



Process evaluation of the implementation of universal free school meals (UFSM) for P1 to P3: Research with schools and local authorities

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Douglas Eadie, Allison Ford and Martine Stead –
Institute for Social Marketing, University of Stirling

Stephanie Chambers, Nicola Boydell and Laurence Moore –
MRC/CSO Social and Public Health Sciences Unit, University of Glasgow

Annie Anderson –
Centre for Public Health Nutrition Research, University of Dundee
For NHS Health Scotland Public Health Science

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For further information on the evaluation, contact:
Rachel McAdams
Public Health Adviser (Evaluation)
rachel.mcadams@nhs.net

or visit
<http://healthscotland.com/freeschoolmeals>

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Executive summary

Background

In January 2015, Scotland moved from a targeted system of Free School Meals (FSM) to a service providing universal free school meals (UFSM) for all children in Primaries 1 to 3 (P1-3). The targeted system remained for children in P4 and above. Since the launch of Hungry for Success in 2003, a series of policies and guidance has focused on school food reform and nutrient standards. The UFSM policy is set within this context alongside an increased policy focus on reducing health inequalities in Scotland.

A theory of change was developed by NHS Health Scotland for UFSM provision. It was identified that key policy outcomes will be underpinned by a number of assumptions and that achievement of these outcomes will also be influenced by certain external factors. Further, it recognised that the implementation of UFSM may also generate positive and negative unintended consequences.

NHS Health Scotland commissioned a research team from three universities to undertake a process evaluation of the implementation of the UFSM policy. The research was led by the Institute for Social Marketing at the University of Stirling, in collaboration with the MRC/CSO Social and Public Health Sciences Unit at the University of Glasgow, and the Centre for Public Health Nutrition Research at the University of Dundee.

The process evaluation comprised three main strands: research with parents, schools and local authorities. This report focuses on the research with schools and local authorities. A detailed report on the research with parents was published in October 2015.

Aims and objectives

The study aimed to undertake a process evaluation of the implementation and uptake of UFSM by local authorities, schools and parents.

The objectives were:

1. to identify key variations in implementation, i.e. those which may impact on the intended outcomes described in the theory of change
2. to identify factors that may be contributing to differences in UFSM uptake across schools and local authorities, as monitored by the annual Healthy Living Survey on school meal uptake data
3. to identify the common barriers and facilitators to implementation, and describe how these were overcome or utilised by local authorities and schools
4. to identify and measure any unintended consequences of implementation and uptake, both positive and negative, and whether and how schools and local authorities attempted to mitigate any unintended negative consequences
5. to identify learning to further improve the implementation and uptake of UFSM for all P1 to P3 pupils.

Method

The study was conducted over two phases using a mixed methods approach and divided into three linked research streams: research at school level, research at local authority level, and research with parents. As noted the research with parents was published separately.

	Phase 1 (Jan–Jun 2015)	Phase 2 (Jul–Dec 2015)
Schools	Observations and interviews in selected case study schools	Repeat observations and interviews with case study school senior managers and head cooks
Local authorities	Survey of all authority leads	Case studies with selected authorities
Parents	Independent discussion groups	

Schools research

Utilising a case study approach, three local authorities were purposively selected to participate in the research: a mainly urban, a mainly rural and a mixed local authority. Ten schools were then selected from across the three areas. At Phase 1, 30 in-depth interviews were carried out with school senior managers (head and deputy head teachers) (n=10), head cooks (n=9), and P1-3 teachers (n=10). An additional interview was carried out with a member of support staff who supervised the dining hall in one of the schools. Discussions explored the barriers and facilitators to implementation and uptake, how these were overcome or used by schools and any unintended positive and negative consequences of implementation and uptake. At Phase 2, a follow-up interview was carried out with a senior manager in each school (n=10). Additional informal interviews were carried out with eight of the nine head cooks interviewed at Phase 1.

In addition to the interviews with key staff, data collection at both Phase 1 and 2 involved observations of the school and dining hall environment. This included observations of children's lunch choices, processing of choices by office staff, catering staff preparations, serving and eating of meals, and clean-up of meals. Detailed field notes were made for each observation and a structured observation pro-forma was completed for each school. Photographs were also used to assist data analysis, and to detail dining hall size and layouts of kitchens, tables, seating, serving areas and waste disposal.

Local authorities' research

At Phase 1, a survey was conducted with local authority facilities managers identified as having responsibility for the delivery of the UFSM policy. A self-completion questionnaire was emailed directly to prospective participants in late February 2015. A total of 34 returns were received by early April 2015. All local authorities were invited to participate in the survey. Representation from 31 of Scotland's 32 local authorities was achieved. Nine areas of activity found to be important to

implementing UFSM policy were explored in the survey. Descriptive accounts of barriers and facilitators to implementation in each area were provided using a combination of pre-coded rating scales and open-ended response fields. Participants were also asked to provide information on levels of UFSM uptake.

Phase 2 involved the collection of more in-depth qualitative data from six local authorities. Local authorities were purposively selected to represent a cross-section in terms of local geographies, level of deprivation, types of catering provision and differences in level of uptake of UFSM measured via the Healthy Living Survey. A total of 19 stakeholders were interviewed, eleven from catering and facilities management, five from education, and three head teachers. Discussions focused on relevant constructs identified from the theory of change model and findings to emerge from the Phase 1 survey.

Summary of main results

Barriers and facilitators to implementation

Overall, schools and local authorities had managed and implemented UFSM successfully. Barriers and facilitators were identified at the planning stage and the one year lead-in time provided time to plan ahead and overcome difficulties, either before implementation or in the weeks and months afterwards. However, some barriers were ongoing, and remained a challenge after implementation.

Staffing

In some local authorities, placing enough experienced staff in school kitchens and dining halls to feed an increased number of children was challenging. Unattractive contracts, competition from other sectors, and a lack of job readiness from some candidates were problematic. Local authorities tried to mitigate these barriers by beginning recruitment early, extending the hours of existing catering staff, and targeting job vacancies to specific groups. In some authorities, inadequate supervision within the dining hall was also a concern among school staff and local authority stakeholders alike. A lack of training opportunities around supervising children and the reported difficulties in catering staff interacting with children when time was pressured were barriers to adequate supervision. Key staffing facilitators in implementing UFSM and increasing uptake included positive relationships between catering staff, dining room support staff, school senior managers and children; having experienced catering staff in place; and the willingness of P1-3 teaching staff to stay with children during their own lunch breaks.

Equipment and infrastructure

Infrastructure improvements were necessary for effective implementation. Limited capacity of school buildings, particularly in older, larger schools, impacted on kitchen and dining space in relation to storing food, serving meals and accommodating a larger number of children eating a hot meal. Within case study schools, some limited infrastructure improvements had been made and additional equipment provided. Barriers to undertaking additional infrastructure improvements included uncertainty over capital funding, increased competition for new equipment and service suppliers, and gaining the support of schools in making changes. Barriers were overcome in

some areas by systematic auditing of dining and kitchen facilities at an early planning stage, covering temporary funding short-falls, prioritising improvements, and implementing structural contingencies, such as cooking meals off-site, modifying ordering procedures, and making use of additional spaces within the school.

Dining arrangements

Where space constraints existed, staggered servings and modified serving times were introduced to accommodate increased uptake of UFSM. Additional spaces within the school were used when possible, often resulting in the separation of packed lunch and school meal children. P1 readiness for the school meal system was identified as challenging school senior managers and teaching staff. Many children in this year group did not yet have the skills to make choices, carry trays, and pick out a place to sit; therefore their progress through the servery was slow, as was their ability to finish meals in the time available. P1 children were often brought to the dining hall ahead of the lunch bell to ease these difficulties. School senior managers and teaching staff believed that parents could better prepare their children for the dining environment at home such as teaching them how to use cutlery. Pre-ordering systems, introducing tray systems, additional serveries, increasing supervisory staff, and the use of dining hall monitors were additional measures to reduce the impact of expected delays. Implementing UFSM mid-year (from January 2015), however, appears to have been an important facilitator letting P1s have four months to settle into the dining hall environment, allowing for a smoother implementation period as numbers increased under the universal system.

Communication and engagement

Concerns were raised that communication to parents from local authorities on the arrangements for UFSM, such as eligibility, had not always been adequate and schools reported stepping in to provide families with clearer information. Post-implementation, school senior managers and teaching staff reported a lack of engagement from parents regarding school meal systems and menus, with no clear mechanisms for parents, or children, to feedback their views on the choices available. Some schools wished for parents to be more engaged in helping children make choices, while others wanted parents to allow children to make choices with the assistance of school staff. Taster sessions appeared to be a worthwhile facilitator to improving children's and parents' perceptions of school meals and parents reported appreciating the opportunity to attend taster sessions.

Both the school and local authority research suggested that staff attitudes towards UFSM could be a barrier to local implementation. Some school senior managers voiced a lack of support for UFSM, believing that other policies may be more appropriate for reaching families who need the support the most. At a local authority level these attitudes were perceived to be important barriers to implementation and uptake. Increasing opportunities for partnership working between catering and education colleagues were identified as potential mechanisms for increasing senior manager buy-in at school level.

Impacts

The study found evidence of UFSM policy impacts on three main outcomes identified in the theory of change: level of uptake of UFSM, financial benefits and nutritional benefits. The study also identified some wider social and educational impacts.

Impact on uptake of UFSM

School meal uptake had increased among P1-3 pupils since the introduction of the UFSM policy, although routinely collected data gathered by schools and local authorities showed lower increases in uptake than that indicated by Healthy Living Survey data. Within authorities, UFSM uptake fluctuated considerably between individual schools. While no formal evaluations of UFSM uptake data were reported, school size and senior manager attitudes towards the policy and school meal provision were considered key factors associated with uptake. No conclusions could be drawn on the impact of deprivation on UFSM uptake, although some local authority stakeholders believed it played a role. Other possible contributors identified included peer influence, menu choices, seasonal climatic conditions and the provision of a packed lunch option, the latter of which was thought to increase uptake. Uptake of UFSM was considered largely dependent upon a school's individual context and circumstances, and the dynamics at play between these factors. It was difficult for schools and local authorities to comment on any change in school meal uptake for P4-7 pupils as formal analysis was yet to be undertaken. The implications of the UFSM policy for pupils entering P4, who had previously benefited from UFSM, were beginning to be considered by local authorities.

Impact on financial benefits

The evaluation did not measure the financial benefits offered by UFSM. However, it did ask stakeholders who they perceived UFSM to be benefitting financially. These views were often linked to an individual's attitudes towards the policy. Local authority and school stakeholders believed that the families gaining most from the UFSM policy were newly eligible families. Some school senior managers, however, often felt that those most in need were already provided for through previous arrangements. Local authority stakeholders were more likely to believe that the policy was benefitting newly eligible working families on low incomes, or those in more affluent areas, but with financial pressures. Among the parents taking part in the research, newly eligible parents welcomed the cost savings which UFSM offered their family, while those eligible under previous criteria saw the policy benefitting families around them on low incomes. No financial benefit was perceived for families eligible for FSM through previous arrangements and there was no reported impact on these families' accessing linked benefits such as the clothing grant. There were some concerns raised about unintended consequences following the introduction of new processes, such as pre-ordering systems, which had resulted in some issues for families transitioning from the old system, should they not return completed forms on time.

Impact on nutritional benefits

All school meals are devised to meet the nutritional requirements within the Food and Drink in Schools (Scotland) Regulations 2008. The evaluation did not measure changes to the nutritional content of school meals, but did ask stakeholders about any perceived changes to the school menus and nutritional benefits to children

following introduction of UFSM. There were some reported modifications to school menus, with changes to hot menu options, and the introduction of a school packed lunch. A small number of schools reported changes to the perceived quality of ingredients post-implementation, with an increase in frozen vegetables, and one school reported a reduction in portion size following introduction of UFSM, to reduce waste and to provide more appropriate portions for younger children. While general patterns in the popularity of different food options and choices appear unchanged by the policy, a number of significant changes to consumption were noted. On the positive side, the introduction of packed lunch options were popular and widely perceived by school staff and parents as healthier than a home-prepared packed lunch. There was also a reported increase in requests for medically prescribed diets from parents entitled to FSM under the new policy. On the negative side, the research found higher levels of food waste following the introduction of the policy, particularly on those days when there were less popular menu choices. Although it was unclear if the increase in waste was proportionate to the increase in children taking school meals.

Other impacts

Other impacts identified were mainly associated with perceived negative effects of the policy. School staff felt that increased pressure on dining halls resulted in a less conducive dining environment for younger children who were perceived as being less able to cope. Separating packed lunch from school meal children as a way of managing these pressures was felt by some school staff and local authority stakeholders to negatively impact on the social benefits of lunch time for children. Some negative educational impacts were reported in schools with dual use dining/gym facilities, who reported added time pressures in delivering physical education. Some school senior managers also felt that additional time was sometimes required at the start of the teaching day to discuss and make lunch choices. On the positive side, some authorities reported that investment in facilities and dining support staff had benefited the whole school. Increased interest in school meals from parents and greater dialogue between parents and children regarding school meals and healthy eating was also reported in some authorities.

Conclusions

With a year to plan for the introduction of UFSM, the majority of schools and local authorities had implemented the policy successfully. Barriers to implementation included having enough experienced, well-trained staff in place by January 2015, infrastructure constraints, time pressures, space constraints, and concerns around policy communication and engagement. Facilitators to implementation included well trained catering and dining hall support staff, improvements to infrastructure and equipment, changes to dining arrangements, and partnership working between catering and education stakeholders. The most significant impact of UFSM has been increased uptake of school meals, particularly on days when popular menu choices are available. Families on low incomes, and families on higher incomes with significant demands on that income, were perceived to have benefited most. Concerns were raised that a universal policy for P1-3, with many well-off families benefitting, was at the expense of less well-off families with children in P4-7. School meals were perceived as providing a more nutritionally balanced meal than that provided through home packed lunches. Nevertheless, some school staff raised

concerns about what children chose to eat and a perception that plate waste had increased.

Areas for further action

The research identified nine action areas to promote and sustain UFSM uptake:

- **Communication:** More needs to be done to communicate the rationale for the policy to school and local authority staff and parents, in terms of its expected benefits for children and families by the Scottish Government, including the reason for targeting primary 1-3 children.
- **Engaging parents and children:** Taster sessions for parents and children were reported as effective at increasing UFSM uptake. They encouraged parent engagement, addressing concerns regarding school food and dining environment, and encouraged children to try new foods. Schools should consider increasing opportunities for taster sessions.
- **Communicating with parents:** Local authorities and the Scottish Government could offer further support for schools to raise awareness of the policy among parents with English as a second language.
- **Review impact on the dining environment:** Local authority, school staff and parents have raised concerns about the impact of increased uptake of UFSM on the dining hall experience for children, especially younger children. Local authorities and schools should review the dining hall experience in individual schools and address any concerns. National agencies should facilitate the identification and sharing of good practice examples between schools and local authorities which have improved the dining hall experience for children.
- **Staffing:** Schools reported that having sufficient catering and dining hall support staff, with the skills to encourage children to make healthy choices and try new foods can have a positive impact on uptake of school meals, and on what children choose and eat for school meals. Local authorities and schools should work together to ensure sufficient supervisory staff are available during lunch time and consider how training on supervision and food choice could be provided for staff.
- **Menu development:** School staff and parents both reported that menus which are familiar and appeal to children were a potential way of increasing uptake of UFSM. Schools and local authorities should consider establishing or enhancing systems for parents and children to feedback on menu choices and to encourage more reflective approaches to menu development.
- **Partnership working:** Partnership working between school catering and education staff was reported as an important facilitator for improving implementation of UFSM and where absent, could act as a barrier. Local authorities should facilitate partnership working at all levels between education and catering to encourage greater integration of catering and food choices into wider school life.
- **Monitoring uptake data:** There was a lack of interrogation of routinely collected UFSM uptake data at a school or local authority level. Routinely analysing UFSM uptake data at a school and local authority level would encourage exploration of barriers to increasing uptake and provide a means of identifying and working with those schools which may require support to increase uptake.

- **Monitoring longer term uptake of UFSM:** The existing national data on uptake of school meals and FSM, through the Health Living Survey has some important limitations which derive from its dependence on an annual snap-shot of uptake based on a single day's data. The Scottish Government should consider better ways of monitoring and evaluating the impact of UFSM in the longer term, such as making better use of more routine local data on school meal uptake.

