

## HEALTH OF THE NEXT GENERATION

### Good Food for Children



# HEALTH OF THE NEXT GENERATION: GOOD FOOD FOR CHILDREN

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# EXECUTIVE SUMMARY

## Background and international policy context

Food is fundamental to human health and sits at the base of Maslow's hierarchy of needs. Healthy eating in childhood is vital for development and good health and well-being throughout life. It also sets children up for a lifetime of eating healthily, as habits and tastes formed in children can persist throughout life. Children must be well nourished to learn and maximise educational opportunities; put another way, what children eat impacts their life chances.

Children and adolescents in the UK typically have suboptimal diets, and children from lower socio-economic groups are more likely to consume diets that meet fewer UK dietary recommendations. Obesity rates in children are growing faster in children who live in areas with higher deprivation, which now have more than double the rate of obesity at the time of reception and Year 6 compared with children living in areas with low levels of deprivation.

Food poverty or 'household food insecurity' is when a household cannot or is unsure if they can obtain enough food in socially acceptable ways. Households with children are at increased risk of household food insecurity; the most recent Food Foundation survey showed that the prevalence of food insecurity was 24.4% in households with children and 17.7% in households without. Food insecurity has negative consequences for child nutrition, development, physical and mental health, and social consequences such as educational attainment, all of which can affect lifelong health, well-being, and opportunity.

As enshrined in the UN Convention on Human Rights, all children have a right to the best possible health, nutritious food and education. Further, the UK is a signatory committed to leading on the Sustainable Development Goals and the UN Convention on the Rights of the Child. Improving children's diet in school and through increased fruit and vegetable intake is an opportunity to advance our commitment to these international agreements by improving our children's health and life chances.

Adopting robust measures to ensure nutritious and accessible food for children would align with the UNCRC and the UK's commitment to this historic international agreement. As such, the Government should incorporate aims and objectives for improving children's access to nutritious foods within the UK SDG strategy. In addition, all legislation regarding children and food should be reviewed and amended to ensure alignment with the principles and key objectives of the UN Convention on the Rights of the Child.

This paper examines three interventions aimed at supporting children to eat healthily and achieve their potential in school, as well as to relieve the burden and consequences of food insecurity for at-risk children: the Free School Meals programme, School Breakfast Clubs, and the Healthy Start voucher scheme. The Free School Meal and National Breakfast Club programmes described are in England. The Healthy Start scheme runs in England, Northern Ireland and Wales and there is an equivalent scheme in Scotland. The compiled evidence and recommendations are aimed at UK policy makers.

## Free School Meal Programme (England)

In England, schools must provide eligible children with free school meals (FSM). Children in Reception, Year 1, and Year 2 (ages 4-7) receive universal FSM. Children in Year 3 and beyond are eligible if their parents receive certain benefits; for families receiving Universal Credit, there is a limit of £7,400 annual income (after tax and exclusive of benefits).

- The most substantial evidence for improving children's diet, health and education was found for universal provision (rather than extending access), largely due to a positive impact on uptake.
- There is robust evidence that universal FSMs can improve students' overall dietary quality and reduce the probability of children developing overweight or obesity.
- Universal FSMs are demonstrated to increase academic performance.
- The dietary, health and education benefits of universal FSM appear to be greatest for low-income children, with evidence of reduced socioeconomic inequality over the life course.
- Economic analysis suggests expanding FSM provision in England would generate a positive return on investment ranging from £1.38 to £1.71 per £1 invested. The indirect Gross Value Added (GVA) benefit associated with universal FSM provision is estimated at £58.2 billion, reflecting increased activity in the wider economy from local employment and spending effects.

### Recommendations - FSM

1. Adopt universal school meal provision for all primary and secondary school children to improve the next generation's diet, health, and educational attainment. If a stepped approach would be necessary, we recommend introducing universal provision of school meals to primary school children and then expanding the programme to secondary school children.
2. Implement sufficient monitoring and enforcement to ensure all food provided in schools meets the School Food Standards so the full benefits of a school meal are realised.
3. While there is good evidence of benefits to children from universal school lunch provision, a poorly administered programme could be costly and ineffective. Therefore, any new programme should be accompanied by a full evaluation of the impact on health, education, and socioeconomic inequality across a child's lifetime.
4. Before enacting universal school lunch provision, enable auto-enrolment process for Free School Meals to ensure eligible children receive what they are entitled to, and schools receive the pupil premium payments they need to support children from disadvantaged households.

## National School Breakfast Programme (NSBP) (England)

The National School Breakfast Programme (NSBP) provides school breakfast clubs for 2,700 primary, secondary, and special schools or alternative provisions in disadvantaged areas. School Breakfast Clubs offer breakfast to all pupils in an eligible school on school grounds before lessons begin, at no cost to them or their parents. The Department of Education funds the programme; participating schools receive a 75% subsidy for the food and delivery costs until July 2024. Schools contribute 25% of costs.

Eating breakfast is strongly associated with positive outcomes in children, including better health and educational attainment. Children from more deprived backgrounds are less likely to eat a nutritious breakfast or to eat breakfast at all.

The evidence base for NSBP's impact is limited, but the following key points were found in this review:

- The strongest evidence shows an association of the programme with reduced breakfast skipping in children living in more deprived communities and a reduction in the number of days skipped without permission.
- Qualitative research shows stakeholders report positive impacts on health and nutrition, educational attainment, school social relationships, classroom behaviour and the wider family (for example, breakfast at school reduces the burden on parents).
- Evidence related to educational attainment, health, development, home life, and classroom environment is limited and equivocal.
- The impact on the nutritional value of children's diets is mixed, which may be connected to the nutritional content of breakfast foods provided.
- Economic evaluation of the financial benefit of these programmes finds for every £1 spent on school breakfast programmes, over £4 of benefits can be returned over a lifetime.

### Recommendations – National School Breakfast Programme

5. Long-term funding for the NSBP should be decided well before the current programme's end date of July 2024 to allow schools and families to plan long-term and remove anxiety for families regarding future planning.
6. Monitor and enforce school food standards within the NSBP to ensure good nutritional quality and maximise the programme's benefit.
7. Expand the NSBP so that all schools meeting the Department of Education's criteria participate, ensuring the programme has the most impact.

### Healthy Start vouchers/card (Northern Ireland, England, Wales)

The Healthy Start scheme provides money towards healthy food and access to free vitamins during pregnancy and early childhood for eligible families in Northern Ireland, England, and Wales. Families are eligible for Healthy Start if they receive income-based benefits. Uptake of the scheme has been on a downward trend in recent years; only 64.9% of eligible families accessed the scheme in May 2023. Uptake is influenced by awareness of the scheme, the application process, language barriers, and potential stigma.

- Good evidence from England demonstrates that families participating in the Healthy Start scheme purchased more fruit and vegetables than they would have otherwise.
- Evidence from Scotland, the United States, France, and Spain shows that voucher schemes increase the quality and quantity of healthy foods purchased by those who receive them.
- Research on the programme's cost-effectiveness is limited; one cost-benefit analysis demonstrated increasing the value of the voucher to cover the recommended 5-a-day portions of fruit and vegetable or higher would have a positive benefit in terms of reduced NHS costs (every £1 spent would result in saving of £1.70 to £6.50).

### Recommendations – Healthy Start vouchers/card

8. Remove the variance of value and purchasing power of Healthy Start vouchers to provide consistency for parents by extending the £8.50 weekly value to eligible children until age five and increasing the value annually in line with inflation.

9. Extend eligibility to all children living in households receiving Universal Credit to provide additional fruit and veg consumption for children most at risk of eating below the recommended 5-a-day minimum.
10. Increase uptake by raising public awareness and ensuring the application process is accessible and straightforward; consider auto-enrolment or an opt-out process to increase uptake.
11. Commission further research: particularly looking at the cost-effectiveness of a universal programme and increasing the monetary value.
12. Make Healthy Start vouchers permanently available to all children from households with no recourse to public funds, including expansion to include all children seeking asylum in a simple and accessible way that doesn't impact asylum claims.

## All Recommendations

### Recommendations – Free School Meals

1. Adopt universal school meal provision for all primary and secondary school children to improve the next generation's diet, health, and educational attainment. If a stepped approach would be necessary, we recommend introducing universal provision of school meals to primary school children and then expanding the programme to secondary school children.
2. Implement sufficient monitoring and enforcement to ensure all food provided in schools meets the School Food Standards so the full benefits of a school meal are realised.
3. Any new programme should be accompanied by a full evaluation of the impact on health, education, and socioeconomic inequality across a child's lifetime.
4. Before enacting universal school lunch provision, enable auto-enrolment process for Free School Meals to ensure eligible children receive what they are entitled to, and schools receive the pupil premium payments they need to support children from disadvantaged households.

### Recommendations – National School Breakfast Programme

5. Long-term funding for the National School Breakfast Programme should be decided ahead of the current end date of July 2024 to allow schools and families to plan long-term and remove anxiety for families regarding future planning.
6. Monitor and enforce school food standards within the School Breakfast Programme to ensure good nutritional quality and maximise the programme's benefit.
7. Expand the NSBP so that all schools meeting the Department of Education's criteria participate, ensuring the programme has the most impact.

### Recommendations – Healthy Start vouchers/card

8. Remove the variance of value and purchasing power of Healthy Start vouchers to provide consistency for parents by extending the £8.50 weekly value to eligible children until age five and increasing the value annually in line with inflation.
9. Extend eligibility to all children living in households receiving Universal Credit to provide additional fruit and veg consumption for children most at risk of eating below the recommended 5-a-day minimum.
10. Increase uptake by raising public awareness and ensuring the application process is accessible and straightforward; consider auto-enrolment or an opt-out process to increase uptake.



11. Commission further research: particularly looking at the cost-effectiveness of a universal programme and increasing the monetary value.
12. Make Healthy Start vouchers permanently available to all children from households with no recourse to public funds, including expansion to include all children seeking asylum in a simple and accessible way that doesn't impact asylum claims.

# 1 Introduction

## 1.1 Importance of nutrition in childhood

Food is fundamental to human health and sits at the base of Maslow's hierarchy of needs. Healthy eating in childhood is vital for development and good health and well-being throughout life <sup>1</sup>. It also sets children up for a lifetime of eating healthily, as habits and tastes formed in childhood can persist throughout life. Children need to be well nourished to learn and make the most of educational opportunities; what children eat affects their overall life chances.

Children and adolescents in the UK typically have suboptimal diets, with high intakes of free sugars and saturated fat and low intakes of fruit and vegetables, fibre, and oily fish <sup>2</sup>. Children from lower socio-economic groups are likelier to consume diets that meet fewer dietary UK recommendations,

Overweight and obesity prevalence is high across the UK population, with one in three children leaving primary school either overweight or obese. However, there are inequalities across socio-economic status. These inequalities are growing, as rates of primary school children with obesity are increasing at a higher rate in communities with high levels of deprivation than those with low levels <sup>3</sup>. Other measures of socio-economic status (parental education, income, social class) also consistently show associations with obesity <sup>4</sup>.

Longitudinal data from the UK Millennium Cohort Study demonstrate that inequalities in obesity are present at age 5 and widen further by age 17 <sup>4</sup>.

More broadly, investment in children's health and well-being ensures better outcomes for the entire lifespan and may reduce the burden on health and welfare systems, since a significant number of avoidable physical and socio-psychological problems in adult life have their origins in infancy and childhood <sup>5</sup>.

## 1.2 Food insecurity in the UK

### 1.2.1 Overview

Food poverty or 'household food insecurity' is when a household cannot or is unsure if they can obtain enough food in socially acceptable ways <sup>6,7</sup>. Household food insecurity is a challenge in the UK, which has gained extensive attention in recent years for many of the wrong reasons. The evidence for household food insecurity, even the prevalence of this issue in the UK, was lacking due to no consistent annual measurement until 2019, when it was introduced to the Family Resources Survey <sup>7</sup>. The Family Resources Survey asks the person in the household who is best placed to answer about food shopping and preparation whether, in the last 30 days, they have been concerned about:

- (i) food running out before they had enough money to buy more
- (ii) the food they have bought not lasting, and not having money to buy more,  
or
- (iii) not being able to afford balanced meals.

