Evaluation of South West Healthy Schools Plus Pilot Programme

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Date: 18/09/2012
Prepared for: Department of Health
At NatCen Social Research we believe that social research has the power to make life better. By really understanding the complexity of people’s lives and what they think about the issues that affect them, we give the public a powerful and influential role in shaping decisions and services that can make a difference to everyone. And as an independent, not for profit organisation we’re able to put all our time and energy into delivering social research that works for society.
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Acknowledgements

The research team would like to thank the Department of Health for commissioning the study and for the support of Richard Sangster, Catherine Dennison, Fiona Feehan, Mark Patterson and Rosanne Sodzi who guided and managed the study. We would also like to thank Anne-Marie Hughes at Icecreates who helped manage and direct the evaluation in the later stages.

Special thanks also go to David Pearson, Vicky Abbott and Fiona Moir from the South West Healthy Schools Steering Group who provided useful input, advice and support at different stages in the evaluation. We would also like to recognise the extremely important role of the Local Programme Co-ordinators and their teams in facilitating the evaluation and offering the support to the research team. The local programmes involved in the pilot programme were:

- Bath and North East Somerset
- Bournemouth
- City of Bristol
- Cornwall
- Devon
- Dorset
- Gloucestershire
- North Somerset
- City of Plymouth
- Poole
- Somerset
- South Gloucestershire
- Swindon
- Torbay
- Wiltshire

Special appreciation also goes to the Healthy Schools Coordinators, school staff, pupils and parents who participated at different stages in the research and without whom the evaluation would not have been possible.

Finally, we would like to acknowledge our colleague Nick Gilby who steered the quantitative part of the evaluation in its early days.
## Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CinCC</td>
<td>Children in challenging circumstances (priority type)</td>
</tr>
<tr>
<td>DH</td>
<td>Department of Health</td>
</tr>
<tr>
<td>EHWB</td>
<td>Emotional Health and Well-Being (priority area)</td>
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<tr>
<td>FSM</td>
<td>Free School Meals</td>
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<td>HBO</td>
<td>Healthier behaviour outcome</td>
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<td>HSC</td>
<td>Healthy Schools Coordinator</td>
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<tr>
<td>HW</td>
<td>Healthy Weight (priority area)</td>
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<tr>
<td>LA</td>
<td>Local authority</td>
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<td>LP</td>
<td>Local programme</td>
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<tr>
<td>LPC</td>
<td>Local programme coordinator</td>
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<tr>
<td>NCMP</td>
<td>National Child Measurement Programme</td>
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<tr>
<td>NHS</td>
<td>National Health Service</td>
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<tr>
<td>PCT</td>
<td>Primary Care Trust</td>
</tr>
<tr>
<td>PRU</td>
<td>Pupil Referral Unit</td>
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<tr>
<td>SEN</td>
<td>Special Educational Needs</td>
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<tr>
<td>SWHSP</td>
<td>South West Healthy Schools Plus</td>
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<tr>
<td>SRE</td>
<td>Sex and Relationship Education</td>
</tr>
</tbody>
</table>
Executive Summary

The SWHSP Pilot Programme

The South West Healthy Schools Plus (SWHSP) Pilot Programme aimed to improve the health and well-being of school-age children through targeted interventions across a three year period between 2009 and March 2012. The programme was aimed at schools with the most disadvantaged pupils, as measured by eligibility for free school meals and other indices such as the National Child Measurement Programme, with the goal of reducing health inequalities. Funding for each school was provided by the Department of Health.

Within each of the 15 local programme areas (see Figure 2.8), local programme coordinators in schools provided leadership and supported the activities within them. They worked with Healthy Schools Coordinators to identify the most pressing health needs for the local area, school and vulnerable pupils, to implement appropriate health improvement interventions and to record data on an online schools database.

The Evaluation

NatCen Social Research was commissioned by the Department of Health to evaluate the programme through qualitative interviews, school case studies and quantitative analysis of the data recorded by schools by each programme lead online. The evidence from the qualitative studies has been published previously. This report focuses on the quantitative evidence of change in pupil behaviour, drawing on the qualitative data to provide explanation and contextual detail.

Key findings from the NatCen evaluation of South West Healthy School Plus

- The 3,903 interventions recorded on the schools database took place across three years within 1,047 schools.
- The average ratio of change across different health priority areas was 2.5, meaning that the proportion of pupils with a healthy behaviour was 2.5 times higher at follow-up than at baseline.
- The factors perceived as important to programme success were the support provided by the local programme coordinator, school support for the healthy school coordinator, pitching interventions at the right level for pupils and involving staff and parents appropriately.
- A positive change in pupil health-related behaviours or knowledge was reported for most interventions recorded in the schools database (96%).
- Most of the interventions were aimed at improving Healthy Weight and Emotional Health and Well-being.
- The focus varied according to the age of pupils, the level of disadvantage and the target group. Primary schools were most concerned with Healthy Weight and Emotional Health and Well-being. In secondary schools, there was a greater focus on Substance Misuse and Under 16 Teenage Conceptions. Where deprivation was higher, there was a greater focus on Healthy Weight.
1 Introduction

The South West Healthy Schools Plus Pilot Programme aimed to record improvement in the health and well-being of school age children through targeted interventions across a three year period. This report presents the findings from the evaluation of SWHSP conducted by NatCen Social Research. In this chapter, we describe the programme, the evaluation aims and the range of research methods used to conduct the evaluation.

1.1 The South West Healthy Schools Pilot Programme

South West Healthy Schools Plus Pilot Programme (SWHSP Pilot Programme) was a targeted NHS-led programme aimed at improving the health and well-being of children and young people by measuring the impact of interventions on healthier behaviour change. The programme was developed in 2009 as an extension to the national Healthy Schools Programme and was intended to focus on the schools that had the greatest health inequalities. Schools in the South West that had achieved the National Healthy Schools Status\(^1\) were eligible to take part. Each local programme aimed to recruit 50% of schools prioritising those with highest health inequality. Schools were recruited in three cohorts between 2009 and 2011 across the 15 programme areas of the South West (see Figure 2:8). The SWHS programme officially ended in March 2012 although programme activities continued beyond this date in many schools.