1. Introduction

This report focuses on the findings from a process evaluation of the implementation of universal free school meals (UFSM) for primary 1 to 3 pupils in Scotland. The evaluation had three strands, research with parents, schools and local authorities. A detailed report on the research with parents was published in October 2015. This report focuses on the research with schools and local authorities, detailing the methods (Chapter 2) used and key findings for each strand (Chapters 3 and 4). In the discussion (Chapter 5) findings across all three research strands have been synthesised, to inform our conclusions and recommendations (Chapter 6).

1.1 Background

In January 2015, Scotland moved from a targeted system of Free School Meals (FSM) to a service providing universal free school meals (UFSM) for all children in Primaries 1 to 3 (P1-3). Children in P4 and above continue under the existing targeted system of FSM. Under the targeted system meals are provided free of charge to children whose parents are in receipt of certain benefits or child tax credits, or to older children who are themselves in receipt of benefits. Children wishing to take a free meal, but who do not qualify for free meals under the targeted FSM policy, can either pay a set price for an all-inclusive menu, or choose from a variety of differently priced options, depending on the school's cafeteria system.

In 2007-08, a trial was run in five Scottish local authorities offering free school meals to P1-3 pupils.¹ The evaluation of this trial, carried out by the market researcher Ipsos MORI on behalf of the Scottish Government, suggested that: implementation was relatively straightforward; issues relating to implementation were concentrated in the early stages of the trial; key stakeholders were positive about provision of FSM for P1-3 pupils; and uptake increased across the five local authorities.

NHS Health Scotland commissioned a research team from three universities to undertake a process evaluation of the implementation and uptake of the UFSM policy. The research was led by the Institute for Social Marketing at the University of Stirling, in collaboration the MRC/CSO Social and Public Health Sciences Unit at the University of Glasgow, and the Centre for Public Health Nutrition Research at the University of Dundee.

1.2 Wider policy context

With the launch of Hungry for Success,² Scotland led the way in school food reform within the UK. The guidance within Hungry for Success introduced nutrient standards for school meals and other foods provided in schools. The standards were subsequently revised and then formalised as part of the Nutritional Requirements for Food and Drink in Schools (Scotland) Regulations (2008).³ Taken together with the Schools (Health Promotion and Nutrition) Scotland Act (2007)⁴ and the accompanying health promotion guidance⁵ the responsibilities on Scottish Ministers, local authorities and schools in relation to school food were set out. Yet, across Scotland, there remained concerns around the foods that children were consuming within the school setting.⁶

In 2014, the Scottish Government launched Better Eating, Better Learning,⁶ which set out a new context for school food. This is in addition to an increased policy focus on reducing health inequalities with the publication of Equally Well⁷ in 2008. Further work undertaken by NHS Health Scotland, the Health Inequalities Policy Review,⁸ considered evidence of policy interventions likely to reduce health inequalities. Provision of free school meals was highlighted within this review as having the potential to reduce health inequalities by removing price barriers to healthy food for children.

1.3 Theory of change assumptions

The theory of change (see Figure 1 below) developed by NHS Health Scotland for UFSM provision was based on a rapid review of published evidence and developed in consultation with stakeholders.⁹ The theory of change is underpinned by several assumptions identified below. It is also acknowledged that achievement of the outcomes will be influenced by the wider context (external factors listed below), which may also impact on implementation of the policy. Further, it is recognised that the implementation of UFSM may also generate positive and negative unintended consequences, some of which are listed below.

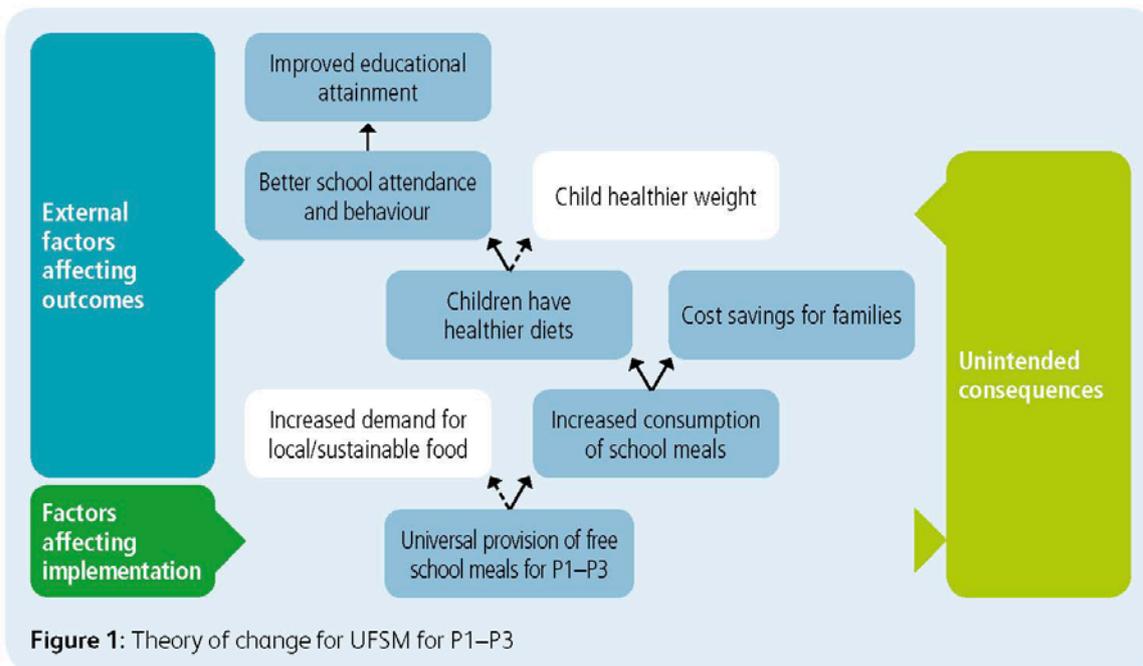


Figure 1: Theory of change for UFSM for P1-P3

External factors

- Other school food policy (local and national).
- School approach to school meals and nutrition education.
- Parental engagement in school /school meals.
- Other demands on dual facilities, e.g. PE.
- Child Healthy Weight initiatives in schools.
- Welfare reforms and wider economic context.
- Food availability and cost.
- Levels of early years provision.

Underlying assumptions

- School meals are healthier than packed lunches.
- Children will eat the food provided.
- Children make healthy choices.
- Stigma/peer pressure will not affect P1-P3.
- Parents are supportive of UFSM policy.
- Schools provide a good lunchtime experience for children.
- Children eat each day (food is 'balanced' over a week).
- No compensatory unhealthy eating later in the day.

Potential unintended consequences

- Effect on claims for other benefits (e.g. clothing allowance) due to administrative link with FSM.
- Other aspects of school life suffer (e.g. PE, breakfast clubs).
- School meal food quality suffers.
- Increase inequalities – greater benefits for the better-off families.
- Current P4-P7 and other siblings are put off having school meals.
- Food waste increases.
- Parents' time freed up.

1.4 Aim and objectives

The aim and objectives for the study were detailed as follows.

Aim: To undertake a process evaluation of the implementation and uptake of UFSM by local authorities, schools and parents.

Objectives:

1. To identify key variations in implementation, i.e. those which may impact on the intended outcomes described in the theory of change.
2. Identify factors that may be contributing to differences in UFSM uptake across schools and local authorities, as monitored by the annual Healthy Living Survey on school meal uptake data.
3. Identify the common barriers and facilitators to implementation, and describe how these were overcome or utilised by local authorities and schools.
4. Identify and measure any unintended consequences of implementation and uptake, both positive and negative, and whether and how schools and local authorities attempted to mitigate any unintended negative consequences.
5. Identify learning to further improve the implementation and uptake of UFSM for all P1 to P3 pupils.

2. Methodology

2.1 Study design

The study was conducted over two phases using a mixed methods approach and divided into three linked research streams: research at school level, research at local authority level and research with parents. The following diagram illustrates how the three streams of research were delivered. Findings from the research with parents, which was completed after Phase 1, are published separately.¹⁰

	Phase 1 (Jan–Jun 2015)	Phase 2 (Jul–Dec 2015)
Schools	Observations and interviews in selected case study schools	Repeat observations and interviews with case study school senior managers and head cooks
Local authorities	Survey of all authority leads	Case studies with selected authorities
Parents	Independent discussion groups	

Given the large number and diverse range of local authority areas (n=32), the study opted to sample a broad representation of local authority areas in favour of a narrower case study approach. Consequently, the qualitative study components were conducted in 12 separate local authority areas: parents (3 areas), schools (3 areas) and local authorities (6 areas). In addition, this approach to sampling ensured that the selection of case study authorities at Phase 2 was able to take into

account UFSM uptake as a sampling variable. All local authorities were invited to participate in the Phase 1 self-completion survey.

This report describes the findings to emerge from both phases of research with schools and local authorities. This includes findings from the observations and interviews conducted in case schools and survey and case interviews conducted with local authorities. The sample, data collection and analysis for each are described separately below. Details of the methods used in the parents strand of the research can be found in a previous publication.⁹ The main findings from the parents research are considered in the context of school and authority findings within the discussion section of this report.

2.2 Sample and recruitment

2.2.1 Schools

Local authorities for the schools research were purposively selected to include a mainly urban, a mainly rural and a mixed local authority. This approach was taken to ensure coverage of different geographical environments, as it was possible that this might impact on both implementation and uptake.

In the urban local authority, all schools were invited by the local education department to participate. Three schools volunteered via this approach. In the remaining local authorities, schools were selected via liaison with education and facilities management departments and individual schools. In these local authorities, school selection was undertaken to ensure a range of school sizes, locations, demographic profile of students (including deprivation and ethnicity), type of catering, and levels of FSM uptake under the targeted system. An anonymised overview of the schools involved is provided in Table 1. In total, 10 case study schools participated, two of which share a campus, including dining hall, kitchen and catering team. All schools prepared meals on site, with two kitchens sending food out to additional schools. Each school was provided with a payment of £200 to facilitate staff participation in interviews.

At Phase 1, 30 in-depth interviews were carried out with school senior managers (head and deputy head teachers) (n=10), head cooks (n=9), and P1-3 teachers (n=10). One member of each staff category was interviewed in each school. An additional interview was carried out with a member of support staff who supervised the dining hall at the schools' suggestion (School 4). School senior managers selected P1-3 teachers based on their availability and willingness to speak about the UFSM policy. At Phase 2, a short interview was carried out with a senior manager in each school (n=10) as specified in the project proposal. Additional informal interviews were carried out with eight of the nine head cooks interviewed at Phase 1.

2.2.2 Local authorities

The survey of local authorities was conducted with facilities managers in each area identified as having responsibility for the delivery of the UFSM policy. In some areas more than one individual was identified as having managerial involvement with

aspects of UFSM delivery. A contact list (n=38) was compiled with the support of members of the project advisory group and the Association of Public Service Excellence (APSE). A copy of the self-completion survey questionnaire (see Appendix 1) was emailed directly to all prospective participants in late February 2015. Using a combination of email reminders and telephone follow-ups, a total of 34 returns were received by early April 2015, with representation from 31 of Scotland's 32 local authorities. A letter of endorsement was sent by NHS Health Scotland to all directors of education in advance of the survey questionnaire being circulated.

The second phase of the study involved the collection of more in-depth data from six local authority areas. These were purposively selected to represent a cross-section of local authorities in terms of local geographies, level of deprivation,* types of catering provision and differences in level of uptake of UFSM in 2015 (measured via the Healthy Living Survey**). Authorities that took part in the 2008 pilot and who were involved in the other streams of research were excluded. Members of the project advisory group helped to compile an initial list of leads in both facilities management and education in each area as potential candidates for interview. Cascading techniques were used to identify up to four informants in each authority to provide a range of perspectives on implementation of the policy. In practice some local authorities experienced difficulties identifying candidates from education to participate in the study. Consequently, in some cases the researchers spoke with a nominated head teacher to provide an education perspective. In one area the education department failed to provide any support or guidance and a head teacher was recruited independently using data provided by the local facilities manager. A total of 19 interviews were conducted, 11 from catering, five from education and three with head teachers. All six local authorities provided at least one representative from catering and one from education/schools, with the number of interviews conducted in each area ranging from two to four.

* Level of deprivation was assessed using a comparison chart showing the distribution of local authority data zones in a Scotland-wide deprivation ranking (see Scottish Index of Multiple Deprivation 2015: A national statistics publication for Scotland; December 2012. ISBN 978-1-78256-258-0, Figure 2.1, p18).

** Details of the Healthy Living Survey methodology and access to the datasets are available from the Scottish Government website www.gov.scot/Topics/Statistics/Browse/School-Education/Pub-SS-ALM

Table 1: Anonymised overview of school characteristics

School	Roll	%FME comprised of P1-3	SIMD	Uptake %	Urban/rural classification	Additional comments <i>HT = head teacher</i>
Rural Local Authority						
School 1	362	75-<80	3	83	5	Older school building
School 2	245	80-<85	4	82	4	Older school building. HT mentioned no more tables can be accommodated in dining hall
School 3	227	65-<70	1	99	2	Older school building. Currently looking at implementing a holiday learning/feeding program
School 4	32	85-<90	4	93	5	Older school building. Recently put in a production kitchen for the P1-3 policy start
Mixed Local Authority						
School 5	361	85-<90	4	83	1	New school building. HT undertaking a number of initiatives to improve food curriculum
School 6	165	65-<70	1	86	1	New school building
School 7	343	80-<85	1	84	3	New school building
Urban Local Authority						
School 8	173	50-<55	1	84	1	Older school building
School 9	308	85-<90	2	81	1	New school building - Shared campus
School 10	182	75-<80	2	71	1	New school building - Shared campus

- % FME comprised of P1-3 – Proportion of all pupils in each school entitled to a FSM who were in P1-P3 in HLS 2015.
- SIMD – Scottish Index of Multiple Deprivation quintile based on school postcode (SIMD 1=most deprived fifth of Scotland and 5= within the least deprived fifth of Scotland).
- Uptake % - Percentage of school roll taking a school meal. Data derived from HLS 2015.
- Urban/rural classification – school location in terms of Scottish Government 6 fold Urban Rural Classification (1=large urban areas, 2=other urban areas, 3=accessible small towns, 4=remote small towns, 5=accessible rural, 6=remote rural), www.gov.scot/Topics/Statistics/About/Methodology/UrbanRuralClassification

2.3 Data collection

2.3.1 Schools

Data collection involved observations of the school and dining hall environment, interviews with key staff, and the gathering of school level data to provide additional information to contextualise qualitative findings.

Data collection for Phase 1 was completed in all schools in June 2015. It involved two observations of children's lunch choices, processing of choices by office staff, catering staff preparations, serving and eating of meals, and clean-up of meals. Detailed field notes were made for each observation, as well as completion of a structured observation proforma for each school (see Appendix 2). The proforma recorded information on whether pre-ordering, cashless and queuing systems were in place, as well as use of the dining space, staggered servings, and lunchtime length. All schools gave permission for photographs of dining halls to be taken. Photographs were used to assist data analysis, and detail dining hall size, and layouts of kitchens, tables, seating, serving areas and waste disposal.

Interview schedules were created for each group of staff (see Appendix 3), and focused on the barriers and facilitators to implementation and uptake, and how these were overcome or utilised by schools (e.g. how schools have coped with a greater number of young children coming through the system, and its impact on other school activities). All interviewees were asked to speak about unintended positive and negative consequences of implementation and uptake, and whether and how schools attempted to mitigate these consequences. Where schools made changes, staff were asked whether these had aided policy implementation, and for suggestions on how to improve uptake further.

Interviews lasted between 15 to 50 minutes. All but two interviews were audio-recorded and transcribed. Two interviews were not recorded as head cooks were engaged in preparation and clean-up activities and were unable to stop for a formal interview. Detailed notes were taken instead.

This second phase of data collection in September and October 2015 involved a single repeat observation of lunch preparations, serving and clean-up in the 10 case study schools, and short catch up interviews with school senior managers and head cooks in each school. The focus was on identifying changes in the new school year, and whether identified barriers to implementation and uptake were short-term 'teething' problems, as seen in the UFSM trial, or whether more fundamental barriers existed. Interviews lasted between 10 and 30 minutes, with seven formal interviews with school senior managers audio-recorded and transcribed, including a joint interview with the depute from School 9 and head teacher from School 10. Two interviews with school senior managers were not recorded as these staff members had only been in post since the beginning of the new school year, and did not feel they could contribute extensively to a discussion of how the school had implemented and adapted to UFSM. Detailed notes were taken for all interviews not recorded.