If survey participants say that all three statements are never true, they will not be asked further questions on food security. If they answer that any statements are sometimes or

often true, they are asked further questions and classified into four groups. The broad structure and sequences of the questions are the same as those used internationally.

Aside from lower-income households, those with selected characteristics are more likely to experience food insecurity in the UK, many of which relate to earning capacity. Households with children, people with minority ethnicity and those where someone has a known disability, poorer mental health, or lower educational attainment are at a higher risk<sup>8,9</sup>.

The association of having children in a household with food security is considerable. The most recent Food Foundation survey (June 2023, n=6,000 adults) showed the prevalence of food insecurity in the United Kingdom was 23.4% in households with children and 14.8% in households without; 21% of all households with children reported experiencing food insecurity<sup>10</sup>. This underscores the importance of supporting households with children who are at greater risk of food insecurity before considering the negative impacts food insecurity has on children.

Other structural barriers to food security include appropriate local employment, adequate childcare (allowing parents to work), public transport availability, and digital connectivity<sup>9</sup>. Within the home, barriers to food security include a lack of food storage options or cooking facilities to prepare less expensive meals and batch cooking. Further challenges include what is termed the poverty premium, where lower-income households pay more for necessities such as energy due to having prepayment meters, food because they can only shop at small, more expensive stores, and services because they need to spread the cost across monthly payments rather than one annual bill<sup>11</sup>.

Children living in poverty are more likely to experience food insecurity: approximately 12% of all UK children in 2021/22 lived with food insecurity, but this rises to 21% of children living in households with relative poverty<sup>6</sup>. Nearly 30% of children were living in poverty in the UK in 2021/22, or nine children out of a classroom of thirty<sup>12</sup>.

### 1.2.2 Impacts of food insecurity

There is growing evidence of the negative health impacts of food insecurity for both children and adults, starting from the direct impact on diet quality<sup>13</sup> and the indirect impact on diet-related health, such as weight status, especially in women<sup>14,15</sup>. Food insecurity is associated with poor mental health: a recent systematic review demonstrated a significant association between household food insecurity and stress or depression in adults<sup>16</sup>.

Children and adolescents living in households with food insecurity have been found to have lower diet quality<sup>17</sup>, health-related quality of life<sup>18</sup>, reduced early childhood development including reduced math and vocabulary skills<sup>19</sup>, an increased risk of attention deficit hyperactivity disorder (ADHD) and other behavioural, academic and emotional problems starting as early as infancy<sup>20,21</sup>. Links between obesity and food insecurity in children is unclear; some groups of children may be more at risk than others. Some evidence suggests that the number of food insecure episodes is a mitigating factor where a greater number is associated with a higher likelihood of becoming overweight or obese<sup>22</sup>.

### 1.2.3 Responses to food insecurity

Food aid such as food banks are intended to be a short-term solution, many providing 3-5 days of food to those referred to the service. However, the entrenchment of food aid – food banks, pantries, community fridges – into the food environment is an indefinite reality for a

growing number of households unable to meet their needs through a weekly shop in the local store, even while being employed or with the help of welfare benefits<sup>23</sup>.

Food aid depends on surplus food redistribution, which is reducing as companies work to reduce food waste and households have less to give to charity. Food aid is often processed food, which allows it to be stored, and the quality of fresh produce is variable; the diet quality of people accessing food aid is lower than the general population<sup>24</sup>. The intended result of addressing food insecurity is enabling people to purchase food in usual stores by relieving pressure on household budgets, where food quantity and quality are maintained alongside autonomy and dignity.

As an alternative to traditional food aid, interventions that relieve some of the burden on household food budgets, such as food provision to children, can also address household food insecurity for households with children.

## 1.3 International policy context

Children and adolescents possess the inherent right to the highest attainable standards of health, adequate nutrition, and education, as articulated in Articles 25 and 26 of the Universal Declaration of Human Rights. This declaration, adopted by the United Nations General Assembly in 1948, outlines essential human rights meant for universal protection and continues to serve as the fundamental basis for all international human rights law<sup>25 26</sup>.

More recently, the United Kingdom has championed and is a key signatory to the Sustainable Development Goals and the UN Convention on the Rights of the Child, two major international agreements that commit policymakers to support the rights, welfare and well-being of children and adolescents.

### 1.3.1 Sustainable development goals

The Sustainable Development Goals (SDG) are the key objectives within the 2030 Agenda for Sustainable Development; they were agreed by global leaders in 2015 and represent a historic agreement to eradicate extreme poverty, fight inequality and injustice and leave no one behind. The UK was at the forefront of delivering the SDG negotiations and has committed to being at the forefront of delivering them.

Several SDGs related directly to food, health, and education and would be well supported by improving the quality and availability of nutritious food to children in the UK. These include:

- Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- Goal 3. Ensure healthy lives and promote well-being for all at all ages.
- Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- Goal 10. Reduce inequality within and among countries.

The government's SDG strategy outline does not include aims specific to children and food<sup>27</sup>. Adopting goals specific to improving the quality of and access to food for children would support the delivery of multiple SDGs and demonstrate our world leadership in tackling these critical and internationally agreed priorities.

### 1.3.2 UN Convention on the Rights of the Child

The UK is also a signatory to the UN Convention on the Rights of the Child (UNCRC), which came into force in the UK in 1992<sup>28</sup>. This international agreement sets out the fundamental rights of everyone under 18 and is the most widely ratified human rights treaty in history; even so, the UK's legislative and policy context for children's rights varies. Scotland and Wales recognise the need to address the wider determinants of child health via legislative action<sup>29</sup>. In Scotland, the 'Getting It Right For Every Child' approach is enshrined in law and in Wales, children's rights are embedded in law in The Wellbeing of Future Generations Act<sup>29</sup>. This variation in commitment and focus within the UK is also seen across Europe, where four countries, including the UK, don't have a child and adolescent health strategy<sup>30</sup>.

In England, domestic legislation supports a level of commitment to the UNCRC and some key aspects of safeguarding children's rights, including legislation which sets out the role of the Children's Commissioner for England. While we support these steps, more are needed. In June 2023, the Committee on the Rights of the Child published their observations about the four nations of the UK. It concluded that England (along with Northern Ireland and Wales) should increase efforts to incorporate the Convention fully into national legislation and to review all existing legislation to ensure alignment with the Convention<sup>31</sup>.

This alignment is required to support the Convention's broader principles and key objectives, including:

- **Article 3:** Describes the obligation to act in the child's best interests: in all actions concerning children, the child's best interests shall be a primary consideration. This includes ensuring that children are protected from the negative impacts of poverty and that measures are taken to alleviate its effects.
- **Article 24** of the UNCRC addresses the child's right to the highest attainable standard of health. This includes the right to nutritious food and clean drinking water.
- **Article 27** outlines UNCRC's broader principles, such as the right to life, survival, and development (Article 6), the right to an adequate standard of living for their physical, mental, spiritual, moral, and social development.

Adopting robust measures to ensure nutritious and accessible food for children would align with the UNCRC and the UK's commitment to this historic international agreement. Improving children's diet via food in school and increasing fruit and vegetable intake is an opportunity to improve child health and educational outcomes as part of a broad national policy focusing on childhood and adolescence, recognising children's rights. As such, the Government should incorporate aims and objectives for improving children's access to nutritious foods within the UK SDG strategy. In addition, all legislation regarding children and food should be reviewed and amended to ensure alignment with the principles and key objectives of the UN Convention on the Rights of the Child.

## 1.4 Aim and objectives

This evidence review paper examines three schemes that could improve childhood nutrition and relieve the burden on household food budgets in England to give evidence-informed policy recommendations. These schemes include school meals for those attending state-

funded schools, breakfast clubs before school or nursery, and Healthy Start vouchers for low-income households.

The objectives for this work were to summarise the academic literature which studies the impact of the three schemes on relevant outcomes and to reach a consensus on how these schemes could be used to improve childhood nutrition and reduce household food insecurity in the future.

## 2 Methods

The cost-of-living crisis focussed multiple health organisations on the related issues and their myriad impacts on health and well-being. One such area of impact was that of access to healthy food, particularly among our children. In response to this, a collaboration of multiple health and public health professional organisations formed, to provide a professional viewpoint on the issues of provision of healthy food to children across three main government-sponsored programmes in England: School Breakfast Clubs, the Healthy Start scheme, and the Free School Meals programme. These organisations agreed on a set of actions, and representatives from each formed the Advisory Group (AG) for this work.

On the behest of the AG, a Working Group (WG) was formed to review the available evidence and provide a balanced summary; this evidence review would then support policy recommendations and a joint manifesto. This WG comprised members and representatives from the Faculty of Public Health's Food Special Interest Group, the British Association for Child and Adolescent Public Health, and a senior public health registrar with childhood public health policy expertise.

Terms of reference outlined the process by which a rapid scoping review would be undertaken by three separate groups, one for each policy area; work to identify and synthesise evidence was undertaken by three separate teams within the working group. After initial group discussion to identify the scope and outline for the work, feedback from the AG was sought and included in the final project outline. Inclusion criteria were discussed and agreed by the WG and the AG, with the understanding that this would develop iteratively, and be limited by capacity and the timeframe allocated to the project. A full description of methods adopted by each team is found in Appendix A.

As this evidence review is limited in scope, certain areas were not considered in this paper that might otherwise have been, namely the Healthy Start Vitamins programme and the Holiday Activities and Food Programmes (HAF).

Where evidence was readily found within England (or England, Wales, and Northern Ireland in the case of Healthy Start vouchers), it was preferred due to its applicability to the programmes under review and related recommendations. Where reviewers found a lack of evidence within these populations, evidence from other countries was sought in order to obtain a view of the programme's potential for effectiveness, even when it has not been thoroughly researched within the UK.

After initial writing of draft sections, an introduction was written, and individual sections were integrated into a single paper. Recommendations were identified based on evidence provided, discussed within the WG and then approved through the AG.

## 3 Free School Meals (England)

### Key Points

- Universal provision was supported by the greatest evidence in terms of improving diet, health and education of a population, largely due to the positive impact on uptake.
- Recent evidence finds school meals in the UK are more nutritious than packed lunches.
- There is robust evidence that universal FSM provision can improve students' overall dietary quality and reduce the probability of children developing overweight or obesity.
- There is robust evidence that universal FSM increases academic performance and some evidence that it may increase school attendance.
- The dietary, health and education benefits of universal FSM appear to be greatest for low-income children with evidence of reduced socioeconomic inequality over the life course.
- Economic analysis suggests expanding FSM provision in England would generate a positive return on investment ranging from £1.38 to £1.71 per £1 invested; indirect Gross Value Added (GVA) benefit associated with universal FSM provision is estimated at £58.2 billion, reflecting increased activity in the wider economy from local employment and spending effects.

### 3.1 History and description (UK)

Since the early 1900s laws were enacted to allow local authorities to provide meals to primary school children who may otherwise come to school unfed. Nutritional content of food was recognised in later laws with nutritional guidelines, together with the requirement to provide school meals to all, set out in the 1940s. The legislation, requiring the provision of nutritional school meals to all, allowed local authorities to charge families for school meals whilst providing meals free to disadvantaged children. Over the decades political parties have tinkered with what became known as free school meals (FSM) policy. In 1980 the Education Act removed the requirement for LAs to provide school meals for all, requiring them only to provide meals for children from eligible families (linked to state-supplemented income) and abolished the minimum nutritional standards for school meals. Nutritional standards were introduced again 20 years later in 2001, with new nutritional standards introduced periodically throughout the 2000s culminating in revised School Food Standards in 2015, updated in 2021 (implemented through the Requirements for School Food Regulations 2014).<sup>1</sup>

In summary, under current legislation, schools are legally required to provide school meals to those entitled to free school meals (as outlined in the next section). Where they do provide food, they are required to comply with the standards for school food as outlined in the Requirements for School Food Regulations 2014.

