

# **INSTITUTE OF APPLIED HEALTH RESEARCH, UNIVERSITY OF BIRMINGHAM - WRITTEN EVIDENCE (FDO0078)**

## **Report from the Institute of Applied Health Research, University of Birmingham**

This submission relates to the call for evidence on the impact of recent policy tools and legislative measures intended to prevent obesity.

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1.1 We are a group of public health researchers, health economists and nutritionists submitting this evidence on behalf of the Institute of Applied Health Research at the University of Birmingham. Over the last two decades, the group have conducted research on childhood obesity prevention and management, the implementation of the school food standards, and the translation of this research into public health policy. Our response to the inquiry is based on our research and wider awareness of academic, policy and practitioner knowledge about children, young people and the school food environment. We will focus on the influence of school food on obesity in adolescence and draw on evidence from the [FUEL](#) and [EPIC](#) studies conducted at the University of Birmingham between 2019 and 2024.

### **2. Summary**

- 2.1 Schools play a significant role in influencing adolescent dietary intake and eating behaviours and forms an important part of the national strategy for tackling childhood obesity.
- 2.2 Our evaluation of current national school food policy in England indicates that it is being poorly implemented in secondary schools and is having minimal impact upon the dietary intake of adolescents during the school day.
- 2.3 Priorities for achieving healthier food in secondary schools, from the perspective of school food stakeholders, are to increase funding for school food and for government to work together to champion school food.

- 2.4 Other important actions relate to supporting school leadership, investing in/developing catering staff, student engagement, and changing the food available to students and how it is served. Improvements to the wider food system are also needed.
- 2.5 A stronger political impetus around school food and the building of a narrative of school food as a tool for overall school improvement are required to support implementation of these actions.
- 2.6 These priority action areas are necessary for enhancing national school food policy and its implementation, maximising its potential impact upon the diets and health of young people, as one key element of the national strategy for the prevention of obesity.

### **3. The potential of school food for preventing obesity**

#### **3.1. Relationship of school food to obesity**

3.1.1 Adolescence is a major risk period for development of overweight and obesity. It is a period of rapid physical and psychosocial development, and increased autonomy over food and lifestyle choices [1, 2]. Poor diet during this time is associated with rapid weight gain [3, 4]. In England, over a third of children have excess weight, and nearly a quarter have obesity by the age of 15 years, putting them at risk of short and long-term morbidity [5].

3.1.2 Schools play a significant role in influencing adolescent dietary intake and eating behaviours as a substantial proportion of adolescent time is spent at school and supporting the health and wellbeing of pupils is also a key component of the overall educational remit of schools. Adolescents attending secondary schools in the UK typically consume at least one meal per day at school, so the school setting offers opportunity for intervention to improve the nutritional intake of their pupils.

3.1.3 The provision of school meals has long been used as a public health measure to prevent poor nutrition in children. Over time, the intended purpose has shifted from the prevention of undernutrition (in wartime 1941 when the national school meals policy was first formally introduced) to providing nutritionally balanced foods and drinks with lower energy density in the 20<sup>th</sup> century, following large increases in obesity prevalence [6].

#### **3.2. Current school food policy**

##### **3.2.1. School food plan**

3.2.1.1 The School Food Plan (SFP) was published in 2013 with the aim of increasing school meal uptake and promoting a 'whole-school' approach to healthy eating [7]. The SFP provides practical support, advice, and information for school leaders in the form of non-statutory recommendations for action. These include actions relating to leadership, vision, and a whole-school

approach to food; school food monitoring and accountability; school food provision and affordability; the physical and social eating environment; food education encompassing healthy eating knowledge and skills; linking healthy eating to wider health and wellbeing; and involving school children and the wider school community in school food and healthy eating.

### **3.2.2. School food standards**

3.2.2.1 Following abolition in the 1980s, comprehensive food and nutrient-based School Food Standards (SFS) legislation was reintroduced in England in 2006 and applied to state-funded schools [7]. These were revised into the current food-based SFS as part of the School Food Plan and implemented in 2015 [8]. Academies and free schools (state-funded schools that are independent of Local Authorities) that were established between January 2010 and May 2014 were not required by law to comply with the SFS, however there is an expectation that these schools will voluntarily comply [9, 10].

3.2.2.2 The SFS specify six groups of foods and drinks: starchy foods; fruit and vegetables; milk and dairy; meat, fish, eggs, beans, and other non-dairy sources of protein; foods high in fat, sugar and salt; and healthier drinks. There are rules for portion, variety, and frequency of provision for each group. The standards are divided into three groups: those applying to school lunch, those applying to foods provided in school other than at lunchtime, and standards that apply across the whole school day.

3.2.2.3 Whilst evidence has suggested school meals are nutritionally superior to packed lunches [11, 12], there is also evidence indicating that the quality of school provided meals could be improved. For example, a recent study investigating ultra-processed foods consumed by schoolchildren included in the National Diet and Nutrition Survey, found that the higher level of ultra-processed food consumption seen in secondary school children was largely accounted for by ultra-processed drinks in school meals [13].