Each programme area was led by local Healthy Schools Plus programme coordinators supported by colleagues with expertise in health improvement. They worked with schools using school and community data to identify three areas of priority reflecting local needs, school needs and the needs of ‘children in challenging circumstances’ (such as children in care, children with behaviour problems or attendance issues). Measurable healthier behaviour outcomes were identified that addressed the areas of priority (for example, increased teeth brushing as an outcome for the Dental Health priority area). Schools were encouraged to select appropriate interventions that were evidence-based or that followed good practice guidelines to promote the healthier behaviour outcomes identified. During the course of the programme, schools monitored their progress so that consistent information could be gathered across programme areas and entered onto the online database by the Local Programme Coordinator.

\(^{1}\) This is an award for schools that have met national criteria using a ‘whole school approach’ across the four themes of personal, social and health education (PSHE), healthy eating, physical activity and emotional health and well-being.
1.2 The Evaluation

NatCen Social Research was commissioned by the Department of Health to carry out an independent evaluation of the SWHSP Pilot Programme. The aim was to investigate how the programme was implemented and the extent of change in the health behaviours of the pupils involved.

The programme of work consisted of the following elements:

- An assessment of pupil behaviour change using local programme data.
- A qualitative scoping study to identify perceptions and expectations of the programme among local coordinators.
- In-depth case studies carried out in a sample of participating schools, to explore early implementation processes and challenges.
- School case studies (in different schools) in the later stages of the programme to reflect in detail on implementation and perceived impacts.

This report is the final output from the evaluation and presents the key findings relating to the quantitative assessment of change in pupil behaviour and implementation. Reports on each of the qualitative components have already been published and are available via the South West Public Health Observatory website (http://www.swpho.nhs.uk). A summary of the methodology can be found in Appendix A.

1.3 Methodology

1.3.1 Quantitative assessment of behaviour change

An online reporting template was developed to enable recording in a consistent format. The template contained the fields outlined in Table 1.1

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local programme</td>
<td>15 areas in South West</td>
</tr>
<tr>
<td>Cohort</td>
<td>The cohort in which the intervention took place</td>
</tr>
<tr>
<td>Name of school</td>
<td></td>
</tr>
<tr>
<td>School number</td>
<td>4 digit establishment number (only unique in combination with the local authority number)</td>
</tr>
<tr>
<td>Priority type</td>
<td>Local, school, children in challenging circumstances</td>
</tr>
<tr>
<td>Priority</td>
<td>Health area of focus (e.g. Healthy Weight)</td>
</tr>
<tr>
<td>Healthier behaviour outcome</td>
<td>Description of the behaviour targeted by the intervention</td>
</tr>
<tr>
<td>Definition of target group</td>
<td>Description of target group</td>
</tr>
<tr>
<td>Number of children in target group</td>
<td></td>
</tr>
<tr>
<td>Source of baseline information</td>
<td></td>
</tr>
<tr>
<td>Number of children measure taken from</td>
<td></td>
</tr>
<tr>
<td>Baseline measure</td>
<td>Number achieving behaviour at baseline</td>
</tr>
<tr>
<td>Target</td>
<td>Target number</td>
</tr>
</tbody>
</table>
The template was taken off-line at the end of March 2012. At that point, there were 3903 interventions recorded by 1047 schools. NatCen Social Research downloaded the data and carried out the following data management tasks prior to analysis:

- The data for each of the three cohorts across the 15 programme areas were collated into SPSS (a software package for quantitative analysis).
- Each intervention was assigned a unique ID number.
- String (text) variables were assigned a numeric value to facilitate analysis: local programme, priority type (e.g. local/school/children in challenging circumstances) and priority area (e.g. Dental Health).
- The target date was converted into month and year and a variable computed to indicate whether the target date fell before or after the end of March 2012.
- The unique reference number of each school (LAEstab) was computed from the local authority and establishment numbers and was used to merge into the data set relevant variables from a recent version of Edubase data. The school level variables imported were: percentage of children eligible for free school meals, pupil gender, school population number and phase of education.
- Four string (text) variables were coded according to codeframes agreed with the evaluation sub-group: healthier behaviour outcome (HBO), source of baseline data, source of final data and target group.

1.4 Scope of the report

This report has two main purposes: to describe the interventions of the SWHSP Pilot Programme (Chapter 2) and to assess the level of change in pupil behaviour (Chapter 3). In each case, the reporting is led by the quantitative findings from the schools database and evidence from the qualitative case studies is used to provide an explanation and contextual detail. The descriptive analysis in Chapter 2 covers all the interventions recorded on the database providing a comprehensive insight into the full range of activities, Chapter 3 focuses on the interventions for which complete and accurate information was recorded. The analysis investigates the extent of change in healthy behaviours. The final chapter considers issues concerning measurement and evaluation, highlights the lessons learned from programme implementation and data collection, and discusses the sustainability of the programme.
2 Description of Interventions

The key question for this chapter is, ‘What were the interventions of the SWHSP Pilot Programme?’ We describe the schools taking part, how schools set their healthier behaviour priorities, the interventions associated with those priorities and how priorities and interventions varied across different types of schools.

Key findings

Most of the activities addressed Healthy Weight and Emotional Health and Well-being.

The focus of the interventions varied according to the cohort of the programme, phase of education, the target group and the level of deprivation among pupils.

Primary schools were concerned mainly with Healthy Weight and to a lesser extent, Emotional Health and Well-being. In secondary schools, there was a greater concern with Substance Misuse and Under 16 Teenage Conceptions. Where deprivation was higher, there was a greater focus on Healthy Weight.

Case study participants explained the importance of pitching the activities at the right level for age and ability.