It is interesting to note that if policy on free school meals were abolished there would be no legal requirement for schools to provide meals to children although the regulations would enable them to do so, if requested, and it were not unreasonable to provide. This illustrates the

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<sup>1</sup> [The Requirements for School Food Regulations 2014 \(legislation.gov.uk\)](https://www.legislation.gov.uk)



significant effect political decisions can have on the whole school food landscape and wider societal and cultural practices. It also highlights the great potential for politics to use the state/individual interaction, during the significant period of time that is 'the school years', to nourish future generations and to embed the nourishment of all children into the fabric of a country's culture and identity.

The fundamental political question about the state's role in nourishing children, to take the opportunity this presents for healthy development, equity and enhancing educational opportunity, should be informed by robust public health evidence. However, evidence informed policy on the nutritional content of food and access to meals in school, needs to be considered in the context of society's relationship with food in terms of; the content of food (processed high fat and high sugar food), the availability of food, the resilience of the food system, and the food industry as a commercial determinant of health. This review focuses on the evidence for free school meals in improving children's health and wellbeing to help inform debates in this broader context, to maximise schools' role in nourishing the next generation.

### 3.2 Current situation (UK) and international context

The four countries of the UK have different FSM policy, with Scotland and Wales moving towards universal provision of free school meals to all primary school children. There are no such plans, currently, for England or Northern Ireland.

Currently, in **England**, schools are required to provide free school meals, funded through the Dedicated Schools Grant, as follows:<sup>32</sup>

Universal FSMs are provided for all children in Reception, Year 1 and Year 2 (ages 4-7).

For children in Year 3 and beyond, means-tested FSMs are provided for children whose parents receive certain benefits (or who are on those benefits themselves):

- Income Support
- Income-based Jobseekers Allowance
- Income-related Employment and Support Allowance
- Support under Part VI of the Immigration and Asylum Act 1999
- The guaranteed element of State Pension Credit
- Child Tax Credit (provided they are not also entitled to Working Tax Credit and have an annual gross income of no more than £16,190)
- Working Tax Credit run-on – paid for 4 weeks after a person stops qualifying for Working Tax Credit
- Universal Credit – with household income of less than £7,400 a year (after tax and not including any benefits) from 1 April 2018, with transitional protections for existing claimants. *(Since April 2018, households receiving Universal Credit with annual net earnings of over £7,400 no longer qualify for free school meals.) Note: The Government has estimated that, once benefits income was considered, this threshold equated to an overall household income of between £18,000 and £24,000<sup>32</sup>.*

Free school meals may also be available to pre-school children and those in school sixth forms, sixth form colleges, and further education colleges.

More recently, all London boroughs have started providing meals for all primary school children and some for secondary school children up to age 16.

**Scotland:**

In Scotland Universal FSMs are available from Primary 1 to 5 (ages 5-10). The Scottish Government plans to offer free school meals to all primary pupils by the end of this parliamentary term, which is May 2026. Scotland also has a slightly higher income cap than England; families on universal credit must earn (net of tax) no more than £7,920 a year, compared with £7,400 in England.

**Wales:**

In Wales, means tested FSMs are offered on a similar basis to England, but the Welsh Government plans to roll out universal provision in primary schools by 2024.

**Northern Ireland:**

In Northern Ireland, means tested FSMs are offered on a similar basis to England but with a higher income cap: families claiming universal credit can earn up to £14,000 a year (net of tax) and still qualify for free school meals. Northern Ireland does not offer any universal school meal provision.

**International Context**

Globally, countries which currently provide universal FSMs and inception dates are:

- Finland 1943
- Sweden 1945
- Japan 1947 - universal and mandatory but not free (financial support for low-income families)
- Estonia 2002
- India 2008
- Brazil 2009
- South Korea 2011
- USA –Nationally for schools with >40% children eligible for the National School Lunch Programme (similar to FSM in UK) 2014
- USA - State-wide adoption of universal provision: California, Colorado, Illinois, Michigan, Minnesota, Maine, Massachusetts, New Mexico, Vermont 2020 -2023

## 3.3 Evidence review

### 3.3.1 Health

#### Summary

Overall, evidence from the UK and other OECD countries shows that providing universal free school meals can improve the quality of children's diets. Some studies report mixed results, suggesting that the nutritional content of school meals needs to improve. There is some evidence that universal free school meals can lead to reductions in childhood obesity and longer-term health outcomes. The positive impacts of free school meals on nutrition, health and obesity are consistently greater for children from lower socioeconomic backgrounds. There is some evidence from the UK that extending eligibility of free school meals to greater numbers of children from lower-income families does not lead to significantly increased

uptake among newly eligible pupils, suggesting there may be minimal impact on their diets and wider health.

### Impacts on uptake of school meals

There is consistent evidence from OECD countries that providing universal free school meals leads to increased school meal uptake, with the largest increase in participation among students who did not previously qualify for free or reduced-price meals<sup>33</sup>.

For example, a UK government report found that piloting universal infant FSM in three local authorities led to an approximately 30% increase in the number of children having school lunch at least once per week – with roughly 90% of students having school lunch at least once per week in participating schools, compared with around 60% in matched comparison areas<sup>34</sup>. This included increases in take-up by pupils who were not previously eligible for FSM and for pupils who were already eligible. A study on the impact of the Universal Infants Free School Meals (UIFSM) policy by Holford and Rabe (2020) also found that take-up increased for pupils not previously registered for FSM (from 30-35% in the eight years before the policy to 85% in the UIFSM); and for FSM-registered pupils (from about 84% to 87%).

There is less research on the impact of extending the provision of free school meals (falling short of universal provision) on their uptake by the newly eligible cohort. The same UK government report by Kitchen *et al.* (2013) piloted an extended free school meal offer for pupils whose families were on Working Tax Credit with an annual income not exceeding £16,040 in 2009-10. The study found that the extended entitlement did not significantly increase school meal take-up for secondary school pupils and, therefore, had little impact on children's diet and eating habits. The authors gathered qualitative evidence suggesting that the lack of uptake was due to the stigma attached to free school meals and/or because parents were unaware of their children's eligibility or were deterred by the application process<sup>34</sup>.

### Nutrition of school lunches and impact on health outcomes

Improving children's diets through providing nutritious free school meals could affect children's health outcomes in several ways, including through a direct impact on children's health and growth, such as positive impacts on their height and weight, and promoting their cognitive development and energy levels.

Evidence demonstrates that school meals are more nutritious in the UK than packed lunches. The evidence measuring improvements in diet from introducing free school meals is generally positive. However, some studies find little impact, suggesting school meal standards may require further improvement or more effective enforcement.

A large study covering over 50 schools in England found that school meals were healthier than packed lunches, with children eating school meals having a higher-quality diet during the school day<sup>35</sup>. Children who had a packed lunch consumed more snacks and sweetened drinks, while children who had a school meal ate more different types of vegetables and drank more water. On average, the children who had packed lunches had the equivalent of two extra teaspoons (10g) of sugar per day compared with those who had a school meal, representing about 10% extra sugar per day for an average child.

The nutrition gap between school meals and packed lunches has widened since the introduction of school meal nutrition standards in the 2000s, with less than 2% of packed lunches surveyed in England meeting the nutrition standards in 2016<sup>36 37</sup>. A study by Spence *et al.* (2013) found that the reintroduction of food and nutrient-based standards for children's school lunches in primary schools in England in 2006 had a positive impact on the nutritional content of school lunches and children's overall diets<sup>38</sup>.

Evidence regarding the outcomes associated with providing school lunches to children is mixed. A recent systematic review of evidence from OECD countries found that universal free school lunch provision can improve students' overall dietary quality when the lunches include healthy foods such as fruits, vegetables and whole grains<sup>33</sup>. Among 19 studies reviewed by Cohen *et al.* (2021) examining diet-related outcomes in OECD countries, 13 found that universal free school meal provision led to improved diet quality, and three found no association.

The UK government report on the UFSM pilot found a shift away from foods associated with packed lunches towards those associated with hot meals, leading to mixed results regarding nutrition<sup>34</sup>. For example, pupils were more likely to eat vegetables, chips, rice, and water but were less likely to eat whole pieces of fruit, crisps, and soft drinks. The extended entitlement FSM pilot had a minimal impact on the consumption of food and drink due to the limited effect on uptake, as discussed above<sup>34</sup>.

Parnham *et al.* (2022) examined a representative sample of children's diets before and after the introduction of UIFSM in England and Scotland. The study found no effect on the consumption of key food groups such as fruit and vegetables or on overall sugar intake, describing how puddings from school meals replaced sugary snacks and yoghurts from packed lunches<sup>39</sup>. However, the study did find some improvements in dietary quality, including reduced consumption of foods often found in packed lunches, such as crisps and some nutrients, including total fat and sodium. Benefits were greater for low-income children.

There is evidence that universal free school meals can reduce obesity and promote a healthy weight for children. A recent systematic review that examined the impact of UFSM on children's BMI in OECD countries found that studies either showed a reduced probability of developing overweight or obesity or no change in BMI. Higher quality studies were more likely to show reductions in BMI<sup>33</sup>. Reducing childhood obesity is important for long-term health because obese children and adolescents are around five times more likely to be obese in adulthood - and therefore at greater risk of obesity-related health issues such as diabetes - than those who were not obese<sup>40</sup>.

In England, a 2022 study examined the impacts of providing universal free school meals to primary school children in four local authorities, comparing them to local authorities that did not run UFSM schemes<sup>41</sup>. The study reviewed data across nine years and found that receiving UFSM reduced the prevalence of obesity by 9.3% in Reception children and 5.6% in Year 6 children. This resulted in a 1.3 and 1.4 percentage point reduction in obesity overall. The effects were greatest among children who received UFSM the longest, suggesting a cumulative effect of providing free meals over time. The impact of UFSM was also greatest when children were younger, indicating that the body weights of older children are harder to shift in the short term. Considering a two-year period, the UK government report on the FSM pilot found no significant changes in BMI during the pilot, in

either the universal or extended access pilot areas<sup>34</sup>. Together, these studies suggest there may be minimal short-term influence of UFSM on childhood BMI, but these effects may increase over time.

There is less research examining the much longer-term impact of free school meals due to a lack of longitudinal studies. This issue is examined by Nelson (2013), who suggests that the long-term health benefits of healthier eating in childhood, including through school feeding programmes, are likely to be substantially underestimated<sup>42</sup>. However, evidence from the evaluation of the introduction of universal free school meals in Swedish primary schools between 1959 and 1969 found that school lunch recipients had substantial long-term benefits: pupils exposed to the school lunch programme were taller, and males had better health at military enlistment<sup>43</sup>. Children from all households, except the richest, benefitted somewhat, but children from poorer backgrounds benefitted the most. Evidence from Norway also suggests that the positive impacts of UFSM on children's weight status are greater for children with lower socio-economic status<sup>44</sup>.

### 3.3.2 Education

#### Summary

Overall, there is evidence from OECD countries that universal free school meals are associated with improved educational development and achievement in primary and secondary school children. The evidence is less strong for its impact on reducing school absences. Universal FSM policy underpinned by strong nutritional standards was associated with improved test scores, progress, behaviour, and concentration ability. There was less evidence on the mechanisms of 'how' FSMs led to these improvements, other than improved productivity (as a result of better nutrition) and the social equalisation effect. The impact of Universal FSM on educational development and achievement was greater for disadvantaged children, highlighting the potential impact of this policy in reducing educational inequality.

#### Development and educational achievement

Free school meals may impact academic achievement directly via improved nutrition, and indirectly via increased attendance, both leading to increased capacity to learn<sup>45 46</sup>.

