Delivering Nourish in Secondary Schools: Evidence-Informed Recommendations

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List of Abbreviations

DfE	Department for Education
FV	Fruits and vegetables
LA	Local Authority
MAT	Multi-Academy Trust
PO	Project Officer
PSHE	Personal, Social, Health and Economic education
SEND	Special educational needs and disabilities
SFM	School Food Matters
SFS	School Food Standards
SG	Steering Group
SLT	Senior Leadership Team
UK	United Kingdom
UoB	University of Birmingham
WHO	World Health Organization
WSAF	Whole School Approach to Food

1 Executive Summary

Why have we done this research?

School Food Matters (SFM) is a charity that believes school food can unlock a happier, healthier, more sustainable future for every child. The organisation campaigns for a better school food system, brings the voices of children, parents, and teachers to government policy, and delivers fully funded food education and school food improvement programmes in schools across England.

SFM has developed a school food improvement programme, Nourish, to support schools to make long-term, sustained positive changes to a school's food environment to ensure that nutritious food is accessible throughout the school day to every student. It adopts a "whole school approach to food" (WSAF) which incorporates the food served across the school day, the dining environment, leadership on school food, positive relationships with food, equity and dignity relating to food, and environmental sustainability. It aims to achieve this by engaging the whole school community from students and staff to parents and governors. Nourish has been successfully delivered in over 100 schools in England, across a mixture of primary and secondary settings. However, SFM has faced challenges in engaging secondary schools in Nourish, such as resistance to changing the food offer, difficulty engaging parents, and time and resource constraints. In addition, best practices for a WSAF are often based on research from primary school settings, which differ significantly from secondary school settings. In this study we aimed to better understand the barriers and facilitators to delivery of Nourish in secondary schools as well as gather ideas on how the programme can be better adapted to suit the needs and priorities of secondary schools.

What did we do?

We conducted a multi-method study involving four phases:

1. A rapid review of literature examining a WSAF in the secondary school setting the UK
2. Interviews with three Nourish Project Officers (POs) and a school leader from a secondary school that recently completed Nourish to explore their experiences of delivering or receiving the Nourish intervention, including challenges, benefits and ideas for improvement
3. Two workshops with students (n=34) and four separate workshops with charity, local authority and policy representatives (n=17), caterers (n=9), parents (n=5) and secondary school staff

representatives (n=5) to gather their views on how the Nourish programme could be adapted for secondary schools

4. A synthesis of results from phases 1-3 to develop recommendations for the delivery of Nourish in secondary schools.

To help shape the research, we met with a Steering Group (SG) on three occasions. Membership included representatives from research, charities, practice and policy. Members of the Nourish delivery team and a Youth Panel (aged 16-19), convened through Bite Back, a national youth-led movement for healthier food systems, also helped us to shape the recommendations.

What did we find?

Through the rapid review, which included 33 academic reports and grey literature documents, we identified several features of school food interventions that may be appropriate for adaptation of a WSAF for secondary schools. These features are summarised as: leadership and building relationships; developing school policies; incorporating behaviour change techniques; planning and delivering food education; involving students and young people; changes to food service and support for catering teams; and understanding and adapting to individual school contexts.

The discovery interviews identified current issues relating to implementation of Nourish in secondary schools. These include: time and resource constraints due to busy timetables and staff capacity; lack of communication between school leadership and catering teams and in food provision; entrenched models of food provision (e.g. predominance of foods and drinks high in fat, salt and sugar in the breaktime offering) and resistance to menu changes; low engagement with school food policy development activities; low levels of engagement with parents in Nourish activities; and lack of capital funding to invest in kitchen and dining improvements. Reported strengths of Nourish delivery in secondary schools include: the recruitment of schools through local authorities (LAs); the flexibility to tailor aspects of the programme to meet the school's needs and priorities; the structured, step-by-step approach which includes action planning, workshops and a resource pack; the scope for student engagement; and the identification of a lead staff member within participating schools.

The workshops focused on identifying strategies that could feature within a WSAF suited to the secondary school context, from the perspectives of young people and other key groups. These were grouped into WSAF categories as follows: 1) Key features of a WSAF intervention, including a step-by-step approach, monitoring and evaluation, recognition of changes and progress, and involvement of multiple key groups; 2) Changes to what foods and drinks are served and how they are served, including review of the catering model, menu design, use of nudge strategies and labelling, pricing strategies and tasting opportunities; 3) Creating a positive dining experience through changes to queueing and food service, and the physical and social dining space; 4) The importance of school leadership and scope for engaging catering teams in leading change; 5) Enhancing the culture around food in schools through changing social norms, peer-led activities, incentives, policy development and involving catering teams in school life; 6) Opportunities for enhancing and embedding food education across the curriculum and outside of the curriculum; 7) Food as pastoral care, including approaches to addressing food insecurity and inequity; 8) Approaches to engaging the school community in a WSAF, including students, parents, school staff, catering teams, and external organisations; and 9) Ways for schools to make school food and actions around school food more sustainable for the environment. An additional "wider context" theme was identified that outlined the external conditions that would support a WSAF, with actions for local and national government, and charitable and other organisations.

What does this mean?

Through integration of the findings of these three phases, we developed a set of conditions for successful delivery of Nourish in secondary schools: 1) A 'slow and steady' approach that takes account of the school's particular context and challenges is needed to make school food improvement feasible and sustainable in secondaries; 2) Effective delivery of Nourish in secondaries requires more intensive engagement of students; 3) Effective delivery of Nourish in secondaries requires more intensive engagement of school catering teams and strategic support within catering organisations; 4) Input from other external partners can magnify and sustain the gains made through Nourish in secondaries; 5) Within the challenging context of secondaries, celebrating successes throughout Nourish is vital.

We propose an adapted model of Nourish in secondary schools. Regarding overall programme design, we suggest making project timelines flexible (with the option to extend beyond a single

academic year), testing whether more intensive contact with the school supports delivery, and updating Nourish resources for secondaries to better meet their specific needs. In the recruitment and engagement phase, we propose reviewing the recruitment materials and adapting them to increase relevance to secondary school contexts. During Nourish set-up, we propose involving caterers and student representatives in auditing the school food environment, and reintroducing project working groups as a 'gold standard' for WSAF work in secondaries. In the engagement, training and policy development phase, we recommend updating student engagement workshops to better reflect the concerns and interests of secondary school students, making some of these engagement sessions student-led, and exploring more ways to engage parents in Nourish. We also recommend exploring additional training for kitchen staff. In the final phase, we propose increasing and extending opportunities for Nourish schools to learn from each other, establishing feedback loops, especially for students, and supporting schools to monitor progress against the goals in their action plans.

We also outline a set of question prompts to support discussions between POs and schools in developing action plans, school food policy, engagement activities and staff training, framed around the food served across the school day, the dining environment, leadership on school food, positive relationships with food, equity and dignity relating to food, and environmental sustainability.

What next?

The next step will be to test the adapted programme in a group of schools, and make further refinements as needed. In particular, School Food Matters should continue to reflect on some of the uncertainties that remain, including: the ideal duration of the programme (considering the needs of schools as well as resource implications for Nourish POs); the implications of offering a staggered or focused delivery of a WSAF through 'pathways' upon achieving wide-ranging whole school change; and the appropriate level of engagement of both students (balancing ambitions of co-design with practical constraints on student involvement) and parents (acknowledging varying levels of interest and motivation).