2.3.2 Local authorities

The local authorities' survey (see Appendix 1) was informed by findings to emerge from an online consultation conducted by the Association of Public Service Excellence (APSE) with its Scottish network and previous pilots undertaken in Scotland and England.^{7, 10} This information was used to compile a list of nine areas of activity which have been found to be important to implementing UFSM policy. Descriptive accounts of barriers and facilitators to implementation in each area were provided using a combination of pre-coded rating scales and open-ended response fields. The survey also sought information on levels of uptake. A downloadable format was favoured over a more conventional online survey as it provided participants with the scope to circulate the questionnaire to other local informants and to attach additional information and materials. Participants were given the option of returning the questionnaire in hard copy or electronic formats.

Local authority stakeholder interviews (n=17) were conducted in the second phase by telephone using a semi-structured topic guide (see Appendix 4); in one authority three facilities managers or catering supervisors were interviewed together face-to-face. The content of the guide was informed by the relevant constructs identified from the theory of change model and findings to emerge from the Phase 1 survey. Participants were provided with an abbreviated version of the interview guide in advance of the interview (see Appendix 5). The semi-structured interview format provided the flexibility to reveal and explore original lines of enquiry while ensuring the main topics of interest were examined. Interview length varied from 30-90 minutes in accordance with participant's level of involvement in the policy. All interviews were recorded on audio-file with participants consent.

2.4 Analysis

2.4.1 Schools

The transcripts from the audio-recorded schools interviews were transcribed and coded thematically, as were interview and observation field notes. Analysis was carried out by the same researchers who collected the data and was facilitated through Atlas.ti software Version 7 (Atlas.ti,1993-2005).

2.4.2 Local authorities

Data from survey rating scales were analysed using SPSS version 21. All textual survey data were processed manually. Descriptive statistics were used to analyse pre-coded data, and summaries of textual data were used to describe the implementation process, associated barriers and facilitators and remedial actions and strategies. All interviews with local authority stakeholders were recorded on digital voice-file with participants' consent and were fully transcribed. All narrative data were coded using QSR NVivo10 software and analysed thematically. Two researchers conducted the interviews, and were also responsible for coding and interpreting data and for reporting of findings.

The findings for both schools and local authorities were presented to and discussed with the project advisory group.

2.5 Limitations

Limitations were identified for both the schools and local authority's research. In the urban and rural local authorities, schools were selected by facilities and education managers. They took into account the key areas of variation that research staff had identified as important across schools, but there were concerns that schools with more positive experiences were selected. There were also concerns that in each local authority facilities and education managers were aware of head cooks and school senior managers participating in interviews. This issue was explained to school-based staff before interviews, and therefore, they may have withheld sensitive information. In School 5, the head cook's line manager insisted on being present at the interview, which limited open discussion significantly. Nevertheless, in other interviews, researchers perceived school-based staff to be open and willing to raise issues of concern. Within the urban local authority, only three schools volunteered to take part, and therefore, it was not possible to ensure sufficient variation of this sample, with two schools sharing a campus facility. They did, however, provide sufficient variation to the overall sample, with one school in an area of very high deprivation and the shared campus schools having a high intake of children from an ethnic minority background.

The timing of the research was such that initial issues had largely been resolved at Phase 1 observations (March-June). Implementation may have appeared, therefore, more straightforward during these observations than had been the case in January 2015. The positive benefit of this was, however, that with two months (at least) for the policy to be embedded, staff were perhaps better able to reflect on the short- to medium-term impact of UFSM, rather than the immediate impact.

At the time of Phase 2, two school senior managers had changed roles and therefore continuity was not achieved at interview. The two new school senior managers in post had only limited experience to feed back on changes associated with UFSM implementation within their schools. In addition, one head cook was reluctant to allow research staff access to observe preparations at Phase 2. Therefore, the focus was more on children's experience of the dining hall environment than catering staff's.

For the research with local authorities, the research team had control over the selection of authorities for the case study research. However, the selection of candidates for interview was guided by local authority contacts who completed the Phase 1 survey questionnaires and leads identified in education. Local authority stakeholders working in catering and facilities management were generally supportive of the research and keen to participate. However, as previously noted, in three of the six case study authorities the local education department was unable to identify a member of staff to talk about the authorities response to and experiences of the policy. While these difficulties provide insight into the level of engagement with the policy by some education departments, it also meant the study was reliant on a nominated head teacher to provide an educational perspective on the management and delivery of the policy in these areas. These interviews were largely reflective of the experiences of the individual schools they represented rather than the authority

as a whole; two of the schools reported introducing the policy with relative ease while one experienced significant difficulties.

The Phase 1 survey was completed by catering leads identified in each local authority area and hence the findings provide a facilities management perspective on the policy. Facilities management was chosen in favour of education as initial consultations indicated that facilities managers were likely to be the main drivers responsible for delivery of the policy and were often the primary budget holders for funds earmarked for its implementation. These assumptions would appear to be borne out by the high response rate to the survey with 31 of Scotland's 32 authorities returning a questionnaire.

Finally, the study draws together findings from a number of stakeholder groups, including parents, local authorities, head teachers and cooks. These differing perspectives allowed the research to examine implementation from a range of perspectives, as well as to gather information on workers' and managers' perceptions of the policy's impact. However, while it was possible to triangulate people's views on the impact of the policy, in many cases data corroborating these observations was not available.

2.6 Ethics approval

Ethical approval and governance for the study was provided by the School of Health Sciences Research Ethics Committee (REC) at the University of Stirling. Review of NHS assessment criteria for research ethics confirmed that the study did not require NHS REC approval. Informed consent to participate was obtained using information sheets and written consent forms (see Appendices 6-13). Governance arrangements required that the anonymity of study participants were protected as part of the reporting process.

3. School results

The findings report on interviews carried out with school senior managers, teachers and head cooks, and observations of administrative arrangements, preparation, serving and clean-up of meals. Phase 1 was carried out from March to June 2015, and Phase 2 in the new school year (September and October 2015). Results are presented separately under the headings barriers and facilitators to implementation (3.1) and impact of UFSM (3.2). Section 3.2 examines the policy's impact on uptake of FSM and factors associated with the policy's financial and nutritional benefits. Verbatim quotations from the schools interviews are used in this section to illustrate key findings. Quotations are attributed to individuals according to role and school code number.

The analysis also links relevant findings from the research with schools to key constructs identified by the theory of change. Appendix 14 presents findings from the research with schools alongside those for parents and local authorities to validate external factors effecting implementation and outcomes of the policy, potential unintended consequences of the policy and assumptions underpinning the theory.

3.1 Barriers and facilitators to implementation

School senior managers and head cooks were asked to outline the ways in which they had prepared for the introduction of UFSM, considering various barriers and facilitators to implementation and uptake. In some schools, senior managers met with senior facilities staff from their catering provider and catering staff ahead of January 2015 to discuss changes needed to implement the policy. In all schools, head cooks discussed the introduction of UFSM with their line managers from local authority catering departments or providers ahead of implementation. Head cooks and school senior managers also discussed the best ways for schools to manage new processes. The assumption of all parties was that P1-3 uptake would increase, and therefore, schools needed to be ready to serve and accommodate a larger number of children overall than they had under previous arrangements. Important identified barriers and facilitators to implementation and increased uptake are outlined below under the following themes: staffing, equipment and infrastructure, kitchen arrangements, dining arrangements, and policy communication and engagement.

3.1.1 Staffing

All school kitchens had a head cook, and depending on the school roll, an assistant cook and general assistants who also helped to prepare, serve and clean-up. Head cooks were also responsible for administrative duties, such as ordering food and sending through data on uptake to the catering provider. Classroom assistants, and in the majority of schools senior managers (head and depute head teachers), were present in the dining hall to help children when required, and to monitor the dining experience. Support staff fulfilled multiple duties within schools, and as well as supervising in the dining hall they were also classroom assistants, ran school tuck shops, and supervised in the playground. Schools 4 and 6 were the only schools to have no senior manager presence in the dining hall at lunchtime on the visit days. In addition, P1-3 teachers often helped children during the initial stages of their lunch. The following barriers around staffing were identified:

- Staffing levels: Catering staff reported that their ability to serve an increased number of children was dependent on adequate staffing levels. During a Phase 2 visit to School 2, staff reported a 'chaotic' start to the beginning of the new school year due to staff shortages. This challenge, accompanied by a new intake of P1 children where almost all were taking a free meal, had led to logistical difficulties. Three schools described extra pressure on the kitchen when staff were sent to other schools at short notice to cover illness. Lack of dining room support staff was also a barrier to UFSM implementation. All categories of staff reported that P1-3 children required additional supervision in order to eat an adequate lunch, and that this support was not always available.
- Budget cuts: In the urban local authority, school senior managers reported that budgets for support staff had been cut, resulting in a lack of supervision of an increased number of children eating a school meal within the dining hall.
- Recruitment issues: Additional funding had been provided in the rural local authority for both catering and support staff (where required) to ensure the smooth implementation of UFSM. Nevertheless, there were difficulties recruiting staff to work a limited number of hours each week, particularly when

travel within the area was taken into account. One senior manager expressed concern that money had only been made available in December 2014, making recruitment challenging ahead of Christmas. In the mixed local authority, head cooks reported that catering staff were reluctant to work additional hours as this impacted the benefits they received.

- Staff training: Concern was raised by head cooks and school senior managers that a lack of experienced catering staff put extra pressure on the kitchen to prepare, serve and clean-up an additional number of meals. Lack of experience among temporary catering staff was highlighted as especially problematic.

'The P1s are still trying to find their feet. They're very slow with their eating, and, you know, you need somebody – the cook needs somebody who knows what they're doing, and you need to have, you have to build a relationship up with people' (Senior manager, School 2).

There were few opportunities for support staff to receive training in dining supervision. School senior managers and members of teaching staff commented that increased training of support staff would be beneficial within the dining hall to encourage younger children to eat the foods on offer. One head cook expressed concern over the lack of interaction from support staff in the dining hall to encourage children to eat more and try less familiar foods.

- Staff attitudes and relationships: Concern was expressed by school senior managers and class teachers from three schools about catering staff interaction with children. They reported that children were apprehensive about approaching catering staff for assistance, and there were reports of children becoming upset if they had made errors in their orders. Errors were more likely from younger children.

'I think the kitchen need to take the dinners a little bit more seriously and be more organised, show good manners, because at times they're very rude and we've tried to speak to them about how, you know, treat people how like you want to be treated. They want a please and thank you but they're not giving it back' (Senior manager, School 8).

Catering staff in these schools did not disclose any issues to research staff about their relationship with school staff or children. However, they did explain that when they are feeding an increased number of children, they have less opportunity to interact while they serve.

Staffing could also be an important facilitator to implementation and increasing uptake of UFSM.

- Additional funding: In all local authorities, additional funding had been made available for catering staff. Funding for support staff had increased in the rural local authority. To overcome recruitment issues in these areas, hours were often extended for existing catering or support staff.
- Adequate supervisory cover: Lack of support staff in the dining hall was observed in all three local authorities, however, schools had managed this

challenge through senior managers and class teachers providing extra supervision at the beginning of lunchtime. 'I really rely on Primary 1 teachers hanging back so that's 15 minutes of their lunch' (Senior manager, School 10).

- Experienced staff: The majority of school senior managers reported that they were confident that UFSM could be implemented smoothly due to the experience of their schools' head cooks. They trusted suggested changes by cooks to serving times would be beneficial in ensuring that an increased number of children were served. Head cooks commented that when they had experienced assistant cooks and catering assistants they coped better with staff shortages. School 2 reported a noticeable difference in accommodating the new intake of P1 children when an experienced peripatetic staff member had been put in place to provide ongoing cover during a catering assistant's absence.
- Staff attitudes and relationships: School senior managers perceived a good working relationship with catering staff as being central to ensuring the smooth implementation of UFSM. Positive and welcoming catering staff were viewed as an asset in encouraging children less familiar with school meals. Observations in these schools showed catering staff to be friendly and welcoming, encouraging children to try the foods available. They often knew most children's first names, and spoke with children during clean-up activities.

'There's no' hundreds going through so you have got time tae speak tae them an' listen tae their, whit's happening tae them, or if it's their birthday, there's that, so you've got that wee bit time tae listen tae them. An' you know them all' (Head cook, School 6).

These staff members said that they felt part of their school, and saw their role as important in terms of the wider school community:

'Cause although [the head teacher's] nothing to do with us officially, I would consider her my boss. She's the day-to-day person, and I think, as long as she's happy, then I'm happy' (Head cook, School 2).

The importance of this positive relationship between catering and other school staff was highlighted best in School 2 where the senior manager intervened at local authority level to ensure that adequate cover was provided to support the head cook during staff absence.

An important facilitator was the role of class teachers and support staff in helping P1-3 children to make menu choices each morning. In all but one school, the class teacher or a member of support staff ran through the lunch choices with the children. Some teachers were particularly enthusiastic about the lunches, explaining the choices on offer, praising children for trying new foods and describing foods as 'yummy' or 'tasty'.

3.1.2 Equipment and infrastructure

School infrastructure and equipment were important components identified with the potential to impact on schools' ability to implement UFSM. Identified barriers included:

- Dining hall space: All schools in the rural local authority were located in older buildings, with Schools 1 and 2 reporting that their dining halls could not accommodate all children in the school easily within the times allotted. Newer schools with less demands on space expressed fewer concerns, although some believed that UFSM had limited the scope to accommodate increases in school rolls, which could have longer term planning implications. To manage limited space, some schools seated children bringing a packed lunch from home separately. There was concern by some senior school managers that this practice increases the likelihood that friends may not sit together and becomes a factor in the decision as to whether a child chooses to attend for a school meal or brings a packed lunch from home.
- Use of multi-purpose spaces: Dining hall spaces were multi-purpose in nine of the ten schools. Five schools used the space for physical education (PE), two as an assembly hall (shared-campus), and two for break-out activities throughout the day. Where areas were used for PE, catering staff were under pressure to have the dining hall cleared and cleaned before the end of lunchtime.
- Kitchen and serving space: Catering staff in Schools 2 and 4 complained that their kitchens were too small. With the increased amount of food needed to accommodate more P1-3 children, lack of storage was having an impact:

'Obviously we are quite tight for space, you know? It was like getting another freezer in here, moving this, and rearranging things' (Head cook, School 2).

Limited space at serving hatches reduced how quickly children could be served their meals as additional staff could not plate food and hand over to the children.

Many of these barriers were anticipated ahead of UFSM implementation and the following changes were made:

- Infrastructure improvements: A new cooking kitchen was installed in School 4 ahead of the policy's introduction. This change allowed for all meals to be made on site, and with the introduction of a new cook, resulted in the senior manager, lunchtime support staff and class teacher reporting an improvement in the foods served, with increased overall uptake.
- New equipment: Catering staff had liaised with their catering departments at local authority level to ensure that additional equipment was available to cope with the increased number of children taking a school meal. Tableware, tables and seating were provided where necessary. School 1, which had additional storage space, received a new freezer.
- Food ordering: School 4 did not have space to accommodate an additional freezer. However, by the time of the Phase 2 visit, an arrangement with a larger local school was in place allowing the cook to combine smaller orders

with the larger school. The head cook in Schools 9 and 10 explained that the issue of limited storage space was solved through her ability to receive orders on a daily delivery basis reducing the need to store food.

- Use of additional spaces: Where additional space was needed to seat children, some schools with separate gym halls used these as areas for packed lunches to be eaten. Senior managers in two schools commented that children could eat school and home-packed lunches outside in the summer.