A recent systematic review by Cohen et al (2021) provides a summary of evidence from 47 studies in OECD countries that universal FSMs increase academic performance (measured as maths or reading test scores), particularly where strong nutritional guidelines underpin the policy. This highlights the importance of diet quality in academic performance<sup>33</sup>.

In the UK, Kitchen et al (2013) analysed the impact of Universal FSM and extended FSM (to children of families claiming working tax credit at a higher threshold of annual income), piloted in areas in England between 2009 and 2011. The results showed that Universal FSM increased the take up of FSM and educational attainment, particularly in the most disadvantaged pupils. Specifically, universal FSMs were associated with a 4-8 week greater progress (measured by standardised test scores for maths, reading, writing, speaking, and listening and science) in primary school children compared to similar school children in comparison areas. Progress was strongest in low-income families and those with low prior attainment, highlighting the potential for Universal FSMs in reducing educational inequalities. The authors evidence that universal provision was associated with greater

attainment (than the extended provision), although the mechanisms on how were unclear. Conversely, there was no difference in attainment in the extended FSM pilot, with insignificant take up in those entitled. As neither the extended nor universal provision led to reduced absences, the mechanism between FSM and better attainment is postulated to improve school productivity due to better nutrition and engagement of families (as the universal pilot included activities to engage families with food taster sessions and talks with parents). However, it could be that universal provision led to better outcomes because of the social equalisation effect (all pupils included) and resulting improvements to the learning environment as found in a study of Norwegian schools offering FSMs<sup>47</sup>, a mechanism which also is outlined in the 2013 School Food Plan in the UK<sup>48</sup>.

Evidence from South Korea shows that universal free school meals reduce student behaviour problems. (In South Korea, the policy changed from means-tested free school meals to universal FSM, providing the context for studying universal access's impact.) This is postulated via three mechanisms: reduced stigma, less hunger (therefore less hunger-induced aggression) and increased family disposable income<sup>49</sup>.

Analysis of a policy programme in Greece which provided Universal FSMs to all pupils in socioeconomically disadvantaged areas and educational activities to promote healthy nutrition found that school dropouts decreased and school performance, concentration and behaviour improved<sup>50</sup>.

Analysis of Swedish policy highlighted the benefits of universal FSM on education, with 9 years of exposure to FSM associated with an extra 0.3 years of schooling (an economic measure) and an increased likelihood of university attendance by 1.5%<sup>43</sup>. However, the programme did not affect cognitive test scores, with the authors concluding that the educational gains from nutrition were via human capital accumulation from better attention at school and raised energy levels.

In the US, FSMs are provided under the Community Eligibility Programme. This Programme provides FSMs to the whole district, where 40% of school pupils are from low-income families. Results on the impact of this programme are mixed. A longitudinal study of elementary children found that FSMs did not affect test scores other than in Hispanic children<sup>51</sup>. In other studies, the policy was found to improve test scores and readiness to learn with varying impacts on elementary and middle school pupils<sup>33</sup>.

A report by the Institute for Social and Economic Research in the UK on Universal infant FSMs in England found that children who took up the offer of a school meal had stronger educational performance at age 5 and 7 (measured as performance in national tests).

## Attendance

Free school meals may increase school attendance via two mechanisms; increasing motivation for children from low-income families to attend school to access food, and improving nutrition resulting in less illness and thereby improving attendance<sup>33</sup>.

A recent systematic review on the impact of universal free school meals in OECD countries concluded that there was mixed evidence that universal FSMs increased overall attendance, with some studies showing an association with increased attendance and some finding no association<sup>33</sup>. The authors highlight that the mixed evidence is likely to be because of short timeframes between accessing FSMs and measuring the impact on attendance. However,



the review found that FSM significantly increased attendance for those from low-income or food insecure families and this has important implications for reducing health inequalities.

Reviews from Sweden and the UK found no evidence of increased attendance as a result of FSMs <sup>3443</sup> However, a report by the Institute for Social and Economic Research (ISER) in the UK on Universal infant FSMs in England found that the policy resulted in less school absence (1.2 fewer days over the school year) in children from low-income backgrounds compared to those from higher income backgrounds. This was explained by less absence for illness.

Results from the US are mixed, with some studies showing FSMs reduce absence and others showing no effect or an effect in low income pupils only <sup>33</sup>. Evidence from a longitudinal study from the US Field 42 shows that FSMs increased the probability of children eating free school lunch by 9.3% and daily school attendance by 0.24%.

### Impact on classroom

Hungry children struggle to pay attention and behave which can disrupt classroom learning. Evidence from the UK highlights that Universal FSMs improved behaviour, readiness to learn, concentration and mealtime behaviour (Food Foundation report, 2022).

### 3.3.3 Inequalities

#### Summary

Evidence shows Universal FSMs can reduce health, education and socioeconomic inequality over the lifecourse. The mechanism for this is increased uptake, which improves nutrition and educational outcomes, more so in pupils from disadvantaged backgrounds, leading to better earnings over the life course and reduced socioeconomic inequalities in adulthood. There needs to be more evidence of the impact of FSMs on household costs and food insecurity. This review found no evidence that extended FSMs reduce inequalities because in the study that evaluated extended FSMs (to more low-income families) versus universal FSM, there was insufficient uptake.

### Health and education inequalities across the life course

Studies from the UK have highlighted the impact of universal FSM in reducing educational inequality <sup>34</sup> and socioeconomic inequalities in diet <sup>3944</sup>. Universal FSMs increased the uptake of meals, resulting in greater progress in test scores, more so for pupils from disadvantaged backgrounds. Furthermore, a more recent review of Universal FSMs in England (assessing the impact of universal infant free school meals on dietary quality) found a much greater impact of the policy on diets, in children from disadvantaged backgrounds due to much greater participation than the means-tested FSM policy.

Concerning the impact of Universal FSM on health inequalities, there is evidence from Norway that the policy had greater benefits on diet and healthy weight in pupils from low-income families <sup>44</sup>, which suggests the potential for UFSMs in reducing socioeconomic inequalities in overweight/obesity.

Evidence from a review of Swedish policy on the rollout of Universal FSMs between 1959 and 1969 in schools in Sweden <sup>43</sup> highlighted the potential effect of universal FSMs in

reducing socioeconomic inequality in adulthood, mediated by the effect of nutrition on health and education. The review found that pupils receiving FSM for their primary school years had a 3% higher lifetime income. The programme's effect was greater in pupils from more disadvantaged backgrounds (lifetime income increased by 6% for those in the bottom quintile of household income) and in those who received FSMs at a younger age.

### Impact on households and lifetime income

There are mixed results for the impact of FSM policy on households. A US study found no evidence for an effect on household food security<sup>51</sup>. However, in the UK, a report by ISER highlighted that the Universal Infant FSM programme in England resulted in a saving on food expenditure among households who were previously not eligible for FSM of approximately £20 per month<sup>52</sup>.

Looking across a child's lifetime, a review of Sweden's Universal FSM policy concluded that lifetime income for students who had access to UFSM averaged 3% higher than for students who attended schools without this policy. The positive impact was seen in all students, but the effect was stronger in pupils exposed at younger ages and from lower-income households, showing the potential to reduce socioeconomic inequalities in adulthood. This positive effect of Universal FSM on lifetime income was largely explained by health and education gains<sup>43</sup>.

### 3.3.4 Cost-effectiveness

#### Summary

Economic analysis suggests that expanding FSM provision would generate a positive return on investment: investing in free school meals has been projected to lead to savings in NHS and education budgets and generate economic growth. Direct economic benefits would be expected to arise through increased lifetime earnings and contributions due to improved educational attainment, employment, and productivity; NHS savings in treating obesity and other diet-related diseases such as diabetes; and savings in food costs for families, resulting in improved household food security. Wider indirect benefits are also projected through increased demand for food catering and increased spending in the local and wider economy.

#### Estimated costs of expanding FSM provision

Total spending during term time on free school meals is currently around £1.4bn a year in England. The Institute for Fiscal Studies (IFS) estimated that expanding eligibility for free school meals to all families receiving Universal Credit in England would cost an additional £950 million per year, with additional funding of £1.15bn for the devolved governments. To expand to all primary pupils in England (as planned in Scotland) would cost an additional £1bn, plus £1.175bn funding for the devolved nations. To expand to all pupils from Reception to Year 11 would cost £2.5bn per year in England, plus £2.975bn funding for the devolved nations<sup>53</sup>.



To put these costs into comparison, obesity currently costs the NHS over £6 billion annually, and the UK-wide NHS costs caused by overweight and obesity are expected to reach £9.7 billion by 2050, with wider costs to society projected to reach £49.9 billion per year<sup>54</sup>.

### Cost benefit analysis

A cost-benefit analysis conducted by PwC on behalf of Impact on Urban Health projected a strong positive return on investment for two scenarios to expand free school meal provision in England, looking at projected costs and benefits over 20 years from 2025 to 2045<sup>55</sup>. In the first scenario, free school meal provision was expanded to all state school pupils whose families received Universal Credit, and in the second scenario, FSM provision was expanded to all pupils in state-funded schools.

PwC estimated that expanding provision to all pupils in receipt of Universal Credit generated a total discounted core benefit of £8.9bn over 10 years, with a benefit-cost ratio of 1.38 - meaning that for every £1 invested, £1.38 would be generated in core benefits. For extending FSM provision to all state school pupils, the total discounted core benefit was £41.3bn over 10 years, with every £1 invested estimated to generate £1.71 in core benefits.

Core benefits included increased lifetime earnings and contributions, savings on food costs for families, cost savings to schools through reduced demand for catch-up programmes due to lower absenteeism, and NHS savings in treating childhood obesity. The analysis also anticipated additional indirect benefits of £16.2bn in Gross Value Added (GVA) from expanding FSM provision to all those receiving Universal Credit, and indirect benefits of £58.2bn in GVA from introducing universal free school meals. These indirect benefits include increased GVA from local employment and spending effects in the wider economy.

## 3.4 Recommendations

- Due to strong evidence demonstrating the benefits of universal school meal coverage and the evidence of lower impact and cost-effectiveness within a limited access programme, we recommend universal free school meal provision to all primary and secondary school children to improve the next generation's diet, health, and educational attainment. If a stepped approach would be necessary, we recommend introducing universal provision of free school meals to primary school children and then expanding the programme to secondary school children.
- Ensure sufficient monitoring and enforcement to ensure all food provided in schools meets the School Food Standards so the full benefits of a school meal are realised.
- To collect further evidence of the effectiveness of free school meals and improve understanding of the best ways to deliver them, any new programme should be accompanied by a full evaluation of the impact on health, education, and socioeconomic inequality across a child's lifetime.
- Before enacting universal school lunch provision, enable an auto-enrolment process for Free School Meals to ensure eligible children receive what they are entitled to, and schools receive the pupil premium payments they need to support children from disadvantaged households.

## 4 School Breakfast Clubs (England)

### Key Points

- *Eating breakfast is associated with better health and educational attainment in children.*
- *Eating breakfast is less common in children from more deprived backgrounds and those who do consume breakfast in these groups are less likely to have a nutritious breakfast.*
- *School breakfast programmes are associated with reduced breakfast skipping in children living in more deprived communities and a reduction in the number of days skipped without permission.*
- *Evidence related to educational attainment, health, development, home life, and classroom environment is not yet conclusive.*
- *In qualitative research, stakeholders involved in school breakfast clubs report a positive impact on health and nutrition, educational attainment, school social relationships, classroom behaviour and the wider family (for example, breakfast at school reduces the burden on parents).*
- *The impact on the nutritional value of children's diets was mixed, which may be connected to the nutritional content of breakfast foods provided.*
- *Economic evaluation of the financial benefit of these programmes finds for every £1 spent on school breakfast programmes, over £4 of benefits can be returned over a lifetime.*

### 4.1 What are school breakfast clubs?

School breakfast clubs are an initiative which offers breakfast to all pupils in a school at no cost to them or their parents, regardless of the children's level of deprivation. It is offered before lessons begin on school grounds. Several breakfast clubs are run in England.