Whole school interventions were more likely to be focused on Healthy Weight, whereas interventions that were more highly targeted focused to a greater extent on Emotional Health and Well-being, Substance Misuse and Under 16 Teenage Conceptions.

The 3,903 interventions recorded on the schools database took place across three years in 1,047 schools.

2.1 The healthier behaviour outcomes targeted by interventions

2.1.1 Priority areas

In the programme database, schools recorded each intervention in terms of the HBO they were trying to achieve. In total, 3,903 interventions were recorded, on average 3.7 interventions per school. To enable us to analyse the interventions, we grouped the 160 different ‘healthier behaviour outcomes’ into categories, grouping similar
outcomes and taking into account the priority area within which each one fell (Figure 2:1).

The priority area with the highest number of interventions (1,981) was Healthy Weight. The healthier behaviour outcomes within this priority area focused on exercise and food. For example, ‘exercise on school days’ included increasing the number of children who were physically active at break times and increasing the number of children who took part in physical activity within the school curriculum. The behaviours associated with food included improving healthy food consumption, improving knowledge about nutrition and participation in activities such as growing food and preparing meals.

The priority area of Emotional Health and Well-being was also high at 1,385 interventions. The healthier behaviour outcomes within this priority area were broader in scope encompassing behaviours (e.g. school attendance and improved behaviour), knowledge (e.g. in relation to relationship issues or general health and well-being) and attitudes/mental health (e.g. feeling safe and reduced levels of anxiety). The largest category within Emotional Health and Well-being, general well-being, encompassed the engagement of parents and carers in issues relating to emotional health and well-being, positive attitudes towards going to secondary school and improved happiness.

The other priority areas had a much lower number of interventions which limited the kind of analysis that could be carried out in these areas. Possible explanations for these patterns from the qualitative data are explored later in this chapter.
### Figure 2:1 Healthier behaviour outcomes targeted by interventions, by priority area

*Base: All interventions (3,903)*

![Graph showing proportions of interventions by priority area]

2.1.2 Priority type

In the SWHSP Pilot Programme, schools selected their healthier behaviour outcomes and associated interventions in collaboration with the local programme teams in relation to three priority types:

- A local priority drawn from local health plans and strategies.
- A school priority reflecting issues and needs specific to the school.
- A priority related to children and young people in ‘challenging circumstances’ (CinCC).

Schools identified one or more healthier behaviour outcomes in relation to each of these prioritises in the action plans that they developed with their local programme coordinator. Each HBO was then associated with one or more specific interventions.

Figure 2:2 shows the proportions of interventions within each priority area that were aimed at local priorities, school priorities and children in challenging circumstances priorities. (Dental Health and Sun Safety interventions and those categorized as ‘other’ are not shown because it would not be meaningful to split fewer than 50 interventions by the three priority types.)
Schools were encouraged to have one intervention for each of the three priority types and the bars at the bottom of the figure for all interventions combined shows that there was indeed a fairly even split between the priority types across all interventions. However, there were significant differences in the priority type (local, school etc.) for each priority area. Interventions within the category of Emotional Health and Well-being were selected with greater regard to children in challenging circumstances than other priority types. Interventions relating to Healthy Weight and Under 16 Teenage Conceptions were based mainly on local priorities.

The qualitative parts of the evaluation explored the process of deciding on the priorities for the local area, school and children in challenging circumstances (as reported in the published stage 2 and 3 reports). There were two key factors that help to explain the differences in local, school and CinCC priorities shown in Figure 2.2.

Achieving a balance between interventions related to local priorities with interventions relevant to the school and pupils

First, schools strived to reach a balance between national and local priorities suggested by local programme teams and other work seen as specific to the school and pupil body. Local programme teams sometimes prioritised Healthy Weight and Under 16 Teenage Conceptions for their local priorities because they were seen to have high local and national prominence as well as reflecting local needs. Although schools often considered that local priorities fitted with the needs of the school, there was evidence from the earlier qualitative process evaluation that schools thought the choice of local priorities in cohort one had been quite restricted (in some local programme areas, primary and secondary schools were told what their priority would be, being directed towards a single priority area). With the broadening of local priority choices in later cohorts, schools welcomed the opportunity to balance interventions related to healthy diet or Under 16 Teenage Conceptions (often local priorities) with other interventions seen as pertinent to the school and pupils in challenging circumstances, such as Emotional Health and Well-being and Substance Misuse. Organising healthier behaviour outcomes and interventions into local, school and
CinCC priorities allowed a suitable balance to be struck between national, local, school and pupil needs that allayed concerns that the programme was being imposed externally.

The emotional health and well-being of children

Another explanation for the patterns described in Figure 2:2 may also relate to perceived gaps in existing health promotion work. There was a subtle change in the way schools chose priorities between the first and second set of school case studies. In the earlier stages of the programme, schools approached decisions about priorities by drawing on local and school data, seeking advice and guidance from the local programme coordinator, and building on existing knowledge and resources in the school. In the later stages, while these processes were maintained, schools and local programme teams were more inclined to develop new interventions and fill gaps in existing health promotion work, particularly in the area of Emotional Health and Well-being.

2.1.3 Cohort

The focus of the interventions were significantly different across the cohorts of the SWHSP (Figure 2:3). The focus on Under 16 Teenage Conceptions declined across the three years from 9% of interventions in cohort one to 5% of interventions in cohort three. Healthy Weight and Emotional Health and Well-being were targeted to a similar extent in cohort two, whereas Healthy Weight was more prominent in cohorts one and three.