2 Introduction

Whole School Approaches are part of the health-promoting schools framework developed by the World Health Organisation (WHO) in the 1980s, aiming to improve the health and education of adolescents within school settings (1, 2), and have demonstrated positive effects upon healthier pupil food choices, including fruit and vegetable intake (3). Programmes outlining a Whole School Approach to Food (WSAF) have since been developed at European, national and local levels (4-6), focusing specifically on transforming the food culture in schools to make it healthier and more sustainable. Awareness of the approach has grown in the UK and a WSAF has been encouraged in schools through the School Food Plan (7), which was launched in 2013. A WSAF encompasses multiple areas of school life and functions, and should bring together senior school staff, students, catering staff, teachers, governors and parents (7). There are varied frameworks for a WSAF (4, 6, 8, 9) but it is understood to encompass:

- The foods and drinks served
- The dining environment
- Leadership
- School culture
- Food education
- Pastoral care, food security and equity
- Engagement
- Sustainability

WSAF interventions have been extensively researched in the primary school setting (3, 10, 11). Primary school environments provide a structure that is amenable to intervention due to the flexibility of primary school timetables, small school size, high parental involvement, and the lower autonomy that younger children have over their food choices (12, 13). Historically, there has been limited focus on WSAF interventions in secondary schools as they are generally more complex settings than primary schools, with more structured academic environments, pressure of exams, more flexible and varied models of food provision, larger school size with a wide and diverse group of school food stakeholders, more student autonomy over food choice and a greater influence of peers and external food environments (12, 14-18). This makes secondary schools more challenging environments to influence in terms of food provision, culture and education.

Promisingly, research to understand UK secondary school food provision and environments has grown in recent years, with studies reporting on national School Food Standards (SFS) compliance (19-21), packed lunch nutrition (22), school food policy and intervention approaches (17, 23-26), school food environment and culture (15, 16, 27-29), and qualitative work examining the current views and opinions of students and other key groups within secondary school food (17, 30-38). A school food network has also been set up to enable researchers to answer key questions (GENIUS) (14) and establish priorities for research (39), policy and practice (40). This body of work has consistently highlighted the need for effective intervention to improve secondary school food environments and provision. One area of concern is school food provision, with the food served to students not meeting nutritional standards and not appealing to students, and caterers facing the further challenge of providing food within a tight budget with rising food and labour costs (14, 17, 41, 42). Another area of concern is the dining environment within secondary schools, which is often reported as chaotic and uninviting, leading to lower school food uptake and 'grab and go' style of eating behaviours (which are typically associated with less nutritious food choices) by students (17, 41, 43). Further concerns include the disconnect between food and nutrition education and food served in school canteens, and the lack of leadership and oversight in delivering nutritious school food (41).

2.1 The Nourish programme

The Nourish programme (formerly Healthy Zones) is School Food Matters' flagship school food improvement programme that supports schools to create a food environment that puts children and young people's nutrition first. Nourish is a multi-component programme that stretches across a whole academic year, involving everyone across the school community. Nourish schools are supported to develop their own bespoke school food action plan and policy, covering food throughout the school day, while fostering a positive food culture and integrating food education.

The programme offers training and workshops for staff and parents to build the skills and confidence needed to offer nutritious alternatives. Dedicated Nourish Project Officers (POs) also offer engaging, hands-on sessions with students to hear their opinions and ideas, which in turn go on to inform policy changes, recipes and menu design. Nourish establishes and supports the implementation of a WSAF in schools by engaging the whole school community from students and staff to parents and governors. Support is centred around six policy areas: food culture and role

modelling; food provision and dining environment; food brought in; a positive relationship with food; food education and equity; and inclusion and sustainability.

In the development of the Nourish programme, a rapid review of the literature identified seven components for successful school food interventions: tailored to schools; duration of more than a year; external support; teacher and staff involvement; student involvement and peer-led elements; parent involvement; and a multi-component approach (44). The five-year evaluation of the wider Nourish programme (44), which included case studies with four secondary schools and 30 interviews with a range of people delivering or taking part in Nourish, likewise concluded that successful implementation of school food improvement programmes requires: a clear, structured and guided approach; external specialist support; adapting delivery while maintaining core improvement principles; support and buy-in from school leaders; demonstrating quick wins and celebrating progress; having a sustainability or legacy plan; and internal ownership.

3 Project rationale

While Nourish has been successfully delivered by SFM POs in over 100 schools in England across eight regions (44), implementation has largely been focused on primary schools and has proved more challenging in secondary schools. Furthermore, best practices for a WSAF are often based on research from primary school settings, which differ significantly from secondary school settings, and the food served in secondary schools is known to be of poorer nutritional value than that served in primary schools (14, 45, 46). Given the importance of the adolescent life stage in developing eating behaviours (47, 48), secondary schools are important settings to target in terms of a WSAF. Therefore, there is a need to determine how the programme can be better adapted to meet the needs and priorities of secondary schools. This adaptation work takes inspiration from, and is a sister project to Adapt-Ed, an NIHR-funded study led by the University of Hertfordshire and the University of Essex, exploring how best to adapt Nourish to special educational needs and disabilities (SEND) settings (44, 49).

4 Methods

4.1 Aims

We aimed to explore how a WSAF can be effectively established in secondary school settings and develop recommendations for delivery of the Nourish programme in secondary schools.
Four objectives were defined to achieve this aim:

1. Synthesise the current literature relating to WSAF in secondary schools the UK.
2. Better understand the current barriers and facilitators to delivering Nourish in secondary schools.
3. Understand the views, opinions and ideas of a range of key groups important to secondary school food on how to best adapt Nourish for secondary schools.
4. Develop recommendations for adaptation to the current Nourish programme for the secondary school context.

4.2 Study Team and Advisors

The study team comprised UoB researchers (AD, MM, ES and MP), and the Monitoring, Evaluation and Learning Officer (ED) and Impact and Strategy Manager (EB) from SFM. A SG was convened comprising 16 advisors from a range of groups involved in school food research, advocacy, policy and practice. The SG met on three occasions to help shape the project. Two 'Learn and Share' sessions were held with SFM colleagues with experience of delivering Nourish to sense-check the findings and understand how they could be contextualised within real world practice. Finally, a panel from the youth activist movement, Bite Back, advised on the draft recommendations relating to student engagement and sustainability.

4.3 Study design

The project had four phases (Figure 1):

- **Phase 1:** Rapid literature review. This phase involved a rapid review of academic and grey literature examining WSAF in UK secondary schools. The review findings were categorised into themes and subthemes, which were then mapped to WSAF elements.