The Department for Education funds the National School Breakfast Programme (NSBP, 2700 schools supported), which Family Action currently delivers. All participating schools will receive a 75% subsidy for the food and delivery costs of the breakfast club provision until the end of July 2024. Schools contribute 25% of costs<sup>56</sup>.

Other charitable foundations, including The Greggs Foundation (680 primary schools, 52,000 children supported) and Magic Breakfast (over 200,000 children and young people supported), also support school breakfast club programmes within England<sup>57 58</sup>.

### 4.2 School eligibility

Primary, secondary, special schools and alternative provision can apply for the NSBP. To be eligible for funding from the NSBP, schools must be based in disadvantaged areas and have 40% or more pupils in bands A-F of the income deprivation affecting children index<sup>59</sup>

The Greggs Foundation supports primary schools with 40% or more pupils eligible for free school meals<sup>57</sup>. Magic Breakfast supports schools with at least 35% of pupils recorded as eligible for free school meals<sup>58</sup>.

### 4.3 Types of food

Within the NSBP, schools can choose which food and drink they want to order. However, all food and drink offered through the programme must meet the school food standards<sup>60</sup>.

The Greggs Foundation provides fresh bread to the school and a grant to support start-up and ongoing costs, including food and drink<sup>57</sup>. Magic Breakfast provides food that complies with the government's mandatory School Food Standards and is low in sugar, salt and fat<sup>58</sup>.

## 4.4 Impacts of school breakfast clubs

### 4.4.1 Breakfast and educational attainment

Eight papers looked at the links between eating (or skipping) breakfast at home and educational attainment, with consistent evidence of a positive association between eating breakfast and higher educational attainment and cognition. However, it should be noted that some of these results may be driven by differences other than breakfast habits between individuals who do and do not eat breakfast.

Three of the eight studies found that regular breakfast consumption was linked to better performance on national tests. Regular consumption of breakfast, especially consumption of healthy breakfast items, was associated with better performance on SATs in a study of 111 Welsh primary schools<sup>61</sup>, and a lower likelihood of low attainment in Key Stage 3 and Key Stage 4 grades for Maths and English in 2677 English adolescents<sup>62</sup>. It was also linked to higher GCSE point scores (by 10 points) and a greater likelihood of a high Mathematics grade in 294 English adolescents<sup>63</sup>. However, in the latter study, it's impossible to tell if the breakfast habits reflected those during examinations or preparation for GCSEs.

In two studies of 108 UK boarding school pupils from the 1980s, funded by Kellogg's, consumption of breakfast was linked to better performance on a visual search test in one study, but not in the second, which found no link between breakfast and performance on multiple cognitive tests<sup>64</sup>. Regular breakfast consumption was also unrelated to the results of a cognitive abilities test in a third study, although the study was not of high-quality<sup>65</sup>.

In contrast, three industry-sponsored studies found improved memory and attention associated with breakfast consumption. One study of 29 English schoolchildren found greater significant declines in attention and memory over a school morning for those who did not have breakfast than those who had cereal. A glucose drink for breakfast alone had a similar impact to not having breakfast<sup>66</sup>. Another study found that breakfast consumption improved performance in maths and memory tests among 40 adolescents in England, but there was no change in the processing of rapid visual information<sup>67</sup>. The final study found that consuming breakfast positively affected cognition, reaction time and attention in 234 11-13-year-olds at a UK secondary school. The effect was greatest for those worse at the cognitive tasks at baseline<sup>68</sup>.

#### 4.4.2 School breakfast clubs and educational attainment

Six papers or reports assessed the links between school breakfast clubs and educational attainment in the UK, with mixed results.

A trial of 96 adolescents in England found improved performance in a battery of cognitive tests when breakfast was provided in school<sup>69</sup>. However, no improvement in working memory tests was found in the same study. Similarly, a trial in 111 Welsh schools found no relationship between attending a breakfast club and performance on memory tests<sup>70</sup>. Of note, introducing the school breakfast clubs did not reduce breakfast skipping, which may explain why no improvement was found in the Welsh study. Finally, no improvements in concentration for those who took part in school breakfast clubs were found in a trial of 27 English primary and secondary schools for one year<sup>71</sup>.

In a non-peer-reviewed report of primary schools in deprived areas in London, produced by the School Food Trust, 13 schools with a breakfast club had better Key Stage 2 results than nine similar primary schools that did not have a breakfast club<sup>72</sup>. Similarly, a non-peer-reviewed comparison between 53 English primary schools with school breakfast clubs and 53 schools without one, funded by a school breakfast programme provider, found an average of 2 months of additional progress in Maths, Reading and Writing for pupils in KS1. However, no improvement in learning was found for year 6 pupils in the same report<sup>73</sup>.

Finally, one non-peer-reviewed report by the School Food Trust sought the views of parents, children, and staff on school breakfast clubs in London. This report found that schools believed the breakfast clubs improved health and concentration<sup>72</sup>. However, a peer-reviewed study of English schools found mixed views<sup>74</sup>. One staff member noted an improvement:

*"They seem to be more alert in lessons. They seem to be able to concentrate a little bit more on their work straight away, rather than saying that they're hungry".*

This was reinforced by feedback from a child:

*"It gives me more energy and helps me think".*

However, not all staff had noticed a change in children's ability to focus in class that could be attributed to school breakfast:

*"I couldn't say, oh yeah, you can tell they've had breakfast this morning because they're performing much better, or they've not had breakfast because they're a bit sluggish. I've not noticed any difference at all".*

#### 4.4.3 School breakfast clubs and health

There was little evidence that breakfast clubs or eating breakfast was linked to health other than cardiometabolic health. However, conclusions were limited as only five relevant English or UK-based studies were found.

One study comparing 23 schools in England with a breakfast club and 18 schools without one found no difference in the need for medical attention in 6 months, attending GP practices, or headaches or stomach aches<sup>71</sup>.

Four UK studies focused on the consumption of breakfast at home. The links with mental health are unclear. Skipping breakfast was associated with depression 6 months later among

pupils at three Cornish secondary schools, although this may result from reverse causation<sup>62</sup>. However, in a second study among 2307 secondary school children in Southwest England, no association was found between not eating breakfast every day and levels of high stress, anxiety, or depression 6 months later<sup>75</sup>.

There was consistent evidence of the links between breakfast consumption, heart health and fitness. Of 4326 10-16-year-olds in England, those who sometimes ate breakfast were more likely to be obese than those who always ate breakfast. Boys who always ate breakfast had better cardiorespiratory fitness than those who rarely ate breakfast; no difference in cardiorespiratory fitness was found for girls<sup>76</sup>. Another UK study of 4116 9-10-year-olds found that those who rarely ate breakfast were at higher risk of type 2 diabetes than those who ate breakfast daily<sup>77</sup>.

#### 4.4.4 School breakfast clubs and health inequalities

There was consistent evidence that more deprived children and adolescents were less likely to eat breakfast, and those who do may have less nutritious breakfasts. Accordingly, two studies showed that school breakfast clubs and eating breakfast had the greatest benefit on breakfast skipping in more deprived areas and children.

One study of 111 Welsh primary schools found a greater reduction in breakfast skipping in more deprived areas and a greater increase in healthy food (such as fruit) eaten for breakfast in the most deprived areas<sup>78</sup>.

Another four studies examined how breakfast consumption differs by deprivation and affluence, three of which found reduced breakfast consumption positively associated with increasing levels of deprivation. In one study among 4314 Welsh 9-11-year-olds, more deprived children were more likely to skip breakfast and those who did eat breakfast were more likely to consume sweets and crisps and less likely to eat cereal and fruit<sup>79</sup>. The association between deprivation and breakfast skipping was also found in a UK-wide study of 1686 4-18-year-olds<sup>80</sup>, and a Scottish study of 2683 15-year-olds<sup>81</sup>. One study conducted in Scotland found no difference in breakfast consumption by deprivation among 156 Scottish children and adolescents<sup>82</sup>.

No statistical difference in proportion of children regularly consuming breakfast was found among 2683 15-year-olds who lived urban and rural settings in Scotland<sup>81</sup>.

One English study of 294 adolescents assessed whether the links between rarely eating breakfast and GCSE results varied by socio-economic status. No differences in overall GCSE score were found. However, when focusing on Mathematics, adolescents from low or middle socio-economic backgrounds who rarely ate breakfast were less likely to score higher Maths grades than those from the same background who frequently ate breakfast<sup>63</sup>.

One non-peer-reviewed report of London primary schools by the School Food Trust found that school staff perception was that breakfast clubs had the greatest benefit for the most socially deprived children. Benefits included improved social skills, links between parents and school and children and class teachers, punctuality and health & concentration<sup>72</sup>.

#### 4.4.5 School breakfast clubs and child development

Two studies reported improved social relationships due to school breakfast clubs. However, the strength of the evidence is in doubt due to industry funding and a lack of peer review.

One study, funded by Kellogg's, found social improvements among attendees of school breakfast clubs compared to non-attendees in 8 UK primary schools. Improvements included less conflict, physical victimisation and social manipulation, and more support noted between friends<sup>83</sup>. A separate, non-peer-reviewed report by the School Food Trust also found that school staff believed that the school breakfast club improved children's social skills<sup>72</sup>.

#### 4.4.6 School breakfast clubs and home life

Evidence of the impact of school breakfast clubs on home life was inconclusive, partly because only two relevant studies were found.

In a study of 27 primary and 14 secondary schools in England that had been running a school breakfast club for a year, no relationship was found between the provision of a school breakfast club and parental emotional stress, or the number of hours worked by parents in the past week. The same study found no relationship between attending a breakfast club and the amount of allowance a child spends on food per week<sup>71</sup>.

However, an English study of senior school staff indicated that they believed that the school breakfast club provided a small financial assistance to parents<sup>84</sup>:

*"The parents I know who are maybe a little bit financially better off because they're not having to give the kids money to give them something on the way to school."*

It was also thought to reduce the pressure for parents in the morning:

*"I think it's just taken that little bit of pressure. If they oversleep they don't have to say, 'Oh God we haven't had a breakfast, I've got this to do, I've got that to do and then I've got the house to clean.'"*

Senior school staff also believed that the school breakfast club provided extra assistance to the families of children with special educational needs or disabilities (SEND):

*"Most of them need support for dressing, support to get into a wheelchair, support feeding. Kids aren't able to get out of bed at the last minute and get up and down to transport."*

#### 4.4.7 School breakfast clubs and classroom environment

Any impact of school breakfast clubs on classroom behaviour is equivocal. However, three studies found consistent evidence that school breakfast clubs improved attendance and punctuality, which may be especially important given reductions in school attendance in recent years.

Four studies examined a school breakfast club's impact on classroom behaviour with mixed findings. 27 primary and 14 secondary schools in England that ran school breakfast clubs found an improvement in behaviour after 3 months, but this was not found 12 months after the breakfast club started<sup>71</sup>. Similarly, no improvements in classroom behaviour were found in Welsh primary schools that operated a school breakfast club<sup>70</sup>.

A non-peer-reviewed report funded by a school breakfast provider found an improvement in pupil behaviour in 100 schools with a school breakfast club and that this improvement was seen for both attendees and non-attendees in the school, suggesting that the benefit of



breakfast clubs may extend beyond the children who attend<sup>73</sup> A study of senior school staff in England indicated that they thought breakfast clubs had improved behaviour<sup>84</sup>,

*"It improves their behaviour because they are not hungry."*

The same study also found it improved the classroom environment:

*"They can have a bit of time and a bit of something to eat with their friends, and maybe read a book. It is quite a nice time in the classroom that is a positive experience for them."*

Three studies examined how attendance and punctuality changed when introducing a school breakfast club. In 23 English primary schools, the number of days skipped without permission halved after a year of having a breakfast club<sup>71</sup>. A non-peer-reviewed report<sup>72</sup> and an English, peer-reviewed study<sup>84</sup> both found that school staff believed that punctuality had improved, especially for children experiencing food insecurity:

*"It's also helped with getting children into school. They want to be in now because they know that they are going to get their breakfast"*

Links between parents and school and children and class teachers were also reported by staff members to have improved in the non-peer-reviewed report by the School Food Trust<sup>72</sup>. A greater sense of contentment and calm was noted among 40 13-15-year-olds participating in a trial of school breakfasts<sup>67</sup> in an industry-funded study.