Figure 2:3 Priority area of interventions by cohort

![Priority Area of Interventions by Cohort](image)

Decline in interventions related to under 16 teenage conceptions across cohorts

The qualitative data provided three possible explanations for the decline in the number of interventions related to Under 16 Teenage Conceptions between cohorts one and three. First, this was one of the priorities suggested or given by some local programme teams in the earlier cohorts that schools (especially primary schools) did not consider to be as relevant as other priorities. As the choice of local priorities broadened in cohorts two and three, schools tended to put more emphasis on interventions related to other healthier behaviour outcomes (particularly Emotional Health and Well-being).
Second, work related to reducing Under 16 Teenage Conceptions and Sex and Relationship Education was particularly complex and required considerable input from local programme coordinators and teams to support the work. Local programme teams had invested a considerable amount of work in supporting such interventions, providing support or signposting access to experts. However, this support was scaled back as funding and staffing reduced in some areas. It is possible in this context that schools decided to focus on some of the less complex work related to Healthy Weight as there was increased uncertainty about levels of available support.

Finally, interventions related to Under 16 Teenage Conceptions might require greater parental involvement and consultation which some schools and healthy school coordinators considered they did not have the time to address properly, particularly because schools often lacked expertise in this area within the school.

**Increased emphasis on emotional health and well-being in later cohorts**

Local programme support was found to have broadened and improved between the early and later qualitative case studies. Teenage Conceptions and Healthy Weight were high on the agenda for the majority of schools targeted in Cohort 1. Schools in later cohorts sat in areas with different local agendas which encouraged a broader selection of priorities.

**Balancing ‘quick wins’ and complex problems**

Schools often chose to address Healthy Weight and Emotional Health and Well-being alongside each other. A reason for this was that schools said they needed to reach a balance between ‘complex problems’ and ‘quick wins’ in terms of healthier behaviour outcomes and interventions in order for the work to be manageable and fit within the timescales for the programme. Although not always the case, interventions related to Healthy Weight tended to be more straightforward and required less external input, while Emotional Health and Well-being initiatives could be complex to set up and measure. The result was that a combination of these healthier behaviour outcomes made sense to schools, as well as allowing them to meet local priorities and address school and CinCC priorities.

**Priority areas with fewer interventions**

The qualitative evidence exposed some reasons for why Substance Misuse, Sun Safety and Dental Health were targeted to a lesser extent. Substance Misuse was regarded as an issue more appropriate to secondary school level on the basis that teenagers were more likely to encounter substance-related issues. The one school in the qualitative case studies doing work on Dental Health was a special school, where pupils experienced particular problems related to their physical conditions and medication that could impact on their dental health and learning abilities. It is possible that such work would be less appropriate to pupils without SEN where these messages might be learnt more easily at home and where pupils were less likely to experience the problems related to such conditions and medication regimes. The message is that some healthier behaviour outcomes were particularly well-matched to certain schools and situations rather than having the broad relevance of Healthy Weight and Emotional Health and Well-being.
2.1.4 Phase – primary and secondary schools

The focus of the interventions varied significantly according to the phase of education (Figure 2:4). Over half of the interventions in primary schools addressed Healthy Weight compared to fewer than one-third of interventions in secondary schools. Secondary schools had a greater focus than primary schools on Substance Misuse and Under 16 Teenage Conceptions. Primary and secondary schools had a similar focus on Emotional Health and Well-being suggesting that this topic remains relevant for different age groups.

![Figure 2:4 Distribution of priority area of interventions for school phase]

The proportions of interventions for the healthier behaviour outcomes falling under Emotional Health and Well-being (listed in Figure 2:1) were also similar for primary and secondary schools (not shown in the chart). For example, 13% of the interventions in primary schools targeted ‘general well-being’ compared to 12% of the interventions in secondary schools. Within Emotional Health and Well-being, primary schools focused a little more on ‘improved break times’ and secondary schools focused a little more on ‘school attendance and punctuality’ and ‘emotional information and support’.

The qualitative components of the evaluation provided evidence on the influence of age and phase of education in the choice of healthier behaviour outcomes and interventions. (The appropriateness of the choice of HBOs and interventions is discussed further in chapter 3).

Targeting Healthy Weight at primary school level

Healthy Weight was regarded by local programme coordinators and schools as more appropriate to the age and learning capacity of primary school pupils than secondary school pupils. This was borne out in the qualitative focus groups where there was evidence that primary school pupils tended to find it easier to talk about the impact of activities linked to promoting healthier weight compared to more complex messages related to Emotional Health and Well-being and Sex and Relationship Education. At secondary school level, some pupils and staff felt that messages associated with healthy diet and physical activity were already well-established. Secondary school pupils thought that activities relating to specific issues such as self and body image were more appropriate than general messages about diet or physical activity.

Targeting substance misuse and under 16 teenage conceptions at secondary school level
The priority areas of Substance Misuse and Sex and Relationship Education were considered to be more appropriate for secondary school pupils. Although some primary schools approached these issues in creative ways (e.g. by dealing with them through broader attempts to address peer pressures that would lead to negative impacts on health), it was generally considered ‘too early’ to discuss Substance Misuse and SRE with primary school pupils because the messages were unlikely to make sense to them in terms of their experiences at that stage. Two other factors may also have affected the decision of local programme teams to address these issues at secondary school level:

- **Appropriate outcome measures within the timeframe of the study** – some primary schools thought it would be unlikely that they could show a real or significant impact on Under 16 Teenage Conceptions within the timeframe of the study and so chose another area that they regarded as more relevant to the age group of their pupils.

- **Perceived controversial nature of involving young pupils in education about drugs and sex** – some schools discussed the need to consult with parents before starting interventions in these fields. Although some primary schools had received support from parents to do such work, it was usually seen as an area of health promotion that was more appropriate at secondary level.

**Emotional health and well-being at primary and secondary level**

Emotional Health and Well-being outcomes were chosen for both primary and secondary age pupils. There was some concern in the earlier qualitative case studies that primary school pupils found it difficult to take on board the moral and conceptual messages of interventions aimed at promoting better Emotional Health and Well-being. However, later evidence suggested that what was important was to pitch the interventions at the right level for pupil age groups and their curriculum. For example, the R-time lessons that were well received by younger pupils in one primary school were described as ‘babyish’ by slightly older pupils at another primary school. Themes such as bullying could also cause younger primary school pupils to lose interest in interventions where they felt they were already familiar with such issues.