3.2.2.4 Responsibility for ensuring school compliance with the SFS is placed with the governing bodies of schools. However, there are no formal national arrangements for monitoring schools' compliance with the SFS, despite their legislative status. Reports by several non-government organisations have highlighted poor awareness and compliance with the SFS in secondary schools [14-16]. We have undertaken research to gather evidence on SFS compliance in secondary schools and the impact on nutritional intake and present this evidence below.

### **3.3. School food policy forms part of government's strategy towards tackling obesity**

3.3.1 School food standards legislation remains an important national strategy for tackling childhood obesity and is a key component in the government's:

'Childhood obesity – a plan for action' [17]. One component of this plan includes a voluntary self-assessment of school compliance with the national SFS as part of their Healthy Schools Rating Scheme [18], which came into effect in 2019.

3.3.2 However, the commitment to reform the SFS that is contained within the plan, and subsequent calls for reform, were put on hold in April 2021 in favour of ensuring compliance with the current SFS [7]. Further white papers published following the 2021 independent National Food Strategy, also aim to reduce diet-related health inequalities and halve childhood obesity by 2030 [19]. These include plans to improve the school food curriculum, improve training for school governors on the whole school approach to food, and test approaches for ensuring transparency of school food arrangements and compliance with SFS [20, 21].

## **4. Implementation and impact of current school food policy**

### **4.1. What we did**

4.1.1 The FUEL (Food provision, Culture and Environment in Secondary Schools) Study was undertaken between April 2019 and October 2022 with the aim of evaluating the implementation of national school food policy and its impact upon the dietary intakes of adolescents. We aimed to explore:

- 1) School food provision and compliance with the SFS
- 2) School food environments/culture and the food curriculum, via implementation of the SFP actions
- 3) The nutritional intake of school pupils, focusing on free sugar intake as the primary outcome
- 4) The costs of food provision, food curriculum delivery, and other measures to influence the school food culture and environment.

4.1.2 We recruited 36 state-funded secondary school academies in the Midlands to participate. The outcomes and methods of data collection are summarised below.

- SFS compliance was assessed by checking weekly school menus and a one-day researcher observation of food/drink provision against published checklist for schools. There were 32 standards in total, grouped in three categories relating (those applying to school lunch, n=16; foods provided in school other than at lunchtime, n=4; and across the whole school day, n=12).
- We undertook further grouping of standards to explore implementation across two categories relating to nutrition and health 1) Those relating to obesity or dental health (i.e. food/drinks that are energy-dense and/or high in fat or sugar; n=12 standards) and 2) Those related to achieving a wide range/variety of foods across the week (n=15 standards).

- SFP implementation was assessed through multiple data sources against published checklists for schools and governors (n=69 actions) and judged as high, medium or low level of implementation.
- To assess nutritional intake, we recruited a total of 2,453 pupils from three classes per school (year 7, year 9 and year 10) and asked them to record their dietary intake over 1-2 full days by self-report using an online 24-hour dietary recall (Intake24).
- We explored the relationship between school compliance with the SFS and pupil nutritional intake, adjusting for relevant school-level variables (e.g. % of pupils receiving Free School Meals, catering provision model, data collection year) and pupil-level variables (e.g. deprivation level of home postcode, free school meal status, ethnicity, sex etc.).
- We also compared SFS-mandated and non-mandated schools to explore the cost-effectiveness of SFS policy.
- We visited four case study schools to collect more in-depth qualitative data on the way in which the SFS, SFP and local school policy or initiatives were introduced, embedded and sustained in the schools. We carried out interviews with relevant staff/governors (n=21 in total) and focus groups with pupils from years 7, 9 and 10 (n=137 in total).

## 4.2. What we found

### 4.2.1. Implementation and impact of school food policy

1. **Lunchtime:** Students could get a nutritious lunchtime meal which included fruits and vegetables: on average, schools complied with 81% of the standards that apply to lunchtime i.e. 13 out of 16 standards.
2. **Foods/drinks high in fat, sugar or salt (HFSS):** Many schools were frequently serving HFSS foods/drinks (e.g. cakes, pastries, sugary drinks and fried foods) during the school day, especially at breakfast and break times. Of the 12 standards that relate to HFSS food/drinks, schools were typically compliant with 28% of these (i.e. 3 out of 12 standards). Non-compliance with these standards was due to:
  - Serving too many starchy foods cooked in fat/oil e.g. chips, wedges (all schools)
  - Serving too many deep-fried, batter-coated, or breadcrumb-coated foods e.g. fried chicken, breaded fish (32 out of 36 schools)
  - Serving cakes and biscuits at breaktime (30 out of 36 schools).
  - Having confectionery/chocolate available (34 out of 36 schools)
  - Providing non-compliant drinks e.g. sugar-sweetened drinks, flavoured water or large servings of fruit juice (31 out of 36 schools).
3. **Oversight:** Monitoring of school food and SFS compliance is a statutory responsibility of the governing body and trustees. However, in many schools, leaders and governors did not see this as a main part of their role. Only 6 schools in our sample reported monitoring of SFS compliance.

