



Commentary

School meals in the UK: ultra-processed, unequal and inadequate

Recent research paints an alarming picture of the school food system in the UK. This commentary discusses the issues that undermine healthy school meals and considers the actions required to ensure the school food system can meet the challenges ahead.

Food security is at a crisis point

Pressures on global food supplies have resulted in inflation and decreased living standards across many countries worldwide, with growing concern over food insecurity⁽¹⁾. This coincides with two other areas of concern. Globally, there is a trend for increasing consumption of ultra-processed foods (UPF), which are increasingly displacing minimally processed, whole foods in the diet⁽²⁾. Additionally, the worldwide prevalence of obesity has also been increasing, for a range of complex reasons including but not limited to diet. Furthermore, food insecurity, UPF consumption and weight gain are inextricably linked, whereby food insecurity is associated with increased UPF consumption⁽³⁾, which in turn is associated with weight gain⁽⁴⁾. This confluence of factors will likely contribute to further widening of health inequalities and exacerbate multiple areas of concern for health. All groups in society have been negatively impacted by these changes; however, households with low incomes or young children are most at risk of food insecurity⁽⁵⁾. Experiencing food insecurity, poor nutrition and obesity in early childhood is known to have negative physical, mental and social consequences⁽⁶⁾. Consequently, it is imperative that children, especially those from disadvantaged backgrounds, are shielded from food insecurity.

While these issues will affect many countries, they are of particular concern in the UK. Across Europe, children in the UK consume the highest levels of UPF⁽⁷⁾, have the eighth highest levels of obesity among 10- to 19-year-olds⁽⁸⁾ and in 2018 had the highest levels of food insecurity⁽⁹⁾. Furthermore, food price inflation is just one of the current stresses to the food system which include Brexit, stagnant wages and labour shortages^(10,11). As such, food insecurity was already on the rise in the UK and is due to increase further. The use of food banks has increased by 81 % since

2016–2017⁽¹²⁾, and food insecurity is estimated to have doubled from 7.6 % before March 2020 to 15.5 % in April 2022⁽¹³⁾, reflecting changes associated with the COVID-19 pandemic. Food insecurity is heading to a crisis point, with invariably serious consequences for the diet and health of the nation.

Are school meal programmes an effective policy for improving diets and reducing food insecurity?

There is a well-established view that schools are a potentially effective area for equitably intervening in children's diets⁽¹⁴⁾. They have a wide population reach, and children spend about 40 % of their time and consume 30 % of their diets at school^(15,16). Furthermore, from a policy perspective, school food is easier to regulate than food that children bring from home (packed lunches). Indeed, evidence has shown that school meals can improve children's diets⁽¹⁴⁾. Research from the past 10–15 years has shown that the introduction of the School Food Standards improved dietary quality⁽¹⁷⁾ and that school meals are consistently preferable compared with packed lunches^(18,19). Furthermore, evaluations of the universal free school meal scheme showed that a large uptake of school meals did impact children's dietary intake, reduce inequalities and improve children's weight^(20,21). School meals also have benefits for behaviour, attention and educational attainment at school⁽²²⁾. Consequently, this evidence demonstrates that there is potential for the school meals programme to substantially improve children's diets and address inequalities.

Indeed, providing food at school is the UK Government's main nutrition assistance for school-aged children in the UK. The Education Act 1944 stipulated that Local Authorities must provide school meals to children who want them⁽²³⁾. However, as this is now a devolved policy, there is variation in who pays for school meals. For most schools across the UK, a means-tested system is in place whereby school meals are free for children whose families access benefits (< £7400/year) and sold low cost to the remainder (about £2.40/meal in 2022⁽²⁴⁾). However, in 2014, a universal scheme was introduced in



England and Scotland, providing school meals to all young children (4–7 years) regardless of income. This has now been expanded in Scotland and introduced in Wales^(25,26). The universal scheme aimed to save families money, improve learning and improve children's diets⁽²⁷⁾. However, critics of the universal scheme state that a targeted policy for a wider age range of low-income children would be a better use of finite public finances⁽²⁸⁾. The content of school meals is governed by mandatory School Food Standards, set by each nation, yet monitoring of compliance across the UK ranges and is not monitored in England^(16,23).

An updated picture of school meals in the UK

It is increasingly evident that the school meals programme is failing to meet its potential and protect children from poor nutrition.

First, the means-tested eligibility criteria for a free school meal is very low, meaning one in three children who live in poverty, and over 25 % of children with very low food security are not eligible for a free school meal^(29,30). Low-income children who are ineligible for the means-tested scheme and too old for the universal scheme are more likely to take a packed lunch, as the cost of paying for school meals is too high⁽³¹⁾.

Second, research has revealed that the content of school meals is often substandard. A report by the Food Foundation highlights that only 25 % of schools in England were estimated to be committed to meeting the School Food Standards⁽³²⁾, data on the remaining 75 % of schools is lacking. Indeed, recent evidence has for the first time described the level of UPF in school food in the UK⁽³³⁾. In a nationally representative sample of UK schoolchildren, it was found that 64 % of the calories consumed in school meals were UPF. Furthermore, a proportion of school meals were estimated to not be meeting recommendations on food groups such as 'Sweet Snacks' (38 %) and nutrients such as Fe (93 %) and Ca (72 %)⁽³⁴⁾.