- **Phase 2:** Discovery interviews to understand barriers and facilitators to current delivery. This phase involved semi-structured interviews with three SFM POs and one secondary school representative with school food leadership responsibility.
- **Phase 3:** Workshops with school food key groups. This phase consisted of workshops with a range of key groups—including students (n=34), parents (n=5), school staff (n=5), caterers (n=9), and a group comprising third sector organisations, local authority and policy representatives (sector representatives; n=17) —to gather their views on how the Nourish programme could be adapted for secondary schools. Workshop analysis was informed by a WSAF framework, generating cross-group themes.
- **Phase 4:** Development of recommendations using an iterative approach. We used a table to integrate the findings from phases 1-3 and contextualised these within the Nourish programme by mapping the findings onto the current Nourish framework. We identified: key themes that underpin a WSAF in secondary schools; considerations for how the programme is delivered (based on the term-by-term delivery model for Nourish, see Appendix A); and interventions, activities or strategies that could be employed within secondary schools implementing a WSAF. SFM and study advisors reviewed the output of this integration and provided verbal and written feedback, which included consideration of how the findings relate to current and planned Nourish delivery, and the feasibility of the proposed changes for SFM delivery teams. Refinements to the recommendations were made based on this feedback, adapting or removing recommendations when feasibility of delivery was flagged as an issue from the SFM team. The final output was an agreed set of conditions for success of the Nourish programme in secondary schools, an adapted model of delivery, and a resource for SFM delivery teams (POs) to use in their interactions with Nourish secondary schools.

A detailed methodology for all phases of the research is provided in Appendix A.

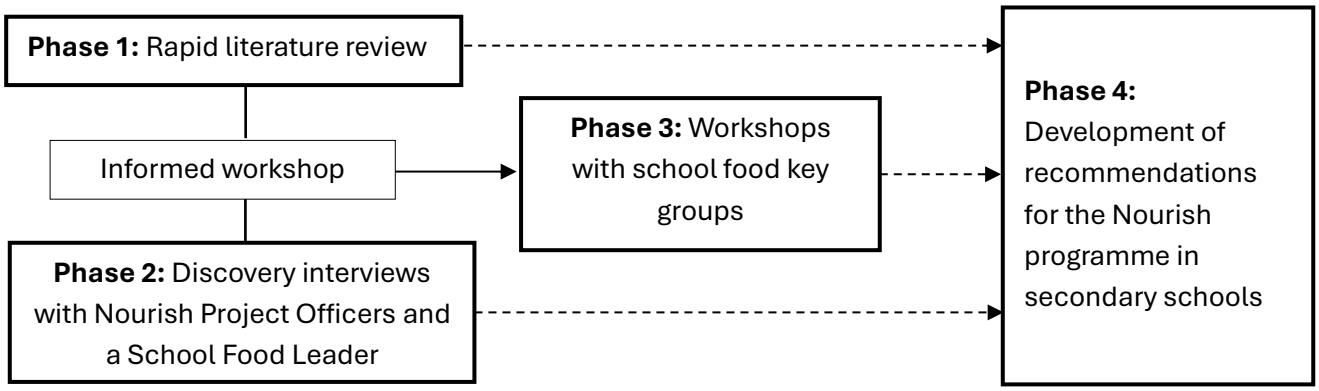


Figure 1. Study design

5 Results

The results are reported as follows:

- **Phase 1. Rapid literature review:** A combined total of 33 academic reports and grey literature documents were included in the rapid review. We identified themes relating to: leadership and relationships (e.g. having a shared vision, allocating sufficient time and resources, communication between leadership and catering teams); school policies (e.g. flexibility and developing one policy component at a time); incorporating behaviour change techniques (e.g. through actions that build student motivation and increase physical and social opportunities for change); education (e.g. using external organisations, developing students' practical skills and utilising food education as a vehicle for student-led school food improvement projects); students and young people (e.g. keeping students informed and involved, and providing opportunities for student voice and advocacy); kitchen and food service (e.g. supporting catering teams to be creative and sustainable in menu design, and providing training for catering teams); and school context (e.g. understanding cultural needs of the school community, building on what schools are already offering, and aligning school food improvement with schools' 'core business'). We identified strategies relevant to adapting a WSAF to the needs, preferences and priorities of secondary school contexts, mapped onto the WSAF framework. Detailed findings from Phase 1 are presented in a separate report (45) with key findings integrated into sections 5.2 and 5.3 below.

- **Phase 2. Discovery interviews:** Detailed findings from discovery interviews are provided in Appendix B (Tables B1-B3). A summary of barriers and facilitators to delivering Nourish is provided in section 5.1 and suggestions for improvements are integrated into sections 5.2 and 5.3.
- **Phase 3. Workshops:** The workshops focused on identifying strategies that could feature within a WSAF suited to the secondary school context, from the perspectives of young people and other key groups. These were grouped into WSAF categories as follows: 1) Key features of a WSAF intervention, including a step-by-step approach, monitoring and evaluation, recognition of changes and progress, and involvement of multiple key groups; 2) Changes to what foods and drinks are served and how they are served, including review of the catering model, menu design, use of nudge strategies and labelling, pricing strategies and tasting opportunities; 3) Creating a positive dining experience through changes to queuing and food service, and the physical and social dining space; 4) The importance of school leadership and scope for engaging catering teams in leading change; 5) Enhancing the culture around food in schools through changing social norms, peer-led activities, incentives, policy development and involving catering teams in school life; 6) Opportunities for enhancing and embedding food education across the curriculum and outside of the curriculum; 7) Food as pastoral care, including approaches to addressing food insecurity and inequity; 8) Approaches to engaging the school community in a WSAF, including students, parents, school staff, catering teams, and external organisations; 9) Ways for schools to make school food and actions around school food more sustainable for the environment. An additional "wider context" theme was identified that outlined the external conditions that would support a WSAF, with actions for local and national government, charitable and other organisations. Detailed findings from workshops are presented in Appendix C (Table C1), with key findings and illustrative quotes integrated in sections 5.2 and 5.3.
- **Phase 4: Development of recommendations.** A table demonstrating the integration of key findings from phases 1-3 is provided in Appendix D, Table D1. The result of this integration is the focus of our reporting in sections 5.2 and 5.3. Following the consultation activities (outlined in section 4.3), and discussion around what was feasible for SFM delivery teams, we propose recommendations for delivering the Nourish programme in secondary schools: section 5.2 presents conditions for success of Nourish in secondary schools; and section

5.3 presents an adapted model for Nourish in secondary schools, centred around the term-by-term Nourish delivery model. In addition to recommendations for the design and delivery of Nourish, this research has also surfaced many ideas and suggestions for how a WSAF might be implemented in secondary schools. To position these within the Nourish programme, we have conceptualised these ideas as a set of question prompts relating to each of the Nourish areas of focus (leadership, food, dining, positive relationships with food, equity and dignity, engagement and sustainability) to be used by SFM delivery teams (POs) with schools when developing their action plans, engagement and training activities and food policy. This is provided in Appendix D (Table D2).

5.1 Barriers and facilitators to delivering Nourish in secondary schools

Barriers and facilitators to delivering Nourish in secondary schools were derived from discovery interviews with SFM POs and one secondary school representative with school food leadership responsibility.

Current issues relating to secondary school implementation of Nourish include:

- Lower levels of retention and engagement of senior leaders and wider staff, especially following changes in school staffing
- Time and resource constraints due to timetabling restrictions, staff capacity and low levels of staff engagement, especially for the full one-year duration of the programme
- Lack of communication between schools and caterers, perceived to be a result of fractured or poor relations between senior leadership and catering teams, and a lack of shared understanding of the constraints placed upon each team
- Resistance to changes in food provision from catering teams, perceived to be a result of profit motives and lack of control for those using external catering providers
- Poor nutritional quality of the breakfast and breaktime offer, which is typically dominated by foods and drinks high in fat, salt and sugar
- Chaotic and uninviting dining environments, with long queues, inadequate space, and short lunchtime duration
- Lack of investment in kitchen and dining facilities

- Low / selective engagement with the policy development aspect of Nourish, seen as time-consuming with organisational barriers from governors and Multi-Academy Trust (MAT) leadership, preventing development of 'whole school' policies
- Low levels of engagement with parents in Nourish activities, perceived to be due to a lack of parental interest in secondary school food or less well-developed relationships between home and school in the secondary context
- Nourish resources being less well-suited to the secondary context e.g. student workshops being pitched at younger children
- Lack of longer-term follow-up with schools to understand sustainment of changes and their impact.