#### 4.4.8 School breakfast clubs and nutrition

It is unclear if breakfast clubs lead to healthier food being eaten and improved nutrition. Assessment of the latter is challenging because everything consumed, not only for breakfast, influences nutritional status.

In a trial of 111 Welsh primary schools that ran a breakfast club, more healthy food items were consumed at breakfast compared to schools without a breakfast club, but there was no difference in the number of unhealthy foods eaten at breakfast<sup>70</sup>. In 27 English primary schools and 14 secondary schools with school breakfast clubs, there was an increase in fresh fruit eaten for breakfast after 3 months, but this was not found after 12 months. Cereal consumption for breakfast was the same during the club's first year compared to schools without breakfast clubs<sup>71</sup>.

Intake of nutrients differs between those who do and do not attend breakfast clubs. Among 111 9-15-year-olds in England, compared with those who don't attend breakfast clubs, attendees had higher intakes of fat and saturated fat as a percentage of energy intake and sodium and a lower intake of carbohydrates as a percentage of energy intake<sup>85</sup>. However, improved levels of essential nutrients were found when children consumed breakfast at school in a trial of 111 UK primary schools. This included higher intakes of fibre, potassium, chloride, selenium, folate and Vitamin C<sup>86</sup>. Although, the findings of both studies may reflect differences in the wider diet.

Similarly, two English studies, one with 1465 4-18-year-olds<sup>87</sup> and the other with 1456 9-10-year-olds<sup>77</sup>, reported lower intake of energy, macronutrients and micronutrients among those who skip breakfast at home. This included lower intakes of carbohydrates, calcium, folate and iron.

The opinions of some English senior school staff indicated that provision of breakfast clubs improved attendees' diets:

*"I have not seen in months, children walking to school eating junk. I did see that before breakfast came along."*

However, others raised concerns about the nutrition value of foods served in breakfast clubs<sup>84</sup>.

*"I was looking at one of the waffles, I've got the pack in front of me here and, on the traffic light system they have now on the packets, it's red for fat, saturates and sugars".*

#### 4.4.9 Economic impact of school breakfast clubs

Two reports found long-term economic benefits to providing school breakfast clubs.

A peer-reviewed study supported by the School Food Trust looked at the economic gain from improved attainment in schools that ran breakfast clubs in deprived areas of London. They found the benefit per pupil was between £1330 and £1692 over the life course. Therefore, it was estimated that for every £1 spent on breakfast clubs, there was £4.38 in benefits<sup>42</sup>.

A non-peer-reviewed report by a school breakfast club provider and funded by Heinz calculated the economic benefits for pupils in Key Stage 1 to be £9,320 per child<sup>88</sup>. The report found no educational benefits for Key Stage 2 children, so no economic benefits were calculated. Most economic benefits for KS1 children would be realised through improved lifetime earnings for the beneficiaries, with other financial benefits from reduced special educational needs, truancy, and exclusions. Approximately £4000 of the benefits would go to the Government through increased tax revenue and reduced public services. This means that every £1 spent on the programme could generate more than £50 in benefits.

### 4.5 Conclusions – school breakfast clubs

The strongest evidence for the positive impact of school breakfast clubs came from school attendance and health inequalities, where the greatest benefits were found for children and adolescents in more deprived areas. There was also evidence of economic benefits to providing universal school breakfast clubs. The evidence linking school breakfast clubs with educational attainment, health, nutrition, home life, school social relationships, and classroom behaviour was mixed.

### 4.6 Recommendations – school breakfast clubs

- Long-term funding for the National School Breakfast Programme should be decided before July 2024 to allow schools and families to plan long-term.
- Monitor and enforce school food standards within the School Breakfast Programme to ensure nutritional quality.
- Expand the NSBP so that all schools meeting the Department of Education's criteria take part, ensuring that the programme has the most impact.



## 5 Healthy Start Vouchers (England, Wales, Northern Ireland)

### Key Points

- *The Healthy Start scheme provides money towards healthy food and access to free vitamins during pregnancy and early childhood for eligible families in Northern Ireland, England, and Wales.*
- *Uptake of the scheme has been on a downward trend in recent years – 64.9% of eligible families used it in May 2023.*
- *Evidence suggests that families participating in the Healthy Start scheme purchased more fruit and vegetables than they would have otherwise.*
- *Evidence from other countries shows that voucher schemes increase the quality and quantity of healthy foods bought.*
- *Cost-benefit analysis demonstrated a positive return of 1.7 to 6.5 associated with increasing the value of the voucher to cover 5-a-day fruit and vegetable purchases; additional benefit was found with increasing value to purchase additional fruit and vegetables and with expanding eligibility and uptake of the vouchers.*

### 5.1 Overview and eligibility

Healthy Start was introduced in the UK in 2006 as a replacement benefit system for the Welfare Food Scheme, which had been in place since 1940. The scheme's development converged multiple policy ideas, considering the welfare food system, maternal and child health, the political landscape and health inequalities; the true focus of the scheme was not fully identified before its implementation, and thus, measuring outcomes is complex <sup>89</sup>.

The Healthy Start scheme provides money for healthy food and free vitamins. The vitamin supplements help eligible pregnant and breastfeeding women get enough vitamin C, vitamin D and folic acid and help eligible babies and children meet government recommendations for vitamins A, C, and D. There is limited evidence about the cost-effectiveness of the Healthy Start vitamin programme <sup>90</sup>. This report focuses on the financial support for food and the food voucher provision.

Since 2021, eligible families can use a prepaid card to buy milk, infant formula, fruit, and vegetables. The switch from paper vouchers to prepaid cards between 2021 and 2022 coincided with an increase in value from £3.10 (2009 - 2021) to £4.25 per week <sup>91</sup>. The current value varies with pregnant women and children aged one to four years receiving £4.25 a week and infants under 12 months receiving £8.50 a week. In England, there is a gap between when families stop receiving Healthy Start Vouchers (when the child turns 4) and the age at which they begin receiving free school meals (at reception).

Going fully digital yielded some issues with access and utilisation of the card, and families reported the issues leading to humiliation at checkouts and a rise in the stigma of the scheme

<sup>92</sup>.

Whilst Healthy Start covers England, Wales and Northern Ireland, Scotland has its own scheme, Best Start. The differences in the monetary value and eligibility are shown in full in Appendix B. To qualify for Healthy Start, a person must receive a qualifying benefit and be pregnant (over 10 weeks' gestation), or have a child under the age of 4.

## 5.2 Access and uptake

Despite growing awareness of the schemes, Healthy Start is only partially utilised by those eligible. In 2015, the average uptake across England, Northern Ireland and Wales was 73%; this fell to a record low in 2020, with an average uptake of 51%, which may have been due to COVID, although uptake was falling before that time<sup>93</sup>. In May 2023, the uptake had increased to 64.9%, with Wales having the highest uptake at 68.3% and Northern Ireland the lowest at 53.8%<sup>94</sup>.

By comparison, Scotland's Best Start scheme has greater uptake, around 88% between 2021-2022 up from 77% the previous year<sup>95</sup>. It is suggested that the higher rates seen in Scotland are related to work undertaken with supermarkets to raise awareness of the scheme among customers.

Despite the discrepancies in uptake, the barriers to accessing and utilising these schemes across the UK are largely similar and are discussed below.

### 5.2.1 Awareness of the Healthy Start scheme

Studies have demonstrated that not all eligible families, referring professionals and potential retail participants know the scheme's existence or of eligibility criteria for participation in the scheme<sup>93 96 95</sup>. Awareness was particularly low among educated women, women in employment and those living in more affluent areas<sup>96</sup>. Research demonstrates that increasing the eligibility to a universal scheme increases uptake by raising awareness and acceptability for both mothers and professionals<sup>97</sup>. When families have access to the card or vouchers, knowing where and how to use them increases utilisation<sup>98 95 99 100</sup>.

Known barriers to accessing Healthy Start Vouchers include:

- Language barriers - In households where English was not a first language, eligible participants' uptake for the Healthy Start scheme was lower<sup>101</sup>. This may reflect a reduced awareness or ability to apply due to language barriers.
- Application Process - Work by Lucas et al. (2013, 2015) highlighted the laborious application process participants were required to undertake to participate and the frustration with the high costs associated with the telephone helpline<sup>98 99</sup>. Since these papers were written, the scheme has switched to a digital card-based system. The requirement for a healthcare professional's signature has been dropped, and the process has been simplified<sup>93</sup>.
- Geographical barriers - Some stores, often the smaller local stores, do not accept vouchers or cards. This restricts participants from using certain shops. This restriction in venue may impact the ability to shop around for the best value items and their ability to use them if it requires travelling longer distances to reach participating stores, especially in the current cost-of-living crisis<sup>95 98-100</sup>.
- Data gaps - Retailers report having limited to no data on suitable products to stock for the scheme<sup>95</sup>. Indeed, the data on how the cards are used, on what products and

where is minimal to non-existent and yet could prove to be vital in improving the scheme <sup>95 97</sup>.

- Psychosocial barriers - Moonan et al (2022) demonstrated a universal scheme was less stigmatising for participants and, therefore more utilised; this was also highlighted by Eggar (2021) and McFadden (2013) <sup>97 100 102</sup>. However, Lucas et al (2015) reported that parents did not feel stigmatised but did undertake protective behaviours to avoid embarrassment and shame at checkouts, such as only visiting shops they knew were part of the scheme <sup>99</sup>.

## 5.3 Impacts of the Healthy Start scheme

### 5.3.1 Quantitative studies

Limited quantitative studies evaluate the efficacy of the Healthy Start scheme, all focusing on the effect of fruit and vegetable purchasing and consumption rather than broader relevant outcomes. From the good quality studies available, evidence is mixed. Four studies investigated the impact of families receiving Healthy Start vouchers on the purchasing or intake of fruit and vegetables compared to those not receiving them: three found an increase in the amount of fruit and veg consumed or purchased <sup>103-105</sup>; one found no significant difference in the amount of fruit and veg purchased between eligible families who receive or do not receive Healthy Start vouchers <sup>93</sup>.

An early assessment of the efficacy of Healthy Start scheme demonstrated when comparing fruit and vegetable intake according to a professionally administered food frequency questionnaire, those in receipt of Healthy Start vouchers compared to the older welfare fund scheme had a significantly higher intake of fruit and vegetables at baseline, 8 weeks and 12 weeks postpartum <sup>106</sup>. People using Healthy Start vouchers were also more likely to meet their recommended vitamin and mineral daily intake, largely because the higher levels of fruit and veg added to an overall increased food consumption in the Healthy Start compared to the welfare fund participants <sup>104</sup>.

More recently, a comparative study by Griffith et al (2018) comparing data on grocery purchases by eligible and non-eligible households before and after the implementation of the Healthy Start scheme (2004-2005, 2006-2008), demonstrated increased spending on fruit and vegetable and improved nutritional quality of the weekly shop for eligible participants. They also demonstrated that an equivalent cash benefit would not result in the same increase in fruit and vegetable intake <sup>105</sup>.

However, Scantlebury et al (2018) demonstrated that the change in fruit and vegetable consumption between those eligible for Healthy Start vouchers and other groups was similar when Healthy Start was implemented. Researchers added that the vouchers could protect fruit and vegetable consumption in low-income households, allowing them to maintain consumption even if significant increases in the eligible group hadn't been seen <sup>107</sup>.