4. **School food policies:** Both students and school staff spoke about students bringing in foods and drinks from outside of school. These were often HFSS foods/drinks. Only 12 schools reported having a policy on foods and drinks brought into school.
5. **Impact on dietary intakes:** Level of school compliance with the SFS was not related to improved dietary intakes in pupils.
6. **Cost-effectiveness:** While SFS-mandated schools reported lower costs of food provision, food delivery, and other measures to influence school food culture, as well as lower expenditure on catering, no meaningful differences in pupils' health-related quality of life between the two groups of schools were found, therefore we found no evidence of the cost-effectiveness of SFS.

#### **4.2.2. Experiences of young people and school/catering staff of school food**

1. **The eating experience:** Some students didn't enjoy the school eating experience and felt that canteens could be busy and stressful. Pupils felt rushed to buy their food in >70% of schools.
2. **Student engagement:** Only 10 out of 36 schools provided meaningful opportunities for student engagement on school food, meaning that schools do not always understand what students want from school food.
3. **Catering provision:** School catering teams sometimes found it difficult to balance SFS compliance with providing popular foods that appeal to students to ensure financial viability.
4. **Food education:** Schools were keen to provide education on food and tried to encourage healthy eating, but it was not always given much focus in the busy curriculum. Students in some schools thought that education on food and healthy eating was patchy and healthy eating messages were not consistent in school.

## **5. Achieving healthy food in secondary schools**

### **5.1. Our approach to developing recommendations**

5.1.1 The FUEL study identified a clear need to improve school food policy to support healthy nutrition in secondary school pupils. We carried out a follow-on study, the EPIC (Enhancing Policy In secondary sSchool food) Study from November 2022-February 2024, funded by the NIHR Policy Research Programme, with the aim of co-developing and prioritising recommendations for healthier school food policy in secondary schools through engagement with key stakeholders. This study was undertaken in two phases:

**5.1.2 Phase 1:** Workshops with 175 people from six different stakeholder groups related secondary school food to formulate potential recommendations to enhance policy. These groups comprised: 1) secondary school pupils; 2) parents/carers; 3) school senior leaders and teachers; 4) school catering

providers and managers; 5) Local Authority and multi-academy trust representatives; and 6) national third sector and charity organisations. Analysis of the data generated in these workshops identified 26 key action areas, each with multiple activities or examples, for improving secondary school food.

**5.1.3 Phase 2:** Prioritisation of recommendations for policy focus through engagement with a group of 11 expert stakeholders representing national and local groups/organisations with expertise/interest in school food policy. Through a structured prioritisation process, the group generated a ranked list of 10 priority action areas, from the original list of 26, for school food policy and its implementation in the secondary school context.

## **5.2. Prioritised actions**

5.2.1 Here we report on the prioritised action areas, providing an evidence-informed starting point for policy makers to take action to effect positive changes to secondary school food.

### **1. Action for national and local government:**

- a. Review/ increase funding for school food provision** (ranked 1): Ringfence school food budgets; reform the Free School Meals programme and funding (e.g. universal/extended eligibility); and introduce further schemes to reduce food insecurity in students e.g. breakfast.
- b. National government to provide joined-up leadership on school food** (ranked 2): National government to work together, champion school food, and develop a national strategy and programme to improve school food, including improved monitoring and guidance for schools.

### **2. Action for school leaders and governors:**

- a. Increase student engagement on school food** (ranked 3): Provide a range of opportunities for engagement with students on school food, ensuring meaningful feedback mechanisms are in place and involving them in innovative ways, including engagement with caterers.
- b. Support for senior leadership and governors on school food** (ranked 4): Training and professional support and resources for secondary school Senior Leadership Teams and governors on school food/procurement and SFS compliance (delivered via national/local government or Ofsted).
- c. School food policies and rules** (ranked joint 6): Dedicated policies and rules to encourage healthy eating and restrict consumption of unhealthy foods; and whole school food policies and food champions.
- d. Monitoring of SFS compliance** (ranked joint 6): Local/national systems for monitoring (including outside of lunch), driving continuous improvement across all schools. [A SFS pilot monitoring scheme](#), led by the Food Standards Agency, is already underway [20] and may provide valuable learning in relation to this action area.

### **3. Action for school catering:**

- a. Adapt the food offer to increase quality and meet students' needs** (ranked 5): Adapt food provision to incorporate healthier and more sustainable foods; increase choice and cultural diversity; and meet students' needs and preferences relating to attractiveness, value for money and hygiene of foods.
- b. Catering staff investment, training and skills** (ranked 8): Investment in catering staff and their training; recognition of school catering as a career to enable better recruitment and retention of staff; and opportunities to inspire.
- c. Changing food service arrangements to promote healthy food uptake** (ranked 10): Design food service arrangements to minimise queuing, allow flexible payment and dining options, and incorporate attractive and varied outlet types which prompt healthy and nutritious choices.

### **4. Action to address the wider food system and environment** (ranked 9): Including i) national/local government and communities to take action to address the local food environment surrounding schools; ii) support/protection for school food supply chains; and iii) action to address the wider food system and culture.

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