2.1.5 **Deprivation**

SWHSP was targeted at schools in deprived areas where children were at greater risk of unhealthy behaviours. In describing the activities of the programme, it was therefore interesting to investigate whether the types of interventions varied according to the level of pupil deprivation in schools. For this analysis, we calculated whether each school participating in SWHSP had below or above the average proportion of pupils eligible for free school meals for schools of their phase in the South West region, using Edubase data. As shown in Figure 2:5, interventions in schools with higher proportions of low income pupils were statistically significantly more likely to be focused on Healthy Weight. Analysis of the healthier behaviour outcomes (not shown in the chart) revealed that the area accounting for most of this difference was eating healthy meals. Interventions in schools with low deprivation focused to a greater extent on Emotional Health and Well-being, with the main differences being in ‘stress management’ and ‘emotional information and support’. These findings indicate that schools with above average deprivation perceived healthy weight (and in particular, diet) to be of greater concern than emotional issues.

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2 The R-time lessons focus on building and improving relationships.
There was some support for this pattern of findings from the qualitative work. A number of case study schools had specifically decided to tackle Healthy Weight as one of their priorities in deprived areas. For example, a particularly interesting approach had been to include pupils and their parents in cooking clubs that promoted healthy eating. By encouraging children and parents to cook healthier options together it was considered more likely that healthy eating would be sustained.

Schools in less deprived areas reported that they sometimes found it difficult to identify a sufficiently large group of pupils in challenging circumstances (such as children in care or young carers) and so developed innovative ways of tackling inequalities related to Emotional Health and Well-being and its effects instead. These interventions were seen as addressing inequalities in pupil well-being and having a relationship with academic attainment.

### 2.1.6 School size

As we saw above (section 2.2.2), the size of schools varied greatly, both between primary, secondary and special schools and pupil referral units, but also within these groups. We examined the school database to find out whether the types of interventions pursued by schools varied according to the size of school. As with rates of eligibility for free school meals, we used Edubase data to calculate whether each school in the SWHSP Pilot Programme was below or above the average size in terms of pupil numbers for the South West region and for phase of education.

The differences between smaller and larger schools in terms of their activities were less pronounced than for phase and deprivation but nevertheless statistically significant (Figure 2:11). Interventions in larger schools were focused a little more on Healthy Weight and interventions in smaller schools had a greater focus on Emotional Health and Well-being. Since deprivation and size of school were positively associated, the differences observed in priority areas were driven by a combination of school size and pupil deprivation.
2.1.7 Target groups

The range of target groups for the SWHSP was extremely diverse with 1,563 different groups mentioned in the schools database. The target groups were generally described in terms of year groups, sex and areas of particular vulnerability or behaviour, although since there was inconsistency in reporting, there is a substantial amount of missing data on each of these characteristics. 38% of the interventions were targeted at the whole school population, 30% were not and for 31% of interventions the target age group was not known beyond the phase of the school. The change in target group depended on the priority (Local, School or Children in Challenging Circumstances). On the whole, School and CinCC priorities would naturally have smaller target groups since they do not represent whole school initiatives.

The priority area was significantly related to whether the intervention was targeted at the whole school (Figure 2:7). Whole school interventions were more likely to be focused on Healthy Weight, whereas interventions that were more highly targeted focused to a greater extent on Emotional Health and Well-being, Substance Misuse and Under 16 Teenage Conceptions.
31% of interventions named their target group pupils with a particular vulnerability or behaviour problem. Examples of vulnerability included children with special educational needs, children eligible for free school meals, children with irregular sleep patterns, children who find playtimes difficult and children with low self-esteem. Examples of behaviour problems included children identified as having challenging behaviour, children who bullied others, children with poor diet or weight issues and young offenders. Clearly, these two groups overlapped to a large extent. A very small minority of interventions (2%) were targeted at either boys or girls.

### 2.2 The schools participating in the programme

Based on the data reported in the schools database, 1,047 schools took part in the SWHSP Pilot Programme across the three years of its operation. Figure 2:8 shows how these schools were distributed across the 15 local programme areas (which were mostly the same as primary care trust areas). The areas with the most schools taking part were Devon, Somerset, Gloucestershire and Cornwall. The areas with the fewest schools taking part were Torbay, Bournemouth and Poole.

The intention of the programme was that 50% of schools (identified as the 'most deprived' schools) in each area would take part. By comparing the number of participating schools in each area with the total number of maintained schools, it was possible to calculate the proportion of schools that did actually take part. Across the 15 local programme areas, this varied from 20% of schools in Torbay to 42% of schools in Dorset. In Devon and Somerset, 40% of schools took part, and in Bath and North East Somerset, 39% cent of schools took part.

Evidence from the qualitative interviews and case studies suggested that local programmes generally found it easy to recruit schools to take part in the programme. There was a sense that schools that had achieved National Healthy Schools Status
were ready to move onto the next stage, were enthusiastic about the programme, valuing the focus on measuring impact and being able to select their own priority and actions. The funding available for schools (a £2,000 grant for each school) was also considered to be a ‘sweetener’.

In the following sections, we describe the schools taking part in terms of some key characteristics that are potentially related to the experience of implementing the SWHSP Pilot Programme: phase of education, level of deprivation and school size. These are the characteristics by which we compare schools in terms of the interventions delivered and the extent of change in the following chapter.

2.2.1 Phase of education

The participating schools were representative of all maintained schools in the South West in terms of the phase of education. The majority (80%) were primary, 13% were secondary and the remainder (which were mostly special schools and Pupil Referral Units) covered all ages.

Figure 2.9 Comparison of phase of schools in SWHSP with all schools in the South West region
2.2.2 Size of schools

The phase of education was strongly related to the number of pupils within schools with secondary schools being much larger. Participating primary schools had an average\(^3\) of 181 pupils, ranging from 13 to 668. Participating secondary schools had an average of 1000 pupils, and ranged from 115 to 1,856. The schools in the SWHSP Pilot Programme were, on average, of a very similar size to all schools in the South West in terms of pupil numbers (Figure 2:10).