Parnham et al (2021) compared fruit and vegetable purchasing across four types of households based on eligibility for and participation in the Healthy Start voucher scheme: Healthy Start participating, eligible but non-participating, nearly eligible low-income and ineligible high-income households. There was no significant difference in fruit and vegetable purchases between eligible non-participating and participating households. Fruit and vegetable intake was highest in the non-eligible higher-income and nearly eligible

households compared to the eligible households (both participating and non-participating). Researchers concluded that Healthy Start did not have the intended impact on the target population of increasing fruit and vegetable intake. They noted the value of the voucher may not have been sufficient to support increased fruit and vegetable purchasing, as it was likely less than the weekly amount spent on fruit and vegetables, especially in recent times when food inflation has been high. In this case, economic theory suggests the voucher will be used as a substitute for monetary value and will not increase the amount spent on fruit and vegetables. To increase fruit and vegetable consumption, the voucher must exceed the weekly expenditure on fruit and vegetables <sup>93</sup>.

Looking at retailer top-ups to the programme, Thomas et al. (2023) collated data from supermarket loyalty card transactions, where participating stores topped up the value of the Healthy Start vouchers by £2. This additional £2 was only redeemable on fruit and vegetable purchases. Results showed that while the proportional amount spent on fruit and vegetables remained the same, there was a significant increase in the portions of fruit and vegetables purchased. However, uptake was low with only 9.1% of top-ups being redeemed <sup>108</sup>.

### 5.3.2 Qualitative studies

Qualitative studies have examined the impact of the Healthy Start scheme on the attitudes and reporting behaviours of eligible families. These studies explore the lived experience, provide richness to the data, and identify potential theories to support the quantitative studies that show improved fruit and vegetable consumption.

McFadden et al. (2013) conducted a multi-method study in England, interviewing a broad cohort of stakeholders on the accessibility and impact of Healthy Start vouchers <sup>100</sup>. Women reported an increased variety and quantity of fruit and vegetable consumption once in receipt of Healthy Start vouchers, supported by the data from other stakeholders interviewed.

*"I used to live on junk food - now I'm eating healthy. Without vouchers I wouldn't buy fruit and veg" (Yorkshire and Humber teenage workshop participant, urban)*

Ohly et al (2017) explored the use of Healthy Start vouchers by low-income pregnant women <sup>109</sup>. They found that women reported using the vouchers in the intended way to improve the nutritional quality of their diets.

*"I wanted to eat healthier during pregnancy. Now that I have the vouchers, I can afford the extra fruits and vegetables without having to worry about the cost."*

However, they also found that women reported using the voucher scheme to offset other expenses and to stockpile formula in preparation for the delivery of their infants. These were reported as unintended consequences <sup>109</sup>.

*"I mainly use the vouchers for infant formula because I want to be ready when the baby comes."*

Lucas et al. (2015) undertook an extensive investigation by interviewing a geographically and ethnically diverse group of participants <sup>98</sup>. They evidenced that the vouchers were a significant addition to a weekly budget, and parents used them to purchase expensive items such as fruit, vegetables, and milk. Participants reported gratitude for this safety net when budgets were tight.

*"£3.10 a week when you're working doesn't feel like much but when you're not working and are on benefits it does make a difference, it's £3.10 a week you have of your money to spend on other things aside from milk, fruit and veg."* (Mother of two, current recipient)

Collectively, these studies demonstrated the vouchers were being utilised either by acting as a monetary substitution, allowing families to free up money for other staples or by allowing families to increase their fruit and vegetable intake in addition to their usual consumption or by acting as a crucial safety net when budgets were tight.

In a PhD thesis, Eggar (2021) examined the social and economic impact of Healthy Start vouchers in the UK using qualitative interviews and an economic model. The paper found the voucher scheme to be economically insufficient and socially damaging, partly due to the limitations imposed on the vouchers, its lack of links to other key public health policies aimed at improving diet quality such as start4life. Qualitative research found healthcare professionals hold the scheme in high regard but may be reluctant to promote it with patients due to a fear of offending them or supporting the associated stigma (i.e., that low-income women aren't capable of understanding what a healthy diet is for their children).

Eggar also undertook an economic analysis to examine the cost-effectiveness of the scheme in regard to the costs of malnutrition and dietary insufficiency in children. Analysis showed the scheme could have a positive economic impact if the value of the voucher were increased to cover the cost of five fruits and vegetables per day; return on investment was calculated to be between 1.4 (using associated NHS treatment costs specific to low fruit and veg consumption) and 6.5 (using NHS treatment costs associated with poor diet). Additional benefit was seen by increasing the value of the voucher to cover seven fruit and vegetables per day, or to cover the eating pattern defined by the Eatwell Guide. The impact would also be greater if broader factors such as school attainment were considered, as well-nourished children do better at school <sup>102</sup>.

## 5.4 Evidence from other fruit and vegetable voucher schemes

In late 2018, the Scottish government rolled out the Best Start Grant and in 2022, they published their initial evaluation of the scheme. This evaluation used mainly qualitative data, and the report does not provide details on the methodology. They found that Best Start Foods increases the quality and quantity of healthy foods eligible households buy. Most recipients used the vouchers for cow's milk, baby formula, fresh fruit and vegetable purchases, other recommended and non-recommended food, and essential items. The data evidenced healthier eating habits such as meal planning, healthy snack options and offering a more varied choice to children to allow them to try different foods and not worry about waste. This was echoed by the healthcare professionals who took part in the study. The data also demonstrated the unintended but welcome outcome of reduced financial pressure on households, freeing up money for bills, clothes, and fuel. These intended and unintended outcomes positively impacted the health and well-being of children and mothers, not only the nutritional health benefits but also the psychological health benefits such as lower anxiety <sup>39110</sup>.

Alongside the government voucher schemes, a handful of small third-sector projects have offered fruit and vegetable vouchers to families with young children to improve nutrition and reduce inequity. For example, the Rose Voucher scheme enables low-income individuals and families to buy fruit and vegetables with a £4 voucher for each child every week or £6 for children under one. In evaluating the scheme's efficacy, positive impacts were found similar to

those seen with Healthy Start, such as increased amount and variety in fruit and vegetable intake, a financial safety net and overall improved well-being <sup>111</sup>.

In October 2023, The Alexander Rose charity published an impact report on their Southwark fruit and vegetable voucher scheme <sup>112</sup>. They used mixed methods design. Quantitative data found that families reported children eating 5 portions of fruit and vegetables a day went from 7% before receiving the vouchers to 64% after receiving the vouchers. On average, fruit and vegetable intake improved by 3 portions daily following voucher access. The qualitative data supported these results:

“We experiment with vegetables and fruit - new recipes, blending smoothies ... Rose Vouchers has made me try a whole new variety and helped me eat healthier.”

The impact report also looked at snacking habits in children. Introducing a voucher for fruits and vegetables reduced snacking on unhealthy foods for children and parents.

“My kids like biscuits a lot and potato chips, sweets, chocolate – now they are having less of these because of the Rose Vouchers.”

Overall, following participation in the scheme, families had a more balanced and nutritious diet than before receiving vouchers. The study's authors looked at drivers for changing behaviours. They found results similar to other studies in that the vouchers provided a financial buffer and allowed the purchase of a wider variety of culturally familiar and unfamiliar fruits and vegetables.

A rapid review <sup>113</sup> examined evidence from interventions in several countries in the first 2000 days of life that positively impact children's nutrition and found that along with local access to farmers' markets and community gardens, voucher-style programmes potentially increase access to healthier foods for children, particularly those in areas of disadvantage. The most effective programmes were those that incentivised fruit and vegetables and restricted sugar-sweetened beverages. However, the authors did note that these schemes are an aid and not a resolution to food insecurity in children.

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) in the United States provides insight into fruit and vegetable voucher schemes in another high-income country. The eligibility and services provided by WIC is much broader than that of the Healthy Start scheme. However, much evidence exists that WIC increases fruit and vegetable intake, especially when populations in the most deprived areas are targeted <sup>114-122</sup>.

In Paris, a randomised controlled trial demonstrated statistically significant increased fruit and vegetable consumption after one year of intervention in children randomly allocated to receive vouchers and parental education compared to those who just received parental education <sup>123</sup>. In a follow-up paper, the authors evidenced voucher systems' role in decreasing food insufficiency in low-income households <sup>124</sup>. These papers, whilst not evaluating a scheme identical to Healthy Start, provide additional evidence for a voucher system's role in alleviating children's food insecurity.

A Spanish randomised control trial assessed the efficacy of food vouchers in improving healthy eating. They evidenced that providing vouchers with no additional education or supplementary information was insufficient to improve nutrition; healthy eating only occurred in the intervention group where they received both vouchers and education on healthy eating

<sup>125</sup>.



## 5.5 Broader considerations

Recently, children of asylum seekers have been considered eligible to claim Healthy Start and Best Start vouchers in the UK if they are British citizens. Before this, research has shown that asylum seekers are at increased risk of reduced fruit and vegetable intake with significant consequences of malnutrition, undernutrition, and micronutrient deficiencies <sup>126</sup>. A systematic review evidenced the potential long-term consequences on child health for asylum seekers due to poor nutritional intake <sup>127</sup>. A separate study found child hunger was less prevalent in asylum seekers who received benefits. There is no data published on the consequences of micronutrient deficiencies before and after the expansion of Healthy Start and Best Start schemes to include children of asylum seekers <sup>128</sup>. It is not clear the impact widening this has had, given the remit to be a British citizen, therefore covering only a minority of asylum-seeking children. However, gathering this data may give some insight into the potential benefits of extending the scheme to all asylum-seeking children in the UK.

## 5.6 Research conclusions and projections

Overall, the evidence demonstrates the Healthy Start scheme can improve children's health and nutrition by increasing the amount and variety of fruit and vegetables consumed. However, the evidence is growing that the current scheme is inadequate to provide a true safety net due to limited eligibility and uptake. Evidence from Scotland shows financial pressures increase when the infant turns one, and the value of the food voucher decreases. The economic model provided by Eggar (2021) suggests this scheme would only be effective if the value of the voucher were increased, and even more so if it were made universal, a concept echoed by Moonan et al 2022. Maximising uptake by reducing the barriers to access would improve outcomes for the programme.

The impacts of poor nutrition are immediate and lifelong, expanding beyond the direct physical deficiencies. Poorly nourished children cannot learn as well as well-nourished children <sup>129</sup>. Food voucher schemes are more than a safety net for fruit and vegetables; they are part of a strategy to improve children's overall health, well-being, and development.

## 5.7 Recommendations

- Remove the variance of value and purchasing power of Healthy Start vouchers to provide consistency for parents by extending the £8.50 weekly value to eligible children until age five and increasing the value annually in line with inflation.
- Extend eligibility to all children living in households receiving Universal Credit to provide additional fruit and veg consumption for children most at risk of eating below the recommended 5-a-day minimum.
- Increase uptake by raising public awareness and ensuring the application process is accessible and straightforward; consider auto-enrolment or an opt-out process to increase uptake.
- Commission further research: particularly looking at the cost-effectiveness of a universal programme and increasing the monetary value.
- Make Healthy Start vouchers permanently available to all children from households with no recourse to public funds, including expansion to include all children seeking asylum in a simple and accessible way that doesn't impact asylum claims.

## 6 Summary and conclusions

Good food is essential for children and adolescents to develop and achieve to their potential. International agreements for which the UK holds a leadership role require Government to support the health and wellbeing of children and adolescents within all legislation and policy. Evidence related to a variety of health and wellbeing outcomes supports the call for increased provision of food to new mothers and their young children, as well as to children in school through providing breakfast clubs and free school meals.

Our recommendations were developed in relation to current policy positions in England, recognising devolved powers and current variance across the Four Nations; however, the evidence reviewed, and recommendations would be broadly applicable to children throughout the UK.