3.1.3 Kitchen arrangements

Catering staff faced a number of barriers and facilitators in terms of preparing for increased uptake of school meals in P1-3 children. These covered preparation, serving and clean-up of meals. Barriers included:

- Limited lunchtime: Schools had different arrangements for lunchtime length. In some schools all children were accommodated over a 45 minute to one hour period. In larger schools, the serving of lunch was one hour and fifteen minutes to accommodate staggered servings. Nevertheless, all catering staff were limited by the time available, and had to ensure that food was ready to be served for the first lunchtime bell, if not earlier, and also had to ensure that lunch, including clean-up, was completed before the final bell.
- Preparation time: Making lunch for a larger number of children increased preparation time in the kitchen. Catering staff reported that preparation time was menu dependent, with some dishes, such as soup and pasta, taking no longer than before UFSM implementation. Other dishes, such as the 'school packed lunch', particularly popular with younger children in some schools, increased preparation time, as did home-baking.
- Clean-up time: Catering staff described being under pressure to get the dining hall cleared at the end of lunch, particularly when the space was needed for PE. In addition, staff said they faced difficulties in cleaning dishes within the working hours available.

'It's hard to cope with the cleaning aspect, so that takes more time than anything. We often finish half an hour late just because the dishwasher just takes 24 plates at a time and five minutes to do it' (Head cook, School 1).

- Uncertainty over uptake and choices: Catering staff described their uncertainty ahead of implementation over uptake of UFSM, and more specifically uptake of each meal choice. Menus were set at local authority level in all three areas. Menus had changed making it difficult to estimate based on previous P1-3 children uptake levels. One head cook described over-ordering in these early phases to meet demand. Staff reported limited discretion over modifications to the menu due to the need to meet nutritional standards.
- Additional changes: In one local authority, additional changes around the reintroduction of a cash system and drinks choices were implemented. School senior managers and head cooks reported that catering staff had struggled to cope with multiple areas of change in a short time period. These difficulties had been particularly acute in the early implementation period, but at the

Phase 2 visit, new systems had been introduced to mitigate their impact. All staff were critical of local authority communication surrounding these additional changes, including their timing and the rationale provided.

‘There was very little guidance provided. But that’s not a reflection on education, that’s in relation to facilities there were no – now, perhaps [the head cook] got guidance in the kitchen but there was certainly no, there was no information given, or very little’ (Senior manager, School 5).

Catering staff were able to overcome some of the barriers listed above in the following ways:

- Working extended hours: Head cooks described coming into work early on those days when overall uptake would be highest. This was generally for popular and more time consuming meals. This allowed them to prepare in time for the first lunch serving. Catering staff also worked extended hours at the end of their shifts to ensure clean-up would be complete. This time could be taken in lieu during in-service days. In one local authority, catering staff discussed preferring this option to being paid extra for additional hours as payment could impact on welfare benefits received.
- Food preparation: Cooks had identified methods to save time when preparing more meals. An example given was by using fruit in salads that could be prepared in advance. One head cook said that all fruit salads included melon, strawberries and grapes as these could be prepared earlier in the morning and didn’t spoil as opposed to apples and bananas. For home-baking, small shortcuts were taken such as preparing biscuits the previous day, using previously prepared but frozen baking, or making larger biscuits iced on a single side rather than smaller sandwiched biscuits.
- Clean-up locations: To improve the efficiency of clean-up, some schools rearranged waste and recycling facilities to make them available at more locations within the dining room. This reduced queuing at these locations, allowing children to leave the dining room more quickly.
- Detailed data: Head cooks described keeping detailed diaries of uptake for each meal choice in the first few weeks of implementation. This enabled them to plan better in terms of ordering and preparation at a time of uncertainty.
- Existing levels of free meal entitlement: Three schools who had high free school meal entitlement under previous arrangements reported that this had helped to manage the switch to UFSM. They were experienced in feeding a large percentage of the school roll who were entitled to a free meal, and felt that UFSM had increased the number of meals in a proportionately small way.

‘I’ve got a big uptake of free meals. This is classed as a deprived area, so I had a lotta free meals so I’ve really no’ went up that much...Maybe 10/12. I really don’t see a big difference in it at all’ (Head cook, School 6).

3.1.4 Dining arrangements

Although serving times could be longer in some schools, each child received between 45 minutes and one hour for their lunch break. School 4 was the only

school that could seat all children at once. In this school, older and younger children sat together at the same tables. In all other schools staggered servings were in operation. There were barriers and facilitators to ensuring efficient dining arrangements during the implementation of UFSM. Barriers included:

- Administering staggered servings: School senior managers described the challenge in having sufficient support staff to supervise children in the playground who had yet to come through the dining hall, or who had finished their lunch at the first serving. Additionally, locating children within the playground to inform them of a second or third serving could be problematic if a bell system was not in place.

'We've tried letting the primary threes go out to play for a little while and then bringing them in. But actually, rounding them up just means that there's so many bells already...We have a bell for the normal lunchtime, then we have another one for the next sitting, then another one' (Senior manager, School 9).

- Readiness of P1 children for dining hall: School senior managers and teaching staff commented that many P1 children were not ready for the dining hall environment, using their inability to use cutlery as an example of how this impacted dining hall turnover. At the Phase 2 visits, staff explained that this issue had been particularly acute with the increased uptake of FSM from new P1 children. Staff felt that parents could better prepare children, for example, by teaching children how to use cutlery before they were sent for school.

'The biggest issue for me is that children have not been taught how to use knives and forks at home, and we're gonna have to do something on that because they just can't use cutlery' (Senior manager, School 1).

Issues were also raised about children's ability to make choices quickly regarding their lunch, which created queues.

'A good sort of 40% of them, you know, they just, they don't seem to understand the concept of school dinners. Just certain things like, "What colour token are you?"...And they've got 50 kids standing behind them, waiting for baked potatoes..., "What would you like, coleslaw, tuna or cheese?" Well that's it, you know, you've thrown them completely, now, giving them three choices. So that's been hard' (Head cook, School 1).

- Weather: In schools where space was limited, senior managers stressed the difficulty of feeding an increased number of children when the weather was poor. On dry, warmer days children could take both home and school packed lunches outside to eat, reducing congestion in the dining hall. An additional barrier associated with poor weather was the need for a greater number of support staff to supervise both children in the dining hall and classrooms.

'It becomes very difficult on days when it's wet at lunchtime. I don't have the staff to cover up there and classes and things, and I have my office staff involved' (Senior manager, School 9).

Facilitators related to implementation and increased uptake under UFSM included:

- Staggered lunch and serving times: All but one school had a staggered lunch system in place before the introduction of UFSM. Some schools modified these arrangements to accommodate increased numbers. In most schools, older children were served second. In School 1, changes had been put in place during the new school year to serve P1-3 children second. This aimed to reduce younger children's anxiety of eating with older children. In Schools 5, 7, 9 and 10, the timing of servings had been changed slightly to accommodate the larger number of P1-3 children going through the servery. In Schools 9 and 10 P3 children arrived later to the dining hall than they had before the introduction of UFSM.
- Early lunch serving: In schools where P1-3 children were served first, teaching staff brought P1 children to the dining hall five minutes before the lunch bell rang to ensure that they were able to receive their lunch while the dining hall was quiet. This also provided children with a longer time period over which to eat their lunch. During the first few weeks of the new school year, the new intake of P1 children were taken to the dining hall 10-15 minutes earlier in some schools, to acclimatise them to the dining environment.
- Encouraging snacks at interval: In Schools 1 and 3, where younger children were served second, a greater emphasis was put on children eating a snack from home at interval to ensure they could wait until a later serving to eat lunch.
- Dining hall monitors: The majority of schools had an existing system of utilising older children as dining hall monitors. This role was seen as important to developing pupil's skills and responsibility for younger pupils and was important to the implementation of UFSM as it increased the pace and efficiency with which younger children ate lunch. Monitors cut up food, carried trays, poured drinks and helped with cleaning up. Monitors were most helpful when they had been trained, and knew where their assistance was needed most.

'The Primary 7s just – it's on a rota. Some of them go up and support. It's things like carrying the trays for the Primary ones. And it's amazing, we have very few spillages because of that. And also I've got a couple of Primary 1s who struggle to eat lunch...So one of the P7s just sits and just reminds, "Come on..." Just encourages them' (Senior manager, School 9).

3.1.5 Policy communication and engagement

There were a number of areas where communication and engagement surrounding UFSM had an impact on its implementation. The following barriers were identified:

- Poor local authority communication with parents: Communication sent out to parents from the local authority through the school about the change in arrangements for P1-3 meals was criticised by some school senior managers.

They believed it was unclear and unhelpful in outlining changes. Schools perceived that they were better placed to communicate with parents in the most appropriate ways.

- Parental lack of engagement: All staff were asked what they perceived to be the greatest barrier to increasing uptake among P1-3 children. A common response was 'parents'. All categories of staff reflected the view that at times parents did not engage with the school meal system, and did not understand the choices available.

'Families who give their children crisps and sweets for their packed lunch. We have to do a wee bit of education there sometimes, and say to them "That's really not enough"' (Senior manager, School 9).

There were mixed views on how the process of making choices could improve the implementation and uptake of UFSM. In some schools, there was a wish to see more parents make choices together with their child during pre-ordering as this would ensure that the child did not select meals that they did not like. In other schools, senior managers argued that it would be preferable for children to be allowed to make their choice within the school, without the assistance of their parents, as they were more likely to eat the lunch on offer.

- Fussy children: Related to lack of parental engagement was the issue of 'fussy children'. Staff perceived some menu choices as being unfamiliar to young children, and therefore, they would not try them, and would instead bring a packed lunch from home. There was a perception that parents too readily gave in to children's preference to bring a packed lunch from home.
- Lack of feedback opportunities: Although all schools had a pupil council in place where children could raise school meal queries and direct them to the head cook, there was a perception that there was no systematic way for children, parents or catering staff to input into menu choices and systems in a way that would lead to improved uptake of UFSM, and school meals more generally.
- Policy support: Support for the UFSM policy was mixed. While the majority of teachers and head cooks were supportive of the policy's introduction, school senior managers were generally concerned about the resources committed to UFSM when other budgets were being reduced. They feared that learning was being compromised due to cutbacks. They argued that schools' primary business was in teaching and learning, not food provision, suggesting the money might be better used to prevent other cuts.

'I thought it was a bit ridiculous because we don't have money for a lot of things at the moment and I think parents can afford to pay...While I think it's great, it'd be good, it's an ideal world – they should all get, they maybe should get free school meals, but I can think of much better things to spend my money on - i.e. staff to teach them' (Senior manager, School 1).

Head cooks and some P1-3 teachers expressed their unease over the policy only being available for P1-3 children.

'I didnae understand why they'd randomly sort of—well I say, “randomly” I don't know the thought process went on behind it. But to me it was like, kind of like, “Why Primary 1 to 3? Why not P1/2? Why not Primary 1 to 4?”’ (Class Teacher, School 7).

There was concern from all categories of staff over children's transition to P4 when many would no longer qualify for FSM, and staff questioned why the nutrition of a younger child was perceived as being of greater importance than that of older children. Two school senior managers argued that UFSM had the potential to be more stigmatising as P4 children would become more aware that meals are provided free of charge to some children and not others.

Facilitators to improved communication and engagement around UFSM were:

- School communication with parents: In response to perceived inadequate communication from the local authority, schools sent additional information from the school, or spoke directly with parents if children were not taking a free meal after the policy was introduced, particularly if schools identified families who could benefit. Senior managers in Schools 9 and 10 reported that they had a high proportion of children from families with English as a second language. Schools ensured that these families were aware of their entitlement by speaking directly with parents rather than relying solely on written forms of communication.
- Taster sessions: Taster sessions were common across schools for children in the transition from nursery to primary school. Their aim was to introduce parents and children to the school meal system, and to increase uptake for school meals once children attended the school. Parents were invited along to these sessions and given a meal also. In some schools, additional taster sessions were run at parents' evenings and other school events. After the implementation of UFSM, catering and education staff from School 1 worked together to set up taster sessions in the mornings for P1-3 pupils. These were run as learning experiences, with the teacher and classroom assistant sitting with children to eat after interval. Catering staff spoke with children about the food that had been made, and asked them if they knew how it was grown. The aim of the sessions was to familiarise children with the school meal environment, to teach them how to use cutlery correctly, to improve their social skills, and to increase uptake of UFSM.

3.2 Impact

3.2.1 Impact on uptake

The impact reported most consistently across schools was that uptake of school meals in P1-3 had increased with the implementation of UFSM. At school level, uptake was monitored closely by the head cook, who kept a daily diary with the number of children taking up each meal choice. This information was then fed back each day to the catering department or provider for the local authority. Head cooks appeared to have a better grasp of school uptake levels than school senior managers or teaching staff. Teaching staff had some knowledge of uptake in their

class as they generally ran through menu choices with children each morning, and therefore, were aware of which children were still bringing lunch from home. No schools reported that uptake had increased beyond their ability to cope at the current time.

In the majority of schools, uptake increased as soon as UFSM was implemented at the beginning of January 2015, however, Schools 9 and 10 reported that P1-3 uptake increased only very slightly in the first few weeks. They then saw a greater increase as parents became more aware that a meal could be received at no cost.

‘It took a wee while for parents to really understand. It took a couple of weeks, word of mouth got round and so on. So it was a couple of weeks before we really saw a real big increase in the numbers. And then we had to look at the timings of bells’ (Senior manager, School 9).

Increases in uptake varied based on the menu choices on offer each day. Popular options were fish and chips, pizza and macaroni:

‘Fish day, curry day. These are good days. They love the curry. They love their fish. They love their pizza. Nothing beats the pizza. Nothing’ (Head? Cook, School 6).

Head cooks believed that the school packed lunch option, which had been in place before the introduction of USFM, had helped to increase uptake in P1-3 children, as had the introduction of ‘grab-boxes’, a cardboard lunchbox designed to appeal to young children. Nevertheless, some staff were critical of school packed lunches as they did not provide a hot meal, which some school senior managers and teaching staff perceived to be part of the policy’s rationale. The second criticism related to ‘grab boxes’ or bags in which the sandwich lunch was supplied in all local authorities. Staff argued that the boxes ‘McDonaldised’ the packed lunch, making it more attractive to children, and that money was being spent on this packaging while cut backs were being made elsewhere across lunch choices.

‘I live in this area as well, and obviously I’ve worked here for quite some time, and there’s a lot of children, they need that hot meal in the day. But as soon as they’re faced with a wee box with a wee rabbit or something, that’s what they want ‘cause it looks like a Happy Meal box’ (Class Teacher, School 7).

At the Phase 2 visit, schools in the mixed local authority reported that these lunchboxes were to be phased out, with all staff happy with the new arrangements.

The head cook in School 1 reported an increase in uptake in P4-7 since the introduction of UFSM, but head cooks in other schools did not believe that uptake levels had changed. A senior manager in School 9 reported that dining hall observations indicated that P4-7 children were more likely to take a packed lunch in order to avoid queuing at a busy servery. In two local authorities teaching staff reported that the price of school meals had increased for P4-7 children not entitled to a free meal around the time of UFSM implementation. They perceived this as linked

to the introduction of UFSM but were unaware if this had impacted on overall school meal uptake.

3.2.2 Impact on financial benefit

School senior managers acknowledged that parents on low incomes who did not qualify for FME previously, such as working families on a low income and full time students, were benefiting from the UFSM policy. Overall, however, school senior managers felt that those families who needed the support most were provided with it through previous arrangements. They believed that better off families were receiving a benefit which they could afford to do without.

'I do not think that it would have been a top priority to provide free school meals for all families but I suppose the difficulty is that we don't know which families, well, there are indicators that we can tell if there are some families that are in poverty, possibly can't afford to pay their meal, and that's wonderful that that will have benefited them, but we also have a quite large percentage of parents who are very comfortable in their living (Senior manager, School 5).

3.2.3 Impact on nutritional benefit

All staff were asked whether they had perceived a change in the foods children had eaten since the implementation of UFSM. Their perception was that choices had largely followed similar patterns as before, with traditionally popular items remaining popular. The school packed lunch option was viewed as helping increase uptake of UFSM, particularly among those children who previously brought a packed lunch from home. School senior managers stressed that they preferred children to eat school meals over home packed lunches as they perceived them to be of a higher nutritional quality. A senior manager from School 5 was the only interviewee who felt that food brought from home in their school was generally healthy.

Nevertheless, all categories of staff expressed concern about whether children were receiving a nutritionally balanced meal as they tended not to eat what staff perceived of as the healthiest foods available, such as vegetables and fruit, and many did not attend for school meals on days in which the perceived healthier options were available. As highlighted in the discussion of increased uptake, popular options included fish and chips and pizza, which some school staff did not perceive as healthy. A head cook reported, 'I would question the menus. To me, I don't think they're healthy at all. What is healthy today? I mean fish, chips and beans?' (Head cook, School 2).