The average size of special schools and PRUs (not shown in Figure 2:10) was 72 (ranging from 0 to 288\(^4\)) and therefore considerably smaller than mainstream primary and secondary schools.

Considering phase and pupil numbers together, a similar number of pupils in primary and secondary schools were exposed to the SWHSP in the sense that they were attending a school in which the programme was implemented.

![Figure 2:10 Comparison of average size of schools in SWHSP with all schools in the South West region](image)

2.2.3 Level of deprivation

As explained in section 2.1, the SWHSP Pilot Programme was intended to target the ‘most deprived’ schools in each local authority area. Since deprivation is known to be related to health, the extent to which pupils came from deprived backgrounds was a key consideration in evaluating the programme. The indicator used to assess level of deprivation was the proportion of pupils within schools who were registered as eligible for Free School Meals (FSM). This is a standard measure of pupil deprivation used, for example, to determine Pupil Premium payments to schools.

By comparing the schools participating in SWHSP to all schools in the South West region, it was clear that those participating in the programme had more deprived pupils.

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\(^3\) For size of school, we used the median average since there were a small number of very large schools that would have skewed the mean.

\(^4\) Seven schools were reported in Edubase as having fewer than ten pupils. Two schools reported having no pupils at the time that pupil numbers were recorded.
pupils than average in both primary and secondary schools (Figure 2:11). The participating primary schools had an average 16% of their pupils registered for FSM compared to 13% for all primary schools in the South West. Schools ranged from 0% to 65% in their FSM rate. Participating secondary schools had an average of 12% of pupils registered for FSM, compared to 10% for all secondary schools in the South West. Schools ranged from 1% to 40% in their FSM rate.

The special schools and PRUs in the sample are not included in Figure 2:11 as they either covered primary and secondary ages or did not have information about phase in Edubase. The FSM rate of these 64 schools spanned from 0% to 100% with an average (mean) of 29%. This indicates that the pupils in these schools were much more disadvantaged than their peers in the mainstream primary and secondary schools.

![Figure 2:11 Comparison of average FSM rate for schools in SWHSP with all schools in SW region](chart)

### 2.3 Conclusion

The purpose of this chapter was to describe the activities of the SWHSP Pilot Programme, focusing on the types of outcomes targeted by interventions and the extent of variation by school characteristics. The areas of behaviour at which the programme was principally targeted were Healthy Weight and Emotional Health and Well-being. Healthy Weight covered interventions targeted at exercise and diet, and Emotional Health and Well-being covered a wide-range of interventions including behaviour, information and activity involvement. Variations in the emphasis of the programme were associated mainly with the phase of education and the level of pupil deprivation within schools. Primary schools were concerned mainly with Healthy Weight and to a lesser extent, Emotional Health and Well-being whereas for secondary schools, there was a greater concern with Substance Misuse and Under 16 Teenage Conceptions. Where deprivation was higher, there was a greater focus on Healthy Weight.

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5 This comparison is based on means but the same finding applies to median. The median rate of FSM eligibility was 12% in SWHSP primaries compared to 10% of all primaries in the South West. The median rate was 9% in SWHSP secondary schools compared to 8% of all secondary schools in the South West.
3 Analysis of Change

The key question for this chapter is ‘What was the extent of change in healthy behaviours in the SWHSP Pilot Programme?’ We examined data for 1570 interventions recorded on the schools database and refer to evidence from the case studies about the factors that helped or hindered the successful delivery of the programme.

Key findings

Most interventions (96%) reported positive change in the health-related behaviours or knowledge they targeted. The proportion of interventions reporting positive change was similar across priority areas and types of healthier behaviour outcomes (HBO).

The average ratio of change was 2.5. This means that on average, the proportion of pupils with a healthy behaviour was 2.5 times higher at follow-up than at baseline. The average ratio of change was similar across priority areas but varied by type of HBO targeted. For example, changes in behaviour relating to pupil safety and improved meals were relatively smaller (ratios of 1.9 for both types), while behaviours relating to activities with food and to Sex and Relationship Education changed to a greater extent (ratios of 4.3 and 3.7 respectively).

The level of change did not vary by school characteristics (e.g. size, phase and deprivation).

The qualitative case studies highlighted the perceived importance of the role of the programme coordinators in supporting changes; of support for the Coordinator within the school; and of gauging the right level of involvement for pupils, staff and parents in each intervention.

3.1 Introduction

This chapter examines changes in healthier behaviours reported in the SWHSP Pilot Programme. First, the chapter outlines the methodological approach to the analysis of change. Second, it examines how many interventions reported positive change in the healthier behaviour outcomes (HBOs) they targeted. Third, the chapter focuses on the extent of change reported by schools and whether this varied for different types of HBOs and different types of schools. Finally, the chapter summarises evidence from the qualitative case studies with regard to which factors were perceived as important for successful delivery of the programme.
3.2 Measuring change

3.2.1 Change versus impact

For the quantitative analysis in this chapter, we used data from schools which was entered into the SWHSP online database. This data allowed us to examine changes in healthier behaviours reported by schools participating in the programme, including the extent of the change observed and whether it was different for different types of healthier behaviour and in different types of schools. However, the data did not allow us to assess whether any changes observed were related to the interventions, so we can’t conclude if the programme was effective in achieving an impact on the behaviours it targeted.

The reason for this is that there could have been other factors affecting the changes observed in pupils, for example, various national and regional public health initiatives, and changes in attitudes and behaviours due to pupils getting older. To be able to assess the impact of an intervention, an evaluation needs a counterfactual – that is, a comparison group which is affected by the same factors as the group experiencing an intervention (e.g. pupils getting older) except the intervention itself.