Aspects of the Nourish intervention within the secondary school context that POs and the school representative were positive about are:

- The scope for student engagement, with secondary school students seen as interested and willing to engage in school food improvement activities
- Levels of knowledge of students around food and nutrition
- The delegation of a lead within participating schools
- The flexibility permitted within the programme, seen as advantageous for tailoring aspects to meet the school's needs and priorities
- The structured, step-by-step approach that forms the basis of the Nourish intervention, especially the action planning, workshop and resource pack aspects
- The recruitment approach, which is typically achieved through linking with local authorities, and is seen as valuable in targeting the schools most in-need and in potentially supporting between-school collaboration
- Some secondary schools have successfully gained funding from corporate organisations and charities to fund food initiatives within schools, which was seen to facilitate leadership buy-in.

5.2 Conditions for success of Nourish in secondary schools

1. ***A 'slow and steady' approach that takes account of the school's particular context and challenges is needed to make school food improvement feasible and sustainable in secondaries***

"If you keep it that simple, keep it specific, and then you can come back and review those commitments..." - Catering representative

Secondary school contexts are varied and complex, and this is reflected in their food environment. Schools must cater to larger numbers and often more diverse student populations than in primary schools, and they typically have multiple food outlets and offer a wider range of foods, often spanning three mealtimes. Likewise, the curriculum is seen as busy and overstretched, with teaching on food de-prioritised in favour of other topics (e.g. within PSHE) or subjects (e.g. at Key Stage 4 onwards).

Competing pressures on secondaries, such as school catering profit/revenue, student food preferences, and schools prioritising other areas such as wellbeing and academic achievement make it difficult for schools to make large changes quickly to their food environment. SFM delivery teams have also found that secondaries are less able to engage with an intensive approach to delivery, making them more likely than primaries to disengage part-way through the programme. In keeping with other literature, this suggests that a WSAF should be approached with a longer-term lens (50, 51) to make incremental, positive changes over a sustained period of time. This longer timeframe also gives schools greater time and space to reflect on implemented changes and consider next steps (26). School governors should be involved in these processes to ensure longevity in case of staff and leadership changes (52).

These small actions made over time can have an additive effect in progressing towards a WSAF, especially when introduced synergistically i.e. multiple interventions working together to achieve different aspects of the WSAF (51). The role of the Nourish POs, then, is to help schools to identify, implement and sustain the particular set of clearly focused, positive, and suitably ambitious changes that will make the greatest difference within each school's specific context.

2. Effective delivery of Nourish in secondaries requires more intensive engagement of students

"They (the students) think well actually you really are trying to make an effort here, and I think they feel valued." - Catering representative

Within this research, students demonstrated consistent interest, willingness and ability to be involved in school food improvement activities, making them a valuable resource to support positive change in schools. The importance of meaningfully involving students in a WSAF was emphasised in all three phases of the research, not least because of the link between student-led work and improved efficacy and impact (43, 53). Meaningful involvement includes more student-led engagement, including students in putting together and reviewing an action plan for change, and reporting back to the wider student body on progress made.

3. ***Effective delivery of Nourish in secondaries requires more intensive engagement of school catering teams and strategic support within catering organisations.***

"I think we're all trying to achieve the same thing, but to ensure Nourish can achieve its aims it actually needs to work with the caterers." – Catering representative

Catering teams also have a substantial role in school food environments in secondary schools and will play a key role in successfully achieving a WSAF. The requirement to compete commercially with the food environment outside of schools offers a particular set of challenges for caterers and secondaries alike when it comes to making menus more nutritious, as does the challenge of catering at scale without a dining environment that enables suitable dining spaces. Lack of communication between school catering teams and school staff has previously hampered successful Nourish implementation in secondary schools, with reports of resistance to changes in food provision from catering teams when not engaged from the outset. Support for school food improvement activities also needs to occur at a strategic level within catering organisations, to empower and enable school catering teams to engage with the WSAF.

4. ***Input from other external partners can magnify and sustain the gains made through Nourish in secondaries***

"I think that's a key thing is actually just getting the message out there about things that are available to schools is really important, and they don't always necessarily know what's out there." – Sector representative

Engaging with external partners is critical in secondary schools because of the scale of change needed in adopting a WSAF, and the time and resource constraints that are a barrier to engagement with the programme. For successful and sustained implementation of changes to improve school food, secondary schools will benefit from engaging with a range of support beyond that offered by the SFM delivery team (e.g. resources, funding, etc.). This will help secondary schools to fill gaps within their action plans and build relationships that will support future progress towards their WSAF, beyond the duration of the Nourish programme.

SFM delivery teams can support this through dedicated time early in the programme to identify national and community assets with the school (e.g. LAs, MATs, catering organisations, charities or other community organisations) and encouraging schools to incorporate relationship-building into their action planning at appropriate time-points. When initiating Nourish in a new area, the SFM delivery team should attempt to link with the LA to understand what support they can offer to schools, and to develop a list of local charities or organisations that may be able to support schools with aspects of their WSAF. More broadly, SFM should provide schools with information on national organisations who work in school food, including any resources they offer e.g. educational resources/activities.

5. *Within the challenging context of secondaries, celebrating successes throughout Nourish is vital*

"I think it's really important when we've been trying to work with schools, is actually giving some acknowledgement to what they've already done in that area, and it not feeling like this is what we've got left to do, and this really big project, because capacity is an issue. So, it's about saying actually we know you've done all of this work and that's really positive, let's take a moment to celebrate that." – Sector representative

Sharing progress with the whole school was viewed as a way of keeping the school community engaged and motivated in a WSAF. Students report that when they do have opportunities to contribute to school food improvement, e.g. giving feedback on the food offer, it feels one-way as they often do not hear back on what changes have and have not been made and why. This leads to the perception that they are not being listened to. The potential benefits of school food improvement are wide-reaching with different elements having particular relevance to key groups;

for example, increasing school meal uptake is important to catering teams, whilst improving student satisfaction and value-for-money are important to young people, and reducing hunger and improving behaviour within lessons are important to school leaders. Engaging the different groups in reflection and celebration of the changes that are most relevant to them will foster more widespread support for and engagement with a WSAF. This may lead to increasing levels of motivation to engage with the programme, and to sustain the changes that are made.

5.3 An adapted model for Nourish in secondary schools

This section outlines the recommended adaptations to the current term-by-term model of delivery of Nourish in secondary schools, along with the evidence from study phases 1-3 that supports each of the recommendations. This section also outlines aspects of the current model that were validated by our research findings. These recommendations require action by SFM at a programme level. Further detail on how SFM POs may support schools in practice is provided in Appendix D, Table D2.