In the rural and mixed local authorities, head cooks and class teachers were critical of the proportion of processed food used. They believed that lower quality products were a barrier to increasing uptake of school meals. Within two schools in the rural local authority, head cooks had negotiated with their line managers to introduce more fresh food which they perceived would be more popular with the children.

'I do think that we have got work to do to make it a more enjoyable environment in terms of presentations, presentation of our food. Sometimes the quality of our fruit is not grand' (Senior manager, School 1).

School senior managers expressed concern that some P1-3 pupils did not eat enough food to achieve a nutritional balance, particularly in terms of energy intake. Food that was not eaten by children contributed to food waste. Systems were in place to measure food waste within school kitchens, but not plate waste. Nevertheless, the research team observed examples of younger children eating very little and throwing away a significant proportion of their meals. Catering staff were especially frustrated when untouched food, such as fruit, was thrown away. Head cooks were asked whether they perceived an increase in plate waste under UFSM. Some commented that they had, while others felt it was only on days with less popular menu choices.

'In an effort to reduce plate waste, some members of support staff and senior managers encouraged children to eat more food, to try new foods and explained menus ahead of lunch choices. We desperately try and encourage the children to, you know, if we see them trying to bin their whole dinner we'll say, you know, "Three more bites" and we'll encourage them to eat a wee bit more' (Senior manager, School 5).

'A lot of them don't eat very well, in general. You know, there's quite a lot of wastage, because we'll quite often say to them, "Go and eat a little bit more than that," you know, "you've hardly eaten anything"' (Senior manager, School 7).

Schools were cautious, however, about not forcing children to eat food they did not want, and also to avoid upsetting parents. In one school, parents had argued that they were entitled to throw away any food that they had purchased, creating a culture where it was difficult for school staff to intervene. In another school, a parent had complained when a younger child was encouraged to eat more of his meal.

In the rural local authority, smaller portions, which were felt to be more appropriate for younger children, were given to P1-P3s. This helped to reduce food waste, as pupils were more likely to finish the food they were given. In the urban and mixed local authorities, catering policy instructed all children to be served the same portion size.

Senior managers expressed the concern that parents were sending their children to school meals to receive the financial benefit, but that this was at the cost of children eating too little as they disliked the less familiar foods available.

3.2.4 Impact on demand for medically prescribed diets

Catering staff and school senior managers reported that with the introduction of UFSM they were making an increased number of meals for children with medically prescribed diets, as uptake had increased among those families. All kitchens were

able to cater for children with medically prescribed diets, and were especially careful at ensuring that these meals were not contaminated by allergens.

'The new primary ones that we've had in, we have a lot of children with either specific dietary requirements or sensory issues, so they don't like specific things being on their plates...But that's managed to be accommodated by the kitchen. We have a couple of specialised menus in place' (Senior manager, School 8).

3.2.5 Impact on dining arrangements and environment

Seven schools (out of 10) expressed concern about increased queuing since the implementation of UFSM. Children had to stand for a longer time period before being served due to the increased number of children in line, limited space at the servery, the increased time needed to serve younger children, and in one school, catering staff not being ready in time for the first serving.

'[UFSM] didn't really affect us at all and our management of doing the dinners in the morning. However, I think it might have made an impact on the staff in the kitchen because, more often than not, we're waiting at quarter past 12 all ready to eat, and they don't start serving food 'til about 25 past, half past 12' (Class Teacher, School 8).

'There are much longer queues now because we have so many children to get through in such a short space of time' (Senior manager, School 5).

Queue lengths were expected to decrease when the new intake of P1 children had become more familiar with the dining environment. To reduce queuing, Schools 9 and 10 had allowed P3 children to play outside for longer before coming into the dining hall. In School 2, children were encouraged to sit down on entering the dining hall when they arrived, and were then called up to join the queue when it had reduced.

There was a perception in some schools that the dining hall was now busier and noisier, particularly during poor weather, as children could not eat packed lunches outside. Staff in School 1 noted increased anxiety in P1 and 2 children when older children arrived for their serving due to the busier environment. This was of particular concern as there were an increased number of children still eating their school meal in the dining hall by the start of the second serving.

'The noise! They were all so excited...We also noticed that when the big ones come in, the little ones seem to get scared and they leave their dinner and go then and I couldn't understand why it was emptying so quick and then it was [my general assistant] that says, you know, "They're scared of the big kids."' (Role, School X)

At Phase 2, School 1 had changed the order of servings with P1-3 children entering the dining hall at the second serving. Nevertheless, the new system had been problematic in that the dining hall was still busy when P1-3 children arrived for their

lunch. In addition, some P1-3 children had to rush to finish their meal in the remaining time available. The school senior manager and head cook discussed returning to the previous system if the situation had not improved within a few weeks.

3.2.6 Impact on wider school life

In each local authority, concern was expressed about teaching and administrative staff time being spent on administration of lunch choices. During observations, administrative staff commented that this was one of their main tasks. With the implementation of UFSM, administrative staff time had been saved counting and banking money, and contacting parents who owed schools money for meals. Nevertheless, additional time was now spent inputting a greater number of meal choices for P1-3 children. This information was often required in triplicate, but all administrative staff felt that this produced the benefit of additional checks on choices. In one local authority an online system was in the process of being rolled out. School senior managers perceived that this would reduce administrative staff time as choices would be received directly by the kitchen. Head cooks reported that they have generally planned meal numbers each day based on previous menus, rather than waiting for the final numbers to come through from the school office.

School senior managers, and some class teachers, were concerned that too much teaching time was spent on discussing lunch choices with children. Although these systems were already in place before UFSM, a larger number of children were now taking a school meal, and therefore the time set aside for this had increased:

‘The system here for children choosing their lunches...it takes up a lot of teaching time and admin time.’ (Senior manager, School 1).

‘The amount of time that is used by [name], in the office, for looking at the orders, putting all of the numbers into the computer and then counting the money and having to bank it, as well – and we don’t get any funding from catering to do that, and then all the hiccups with it, it’s us that’s left to sort it out’ (Senior manager, School 1).

Systems had been changed in School 7 to reduce this impact, with children now indicating their lunch choices themselves on a board outside their class in the morning, rather than teachers running through the choices as a class.

‘The self-registering came through the time for teaching basically like it was—not so much like a waste of teachers’ time, but it was like we’re using that time to sit and go through school meals, where we could be using that time to, for a lesson, more productively really’ (Class Teacher, School 7).

4. Local authorities results

As with the schools research, results for local authorities are presented separately under the headings barriers and facilitators to implementation (4.1) and impact of UFSM (4.2) and within each section findings follow the same broad themes. Section

4.2 examines the policy's impact on uptake of UFSM and factors associated with the policy's financial and nutritional benefits. Findings are drawn from both the survey and interviews with local authorities. Verbatim quotes relating to the interviews with local authority stakeholders are attributed to individuals according to local authority code number and whether working in education or catering.

The analysis also links relevant findings from the research with local authorities to key constructs identified by the theory of change. Appendix 14 presents findings from the research with local authorities alongside those for parents and schools to validate external factors effecting implementation and outcomes of the policy, potential unintended consequences of the policy and assumptions underpinning the theory.

4.1 Barriers and facilitators to implementation

Implementation of the policy was generally described by local authorities as having gone relatively smoothly. In the early stages local authorities reported focusing their attention on addressing the logistical issues associated with meeting the expected increase in demand for school meals. However, by the start of the 2015-16 school year most of these logistical issues had been addressed with only a small number of structural changes still to be completed. As a consequence by this stage attention was largely focused on developing measures to promote uptake of UFSM, most of which were directed at the new P1 intake in the form of taster sessions and parents evenings to underline the value of school meals and to acclimatise children to the school dining environment.

‘All the Primary 1 cohort [parents] are offered the opportunity to come in and see a lunch service, and join their children in a lunch service, either just before they start full-time or the first week of them coming into full-time... It actually opens the adults’ eyes’ (LA1, Catering).

Following the introduction of the policy just over half of all authorities surveyed reported levels of UFSM uptake to be broadly in line with expectations. However, two-fifths reported lower than expected uptake. None of the case study local authorities described setting, or working towards, targets in order to address these apparent short-falls.

‘I would just love it to be up there at 85%. But to go from 65 to 85... I haven’t set any targets because we need to have a plan to set a target’ (LA5, Catering).

A small minority of local authorities also expressed concern over future impact due to the potential roll out of the policy to older years or as successive cohorts of children going into Primary 4 continue to take school meals.

Examination of barriers and facilitators to implementation by local authorities was framed by a review of themes to emerge from a short pre-implementation survey of Scottish authorities^{***}, supplemented by findings from earlier UFSM pilots in Scotland and England.^{1,10} This analysis identified nine main areas of activity considered important to implementing UFSM policy:

- recruiting and retaining staff
- improving kitchen facilities and equipment
- making structural changes to services
- enhancing serving and dining capacity
- gaining the support of schools
- informing parents
- training
- planning
- predicting demand.

The current study found the first five areas presented significant challenges to implementation of the policy, namely recruiting and retaining staff, improving kitchen facilities and equipment/making structural changes to services, enhancing serving and dining capacity, and gaining the support of schools. The barriers and facilitators associated with each area featured prominently in both the local authority survey responses and case study interviews. These same areas of activity were also broadly consistent with the main themes to emerge from the research with schools and are therefore discussed under the same headings.

In reviewing the findings for each area of activity, it should be noted that there is a degree of inter-dependence between areas and related barriers and facilitators. For

^{***} An unpublished online survey was conducted in late 2014 by the Association for Public Service Excellence (APSE) examining the challenges, responses and perceived benefits of the UFSM policy in Scotland. A total 383 facilities management contacts across Scotland were invited to take part in the study, resulting in 20 positive responses from 17 local authority areas.

example, the ability to recruit and retain dining support staff was important in some local authorities to enhancing dining capacity and traffic flows, and gaining the support of school senior managers could be important to experimenting with different dining and serving arrangements and to agreeing plans to make necessary structural changes to school buildings. Similarly, while in many cases authorities devised bespoke responses to the barriers experienced, a number of common facilitators emerged from the analysis. These included the importance of starting the planning process early and using existing organisational structures and opportunities to build stronger links and to promote partnership working between catering and education.

4.1.1 Staffing

Most local authorities sought to recruit staff to support implementation of the policy, with one authority recruiting as many as 80 new staff. These were mainly catering assistants and to a lesser extent dining supervisors. Some smaller authorities appeared more able to make the necessary changes with the support of existing staff. Three authorities also reported employing dedicated support officers to coordinate implementation, and in one case a UFSM project coordinator post was shared between two authorities.

Staff recruitment and retention was found to be a challenging area, with some case study authorities reporting high levels of staff turnover and significant numbers of unfilled posts. A range of barriers were identified as contributing to ongoing problems with recruitment:

- Unattractive contracts: difficulty filling short, part-time contracts, many of which were limited to 10 hours a week:

‘An hour in some schools would be enough but it’s very difficult to get a member of staff to work an hour a day. Who’s going to break up their day for one hour’s work?’ (LA2, Catering).

Some authorities who took part in the survey reported that the limited hours on offer could discourage some applicants as it failed to compensate for the potential loss in welfare benefits.

- Competition from other sectors: in particular from the retail sector, which was able to offer longer hours to seasonal workers over the pre-implementation Christmas period.
- Processing problems: these included delays in obtaining approvals to create new posts, time consuming disclosure checks, and problems accessing the My Job Scotland website used by many councils to advertise vacancies, due to a web-upgrade.
- Work pressures: some authorities also linked high staff turnover to unanticipated work pressures:

‘When they took the position, I think they thought they were just coming to a wee easy job. You know, that there wouldn’t be hundreds of children to be served’ (LA4, Education).

A number of facilitators and measures helped to overcome some of these barriers:

- Early planning: anticipating problems and initiating the planning process early was important to enabling implementation. Some authorities who took part in the survey started recruiting as early as September, with new staff in post before January to facilitate statutory training requirements in health and safety, and food hygiene, etc.
- Extending hours of those on existing contracts: for example, one authority reported offering additional hours to existing staff who worked in school breakfast clubs to act as dining supervisors.
- Careful targeting of candidate groups: another authority reported advertising job vacancies locally using newsletters and word-of-mouth to reach those considered more familiar with and committed to the school.

4.1.2 Equipment and infrastructure

The survey found that around two-thirds of authorities required and undertook structural work to implement the policy, and that for these authorities' infrastructure changes presented the greatest challenge to implementation. For authorities that had undergone recent school modernisation programmes or where programmes were at a more advanced stage, fewer structural changes were required.

'All of our schools have either been re-built or refurbished or are currently under that realm, so that's all been looked at' (LA4, Education).

For those authorities that did require to make structural changes, three main barriers to progress were reported:

- Later than expected notification of capital allocation: Funding for capital developments was critical to implementation. However, a number of authorities described how what was referred to as late notification of allocated funding had resulted in planning delays, a problem exacerbated by the long lead times required to implement structural improvements.

'One of the biggest difficulties was the not knowing if we were going to be funded for it. I don't think we got confirmation until the middle of December... In the end we just had to say, spend the money otherwise we are not going to be ready for January' (LA3, Education).

- Increased competition for new equipment and service suppliers: Some authorities reported delays in the procurement process resulting from unusually high levels of demand and competition for the likes of catering equipment and materials, and in particular for cold storage fridges and freezers and space saving multifunction ovens. In some cases the pressure to meet tight deadlines was blamed for what subsequently transpired to be poor procurement decisions:

'There were some people (who) were not interested in your tender because they knew they couldn't fulfil it in the timescales... We've suffered for that because decisions had to be made very very quickly

and we're now regretting some of the decisions we made' (LA1, Catering).

- Gaining the support of schools: Difficulties in gaining agreement from schools to undertake building works, particularly where significant levels of disruption were involved, led to plans being scaled down and, in some extreme cases, cancelled. In some campuses it was indicated that local geography and site conditions meant making necessary structural changes was simply not possible or that the level of expenditure required could not be justified.

A number of facilitators and actions were taken to help mitigate problems and challenges associated with structural changes:

- Systematic and early auditing of dining and kitchen facilities and demand: Initiating the planning process and estimating the impact of demand for school meals on facilities as early as possible, in some cases as early as May 2014 was important to enable implementation. However, some authorities reported delaying this process until the start of the 2014-15 school year in order to secure accurate school roll data.
- Covering temporary funding short-falls: for example, one stakeholder reported how its policy and resources committee provided advanced funding to mitigate planning issues.
- Prioritisation and structural contingencies: A number of authorities sought to prioritise more urgent work, putting in place temporary measures, such as preparing meals off site and transporting them to schools where structural work was considered less urgent.

As well as reporting a number of challenges, some opportunities and benefits also emerged from these improvements and related planning processes:

- Improved dining experiences for pupils, with upgraded facilities reducing congestion and creating more attractive dining environments.
- Installation of more efficient/greener food production equipment.
- Opportunities to build partnerships and closer working relationships with schools.

4.1.3 Dining arrangements

Problems associated with dining capacity and ability to meet increased demand for school meals was the most prominent theme to emerge from the study, with local authority stakeholders raising particular concerns about the impact of disruption brought about by greater dining numbers on younger children less able to cope.

Three main barriers were described:

- Structural constraints: limitations on dining space were typically reported in older, larger schools and schools that relied upon multi-use dining halls. Older schools appeared more likely to require significant structural changes, while multi-use facilities offered limited flexibility to extend the dining period.
- Support from senior staff: lack of support from senior managers in some schools was raised as a critical barrier to experimenting with alternative dining arrangements, with head teachers sometimes reluctant to stagger or extend lunch periods:

‘Some Head Teachers are very good at engaging with us and some aren’t. No matter how many e-mails you send, you don’t get any (response), so my officers just started going into schools at lunch time, trying to catch the head teacher in the dining room’ (LA4, Catering).

- Dining room supervisors: a reliance on teaching assistants and administrative staff to act as dining supervisors in some local authorities was widely cited as a focus of concern, with staff who assumed this role sometimes perceived to lack the necessary time, training and skills to maintain discipline and to support those younger children struggling to cope:

‘They’re often pulled away if there’s an incident or if they’ve to go out to the playground to see something or if they have to cover for someone’ (LA1, Catering).