Third, there are inequalities in the quality of school meals between low- and high-income children. Socio-economic inequalities were observed in children's dietary intake at secondary schools, with the lowest income children most likely to consume the highest levels of UPF at school⁽³³⁾. This suggests that currently, the school food system is not protecting the most vulnerable from food insecurity and dietary inequalities.

Challenges to the school food system

There are many challenges facing the school food system in the UK, which may explain why it is currently deficient.

First, the funding for free school meals has not kept in line with inflation, rising 5 % between 2014 and 2022⁽³⁵⁾, an issue that is further exacerbated by higher inflation and Brexit^(36,37). As a consequence, schools are increasingly required to cover the deficit from their wider educational budgets⁽²⁷⁾. As healthy food costs more than less healthy food⁽³⁸⁾, it will become increasingly unaffordable for schools to offer healthy meals. Indeed, school caterers have expressed concern over supplying healthy food within their current contracts⁽³⁷⁾.

Second, the combined effect of the pandemic, rising inflation and a recession have caused increased childhood poverty. Therefore, the cost of providing free school meals to low-income children is increasing⁽³⁹⁾.

Third, across the UK the monitoring of school food quality varies, with no systematic monitoring in England^(16,23). Therefore, schools may not be incentivised to abide by the food standards in this challenging fiscal environment.

Fourth, the quality of school food varies greatly across the UK⁽⁴⁰⁾. While there are examples of schools serving healthy and appealing foods, there are likewise examples of the converse⁽⁴¹⁾. This is in part due to the complex delivery system, which is a mix of in-house, local authority and outsourced private caterers⁽⁴²⁾. A postcode lottery is created whereby the quality of a school's food can be more dependent on factors such as the school's leadership than central governance.

Optimising the school food system

There is a need for urgent and profound changes to address the challenges that face the school food system. Several policy options have been proposed.

Monitoring

The UK Government's 'Levelling-up' white paper⁽⁴³⁾ announced a pilot for 'assuring and supporting compliance with school food standards' to begin in September 2022. This involves schools stating their commitment to a healthy school environment online and a consultation with Ofsted, the school reviewing body, on monitoring school food quality. If this were implemented, it may ensure a school's efforts towards a healthy school environment are recognised, transparent and accountable.

Procurement

Additionally, the UK Government announced plans to help schools with procuring healthier foods⁽⁴⁴⁾. As early as 2006, it was recognised that procurement powers may be underutilised in the UK⁽⁴⁵⁾. Improving the way that schools buy food could help to make healthier foods more affordable and accessible^(30,40). Yet, the current guidance is outdated. Neither the school food standards nor the current



procurement guidelines limit the amount of UPF which can be served. Furthermore, little guidance is given regarding the environmental sustainability of school meals. Examples of best practice in this area include Brazil, who mandated that 75 % of food in their state-funded school meals programme should be minimally processed and have seen positive impacts on dietary intake⁽⁴⁶⁾. Similarly in the UK, the Food for Life certification scheme helps schools to procure and serve minimally processed, locally sourced and sustainable food⁽⁴⁰⁾. Yet more work is needed to understand how procurement guidance can be used to maximise the dual benefits for health and the environment.

Improved funding

It must, however, be recognised that monitoring or procurement policies alone will be insufficient. Without increased funding, schools will not be able to account for rising food costs. A report on school food in the UK noted that a 'virtuous cycle' would occur if the school food environment was improved⁽⁴²⁾. Healthier, more appealing food would encourage better uptake, and then greater revenue and economies of scales would aid schools in providing healthy food at low cost. The first step in this cycle is improving the food served in schools, which will inevitably require initial investment and support from government. Studies have shown that school meal programmes are a good return on investment through long-term economic and health benefits⁽⁴⁷⁾. As the government already invests in school meals, addressing the inefficiencies in the system would ensure better value for money on this expenditure.

Wider free school meal eligibility

Action to extend the eligibility to free school meals is essential. The Scottish and Welsh Governments have committed to extending the universal free school meal scheme to all primary schoolchildren (ages 4–11 years)^(25,26). However, this is a costly policy option. For this reason, the National Food Strategy recommended extending the means-tested free school meal eligibility to all children with an income of £20 000/year or less to ensure more children who experience poverty and severe food insecurity have access to a free school meal⁽³⁰⁾. While the UK Government has so far not acted on this recommendation, it has said the issue remains 'under review'⁽⁴⁸⁾.

The importance of addressing future inequities

School meals are important for all children, but they are vital for low-income children for whom it may be the only substantial meal they have in the day. Unless action is taken now, the compounding impact of a prolonged economic crisis, rising food prices and stagnant funding will continue to exacerbate food insecurity and dietary inequalities.

Ensuring that the school food system is efficient, effective and accessible to all should be a key government strategy. While there is no silver bullet, we have proposed four policies which could improve the food system, of which addressing school meals funding is an essential component. As a publicly funded good, a high standard of school meals should be both expected and demanded. By maximising and improving the use of current infrastructure and policies, the Government can improve the school food system and ensure that every child in the UK has access to a healthy low-cost meal at school.

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