5.3.1 Design of Nourish and supporting materials

5.3.1.1 Proposed adaptations

Make project timelines flexible (with the option to extend beyond a single academic year)

Sector representatives, caterers and school staff in workshops all agreed that flexible timelines are needed due to the diversity of schools. The SFM delivery team suggested that a longer period to implement Nourish is needed in secondaries; over four terms or more to allow schools to work on smaller steps towards a WSAF and to allow adequate time for the work. POs suggested that this would provide a "legacy" period for schools to reflect on what has changed and what is left to do. To reflect this potential change to the delivery timelines, the sections below have been organised by 'phases' rather than 'terms'.

> *"There's never an ideal timeline for the schools. There's always something or the other that happens. But I think you need to consider not being very pedantic about this timeline, and sometimes tailor making it to each school in each context"* - School staff member

Test whether more intensive contact with the school supports delivery

In addition to working with secondary schools over an extended time-period, the SFM delivery team suggested a regular presence from POs to support delivery, and this was supported by sector representatives. This should be a mixture of in-person and online sessions (as recommended by the 'sector representatives' workshop). This would help to build relationships and ensure adequate lead-in and wrap-up time for POs. This more regular contact could shift to a 'light touch' period towards the end of the intervention/ in the fourth term, focusing on follow-up meetings/sessions and supporting schools to resolve challenges to implementation e.g. changes of staff etc.

> *"I think that's so helpful and important to have a physical person that goes and be with the school. Because I think the school goes thankfully somebody's here to help me, rather than here's the latest stuff that you can do"* - Sector representative

Update Nourish resources for secondaries to better meet their specific needs

The SFM delivery team also wanted improved and tailored resources for secondary schools, such as policy templates, workshops and training that are designed specifically for this setting. This includes using the correct language for secondaries (for example, 'children and young people' vs 'children') and amendments to pitch existing sessions more closely to the specific interests of students (for example, sessions on 'food and mood' or body image), as well as staff and school leaders (for example, promoting the connection between attendance, attainment and nutrition, or the value of better nutrition during exam periods).

> *"…what I wonder with a lot of things with schools, is how can we make things easier? And how can we communicate how simple something might be if it's simple, and if it's not simple then how can make it simpler?"* – Sector representative

> *"In the past it's been harder to get a hold of head teacher, and it's only when you actually start to talk the language of outcomes that suddenly they're more engaged"* – Catering representative

5.3.1.2 Things to continue

Continue to offer secondaries tailored pathways

Evidence from the rapid review indicated that small actions that schools take towards a WSAF over time can have an additive effect and suggested that interventions should be introduced synergistically i.e. multiple interventions working together to achieve different aspects of the

WSAF (51). The SFM delivery team felt that secondary schools needed more autonomy to choose the direction and support they receive within Nourish, and this was echoed by sector representatives, caterers and school staff/Senior Leadership Team (SLT) in the workshops. The tailored pathways currently offered by Nourish should speak to both concerns, by offering schools autonomy in agreeing areas of focus, and by laying the foundation for action plans that support these kinds of incremental, achievable changes to the food environment.

" Any changes that we agree as part of this intervention needs to be realistic, because very often I have seen change management in schools especially they become very lofty at the time of implementation, but over a period of time they just die a natural death because it's not sustainable or it's not practical." – School staff member

Tailored pathways incorporate options for varying levels of engagement within each area of the WSAF and the provision of menus of options for implementing Nourish.

"I think no two secondary schools are the same, everyone needs a little bit of flexibility and adaptability to whatever programme." - School staff member

Tailored approaches currently include:

- A menu of action planning ideas, engagement workshops options, training sessions, and school food policy statements for schools to select from and adapt to suit their needs and priorities.
- A menu of ways to engage students and parents/carers in the school food improvement process.
- A set of case studies of good practice.

Continue to connect secondaries to wider networks of support

The workshops emphasised the value of connecting secondaries to wider networks of support, including: linking with LAs and signposting schools to local resources and procurement support (sector representatives); signposting schools to engage with other existing school food programmes / initiatives (e.g. LA Healthy Schools Teams, charities) to support specific aspects of the WSAF (sector representatives); and facilitating sharing of good practice through providing schools with case studies (sector representatives, caterers). Capacity to engage with multiple interventions simultaneously may be an issue in some schools. Wherever possible, SFM should

align Nourish to other initiatives and interventions.

"If there are audits that need to go on then we can invite local authorities into those school settings to take part as well. So make it more of that collaborative approach to ensure it's got the legacy once the project officer does leave and we can follow up with compliance checks." – Sector representative

Continue to support secondaries to implement national policy

Sector representative workshops flagged the value of keeping schools updated on changes to national policies. Secondaries should benefit from continued updates on changes to national school food policy, guidance and resources throughout engagement in the programme, and potentially beyond. This element of the work is especially vital given the upcoming changes to funding and school food standards.

"So again, it's making sure that they're [schools] aware of the policies, any changes, communicating that." – Sector representative

5.3.2 Recruitment and engagement phase

The research has highlighted some approaches to how SFM can best recruit and engage schools to take part in Nourish.

5.3.2.1 Proposed adaptations

Review recruitment materials and adapt to increase relevance to secondary school context

The SFM delivery team suggested that there needed to be a clearer offer of what Nourish will involve in secondaries, as in the past it has been challenging to convey both the flexibility of the programme and the range of support available, as well as the benefits to schools. This could be framed around pertinent or priority issues for schools such as dissatisfaction with the food offer, increasing uptake of Free School Meals (FSM), or improving school food sustainability. Sector representatives felt that information about the project should be easy for schools to engage with, making it clear what Nourish offers and emphasising the structured, step-by-step approach. In areas where other programmes exist e.g. Healthy Schools Awards, recruitment materials should clearly indicate how Nourish may fit in with any existing programmes.

The delivery team also flagged that schools can become overwhelmed with too much information, too early on into the process. SFM should consider presenting a top-line narrative to schools about the flexibility of the programme, with some case studies to illustrate the different kinds of work and impact that Nourish can provide.

"When you've got really overstretched schools, and they are… anything that you can be doing the work in the background to make that clear communication helps make it more achievable, break it into steps, and just be alongside them to support." – Sector representative

5.3.2.2 Things to continue

Keep trialling strategic work at MAT and caterer level to reach more schools

Sector representatives recommended linking with MATs and catering organisations to support recruitment. Engaging more with MATs can support recruitment of multiple schools under MAT leadership, and achieve more centralised Nourish support at the MAT-level for cascading to individual schools e.g. a MAT Nourish liaison/lead, a MAT Food Policy, data access. Within this approach, individual schools should retain some flexibility to adapt the overarching MAT approach to their own setting.

"There are many trusts now that are blueprint trusts, whereby all the schools do the same thing, and actually I'd suggest with all the different competing agendas at the moment that's probably the place to target." – Sector representative

Engaging large catering providers may also unlock work across multiple schools using the same provider – this may allow centralised changes to impact multiple schools at once e.g. in developing a food education offer, in providing kitchen staff training (or train the trainer model), in accessing social impact funds or supporting data-collection for monitoring and evaluation. It was also suggested by sector representatives that mapping work would help to understand which caterers are working in the area for SFM to make direct links with.