While these barriers presented real challenges, this was a significant area for innovation with schools and authorities experimenting with a range of measures to minimise pressure on the dining environment:

- Investment in dining support staff: a number of authorities reported recruiting dedicated staff to provide support during meal times. Other authorities were actively considering this option at Phase 2. Only one authority reported offering specific training on supporting children on meal choices and, as previously described (see Section 4.1.2), a number of authorities experienced significant recruitment and staff retention issues.
- Improving speed of service: a number of specific measures have been used to manage flow rates and reduce queueing and congestion. These include: the introduction of pre-ordering systems; creating additional or dual-serveries; introducing food trays to limit number of visits to serveries; increasing the number of waste stations; staggering the dining order to give younger children more time; and adapting the number and range of food options.

‘In some schools we’ve changed the menus. We currently do two hot choices... But, because uptake is so high, we have gone to one choice of hot meal – it depends what’s on, what’s quicker to serve’ (LA4, Catering).

- Enhancing dining capacity: measures here involved structural changes to expand the available dining space and opening up additional rooms to accommodate packed lunches, as well as equipment and organisation adaptations, such as replacing chairs with benches, purchasing integrated foldaway tables and separating those eating school lunches from those bringing packed lunches from home.
- Trials and follow-up visits: many authorities described experimenting with different measures to identify the best solution for the circumstances and challenges posed by individual schools. As previously noted, this iterative approach was dependent upon the support of school management.

While many measures were specifically designed to resolve capacity issues, not all were seen as consistent with improving dining environment. For example,

introducing food trays was sometimes considered inappropriate for younger children, and decisions to segregate pupils according to whether a child took a home packed lunch were often questioned as being anti-social.

4.1.4 Policy communication and engagement

Engaging and gaining the support of schools was a common theme, with local authority representatives describing schools' response to the policy as variable. Many authorities identified a small number of 'difficult schools' as presenting ongoing problems, with management of the school dining environment a common area of tension.

'Some schools have been very helpful and said, 'Right, what we'll do is, we'll actually change the lunch time service'. And then on the flip side of that, we have schools that do none of that – won't even meet with us to discuss it' (LA1, Catering).

The main barriers to progress in this area were seen to be both attitudinal and organisational:

- Attitudes of head teachers towards the policy: some local authority stakeholders indicated that some head teachers did not support the principle of universality, feeling that it was a misuse of scarce resources.

'It's a fairly negative picture.... some of our Head Teachers, what they're saying really is that – this sort of universal benefit, it's not needed, you know, most of the parents in our local authority can well afford to pay. So, there's an issue with that' (LA5, Education).

This view was in part reflected by head teachers accounts of how they dealt with the policy, and their decision to actively promote it on an opportunistic basis to those parents they deemed were in greater need and would benefit most from the subsidy.

- Perceived failure to adopt a whole-school approach: some stakeholders regarded the main barrier as reflective of some schools' general lack of engagement with school meals and 'not seeing it as a school issue'.

'In some schools the relationship, you know, it's kind of education is very separate from catering and it's (just) something that happens at lunch time' (LA3, Education).

- Other pressures and competing priorities: authorities highlighted the wider policy context and the range of competing pressures on schools as a factor limiting capacity to engage.
- Wider organisational structure: where catering departments sat separately from education this was sometimes seen to limit catering managers scope to influence and manage how the policy was implemented:

'I think sometimes, they (HTs) look and think, 'Who the hell's (interviewees name)? You're no' in education. What are you saying tae

me to do that for?' Whereas if I was in education it would be a different story' (LA5, Catering).

A number of measures were used to help facilitate engagement and involvement from schools:

- Exploiting existing structures and opportunities for forming partnerships: a number of measures were used to promote partnership working between education and catering at both authority and school level. These included: ensuring representation from education on planning groups; extending invitations to facilities management to attend head teacher cluster meetings; conducting joint visits to schools by representatives from education and facilities management; and exploiting existing relationships between school managers and local catering staff.

'I would say, the important part was the (Catering) Supervisors communicating with the Head Teachers, individually, in their schools – we've got a good bunch of Supervisors' (LA5, Catering).

- Providing additional logistical support: offering logistical support to schools in the form of parent information materials, templates and guidance for introducing pre-ordering systems, additional support staff in the dining room and staff support for running taster sessions, etc. were considered to be important measures to help build and consolidate partnerships at school level. Such measures appeared less valuable or necessary where there was strong community cohesion and an existing culture of team working within schools

4.2 Impact

4.2.1 Impact on uptake

The combined Phase 1 local authority survey and Phase 2 stakeholder interview findings comment on two main themes relating to UFSM uptake: achieved uptake levels and variation, and factors associated with variations in uptake.

Achieved uptake and variation

Local authority stakeholders participating in the Phase 2 interviews reported that levels of school meal uptake for P1-3 pupils had increased since the introduction of UFSM. Stakeholders relied on figures from their own data, passed to them from individual schools, rather than data from the Healthy Living Survey (HLS) 2015. Most of the local authorities were unfamiliar with the HLS figures, and frequently commented that the uptake levels posted for their area were higher than the operational data routinely collected by schools. These differences were consistent with the Phase 1 local authority survey data**** which found uptake figures to be on

**** The local authorities survey which forms part of the current study was conducted during February and March 2015 and received responses from 31 of Scotland's 32 local authorities. As part of the study, participants were requested to provide information on the level of UFSM uptake for their area. Collecting detailed information on methodologies used for calculating these figures was not viable

average, 3% lower than figures reported in the HLS collected over the same period. Further enquiry raised concerns over the accuracy of the HLS data, which was based on a single day's data and therefore subject to menu variability and the popularity of food options on offer on the day selected for audit.

While the HLS reported that P1-3 uptake of school meals had increased between 2014 and the implementation of UFSM, some local authority stakeholders within catering and education expressed concern over the uptake levels achieved, either generally across the local authority, or specific to individual schools, which were viewed as 'problematic'. However, despite some schools achieving lower uptake levels than expected, there was little to indicate authorities were working closely with these schools to improve uptake. Furthermore, some authorities reported delays in adapting recording systems to measure UFSM uptake for P1-3 classes and there did not appear to be systems in place to disseminate information on uptake to individual schools.

'I think [low uptake figures] should be brought to the attention of the head teacher. I don't think they'll know what their percentage uptake is... we could maybe go out and say 'do you realise that you are sitting at 44% and the majority of schools at sitting at 65, 68, 78%? Can we have a look as to why and what can we do?' (LA2, Catering).

Overall, local authority stakeholders said that it was too early to comment on any notable change in school meal uptake for P4-7 pupils. Some local authorities had anticipated an increase and had factored this into their planning. However, at the time of interview it was sometimes reported that inadequate data, often from the way in which uptake data had been recorded in the past, made analysis unfeasible at this stage. Some expressed a belief that it may have encouraged uptake among upper years, especially if younger siblings were attending for UFSM. Others reported that UFSM had reduced uptake among upper years; they perceived that more congested dining environments had increased the appeal of home packed lunches and going off campus at lunchtime (if permitted).

'The paid numbers have gone down a bit but not significantly at the moment but we're obviously gonna keep an eye on that because we don't want to lose them' (LA1, Catering).

Furthermore, over the period the case study interviews were conducted, the first cohort of P3s entitled to UFSM, were entering P4. One authority reported that parental financial considerations factored in at this stage, with some 'borderline' parents unable to afford to continue with school meals.

'The parents are saying, 'Well, if that one's free till P3, once they come to P4, we'll just give them a pack lunch.' So that's a bit disappointing but... I don't have a huge amount o' evidence to back that up' (LA1, Catering).

using a self-completion approach, hence the study was not able to make an assessment of comparability. All 31 local authorities who responded to the survey provided UFSM uptake data.

All authorities reported that uptake fluctuated between individual schools, suggesting that the variation between local authorities observed in the HLS would appear to be explained by differences at individual school level rather than differences in the way local authorities had implemented the policy. These differences could be quite marked. For example, in one local authority, Phase 1 survey data on uptake of school meals for P1-3 across the area ranged from 40% to 100% between schools. One stakeholder interviewee highlighted that there could also be marked differences between classes within schools which may indicate peer group effects.

'We've got one class at P2 who don't take school meals so often, at least the numbers on certain days are much lower than every other class in the school' (LA6, Head Teacher).

Factors associated with variations in uptake at school level

At the time of interview, no formal analysis had been undertaken to explore variations in uptake between schools. Local authority stakeholders closest to managing implementation of UFSM - usually catering managers and contractors - were more closely engaged with uptake figures than those working in local authority education departments. However, limited use had been made of the data, and stakeholders' explanations for the factors associated with variations in uptake were based largely on observations and informal feedback from schools.

Two key factors were believed by local authority stakeholders to explain differences in uptake, the size of school and the attitudes of school management.

Schools with smaller roles were thought to be able to adapt to change more rapidly and provide a more pleasant dining experience. Many small schools were also reported to already have high levels of school meal uptake, in some cases as high as 100%. This perhaps helps explain higher levels of UFSM uptake in the HLS data reported for more rural island authorities. In contrast, larger schools were reported to present greater logistical challenges, problems that were compounded with schools with older premises which require significant investment in structural change. Busy, noisy dining environments within larger schools were also thought to increase the appeal of bringing in a packed lunch from home. It was reported that children could eat packed lunches more quickly allowing greater time to play, or, where children eating packed lunches were separated from those eating school meals, there was appeal from eating in a calmer environment.

'Some of our small rural [schools], we're at 100%. They're not a worry and they've never had any issues relating to the size of the dining room... What we have problems with is some of our burgh schools, that have huge rolls and the dining facilities are not capable of taking much more... in these large schools, the uptake is lower' (LA1, Catering).

'A couple of schools who are waiting for additional space, the increased noise in the dining area have caused some pupils to not go because it's not a pleasant experience' (LA3, Education).

The second factor related to the perceived attitudes of head teachers towards school meals. Head teachers were sometimes reported as unsupportive of the principles of

the UFSM policy. In those schools with higher levels of uptake, head teachers were described as being more cooperative and willing to make the necessary changes to resolve the likes of capacity issues. In such schools, head teachers were thought to be more likely to view the lunchtime experience as part of a whole school ethos and to have established better relationships and lines of communication with school catering staff. In contrast, where head teachers were more inclined to take the view that school meals were separate from education, links with catering and lunchtime support staff were considered less well established and there was less willingness to work towards accommodating the changes required to introduce the UFSM policy. This it was believed could account for lower levels of uptake in some schools. However, it was also noted that while the support of head teachers played a role in aiding implementation, there was no guarantee that high uptake would necessarily follow.

‘Huge variations [in the support of head teachers between schools]... just a complete lack of co-operation... They find it very time-consuming... they see no worth in it, so therefore they fail to buy into it and support us in trying to maximise the numbers’ (LA1, Catering).

A third factor discussed frequently by all local authority stakeholders with regard to variation in uptake levels was social deprivation. However, it is difficult to draw conclusive findings as local authority stakeholders based their perceptions on observations rather than exploration of trends in uptake between schools. It is also difficult to determine what data participants’ accounts were based on, i.e. whether they were describing an observed change in UFSM uptake pre- or post- implementation, or UFSM uptake relative to schools in other areas. For example, authorities reporting less than expected uptake in schools in more deprived areas may have had less scope for change as uptake may have previously been high. Those reporting high uptake in more affluent areas may have observed a greater change in uptake due to previously low levels, but uptake may still remain lower compared to others. The data on this issue illustrated a wide spectrum of opinion.

‘Some of the schools which have historically high free school meals allocation continue to be high, possibly because a number of other pupils in the school might be kind of borderline I suppose’ (LA3, Catering).

‘It’s in the more affluent areas that they don’t come’ (LA4, Catering).

In addition to the three main factors outlined above, participants offered some further explanations which could account for variations in uptake:

- Many highlighted that uptake was menu dependent, with children more likely to attend on days when more familiar and therefore popular foods such as pizza or fish and chips were offered.
- Some indicated that uptake depended on peer influence and what friends were eating. Segregation of packed lunches from school meals in some schools appeared to reinforce the effects of peer influence.
- In two authorities it was suggested that uptake varied according to season, with greater uptake in winter months.

- In one authority it was suggested that in schools in areas where there was a high proportion of stay-at-home mothers, children were being collected at lunch time to eat lunch at home.
- In one authority it was highlighted how the area politics of a small close knit community could influence uptake.

‘The ones [schools] at the minute where we’ve got the lowest uptake, it’s a bit of local politics where, if your Mother’s fell out with the cook, you’re on a packed lunch... that is actually more or less what has happened’ (LA6, Catering).

While these explanations outlined above may in part offer insights into variations in uptake, local authority stakeholders also highlighted that differences could be context dependent. Individual school circumstances, the combination of factors outlined above, and also the dynamics between the different factors, were all important to acknowledge. For example, while the circumstances of a large school may suggest that uptake would be low, a supportive head teacher open to making suggested improvements could have a very positive influence. Conversely, a school could have a supportive and engaged head teacher, but only achieve average uptake. As one catering manager highlighted: ‘I think it’s more site-by-site basis’ (LA3, Catering).

‘It’s just the context... having worked in two education authorities... it’s just a different context on what was happening before, the expectations of the parents...’ (LA4, Education).

4.2.2 Impact on financial benefit

The local authority stakeholder data highlighted two main themes relating to the perceived financial impact of the UFSM policy: cost savings for families and access to linked benefits.

Cost savings for families

Local authority stakeholders generally acknowledged that those who gained most from the introduction of UFSM were the newly eligible families. Of these families, the policy was thought to be most beneficial to those on low incomes, but above the previous threshold for eligibility. Another group thought to benefit were those from more affluent areas with higher incomes, but also greater financial responsibilities, who may struggle financially.

‘It makes the biggest difference to those who would have just missed out on free school meals’ (LA3, Education).

‘The people that are in the affluent areas, but may have higher mortgages and a higher output of their money and they weren’t entitled to a free meal before, that free meal entitlement is helping them enormously’ (LA2, catering).

Added financial benefit as a result of the policy was considered lower for those already eligible for, and taking up, FSM. In two authorities, interviewees expressed

concern that some families living in areas of deprivation that could benefit from FSM were not taking advantage of this.

‘The most surprising aspect of the implementation is the low uptake in schools in socially deprived areas’ (Survey respondent).

‘I worked in the most deprived area of [local authority]... even when we had free meal entitlement just for those children who were entitled to free meals, about a fifth of my children wouldn’t take it up anyway because of parental views about the stigma around free school meals. And we still have a lot of that’ (LA5, Education).

Generally, local authority stakeholders felt that it was important that the families who needed the benefit most in terms of the financial savings, received this, and not all felt that the universal policy was the best way of achieving this. Some local authority stakeholders argued that upping the current income threshold at which parents become eligible for FSM across P1-7 may have been a more effective way to help with health, social, and economic inequalities.

‘That is great if we can feed everybody but to increase the free school meals criteria across all age groups would have been a better use of money than feeding children whose parents can afford to feed them’ (LA3, Education).

‘If we are really serious about addressing inequalities and poverty in this country then one of the main things we can do is keep money in people’s pockets’ (LA4, Education).

Impact on access to other linked benefits

Stakeholders at local authority level did not perceive any negative impact on clothing grants from the introduction of UFSM. Some authorities reported having systems in place to actively remind parents to apply for the grant. However, two authorities providing free school milk indicated that UFSM had thrown up issues regarding identifying those entitled, although this was quickly resolved.

‘Those who were entitled to free school meals under the old criteria continue to be entitled to free school milk. However we have no registration process for that... because we didn’t have to apply for free school meals we didn’t have a process for free school milk. It’s been dealt with now but it was something that popped up... for January it wasn’t such a big problem because they had already applied in the August. I think they have been caught mostly under the clothing allowance now’ (LA3, Education).

4.2.3 Impact on nutritional benefit

Interviewees’ narratives around nutritional impact focused on any perceived change in the nutritional content of school meals and whether pupils ate the food provided.

Nutritional content of school meals

There were no perceived changes to the nutritional content of meals. Local authority stakeholders generally held positive views about the nutritional attributes of menus and many interviewees, across both education and catering, spoke of adhering to nutritional standards, with balanced menus in place before implementation of UFSM. There were, however, some reported changes to menu options as a result of UFSM, such as reducing the number of hot dishes to help cope with increased demand and providing a sandwich option to speed up serving processes and to increase uptake. It was highlighted that increasing volumes could make menu planning more difficult in terms of the types of foods which could be offered together. One local authority's reluctance to change hot options for a sandwich option was explained by the higher value catering managers attached to hot meals.