It was not possible to create a comparison group for the evaluation of the SWHSP Pilot Programme. This is because the selection of schools for the programme was not random. It was guided by the objective to target the programme at schools in areas of high deprivation. It was not possible to find a sufficient number of other schools in the South West region which would have been similar in this respect to the schools participating in the SWHSP. At the same time, comparisons with schools in other regions would have been hindered by differences between the regions on a number of socio-economic indicators and with regard to any regional public health programmes they were implementing at the time.

While the quantitative data from the evaluation does not allow us to assess formally the impact from the programme, it does allow us to analyse patterns in the changes observed. We discuss these in the context of the stakeholders’ perspectives on the programme’s achievements explored in the case studies.

3.2.2 Data

For each intervention in the SWHSP Pilot Programme, schools were expected to provide information on how many children were measured at baseline and follow-up and how many of those participated in the healthier behaviour targeted by the intervention. Each school chose how to measure the prevalence of behaviours they were targeting, with support from their local programme coordinators. This was a challenging exercise for the schools but they appreciated its value (see also section 4.2).

Inevitably for this method of data collection, not all data in the final online database was complete and internally consistent. Common problems included missing data on the number of children measured or the number of children achieving a healthier behaviour outcome, either at baseline or at follow-up. Where follow-up measurements

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6 An example of inconsistency is when the number of children achieving the HBO is recorded as being greater than the number of children who were measured.
were absent, this was sometimes because the interventions were still going on when the final data was taken from the online database. However, for most interventions with missing data, we do not know why the data was not entered. A small proportion of the interventions had to be excluded from the analysis of change as the method of measurement was different at baseline and follow-up.

In total, we were able to include 1570 individual interventions in the analysis in this chapter (40% of all interventions recorded in the online database). Our analysis showed that this subset of the data was broadly representative of the overall sample. However, there was some variation in how well-represented different local areas were and a bias towards overrepresentation of cohort three and underrepresentation of cohort one.

The latter finding is consistent with evidence from the case studies. These found that action planning for defining HBOs and measuring outcomes improved between cohort one and cohorts two and three, as schools and programmes developed a better understanding about how the information should be collected and recorded.

We also found that interventions undertaken by larger schools were slightly underrepresented in this subset of the data, and the same was true for schools with a higher proportion of children eligible for free school meals.

Figure 3:1 shows the number of interventions for each type of HBO and the totals for each priority area that were of sufficient quality to be included in the analysis of change in pupil behaviour and knowledge.
3.2.3 Measures

Schools used existing data (e.g. PHSE measures, external school surveys) or generated their own data (e.g. audits, pupil surveys, teacher observations, short interviews with pupils) to assess baseline and progress. This data formed the basis of information the schools and local programme coordinators added to the programme database and provides the basis for the measure of change outlined below.

For each intervention in the SWHSP Pilot Programme, we focused first on whether positive change was reported (i.e. whether the proportion of pupils with the healthy behaviour or knowledge among those measured was greater at follow-up than at baseline7). If it was, we calculated a ratio of change by dividing the proportion with the healthier behaviour at follow-up by the proportion with the healthier behaviour at baseline.8 The resulting ratio of change could only take values greater than 1, with larger values signifying a greater extent of change.

Where there were fewer than 30 interventions per type of HBO or priority area, the figures on change observed for these interventions were not considered to be reliable and were therefore not reported. This applied to all interventions targeting Dental Health (n=6) and Sun Safety (n=21).

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7 This is where the school aimed to increase the prevalence of a particular HBO, which was the case for most interventions. Where the school aimed to decrease the prevalence of some undesirable behaviour, positive change was defined as the proportion of pupils with the behaviour at follow-up being smaller than at baseline.

8 Where the school aimed to increase the prevalence of an HBO, we divided the proportion at follow-up by the proportion at baseline; and where the school aimed to decrease the prevalence, we reversed the calculation. Interventions where one of these values was zero were excluded from the analysis, as it was not possible to differentiate between ‘true’ zeros and missing values, and the majority of zero values represented incomplete data.
3.3 Changes in behaviour and knowledge

3.3.1 Proportion of interventions reporting positive change

For most interventions in the SWHSP Pilot Programme (96%), schools reported that they had achieved an increase in the number of pupils engaged in the healthier behaviour or possessing knowledge about the healthier behaviour targeted. This high percentage of interventions reporting positive change is consistent with the positive impressions of the staff participating in the case studies.

The figures were similar for different priority areas. While they varied from 93% for Emotional Health and Well-being to 99% for Under 16 Teenage Conceptions (see Figure 3:2), the differences between these figures were not statistically significant.

![Figure 3:2 Percentage of interventions which reported positive change, by priority area](image)
Where the numbers were sufficient for such analysis (that is, at least 30 cases in each group of interventions), we compared the percentage of interventions reporting positive change for different types of HBOs. Figure 3:3 shows that the figures appear to vary somewhat between different types, from 88% for improved behaviour with regard to Emotional Health and Well-being to 100% for activity involvement in the same priority area or for understanding and knowledge about teenage conceptions. However, the differences between these figures were not statistically significant.

Figure 3:3 Percentage of interventions which reported positive change, by type of healthier behaviour outcome

Base: Interventions for selected types of Healthier Behaviour Outcomes

- School attendance and punctuality: 92%
- Stress management: 92%
- Emotional and wellbeing – activity involvement: 100%
- Improved break times: 93%
- Improved behaviour: 88%
- Safety: 94%
- Emotional information and support: 93%
- General wellbeing: 93%
- Exercise on school days: 96%
- Journey to school: 97%
- Activities with food: 100%
- Improved meals: 97%
- Improved snacking: 93%
- Knowledge of nutrition and fitness: 99%
- Substance misuse – understanding and knowledge: 97%
- Sex and Relationship Education: 97%
- Teenage conceptions – understanding and knowledge: 100%
3.3.2 The ratio of change

The average ratio of change in healthy behaviours was 2.5. This means that the number of children engaged in a particular healthier behaviour or activity or possessing certain knowledge was 2.5 times higher at follow-up than at baseline. This suggests a relatively high level of change. Figure 3:4 shows that the average ratio of change varied somewhat between different priority areas, from 2.4 for Healthy Weight to 3.1 for Under 16 Teenage Conceptions. However, these apparent differences were not statistically significant.