"Each school has an investment [from a social impact fund], and they can make a choice over what's important to them, whether that be something around environment, whether that be something about their community, and whether that be something around engaging students and their parents in food…" - Sector representative

This more strategic approach to mapping and engaging caterers and MATs to support recruitment and delivery is currently being trialled in rollouts of Nourish in Birmingham and Hertfordshire, as part of work to scale the programme. SFM should review the impact of these trials and apply any learning to the national programme.

Continue to work through local authorities to recruit schools for Nourish

Historically, Nourish has taken a borough-by-borough approach to recruitment, where SFM approaches local authorities to support recruitment of schools, using their communication channels and networks. While publicly available data is used to identify the schools that are most in need, a closer collaboration with the local authority (for example, in Southwark, Lambeth, Tower Hamlets, Ealing and Newham) has been useful to understand the school food landscape in the area, including understanding the local food system and population needs, and integration with existing initiatives (e.g. food insecurity and redistribution initiatives, school food teams and SFS compliance approaches).

"A lot of us, especially if you're a healthy schools lead, will have really good relationships already with schools, so to be able to then put the project officers in direct contact makes the whole process a lot smoother and engages local authorities then with the process." – Sector representative

5.3.3 Set-up and planning phase

This phase includes project set-up, school food environment audits and school action planning. These activities are typically completed within term 1, however some schools may require a longer lead-in period.

5.3.3.1 Proposed adaptations

Involve caterers and student representatives in auditing the school food environment

All workshop groups echoed findings from the rapid review (54-56) by emphasising the need for involving students through feedback / consultation activities that engage the wider student population in school food in varied ways e.g. through surveys or dedicated student groups, forums

or the school student council, or through student-led school food improvement activities. The rapid review also highlighted that caterers should be involved in the WSAF and work with students on school food improvement (54, 57). This would also capitalise on the willingness to engage in school food improvement activities expressed by caterer representatives in the workshops, and would provide opportunities for improved engagement and dialogue through defined and relevant activities.

"Just by engaging with a group of students and doing that in a structured planned way, and involving our caterers made a bit of a difference actually." – School staff member

The school food audit process offers a chance to involve caterers and students in Nourish from the outset. SFM should consider student-led audit activities or involving students in some aspects of auditing. Specific audit/observation tools, checklists or template student-led surveys may need to be developed for student representatives to use e.g. student evaluation forms or photographs.

Schools should also be encouraged to involve the catering team in school food audit activities or give the opportunity for catering teams to lead the audit activities. This could include reviewing levels of sales and waste for nutritious items, the positioning of nutritious snacks e.g. fruit, whether meal deals include water and fruit, etc.

Consider reintroducing project working groups as a 'gold standard' for WSAF work in secondaries

The rapid review highlighted the importance of working with the entire school community to plan and implement a WSAF. This includes leadership teams, caterers, parents, staff, governors and vitally, students (26, 58). Given that secondary schools are time-poor settings, sometimes with high staff turnover, staff must be given the capacity to participate in a WSAF (56), and staff changes planned for (50).

The importance of collaboration was also emphasised by the sector representatives, caterers and school staff/SLT workshops. Leaders felt that schools, caterers and the wider school community must work collaboratively for success, with regular meetings. Involving students, parents and governors in decisions around a WSAF were suggested by multiple participant groups. Sector representatives highlighted the importance of utilising governors in enforcing a WSAF. Caterers wanted opportunities for better dialogue between schools and caterers on school food constraints. Having a member of SLT as well as a lead/liaison with a high-level of engagement and

understanding the value of school food (e.g. a pastoral lead) was seen to be crucial to drive change by both workshop participants, and by the SFM delivery team.

A programme leadership team or Nourish project working group with joint leadership roles may be more effective in secondary schools than reliance on an individual within the school to drive change. Suggested members are representatives from 1) SLT (essential and should provide leadership of the project working group); 2) catering team; 3) students. A Food Teacher, Business Manager, member of the pastoral team, governor and/or parent should also be invited.

"So I feel that caterer, school leaders and catering team and students involved, and parents if you can get them, would be... would need to be part of that group, because you want to get buy-in as well from all levels" - Catering representative

It is important to note that establishing a working group within each school was a core component of Nourish in the first four years of delivery, but scheduling difficulties and cost barriers made it hard for schools to sustain the running of these groups. Going forward, POs should work with schools to plan a feasible, realistic schedule and identify the resources required for setting up a project working group. Highlighting the benefits of taking part in the group, as well as clarity about the time and resources required, may help. The staff and catering members assigned to the roles should have the level of influence needed to make changes.

Where capacity restraints make a working group an impossibility, POs should focus on early engagement across all of the groups outlined above, mapping key groups with the Nourish school lead and working with each group so that their views inform the audit and that all parts of the school community have an active role written into the resulting action plan.

Finally - whether or not key groups are engaged inside or outside of a formal school food working group, POs should ensure contingency planning for staff changes that may impact upon progress with the programme.

"Embedding the programme throughout a group of people is definitely important and making sustainable changes so that then if one part of that cog leaves then the rest of it's still spinning I guess." – Sector representative

5.3.3.2 Things to continue

Project set-up meetings should continue to feature discussions on the school's vision and goals for a WSAF

The rapid review highlighted that having a shared vision and understanding across a school was influential in changing the school culture (26). Developing a shared understanding of a WSAF, its benefits and vision for school food improvement necessarily includes early discussion on what the important outcomes are for the school community. Priority outcomes may differ between key groups – for example, in our workshops, important outcomes for schools were attendance, attainment and health, while meeting the SFS and tracking sales were seen as important to caterers. The PO will play a key role in bringing these views together and supporting the development of a shared vision that speaks to the concerns and goals of the whole school community.

"Quite often as caterers we get overlooked in that decision-making. So, we don't usually get invited to the meetings where they decide how they're going to… how much time they're going to allocate for lunch and breaks and things like that." – Catering representative

Building this vision is a key part of the set-up process, which also involves understanding the school's context. This includes identifying existing strengths and challenges, student and community characteristics, catering arrangements and the local food system, as well as opportunities/assets and challenges specific to the school. All this allows a tailored Nourish approach.

5.3.4 Engagement, training and policy development phase

This is the 'doing' phase of Nourish in which schools put their action plans into practice through engagement, training and policy development activities. These activities are typically completed over term two of the intervention but may work well over an extended timeline for some secondary schools.

5.3.4.1 Suggested adaptations

Update student engagement workshops to better reflect the concerns and interests of secondary students

Sector representatives and parents recommended use of food messaging that resonates with young people (e.g. fitness, social aspects of eating). SFM delivery teams emphasised the need to adapt workshops for secondary students, focusing on empowerment, agency, and cultural relevance (e.g. offering diverse cuisines). These adaptations were seen as key to engaging diverse student groups.

" If we can put it to them that oh if you're training and doing X amount of hours in the gym you need this much protein, and this has got X amount in, and just breaking it down for them in a different way to hook them into it a bit more and thinking about what they're eating a bit more." – Parent

In their workshops, students recommended making use of credible role models to support messaging around food (e.g. peers in school, nutrition sector representatives, teachers), as well as making the most of key moments in the school calendar to promote better nutrition.

"Because if it was somebody your age can do it you would think that you could do it as well" – Student

SFM should engage a panel of secondary students to review their existing student engagement workshop plans and resources, with a view to updating them so that they speak more directly to the concerns and interests of this age group.