There were few narratives around the perceived quality of food. One education stakeholder reported receiving feedback from head teachers who felt that the quality of some of the food had diminished. This feedback referred to a change in the quality of fish provided and the use of frozen instead of fresh vegetables. However, within the same authority, a catering stakeholder reported no changes affecting the perceived quality of meals. There was no reported impact on portion sizes and interviewees often referred to adhering to set guidelines for P1-7 pupils. One authority was contemplating using UFSM as an opportunity to decrease portion sizes for younger ages, which from feedback received were considered too large and responsible for excessive levels of waste.

'We've kind of gone to the upper end of portion sizes for everybody so quite often we get 'oh it's too much for a P1'... So [reducing portions] is something that we are going to look at again and maybe trial – obviously we will stay within the recommended portion size but go to the lower end of that for P1 to P3... now it feels like there might be more flexibility because there is no longer a charge' (LA3, Education).

Foods eaten

From the stakeholder data it is difficult to assess whether the introduction of UFSM influenced the popularity and appeal of school meals. There was an apparent lack of feedback from children on this issue. However, it was felt that children needed staff encouragement to eat unfamiliar, or healthier, components of meals. It was recognised that school meals were most popular on days offering foods such as pizza, and fish and chips. Many interviewees spoke of fussy eating among children and that in some cases children were being instructed to attend by parents rather than choosing to attend. This was believed to have implications for the types and amount of food they would eat.

'There's some fussy kids and they're not eating their lunch' (LA5, Catering).

'It's interesting that many of our parents did decide to take up the free school meal entitlement who had previously sent in packed lunches. The children were not happy about taking them so there were issues there' (LA5, Education).

There were also some positive accounts of children enjoying their food, with low levels of waste used as an indicator of the appeal of meals:

'They're good eaters, our bairns... there's not a lot goes in the bin'
(LA1, Head teacher).

Pre-ordering systems were generally identified as helping to reduce waste by limiting over-production and ensuring children received, and therefore ate, their preferred option. Waste was also perceived to be menu dependent; in particular the level of waste when baked potatoes were offered was repeatedly raised as an issue as children generally ate the filling but discarded the skins.

'They take the baked potatoes, they like it. The thing being then is, they might only have half of that baked potato because once they've ate the filling... see all the skins and that, there's a lot o' waste there' (LA5, Catering).

It was highlighted that, where introduced, additional dining room support staff had a positive impact on children's eating habits by encouraging them to try different foods. Additionally, UFSM was perceived to have a particularly positive impact on the diet of those children who had previously eaten packed lunches prepared at home.

'Even in the more affluent areas, often these children are the ones that came in with all the boxes full of fizzy drinks and chocolate rather than healthy food. So hopefully it will form the good eating habits there'
(LA1, Catering).

'There's a lot of wee kids that maybe brought a packed lunch with nothing but rubbish in it. They are now getting a nutritious meal at lunch time... the Catering Managers see a difference in some of these children' (LA4, Catering).

Interviewees across education and catering often believed that by providing children with the opportunity to sample new foods, UFSM would form a foundation for good eating habits in the future. A healthy diet was also associated with the longer term outcome of improved attainment.

'Because the children have good food in their stomachs, they're able to learn better an' it'll push the attainment levels up. But again, these are not seen for years' (LA1, Catering).

'I just feel for some of the kids from the more deprived areas, who're getting a better balanced diet during the day, it will improve their learning. I think they will be more attentive, they'll have more energy, and it should ultimately maybe help with their attainment, for future years' (LA4, Catering).

4.2.4 Impact on demand for medically prescribed diets

Some authorities reported a rise in requests for medically prescribed diets, including food intolerances or allergies, although the overall proportion of children requiring such menus remained low. This increase was sometimes attributed to UFSM; parents were thought to be more inclined to send their children for school meals now they were entitled to them, whereas previously they would have provided packed lunches from home to ensure greater control over their children's food. Others perceived the increase in medically prescribed diet requests as reflective of a general trend and noted previous increases, particularly when health issues around food were reported in the media.

Increases in the number of children requesting medically prescribed diets were not necessarily viewed as problematic, although one authority highlighted cost implications of providing more specialist and expensive ingredients. Processing requests for medically prescribed diets also had associated administration costs. Several stakeholders highlighted that their authorities were well prepared to meet increased demand, as menus around allergens already existed in line with existing legislation.

'We have had a huge increase but it's been manageable' (LA1, Catering).

4.2.5 Impact on dining arrangements and environment

The general view was that UFSM had exacerbated certain issues already prevalent in the dining environment, due to increased proportions of children attending for school meals. Although local authority stakeholders said they preferred not to, UFSM had sometimes resulted in the separation of those taking school meals from those having home packed lunches. Many stakeholders, both in catering and education, voiced concern about providing a pleasant dining experience for children. Lunchtime was considered an important opportunity for encouraging the social aspect of eating and modelling good behaviour. Pressure on dining halls and the time allocated to eating raised questions about schools' ability to adequately provide these things and also the impact on younger children, who it was acknowledged could find lunch time systems difficult.

'Some [dining halls] are at bursting point – is it an enjoyable experience for children? No, it isn't. In certain sites, it's not an enjoyable experience' (LA3, Catering).

'I had a report today whereby, you know, some [dining room support staff] are, like, shouting at the kids, 'Hurry up and eat your lunch!'... "Get out in the playground!'... You do that to a P1, P2, they're absolutely petrified, I sometimes wonder about the whole kind of environment' (LA1, Catering).

Some positive impacts were also noted as a result of the funding linked to the UFSM policy. One stakeholder highlighted that using funding to make improvements to dining arrangements had benefited the whole school, rather than just P1-3 pupils.

Another highlighted that in their authority, they had attempted to mitigate the unintended consequence of a busier dining hall by investing in additional dining room support staff; a new member of staff had been placed in some dining halls to avoid congestion and aid younger children with the lunchtime experience. This had resulted in a notably more pleasant environment.

‘They assist the younger pupils in their choice of food, make sure that they have their healthier choices there, help them cut food, help them clear their tray... just to give them a much more settled environment... I went to a school yesterday at lunch time and it’s working really, really well. It was such a nice calm – calmer – dining room. There didn’t seem to be the anxiety that you could notice before the holidays’ (LA1, Catering).

4.2.6 Impact on wider school life

There was evidence that UFSM and the need to accommodate increased demand for school meals had an impact on school timetables. For example, some authorities had enacted timetable changes to enable the youngest age groups to start lunch time earlier. An impact on PE provision was reported by three authorities, where dual use facilities made it difficult for the space to be ready in time for PE timetabled after lunch. Two of these authorities said they were waiting for additional dining space extensions or refurbishments which would help mitigate this consequence. One of these highlighted that problems with delivering the required two hours PE also existed before the introduction of the policy.

‘The increased mess that is made... the turnaround time for trying to get cleared up and ready for use again as a PE hall after lunch time... The schools who are still awaiting their additional dining space extensions and PE halls, those are not meeting their PE....they are not able to do both’ (LA3, Education).

4.2.7 Impact on parent engagement

While parent taster sessions to encourage engagement with school meals were reportedly offered before implementation of UFSM, authorities appeared to place greater emphasis on them post-implementation. There was a general perception that the policy had resulted in increased interest in school meals from parents, and taster sessions were seen as one way of embracing this.

‘You maybe do have more parents coming in and doing it because they’ve got the initial entitlement, so you’ve maybe got more parents engaging with that’ (LA4, Education).

Some interviewees also perceived greater parent and child dialogue around school menus due to UFSM, which helped some children to make healthy choices.

5. Discussion

5.1 Barriers and facilitators to implementation

Overall, schools and local authorities had implemented UFSM successfully. As a national level policy, all 32 Scottish local authorities were involved, compared with only 5 in the 2007 pilot. The findings from the evaluation of the pilot suggested that roll-out would not be problematic. While the majority of schools and local authorities had managed implementation effectively, there were a number of barriers and facilitators identified at the planning stage. In contrast with the pilot, local authorities and schools had a lead-in time of one year, compared with a relatively short lead-in time of a few months in both the Scottish and English pilots of universal systems. This resulted in more time to plan ahead and overcome difficulties, either before implementation or in the weeks and months afterwards. Nevertheless, some barriers were ongoing, and remained a challenge after implementation. This chapter synthesises the findings from both the research with parents, published in October 2015, and the current research with schools and local authorities.

5.1.1 Staffing

Previously high levels of FSM entitlement as a proportion of the school roll were a reported facilitator to successful implementation by head cooks, as these schools tended to have high levels of school meal uptake. In those schools, head cooks perceived increased uptake to add to catering staff workload in only a marginal way. These patterns were not reported by local authority stakeholders, which may reflect the greater diversity of FSM entitlement at this level.

Ensuring that there were enough experienced staff in place in school kitchens and dining halls to feed an increased number of children was challenging in some local authority areas. Unattractive contracts, competition from other sectors, and a lack of readiness from some candidates for meeting the needs of a demanding job were problematic. Local authorities tried to mitigate these barriers by beginning recruitment early, extending the hours of existing catering staff, and targeting job vacancies to specific groups.

Although budgets had been increased for catering and supervisory staff in some local authorities, in others dining hall support staff budgets had been cut, resulting in what was felt to be inadequate supervision within the dining hall. P1-3 children required significant support to move through the servery and to eat the meals provided. Parents raised concerns about lack of dining hall supervision as they were uncertain whether children were eating adequately. They believed that dining support staff could help facilitate this.

Additional staffing barriers included lack of training opportunities for catering and dining support staff around supervising children and encouraging them to eat the foods on offer. As in the evaluation report from the Scottish and English pilots,^{1,11} both school and local authority stakeholders, perceived that catering and dining hall support staff were pivotal in encouraging children to try foods they were unfamiliar with, ensuring that children were eating enough, and could increase the efficiency with which younger children passed through the dining hall. With the correct training,

there was a belief that children would be encouraged to eat a more nutritionally balanced diet, and that waste would decrease. Nevertheless, training could only partially mitigate the reported difficulties in catering staff interacting with children when time was limited. While time constraints associated with preparation and clean-up could be overcome through working additional hours, and preparing more foods in advance, during serving, there were few opportunities to carve out more time to speak with children.

At school level, positive relationships between catering staff, dining room support staff, senior managers and children, were considered key facilitators in implementing UFSM and increasing uptake. In addition, experienced staff within the kitchen and dining hall created confidence in senior managers, and ensured that problems were picked up and mitigated. Head cook experience was key to managing the uncertainty of uptake levels during the early weeks of implementation. Head cooks reported that they kept detailed diaries of uptake, extrapolating information from the previous school terms and years to predict uptake for each choice, and order sufficiently. The support offered by some teaching staff, who provided additional supervisory support at the beginning of lunch time, in particular for the P1 children, was identified as a facilitator in some schools. Local authority stakeholders believed significant benefits could be achieved in improving the dining experience and increasing uptake if catering and education relationships were improved, and increasing the supervisory support available during lunchtimes.

5.1.2 Equipment and infrastructure

Both schools and local authority stakeholders reported that infrastructure improvements were necessary to implement the policy most effectively. At a school level, interviewees discussed the limited capacity of school buildings. This impacted on kitchen and dining space in relation to storing food, serving meals and accommodating a larger number of children eating a hot meal. These issues were reported at both school and local authority level as being most acute in older, larger schools. Within case study schools, some limited infrastructure improvements had been made and additional equipment provided where required. The majority of local authorities identified the need for structural improvements in some of their schools. Barriers to undertaking this work included uncertainty over capital funding, increased competition for new equipment and service suppliers, and gaining the support of schools in making changes. These barriers were overcome in some areas by auditing dining and kitchen facilities systematically at an early planning stage, covering temporary funding short-falls, prioritising improvements, and implementing structural contingencies, such as cooking meals off-site, modifying ordering procedures, and making use of additional spaces within schools.

5.1.3 Dining arrangements

Due to space constraints within the dining hall, older and larger schools relied upon staggered servings to accommodate all children at lunchtime. A number of schools had modified serving times, either before UFSM was introduced or in the weeks after, to accommodate increased uptake of school meals. Although this approach was necessary, there were barriers to splitting children between dining hall and playground as supervision was required in both locations. With both schools and

local authority stakeholders reporting constraints on the number of appropriately trained staff supervising in the dining hall, this was of concern. To accommodate more children in one sitting, additional spaces within the school were used when possible, often resulting in the separation of home packed lunch and school meal children. Education stakeholders from the local authority research expressed concern about this practice, and it has been previously identified as an issue that might reduce school meal uptake.^{1,11} Parents did not believe that children should be segregated based on their decision to take a school meal or a packed lunch, and were also negative about the use of classroom spaces for lunches. With the rebuilding of older schools, it is expected that use of additional spaces will be reduced. In some school spaces, there was no clear rationale for separating children based on their lunch choice, as all children were contained within the same dining hall space.

A further identified barrier in the dining hall was P1 readiness for the school meal system. For many children in this year group, they did not yet have the skills to make choices, carry trays, and pick out a place to sit, and therefore, their progress through the servery could be slow. They were also slow in finishing meals, and school senior managers and teaching staff believed that parents could better prepare their children for the dining environment at home, such as by teaching them how to use cutlery. Parents did not report specifically spending time preparing their children for the dining hall, either before entering P1, or ahead of the introduction of UFSM. P1 children were often brought through to the dining hall ahead of the lunch bell to ease these difficulties.

Additional measures to reduce the impact of expected delays from increased uptake of school meals included pre-ordering systems, introducing tray systems, additional serveries, increasing supervisory staff, and the use of P7 dining hall monitors. A recommendation from the evaluation of the Scottish pilot was for UFSM to be introduced in August, at the beginning of the school year.⁸ The January 2015 start, however, appears to have been effective given schools' challenges in August 2015 with the new intake of P1 pupils. Schools believed that the January 2015 implementation had given P1s four months to settle into the dining hall environment, allowing for a smoother implementation period as numbers increased under the universal system. It also enabled local authorities to base their planning on more accurate school rolls.

Reported problems in the dining hall were exacerbated by poor weather conditions. This not only reduced the number of children who could eat lunch outside, but also put a strain on supervisory capacity as staff were needed in both the dining hall and individual classrooms.

5.1.4 Communication and engagement

Issues relating to communication and engagement existed across different categories of stakeholders. Concerns were raised that communication to parents from local authorities about the arrangements for UFSM had not been always been clear. Families were not always aware that they were eligible, and for those families with English as a second language, written communication was less effective. In these situations, schools reported stepping in to inform families using more

appropriate means, for example, by including clearer information in newsletters and speaking with families verbally. On the other side of this issue, school senior managers and teaching staff reported a lack of engagement from parents with school meals. Differences existed in the recommendations from schools: some wished for parents to be more engaged in helping children make choices, while others wanted parents to allow children to make choices with the assistance of school staff.

There were no clear mechanisms for parents or children to feedback at a level (i.e. local authority level) which allowed them to influence the choices available. Their views were not sought actively at either a school or local authority level. However, parents reported that they spent time at home discussing meals with their children. A move to online ordering systems in some local authorities may facilitate parent involvement further, with the possibility of children and parents making choices together. Taster sessions appeared to be a worthwhile facilitator to improving children's perceptions of school meals, and some schools were trying to reach parents through these activities too. Buy-in was limited largely to nursery-to-school transition events, but some schools tried to engage parents through additional lunch or parents evening events. The potential positive benefits to be gained from these sessions were reported by parents. They appreciated the opportunity to engage with schools in this way, and believed that it had helped overcome previous negative perceptions of school meals from their own childhood experiences.

