https://publichealthscotland.scot/news/2021/december/bmi-levels-increase-for-primary-1-school-children-during-first-year-of-the-covid-19-pandemic/> [Accessed 3 March 2022].
- 22 Scottish Government. (2020). Diet and healthy weight: monitoring report 2020. Edinburgh: The Scottish Government.
- 23 Obesity Action Scotland. (2021). Heading the wrong way on Childhood Obesity. Obesity Action Scotland. Available from: <https://www.obesityactionscotland.org/blog/heading-the-wrong-way-on-childhood-obesity/> [Accessed 3 March 2022].
- 24 Scottish Government. (2019). The Scottish Health Survey 2019 edition volume 1 main report. A National Statistics Publication for Scotland. Edinburgh: The Scottish Government. Available from: <https://www.gov.scot/publications/scottish-health-survey-2019-volume-1-main-report/> [Accessed 2 March 2022].
- 25 Scottish Government. (2019). Diet and healthy weight: monitoring report 2019. Scottish Government.
- 26 Monteiro, C.A., Cannon, G., Levy, R.B., Moubarac, J.-C., Louzada, M.L.C., Rauber, F., Khandpur, N., Cediel, G., Neri, D., Martinez- Steele, E., Baraldi, L.G. and Jaime, P.C. (2019). Ultra-processed foods: what they are and how to identify them. Public Health Nutrition, 22 (5), 936-941.
- 27 Monteiro, C.A., Cannon, G., Lawrence, M., Costa Louzada, M.L. and Pereira Machado, P. (2019). Ultra-processed foods, diet quality and health using the NOVA classification system. Rome: FAO.
- 28 Soil Association. (2020). Ultra-processed foods. Bristol: The Soil Association. Available from: <https://www.soilassociation.org/media/21669/ultra-processed-foods-soil-association-report.pdf> [Accessed 3 November 2021].
- 29 Elizabeth, L., Machado, P., Zinöcker, M., Baker, P. and Lawrence, M. (2020). Ultra-Processed Foods and Health Outcomes: A Narrative Review. Nutrients, 12 (7), 1 – 33.
- 30 Monteiro, C.A., Levy, R.B., Claro, R.M., Ribeiro de Castro, I.R. and Cannon, G. (2010). A new classification of foods based on the extent and purpose of their processing. Saúde Pública, 26 (11), 2039 – 2049.
- 31 Public Health England. (2018). The Eatwell Guide. GOV. UK. Available from: <https://www.gov.uk/government/publications/the-eatwell-guide> [Accessed 29 November 2021].
- 32 Scottish Government. (2019). Making School Food Healthier. Scottish Government. Available from: <https://www.gov.scot/news/making-school-food-healthier/> [Accessed 27 January 2022].
- 33 Pilliamson, C.S., Foster, R.K., Stanner, S.A. and Buttriss, J.L. (2005). Red meat in the diet. Nutrition Bulletin, 30 (4), 323-355.
- 34 World Cancer Research Fund (2021). Limit and red processed meat. World Cancer Research Fund. Available from: <https://www.wcrf.org/dietandcancer/limit-red-and-processed-meat/> [Accessed 18 February 2022].
- 35 Combet, E., Jarlot, A., Aidoo, K.E. and Lean, M.E.J. (2013). Development of a nutritionally balanced pizza as a functional meal designed to meet published dietary guidelines. Public Health Nutrition, 17 (11), 2577-2586.
- 36 Gallus, S., Tavani, A. and Vecchia, C.La. Pizza and risk of acute myocardial function. European Journal of Clinical Nutrition, 58, 1543-1546.
- 37 Caraher, M. and Lloyd, S. (2010). Fish and chips with a side order of Trans fat: The nutrition implications of eating from fast-food outlets: a report on eating out in east London. London: Centre for Food Policy, City University London.
- 38 Obesity Action Scotland. (2018). Chips to go factsheet. Obesity Action Scotland. Available from: <https://www.obesityactionscotland.org/media/1203/chips-factsheet2.pdf> [Accessed 29 November 2021].
- 39 British Nutrition Foundation. (2018). Dining out and takeaways. British Nutrition Foundation. Available from: <https://www.nutrition.org.uk/putting-it-into-practice/make-healthier-choices/healthy-eating-when-out-and-about/dining-out-and-takeaways/> [Accessed 9 November 2021].
- 40 British Nutrition Foundation. (2016). Students. British Nutrition Foundation. Available from: <https://www.nutrition.org.uk/life-stages/students/> [Accessed 17 November 2021].
- 41 British Nutrition Foundation. (2021). Fibre. British Nutrition Foundation. Available from: <https://www.nutrition.org.uk/healthy-sustainable-diets/starchy-foods-sugar-and-fibre/fibre/?level=Consumer> [Accessed 9 November 2021].
- 42 Food Standards Scotland (2021). Scottish Dietary Goals Adapt It. Food Standards Scotland. Available from: <https://www.foodstandards.gov.scot/downloads/Scottish-Dietary-Goals-Adapt-it-sheet.pdf> [Accessed 2 December 2021].
- 43 Food Standards Scotland. (2020). Situation Report: The Scottish Diet: It needs to change 2020 update. Food Standards Scotland. Available from: https://www.foodstandards.gov.scot/downloads/Situation_Report_-_The_Scottish_Diet_It_Needs_to_Change_%282020_update%29.pdf [Accessed 2 December 2021].
- 44 Heart Foundation (2021). Is meat good for you? Heart Foundation. Available from: <https://www.heartfoundation.org.nz/wellbeing/healthy-eating/nutrition-facts/is-meat-good-for-you> [Accessed 2 December 2021].
- 45 British Nutrition Foundation. (2021). Sugar. British Nutrition Foundation. Available from: <https://www.nutrition.org.uk/healthy-sustainable-diets/starchy-foods-sugar-and-fibre/sugar/?level=Health%20professional> [Accessed 9 November 2021].
- 46 McKendrick, J.H. and Cathcart, S. (2021). Tackling Food Insecurity in Scottish Schools: Case Studies of Strengthening Free School Meal Provision in Scotland. Glasgow Caledonian University: Scottish Poverty and Inequality Research Unit (SPIRU).
- 47 Scottish Government (2014) Better Eating, Better Learning A New Context for School Food. Scottish Government. Available from: <https://www.gov.scot/publications/better-eating-better-learning-new-context-school-food/>.
- 48 Parnham, J.C., Chang, K., Millet, C., Laverty, A.A., von Hinke, S., Pearson-Stuttard, J., de Vocht, F., White, M. and Vamos, E.P. (2022). The Impact of the Universal Infant Free School Meal Policy on Dietary Quality in English and Scottish Primary School Children: Evaluation of a Natural Experiment. The Impact of the Universal Infant Free School Meal Policy on Dietary Quality in English and Scottish Primary School Children: Evaluation of a Natural Experiment. Nutrients, 14 (8), 1602.



 www.obesityactionscotland.org

 Twitter - @obesityactionsc

 E-mail - info@obesityactionscotland.org