Make some of these engagement sessions student-led

Evidence from the rapid review shows that student-led and peer-led interventions are more enjoyable (37, 53), more effective, and lead to greater gains in knowledge, confidence, and healthy behaviours than teacher-led approaches (26). Multiple workshop groups (sector representatives, caterers, parents, staff) recommended student-led school food improvement activities (e.g. student ambassadors, student action projects) reinforcing the value of co-design and shared ownership. These activities were seen as a practical way to embed student voice in the school food environment.

"Get them [students] the experience of consulting with both the school catering staff and the catering companies that provide the food. They could work out the budgets, and obviously with the systems, it wouldn't all fall on them, but they could look at the budgets, they could work out how to plan those meals, and they could see from a student's perspective what was available, what the budget was, and how to make the best from that." - Parent

"We have mental health ambassadors and anti-bullying, and attendance and stuff. Every form. But there's no food ambassador, because if there was food or nutritious ambassador you could talk more about food and food options." – Student

SFM should support schools in developing and delivering student-led workshops or activities where possible – POs suggested that collaborating with Bite Back and other organisations specialising in youth engagement would be useful. They should also encourage schools to plan engagement activities with standing events or opportune moments in the school calendar to increase engagement.

Explore more ways to engage parents in secondaries work

Evidence from the rapid review indicates that parents should be involved decisions about a WSAF – this could be through invitation to participate in school food experiences (e.g. tasting opportunities, cooking activities), or membership on a WSAF working group (59, 60). In workshops, caterers, students, and staff also agreed that parent engagement is important for increasing uptake of school meals.

SFM delivery teams also acknowledged low levels of engagement with parents in Nourish activities, perceived to be due to a lack of parental interest in secondary school food or less well-developed relationships between home and school in the secondary context. In workshops, some parents were more positive and expressed an interest in improved communication between school and home on menus and transparent pricing, in food redistribution activities and in WSAF involvement (e.g. parent discussions, surveys, policy development input).

"*I wonder if there could be something similar but with a little group of parents potentially in each school. A bit like when governors and people like that, school governors do things like that, but a little brigade of food parents, something like that maybe, but that they can then send surveys home potentially.*" - Parent

However, these participants are likely to be highly motivated. Other parents and school staff felt that parental involvement either wasn't necessary or would remain a challenge.

It is not possible to gauge from our own discussions with parents what the best mechanism is for bringing parents of secondary-age children into discussions about a WSAF. SFM should work to

extend insights from this research into a clearer picture of what realistic, effective parent involvement might look like.

Explore adding training for kitchen staff

Nourish already delivers core WSAF training for governors, senior leaders, and school business managers, and school food standards training for leadership, classroom and kitchen staff. Recommendations for further training from the rapid review included training for kitchen staff to increase skills and knowledge to improve their confidence in preparing nutritious food for young people (e.g. Chefs in Schools (61, 62)). Workshop participants also suggested inspiring food training for catering teams to increase their skills, passion and motivation for preparing high quality food, as well as specific training on allergens and food issues relating to SEND. Collaborating more closely with Chefs in Schools (as is currently happening in Nourish Hertfordshire) could bring expertise in this area. SFM should work with schools to identify the right people to receive training (e.g. school staff, kitchen staff, governors) and encourage schools to plan staff training with standing events or opportune moments in the school calendar to increase engagement e.g. inset days.

"So I've inherited teams that have been there for 20 odd years. So actually getting them excited and passionate about food has been quite a key thing for me over the last four and a half years. But we had a big group training day last January where we bought loads of people, different suppliers in, and they were doing all sorts of different food, and that has been the biggest motivator for them." - Catering representative

5.3.4.2 Things to continue

Maintain a flexible approach to supporting schools to develop their School Food Policy

The rapid review found that schools may benefit from a step-by-step guide to support a structured approach to policy development, ensuring there is understanding of each stage (26). In discovery interviews, SFM delivery teams suggested that the current practice of allowing schools to tackle one policy aspect at a time, which eventually comes together to form one cohesive whole school policy, may be more achievable for secondary schools.

SFM should continue to use School Food Policy templates that are tailored to secondary schools, allowing schools to select from a menu of school food policy statements. They should also continue to offer flexibility in the school food policy development timeline, with an option to

develop one policy aspect at a time or have multiple small policies that can come together if full-policy development is not feasible.

5.3.5 Learning, celebration and maintenance phase

This is the last phase of Nourish in which schools review their progress and plan for maintaining a WSAF beyond the lifespan of Nourish. It is typically completed over term three, but secondary schools may need a longer timeline for enacting action plans and so this phase may need to move into the following academic year.

5.3.5.1 Suggested adaptations

Increase and extend opportunities for Nourish schools to learn from each other

Nourish currently connects cohorts of schools in the same area for two 'learning and sharing' meetings – one at the midpoint, and one at the end of the programme. Sector representatives and caterers suggested expanding on this by linking schools with other schools to share good practice, or to develop 'communities of practice' or 'flagship' schools. In discovery interviews, POs suggested that schools could also be motivated by competition, and that one way to increase opportunities for Nourish secondary schools to interact was to host a competition related to food-based changes and behaviours within a cohort.

Secondary schools may benefit from a wider network of support for learning and sharing opportunities. Nourish 'Champion' schools could potentially support recruitment of further schools, attend Nourish events to showcase the programme, or support schools through ongoing engagement activities / a community of practice.

"Could you make the schools that have gone through the programme like for want of a better word, a flagship school, and then you can point other schools in that area to that school, and say "Look, go and talk to them, this is their experiences, this is what they've achieved." So, it keeps them… the standard high, and it will keep them on board for longer maybe." – Catering representative

Bringing together Nourish schools in wider constellations to support the spread of best practice fits neatly within SFM's current scaling plans for the programme. SFM should explore the resources and benefits attached to supporting either self-managed communities of practice or champion

schools/flagships, and identify which models schools would prefer to engage with. SFM could also consider hosting local or national celebration events, festivals or competitions.

Establish feedback loops in Nourish, especially for students

In workshops, students wanted schools to share progress with the whole school and feedback to students on how their input has been actioned.

"The school can listen but if they don't actually do anything it doesn't change anything…the students are not happy with the food, but are you actually going to do something about it?" **–** Student

Sector representatives, too, suggested celebration activities for schools.

"So it's about saying actually we know you've done all of this work that's really positive, let's take a moment to celebrate that" – Sector representative

SFM should encourage schools to regularly report on progress to key groups and celebrate their successes to maintain momentum and motivation. These updates should include specific reporting on how student feedback has been actioned where possible, and be transparent about challenges for implementation of changes.

Support schools to monitor progress against the goals in their action plans

Nourish currently sets regular meetings to review and reflect on progress and put action plans into place – a practice flagged as effective within the rapid review (26, 58). Evidence from the rapid review and workshops suggests that these review meetings could potentially be strengthened by establishing robust ways for schools to evaluate the effectiveness of changes made so that reflection can take place (26, 58). Caterers recommended involving catering teams in monitoring the WSAF, e.g. using existing catering data; and having a range of outcomes related to food provision e.g. sales data as well as SFS compliance.

"So I think just that transactions, sales, free school meal uptake, would be really good to track to see if any of these are having a positive impact or negative impact." – Catering representative

POs should support schools to put in place an achievable monitoring and evaluation plan, with reflection built in to action plan reviews to enable schools to assess progress made towards their WSAF goals.