Both the school and local authority research highlighted concern from the majority of school senior managers over UFSM. Criticisms related largely to the principle of universalism, and there was a perception that well-off families did not need financial assistance. This issue had been reported by only a small number of stakeholders in the evaluation reports of the Scottish and English pilots^{1,11}, where the majority of stakeholders were reported as being overwhelmingly positive. An additional issue raised was that P4-7 children whose families had just missed out on the eligibility criteria for FSM, were more deserving of support than well-off families with children in P1-3. These concerns have to be understood within a wider policy context of schools and education departments managing cut backs, which perhaps provides an explanation for the apparent shift from a positive perception of UFSM from school senior managers in the Scottish pilot, and the current study. In addition, the positioning of catering and education under different organisational structures at local authority level may lead to a perception that funding is being diverted from one local authority department to another. Within case study schools, there was no suggestion that senior manager concerns were impacting directly on implementation or uptake of UFSM, but at local authority level these issues were perceived to be important barriers. Exploiting existing structures and increasing opportunities for partnership working between catering and education colleagues were identified as potential mechanisms for increasing senior manager buy-in at school level. Partnership working was viewed as a key facilitator in the successful implementation of both the Scottish and English pilots of universal systems.^{1,11}

5.2 Impact

5.2.1 Impact on uptake of UFSM

Reports from local authority and school stakeholders were broadly consistent. Both reported that school meal uptake had increased among P1-3 pupils since the introduction of the UFSM policy, although routinely collected data tended to show lower increases in uptake than that indicated by Healthy Living Survey data. This difference was attributed to the methodologies used. Within local authorities, UFSM uptake fluctuated considerably between individual schools, which suggests that most of the variation observed can be explained by differences at individual school level rather than local authorities' approach to implementing the policy.

While no formal evaluations of uptake data were reported, key factors thought to explain differences were school size, and senior manager attitudes towards the policy and school meal provision, with small schools and positive support associated with higher uptake. These findings are consistent with results from the Scottish pilot which also found uptake in smaller schools to be higher.¹ The impact of deprivation on uptake is more complex, as local authority stakeholders' accounts of this issue offered a wide spectrum of opinion. For example, a school with a high level of deprivation was no apparent guarantee of higher uptake of UFSM.

Other possible contributors to uptake included the provision of a school packed lunch option, which was thought to increase uptake, and peer influence, which was reinforced through the segregation of home packed lunches from school meals. The picture was further complicated by menu choice and climatic conditions which were responsible for short term fluctuations in uptake and seasonal effects respectively. While all of these factors were seen as contributors to achieving uptake levels, local authority stakeholders stressed that uptake largely depended on a school's individual context and circumstances, and the dynamics at play between the factors previously outlined.

The research with parents confirmed some of these findings. They highlighted that uptake was often a process of negotiation between parent and child. Menu choices played an important role in whether children attended for school meals, and all three strands of research identified that universally popular meals resulted in higher uptake of UFSM. Some children would also place pressure on their parents to prepare packed lunches to enable sitting with friends at lunch time, and allow more play time by avoiding the long queues sometimes associated with school meals.

It was difficult for stakeholders at both school and local authority level to comment on any change in school meal uptake for P4-7 pupils as formal analysis was yet to be undertaken. Some local authority stakeholders thought that noisy, congested dining environments had discouraged uptake among P4-7 pupils, increasing the appeal of home packed lunches, while others perceived no change, or an increase in uptake. The 2008 Scottish pilot found a marginal increase in uptake among P4-7 of 2.6%¹. The implications of the UFSM policy for pupils entering P4 who had previously benefited from UFSM was something local authorities were beginning to consider. One local authority believed that school meal uptake was likely to drop as children

transition into P4, and parents on low incomes, but who would no longer be eligible for free meals, may no longer be able to continue with school meals.

5.2.2 Impact on financial benefit

Local authority stakeholders were more likely to report that the policy was benefitting newly eligible working families on low incomes, or those in more affluent areas, but with financial pressures. Whereas many school senior managers often felt that those most in need of free meals were already provided for through the previous arrangements. For this reason, some school and local authority stakeholders felt that a universal policy for P1-3 may not have been the most effective means of targeting the families who would benefit the most, and addressing social inequalities.

The sample of parents taking part in the research was positive about UFSM primarily because of the perceived financial benefits. Newly eligible parents welcomed the cost savings which UFSM offered their family. While those eligible under previous criteria saw the policy benefitting families around them on low incomes and struggling financially; school meals were seen as expensive, especially where families were paying for more than one child.

Across all stakeholders, less change was perceived for those families eligible for FSM through previous arrangements, in terms of the added financial benefit from attending for meals, or from being able to access linked benefits such as the clothing grant, for which no impact was reported as a result of the UFSM policy. There were some concerns raised about unintended consequences following the introduction of new processes, such as pre-ordering systems, which had resulted in some issues for families transitioning from the old system, should they not return completed forms on time.

5.2.3 Impact on nutritional benefit

While the study was not designed to examine the nutritional content of school meals, by analysing interview and observational data relating to school meal provision and consumption, it was able to provide some insight into the perceived impact of UFSM on menus and what children ate, and therefore the distribution of nutritional benefits.

On the food provision side there were few reported changes following implementation of the UFSM policy, with all authorities continuing to apply the existing nutritional standards and guidelines to menu options and food preparation. A small number of authorities reported modifying, and in some cases, reducing their menu options in order to manage and promote uptake of UFSM, which evidence would suggest has reduced access to hot meal options, but not necessarily to more nutritious foods. Parents could be critical of any reduction in meal choices, especially hot meals in the winter months. There were also a small number of reported changes to the perceived quality of foods post-implementation. These reports related to changes in the proportion of fresh and processed foods used.

Finally there was only one report of the amount of food offered changing following introduction of the policy, with one authority experimenting with smaller portion sizes to reduce waste and to provide portions more appropriately sized for the appetites of

younger children in P1-P3. One other authority was also reported to be considering this option.

Taken together these findings would suggest few if any significant changes to the nutritional value of school meals provided as a result of UFSM and are broadly consistent with findings from earlier pilots which found no changes to the quality or quantity of the foods provided.^{1,11}

Evidence relating to the impact of the policy on what foods children eat appears more compelling with variance in both how much and what foods were eaten. General patterns in the popularity of different food options and choices appear unchanged by the policy. Evidence provided by catering managers and school head cooks appears to confirm that the popularity of what was perceived as less healthy menu options, such as pizza and fish and chips, remain high. Whereas the perceived healthy food options and components, such as fresh fruit and vegetables, continue to be less popular, and more likely to be left uneaten. However, a number of significant changes to consumption were reported. These changes may have both positive and negative implications for the UFSM policy's impact on nutrition. The introduction of school packed lunch options were found to be popular, particularly among those children who previously brought in home packed lunches. From a nutritional perspective this was considered to be beneficial as school packed lunch options were widely regarded as healthier than home packed lunches by all staff groups and parents. In addition, stakeholders at both school and local authority level reported an increase in requests for medically prescribed diets from parents entitled to FSM under the new policy; all authorities were prepared to meet this increase in demand in accordance with existing nutritional standards and food requirements. The Scottish pilot assessed impact on demand for special dietary needs which were found to be unchanged.¹

On the negative side, school stakeholders perceived an increase in the levels of food waste following the introduction of the policy; school observations noted some younger children throwing away significant proportions of their meal, while catering staff reported a perceived increase in plate waste, particularly on those days when there were less popular menu choices. However, it was unclear whether these increases were proportionate to the increased number of children taking school meals. The Scottish pilot found level of waste to be proportionate to pre-trial levels.¹ This increase in waste was in part attributed to two factors by those interviewed: parents sending their children for school lunches who previously took home prepared packed lunches and who were regarded by some as 'fussy eaters'; and congested and time pressured dining environments which some younger children found intimidating and difficult to adjust to.

5.2.4 Other impacts

As well as assessing the policy's impact on those outcomes identified by the theory of change (level of uptake, financial benefits and nutritional benefits), the research identified a number of other wider social and educational impacts.

A large number of schools and local authorities reported that the policy was responsible for creating increased pressure on dining halls, resulting in a less

conducive dining environment, especially for younger children who were going through a period of adjustment and hence were perceived to be less able to cope. In some cases the decision to separate those taking home packed lunches from those taking school meals, as a way of managing these pressures, was felt by some to be anti-social. The policy was also perceived to have some negative educational impacts, most notably added time pressures in delivering PE in schools where dining was provided in multi-use spaces. Some schools also reported additional time being required at the start of the teaching day to discuss and make lunch choices.

Not all of these other impacts were negative though; some authorities reported that investment in better facilities and dining support staff had benefited the whole school. And a few authorities believed the policy had resulted in increased interest in school meals from parents and in some cases greater dialogue between parents and children regarding school meals and healthy eating, findings which are consistent with those to emerge from previous pilots.^{1,11}

6. Conclusions and areas for further action

6.1 Conclusions

The process evaluation suggests that UFSM has been implemented successfully across Scotland. The long lead-in time from policy announcement to implementation, that allowed schools and local authorities to audit facilities and arrangements, identifying relevant barriers and facilitators to implementation and uptake, was central to this success.

6.1.1 Barriers and facilitators to implementation

Barriers and facilitators were identified around four key areas: staffing, equipment and infrastructure, dining arrangements, and policy communication and engagement.

Staffing: Ensuring that adequate levels of catering and dining hall support staff were available to meet increased uptake was key to implementation success. Increased budgets in these areas had facilitated adequate staffing levels, particularly for catering staff, but recruitment difficulties had hindered some schools and local authorities. Parents expressed concern about whether enough support staff were available to assist P1-3 children in the dining hall, and both school and local authority stakeholders brought up issues relating to adequate training of both support staff and catering staff in assisting children to eat sufficiently. Where deficits existed, teaching staff and school senior managers commonly spent additional time supervising in the dining hall. In addition, good working relationships among all categories of staff were identified as key to successful implementation of UFSM. The schools where senior managers had placed their trust in an experienced head cook, able to anticipate difficulties and demand, were particularly successful in implementing the policy.

Equipment and infrastructure: Two-thirds of local authorities indicated that they had made structural changes to facilitate the implementation of UFSM. Local authorities perceived this area as being the most difficult to introduce changes to, with limited space particularly problematic. Explanations put forward for this were

late allocation of capital funding and a perception that school senior managers did not assist in facilitating structural changes. Some local authorities have been better placed and prepared to accommodate the policy due to smaller school rolls and by recently implemented school modernisation programmes providing more flexible structural arrangements. Senior managers in larger schools expressed concern about future capacity of dining hall space if the policy was maintained and school rolls for infant children continued to rise.

Kitchen and Dining arrangements: Time constraints were the most challenging for catering staff, faced with increased pressure on preparation, serving and clean-up of meals as numbers increased. This was managed through working additional hours and preparing food in advance. Schools were, on the whole, managing space constraints, as they were previously accommodating all children within the school spaces at lunchtime, whether they were eating a school meal or a home packed lunch. Staggered servings with changes in timings ensured that a larger number of children can move through the school meal system in the time available. Concerns were raised by parents over the separation of children eating school meals from those eating home packed lunches. Parents from some schools were apprehensive about the dining hall environment, fearing that the larger number of children eating in the space made dining unpleasant. Additional measures to reduce the impact of expected delays were pre-ordering systems, introducing tray systems, additional serveries, increasing supervisory staff, and the use of P7 dining hall monitors.

Policy communication and engagement: Schools were aware that some parents had negative perceptions of school meals, and worked to change these perceptions through taster events, which parents reported responding positively to. Concerns were voiced by school senior managers over local authority communication with parents around UFSM, with some schools using their own communication strategies to reach parents. Local authority stakeholders discussed the difficulties of catering and education partners working in unison to ensure the successful implementation of UFSM. When this was in place, barriers could be more easily overcome. The majority of school senior managers, and some teachers, expressed unease over the universal nature of the policy coinciding with cuts in budgets for other staff categories. Some interpreted these cuts as being a consequence of or related to the policy. However, this did not appear to impact on the successful implementation of UFSM within their schools.

6.1.2 Impact

Uptake: Uptake of UFSM increased in all schools and local authorities. Local authority stakeholders perceived that smaller schools were more likely to have high levels of uptake, as were schools where senior managers were more supportive of making the necessary changes to support implementation and to encourage universal uptake. School and local authority stakeholders described the greatest variability in uptake as being the result of menu choices available. On days when popular items were available, uptake increased greatly. While school and local authority stakeholders believed the inclusion of a packed lunch choice on the menu had helped increase uptake, parents reported that some children still preferred a home packed lunch over any school options. It was unclear whether uptake in P4-7

had been affected by UFSM. Some authorities believed that it would take several years before the cumulative impact of the policy on overall demand for school meals and the system's ability to adjust would be fully realised, which suggested a need to take a longer term view on facilities planning and assessing the policy's benefits.

Financial benefits: School and local authority stakeholders believed that families on low incomes had benefitted most from the policy, as well as families on higher incomes with high demands on these incomes. There was a perception among school senior managers, and some teachers, that well-off families were benefitting too when they could afford to pay, and they were therefore less supportive of the universal policy. Concern was also raised around the impact of the transition from P3 to 4, for families who would no longer be eligible for free meals. All parents reported a financial benefit, particularly if they had more than one child previously attending and paying for a school meal.

Nutritional benefits: Although the process evaluation did not measure directly the nutritional benefits from the policy, stakeholders described their perceptions. School meals were viewed as being healthier than home packed lunches by almost all stakeholders and parents. The difficulty, however, was that children were selective about the days in which they attended for a school meal, the foods they selected each day, and about how much they ate. School stakeholders believed that waste had increased on days in which less popular choices were served.

Other impacts: Many of those interviewed felt that UFSM had created increased pressure on dining halls, resulting in dining environments less welcoming to younger children. The slow movement of younger children through the servery and the increased number of children taking school meals had increased the length of time children had to queue before receiving their meals. In addition, the separation of children eating a home packed lunch from those eating a school meal as a way to manage space constraints was felt by some local authority stakeholders and parents to be anti-social. UFSM also increased time pressures around the cleaning of multi-purpose spaces to deliver PE. Some schools also reported additional time being required at the start of the teaching day to discuss and make lunch choices. Positive impacts were that UFSM had improved facilities and that an increase in catering and dining support staff had benefited the whole school. In some local authorities, stakeholders believed the policy had increased parents' interest in school meals.

6.2 Areas for further action

The research identified nine action areas to promote and sustain UFSM uptake:

- **Communication:** More needs to be done to communicate the rationale for the policy to school and local authority staff and parents in terms of its expected benefits for children and families, including the reason for targeting primary 1-3 children, by the Scottish Government.
- **Engaging parents and children:** Taster sessions for parents and children were reported as effective at increasing UFSM uptake. They encouraged parent engagement, addressing concerns regarding school food and dining

environment, and encouraged children to try new foods. Schools should consider increasing opportunities for taster sessions.

- **Communicating with parents:** Local authorities and the Scottish Government could offer further support for schools to raise awareness of the policy among parents with English as a second language.
- **Review impact on the dining environment:** Local authority and school staff and parents have raised concerns about the impact of increased uptake of UFSM on the dining hall experience for children, especially younger children. Local authorities and schools should review the dining hall experience in individual schools and address any concerns. National agencies should facilitate the identification and sharing of good practice examples between schools and local authorities which have improved the dining hall experience for children.
- **Staffing:** Schools reported that having sufficient catering and dining hall support staff, with the skills to encourage children to make healthy choices and try new foods, can have a positive impact on uptake of school meals, and on what children choose and eat for school meals. Local authorities and schools should work together to ensure sufficient supervisory staff are available during lunch time and consider how training on supervision and food choice could be provided for staff.
- **Menu development:** School staff and parents both reported that menus which are familiar and appeal to children were a potential way of increasing uptake of UFSM. Schools and local authorities should consider establishing or enhancing systems for parents and children to feedback on menu choices and to encourage more reflective approaches to menu development.
- **Partnership working:** Partnership working between school catering and education staff was reported as an important facilitator for improving implementation of UFSM and where absent, could act as a barrier. Local authorities should facilitate partnership working at all levels between education and catering to encourage greater integration of catering and food choices into wider school life.
- **Monitoring uptake data:** There was a lack of interrogation of routinely collected UFSM uptake data at a school or local authority level. Routinely analysing UFSM uptake data at a school and local authority level would encourage exploration of barriers to increasing uptake and provide a means of identifying and working with those schools which may require support increasing uptake.
- **Monitoring longer term uptake of UFSM:** The existing national data on uptake of school meals and FSM, through the Health Living Survey has some important limitations which derive from its dependence on an annual snap-shot of uptake based on a single day's data. The Scottish Government should consider better ways of monitoring and evaluating the impact of UFSM in the longer term, such as making better use of more routine, local data on school meal uptake.

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