Recommendations made within this paper do not comprise a complete list of required actions but are part of a broader body of work necessary to improve the lives of children and adolescents. Our recommendations align with other policy asks, e.g., the 2023 Academy of Royal Medical College recent report 'Securing Our Healthy Future: Prevention is Better Than Cure'<sup>130</sup>, that includes a call for the UK Government to appoint a Cabinet-level Minister for Children and Young People to support a 'child health in all policies approach, and coordination of cross-departmental strategy to improve children's health and wellbeing and reducing health inequalities'<sup>130</sup>.

Considering the strength of reviewed evidence, the adoption of universally provided school meals would be the priority within our recommendations. While evidence underpins all recommendations made in this paper, there is a higher weight of evidence regarding the universal provision of school meals to children and adolescents and the positive impact on their dietary quality, educational achievement, lifetime health, well-being, and productivity. It is noted, however, that this is in part due to a smaller amount of published research regarding either the National School Breakfast Programme or Healthy Start vouchers, and recommendations regarding further research into each of these programmes should also be prioritised.

Costs associated with expanding Free School Meals across all primary and secondary schools in England have been estimated at £2.5 billion per year; put into perspective, obesity currently costs the NHS over £6 billion annually, a number expected to reach £9.7 billion by 2050<sup>53 131</sup>; additionally, every £1 invested in universal FSM is estimated to bring a return of £1.70 over ten years, and £58 billion in added value to the economy (GVA)<sup>55</sup>.

Even so, long-term costs must be considered. In this regard, we align with the Recipe For Change campaign and support the creation of new targeted levies on unhealthy food and drink, such as an expansion of the proven and effective Sugar Drinks Industry Levy or for the UK Government to adopt the National Food Strategy recommendation of a new salt and sugar levy<sup>132-134</sup>. Manufacturers of unhealthy food would directly pay for these new levies, which would provide revenue to support the long-term viability of expanded food programmes outlined in this paper. They would also improve families' health across the UK through reformulation, reducing sugar and salt intake, saving the NHS billions of pounds, and supporting a healthy workforce. The solution proposed would generate revenue while improving children's diets and physical health in the present and the future.



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# Appendix

## Appendix A - Review Methods

### Healthy Start Scheme – Methods

#### Eligibility criteria

Eligible papers included for review were any research study, including RCT, cohort, case-controlled and cross-sectional studies where the exposure of interest was Healthy Start, Best Start, or any other fruit and vegetable-based voucher scheme run in an economically similar country. A broader inclusion of grey literature was also undertaken to include government and third-sector reports. The outcomes of interest were any health-related (physical or psychological) outcomes, educational and social outcomes for the child and the wider family.

#### Information Sources and Study Selection

Two independent researchers undertook an initial search to identify studies using PubMed, Medline and Google Scholar. This was followed by a reference list check of relevant articles. Search terms included Health Start, Best Start, Food Voucher Scheme.

Abstracts were reviewed, and papers were excluded if not written in English, if the paper was solely about the vitamin scheme, if the scheme was irrelevant to the target population of interest. Reference lists of reviews were checked for missing eligible studies. The resulting papers were reviewed in full to ascertain if they met the exposure and outcome eligibility criteria. An initial 25 papers were identified.

#### Data processing

Given the variability in study design, opinion was sought from wider experts on the robustness and breadth of studies included. The papers were reviewed using a critical appraisal approach, and data were extracted. Information was extracted on year, locality, methodological drawbacks and key findings. This has been reflected in the text.

### School Breakfast Programme – Methods

PubMed (MEDLINE) was searched to identify relevant papers in April 2023. In addition, a Google search was conducted to identify grey literature and relevant systematic reviews were searched for additional articles that fulfilled the inclusion/exclusion criteria.

To be included, studies needed to look at the impact of breakfast provided in a school setting on a relevant outcome. Studies had to be conducted in England, Wales, Scotland or Northern Ireland. Relevant outcomes are listed below. Due to a lack of relevant papers, studies on breakfast skipping at home were sought to add additional understanding.

Search terms included:

- Breakfast: e.g. "breakfast" or "school breakfast programme" or "breakfast club"
- School: e.g. "school" or "education setting"
- Geography: England, Wales, Scotland or Northern Ireland
- Outcomes of interest:
  - Educational achievement, attendance
  - Health outcomes – mental health, weight/height, physical health, obesity, diabetes

- Life course outcomes – Speech, language and communication skills, Binge drinking, Smoking, Substance misuse, Teenage pregnancy, Violence / in contact with the criminal justice, Family relationships
- Health Inequalities: IMD/sociodemographic, Income, Employment, Ethnicity, Housing and Geography
- Development outcomes – social, emotional development, cognitive, physical, neural development
- Health economics: Cost, cost-effectiveness, Return on Investment
- Impact on households – financial, household food security, emotional and mental health
- Impact on classrooms – behaviour
- Nutrition outcomes – dietary quality, dental outcomes

Hierarchical screening was implemented whereby titles were screened initially, the abstracts of relevant titles were assessed and finally the papers of relevant abstracts and titles were read.

Data was extracted from the included papers using a predesigned proforma. The following information was recorded:

- Title and lead author.
- Study type
- Duration of follow-up (where relevant)
- Population characteristics
- Details of exposure
- Details of the outcome
- Summary of findings
- Potential conflicts of interest (e.g. whether the study was funded by a cereal company)

Details of any limitations of the study were noted down separately.

## Free School Meals Programme - Methods

Researchers undertook a high-level scoping review of the evidence for FSMs in improving public health across a range of outcome measures. The focus was on systematic reviews and primary studies in high income countries with free school meal initiatives.

Eligible papers included for review were systematic reviews and research studies where the exposure of interest was the provision of free school meals, either to a subset of pupils or to all pupils. A search of grey literature was also undertaken to include government and third-sector reports. The outcomes of interest were any health-related (physical or psychological), educational, financial, developmental, and social outcomes for the child and the wider family, and economic outcomes including cost-effectiveness and return on investment. The settings of interest were high income countries (i.e. OECD), with a particular emphasis on finding UK-based studies.

Researchers undertook an initial search to identify studies using MEDLINE Ovid and Google Scholar in May 2023. All types of primary research and systematic reviews were included. Search terms included 'free', 'school meals', 'universal', 'school lunch'. References from relevant articles were also

searched to find further relevant papers. A Google search was conducted to find grey literature, and references from grey literature were also searched to find further papers.

Titles were reviewed, and papers were excluded if not written in English or if they were not relevant to the intervention or population of interest. Abstracts were reviewed of papers that were identified as potentially relevant. The full text was retrieved and data was extracted from relevant papers using a proforma which recorded the setting, aim of the study/report, intervention and outcomes measured, findings/conclusions, information on study design and study limitations.

## Appendix B: An overview of the Best Start and Healthy Start schemes

Name of Scheme	Eligibility	Value		
		Pregnant mothers	0-1 year olds	Older children
Healthy Start  England, Wales & Northern Ireland	<ol style="list-style-type: none"> <li>&gt;10 weeks pregnant or with a child under 4 years</li> </ol> <p>AND</p> <p>In receipt of a qualifying benefit</p> <ol style="list-style-type: none"> <li>Under 18 years old and &gt;10 weeks pregnant</li> <li>With a child under 4 years who is a recognised British citizen</li> </ol> <p>AND</p> <p>Your income is below a threshold amount</p>	>10 weeks gestation £4.25 each week of pregnancy	£8.50 each week	1 – 4 years £4.25 each week
Best Start  Scotland	<ol style="list-style-type: none"> <li>Pregnant or with a child under 3 years</li> </ol> <p>AND</p> <p>In receipt of a qualifying benefit</p> <p>AND</p> <p>Income below a set threshold*</p> <ol style="list-style-type: none"> <li>Under 18 years old and pregnant or with a child under 1 year and meet residency status</li> <li>Aged 18 or 19 and a dependent of someone else on benefits and pregnant or with a child under 1 year.</li> <li>With a child under 4 years who is a recognised British citizen</li> </ol> <p>AND</p> <p>Your income is below a threshold amount</p>	From start of pregnancy £4.95 a week until the child is born	£9.90 a week	1-3 years £4.95 a week

\*Scottish government is removing this threshold February 2024

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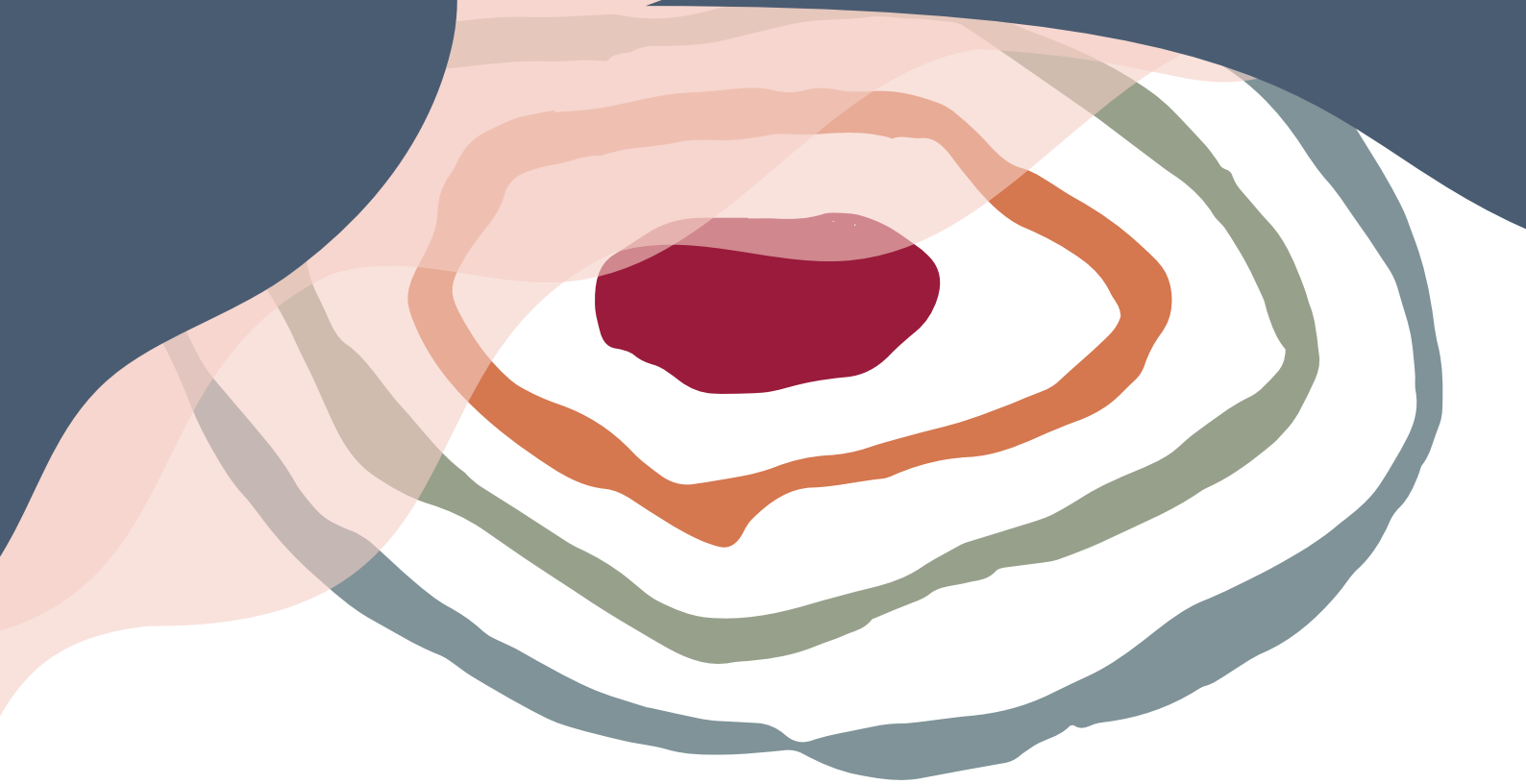
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[www.fph.org.uk/good-food-for-children](http://www.fph.org.uk/good-food-for-children)



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Faculty of Public Health  
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