Schools will need support to select metrics that are tailored and relevant to the school community (e.g. school meal uptake may be an important measure for catering teams, while student satisfaction may be important to students), and where data are readily available and easily collected for review. Collecting data is another chance to involve key groups in Nourish (e.g. catering teams, LAs, students). Plans for sharing data/reflections with these groups should be put in place at the outset.

Sector representatives suggested alignment with existing national or local schemes such as the Healthy Schools Award and compliance / monitoring schemes, e.g. using the process to provide evidence. SFM should consider integration with these where possible. The rapid review indicated that award schemes can help motivate schools (58).

"The Healthy Schools awards is a useful tool, because it's something that schools are quite motivated by" – Sector representative

6 Next steps for SFM

This work is intended to provide a robust basis for adaptation and future piloting and evaluation of the Nourish programme in the secondary school context. However, several uncertainties remain.

First, the ideal duration of the programme is unclear. Although the discovery interviews indicated four school terms would better suit secondary schools, further detail on ideal programme length did not appear in the rapid review or workshop findings. Rather, the findings indicated the need for adequate lead-in time, flexible timelines and regular reviewing. Instead of indicating a specific timeline for activities, we suggest delivery of 'phases' with flexibility of the duration of each phase based on individual schools' needs. However, this will also require some flexibility in PO engagement with schools. SFM need to consider whether this is a viable option for POs from a resource and time management perspective.

The current model of using 'pathways' or 'themes' to allow staggered or focused delivery of activities tailored to each school may need testing and refining. Although the intention of such pathways / themes is to be responsive to schools' ambitions and capacity, and allow the programme to be more manageable and to focus on what the school's needs and priorities are, there is a risk that such an approach moves away from the ethos of the systemic "whole school"

approach, which is known to yield grater benefits. SFM should review how this 'pathway' approach may impact upon the holistic implementation of a WSAF.

Workshop participants were ambitious in their suggestions for involving students, with 'co-design' a common feature across all groups. This was reiterated by the Youth Panel who felt that students should be at the forefront of generating ideas and shaping options for school food improvement. It is noted however, that full-scale student co-design of school food improvement is likely to be challenging, requiring commitment from senior leadership, adequate support and resources for students, and extended timelines. Similarly, the importance of parental engagement featured across both the rapid review and workshops, yet POs shared challenges in engaging secondary school parents in Nourish. Parent participants in the workshops are likely to be particularly motivated and so the suggestions for parental engagement in this report may be challenging to implement across the broader secondary school context. SFM may need to consider the feasibility of 'higher level' student and parent engagement activities, such as student-led food improvement projects and parent representation on a project working group. It will be important to further develop, test and refine the proposed adaptations, taking an iterative approach to Nourish programme development for secondary schools.

One output of this work was a question set for SFM POs to use to prompt discussion and thinking on schools' action plans, engagement and training activities, and policy development. We suggest that SFM delivery teams review this question set and consider how and where they might be positioned within existing Nourish PO materials and activities.

The focus of this work has been on developing recommendations for delivery of the Nourish programme in secondary schools. A next step for SFM is to test the feasibility and acceptability of the proposed adaptations and identify facilitators and barriers to their implementation. Further refinements may be needed.

7 Wider implications for a WSAF in secondary schools

In addition to understanding how a WSAF can be tailored to the secondary school context, this research has also identified some broader conditions under which a WSAF would be most likely to succeed. Many of these conditions apply to the wider context beyond schools themselves and to

organisations designing and delivering a WSAF. For school catering organisations, having a strategic approach to supporting school food improvement through its mission, corporate responsibility activities and advocacy were considered important. Local governments were seen to play an essential role, through building systems for supporting local school food improvement work, including signposting, resources and staffing relating to procurement and monitoring support, benchmarking schools and building collaborative school networks. Building a stronger and more coordinated local food system was also seen as an ideal condition for the success of WSAF; this means better integration of school food into the local food system to enable greater emphasis on sourcing high quality food supplies locally and affordably, but also developing a cohesive approach to how food features in the lives of students outside of the school gates e.g. through local shops and food businesses, community and voluntary organisations, leisure services etc. Finally, there were actions for national government relating to increased funding for school meals, improved monitoring of school food; and extending and improving access to FSM. These findings reiterate previous research identifying priorities and actions for secondary school food improvement and successful policy implementation (40, 63, 64).

8 Strengths and limitations

Key strengths of the study include the specific focus on adaptation within the secondary school context, filling a gap in the existing research literature; engagement of participants from a wide range of key groups relevant to secondary school food improvement; data collection across three research phases which enabled triangulation of findings using a variety of methods; and a collaborative approach that enabled sense-checking of findings and recommendations with those who would participate or be responsible for delivering the Nourish programme, and other academic and sector representatives with expertise in school food improvement.

Limitations to this work include: a focus on mainstream secondary schools, with no specific consideration of groups that may have additional needs (e.g. secondary school-aged students with SEND attending mainstream schools, special schools or alternative provision); the restriction of the rapid review to UK studies, which may have resulted in missed valuable learnings from other country contexts; and low recruitment of parents and school staff into workshops in comparison to other participant groups. The participants that did take part are likely to be more actively interested

or involved in school food improvement and so the findings may not be fully generalisable to less motivated schools, students or parents.

9 Conclusions

This research has enabled a systematic, empirical approach to deepen understanding of a WSAF in the secondary school context and identify adaptations for future delivery of the Nourish programme. This has allowed identification of conditions for successful delivery relating to: incremental delivery; meaningful engagement of key groups, especially students and caterers; linking with wider community and organisational assets; and planning for reflection and celebration. We have proposed adaptations to Nourish materials and activities, the timeline, the ongoing support offered by SFM throughout and after the programme, and the recruitment approach, as well as confirming aspects of existing delivery that are supported by this research. We also offer a set of question prompts for SFM delivery teams to use with secondary schools engaging in the Nourish programme to support discussions and planning for their WSAF. Several uncertainties relating to Nourish in the secondary school context remain, including the optimal duration of the programme, the role of parents in achieving a WSAF, the level of engagement possible from students and the potential impact of a flexible delivery model upon the holistic nature of a WSAF. SFM should test the proposed adaptations and further refine and develop these, continuing to consult with their delivery team. SFM should also regularly review Nourish in relation to new national school food policy developments as they are introduced, such as revised school food standards and curriculum reviews.

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11 Contributions of authors

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Eve Blair (SFM Impact and Strategy Manager) commissioned the project, advised on its design and conduct, assisted in phase 3 data collection and reviewed all drafts of the report.

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12 Disclosure of interests

EB and ED are employed by School Food Matters, the charity who designed and deliver the Nourish programme. MP and MM received funding from School Food Matters to undertake the study.

13 Ethics statement

Ethics approval for Phase 2 and Phase 3 was granted by the University of Birmingham Research Ethics Committee on 28th May 2025 (ERN_4361-May2025) and 17th September 2025 (ERN_4506-

Sep2025) respectively. All participants were provided with study information prior to taking part and provided written informed consent to participate, for audio-recording of interviews and focus groups, and for publication and sharing of their anonymised data. Passive parental consent was required from parents or caregivers of student participants.

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