Figure 3:4 Average ratio of change, by priority area

Base: Interventions in four priority areas (Dental Health and Sun Safety are excluded due to low numbers)

<table>
<thead>
<tr>
<th>Priority Area</th>
<th>Ratio of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Health and Well-being</td>
<td>2.6</td>
</tr>
<tr>
<td>Healthy Weight</td>
<td>2.4</td>
</tr>
<tr>
<td>Substance Misuse</td>
<td>2.9</td>
</tr>
<tr>
<td>Under 16 Teenage Conceptions</td>
<td>3.1</td>
</tr>
</tbody>
</table>

9 The ‘average’ ratio of change is defined as a mean value.

10 Or lower – if the aim was to decrease the prevalence of a particular behaviour.
Analysis of change reported for particular types of healthier behaviour outcomes revealed that there was significant variation in the level of change across behaviours targeted by different types of interventions (see Figure 3:5). For example, interventions targeting safety of pupils and improved meals tended to be associated with relatively lower ratios (1.9 for both types) while those focusing on activities with food and Sex and Relationship Education tended to have relatively higher ratios (4.3 and 3.7 respectively). It is not surprising to find this variation, as certain behaviours are more difficult to change than others. For example, it could be argued that it might be easier to increase the number of children participating in cooking food and growing vegetables at school but more difficult to increase the number of children who report feeling safe on school grounds, as this may be fuelled by complex, difficult to tackle feelings such as anxiety.

Figure 3:5 Average ratio of change, by type of healthier behaviour outcome

| School attendance and punctuality | 2.9 |
| Stress management | 2.3 |
| Emotional health and well-being – activity involvement | 2.7 |
| Improved break times | 2.5 |
| Improved behaviour | 3.0 |
| Safety | 1.9 |
| Emotional information and support | 2.3 |
| General well-being | 2.6 |
| Exercise on school days | 2.2 |
| Journey to school | 3.1 |
| Activities with food | 1.9 |
| Improved meals | 2.8 |
| Improved snacking | 2.5 |
| Knowledge of nutrition and fitness | 3.1 |
| Substance misuse – understanding and knowledge | 3.7 |
| Sex and Relationship Education | 2.6 |

3.3.3 Perceptions from qualitative research, of factors facilitating or limiting positive change

Evidence from the qualitative research identified a number of factors that contributed to more or less perceived improvement including the distinction between participation in activities and less tangible impacts on feelings (e.g. feeling safe in school grounds). In addition to the relative complexity of particular HBOs and specific interventions, other factors identified as helping or hindering improvements were:
• **Method of delivery** – pupils liked hands-on practical activities such as cooking clubs. In relation to Sex and Relationship Education and activities in the priority area Emotional Health and Well-being, small groups were preferred over larger ones and single gender groups were usually preferred for SRE outcomes. Safe spaces with friendship groups could also facilitate greater improvement in relation to more sensitive topics.

• **Degree of pupil enthusiasm** – enthusiasm was increased by making activities fun, relevant and delivering them in ways so that interest was not likely to wane over time.

• **Staff approach and qualities** – pupils liked activities where staff demonstrated enthusiasm, trust and respect. For complex activities related to Sex and Relationship Education and targeting priority area Emotional Health and Well-being, staff who were approachable, available, ‘matter of fact’ and at different levels of authority were preferred.

• **Involvement of parents** – parents could inhibit their child’s involvement in activities where they had concerns about them participating (for example, where parents felt that the issue being concerned was the responsibility of the parents, not the school). Parental involvement in cooking clubs was thought to be a particularly successful intervention because it was likely to encourage healthy eating at home.

• ** Appropriateness of activity by age and learning need** – this included selecting activities which targeted Emotional Health and Well-being or were related to Sex and Relationship Education with regard to pupil age, and ensuring that activities were appropriate to pupils with special educational needs (e.g. making them practical, visually stimulating, with repeated messages).

• **Degree of staff engagement** – this was increased where activities were adequately resourced in terms of staff time and facilities; where there was consistent promotion of healthier behaviour themes across the whole school; and where at least some school staff were involved in activities rather than all of the work being done by external providers.

### 3.4 Extent of change in different types of schools

This section examines whether the extent of change reported for interventions in the SWHSP Pilot Programme varied depending on phase of education (primary and secondary), size of school (measured by pupil number) and level of deprivation (measured by eligibility rates for Free School Meals).

Focusing first on the phase of education, it was only possible to draw comparisons within priority areas Emotional Health and Well-being and Healthy Weight. The number of interventions undertaken by secondary schools in the other priority areas was too low for comparisons with primary schools to be drawn. Table 3.1 shows that the level of change reported within priority areas Emotional Health and Well-being and Healthy Weight was similar for primary and secondary schools. It was not possible to look at particular types of healthier behaviour outcomes, even within these two priority areas, due to the low number of interventions in secondary schools.
Table 3.1 Changes for two priority areas, by phase of education

<table>
<thead>
<tr>
<th>Priority area</th>
<th>Primary schools</th>
<th>Secondary schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Health and Well-being</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% achieving change</td>
<td>94</td>
<td>91</td>
</tr>
<tr>
<td>Average ratio of change</td>
<td>2.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Healthy Weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% achieving change</td>
<td>97</td>
<td>95</td>
</tr>
<tr>
<td>Average ratio of change</td>
<td>2.3</td>
<td>2.4</td>
</tr>
</tbody>
</table>

For the analysis of whether size of school was associated with the level of change, we were able to draw comparisons within the same two priority areas – Emotional Health and Well-being and Healthy Weight – and within five particular types of HBOs, one falling under Emotional Health and Well-being and the other four falling under Healthy Weight (see Table 3.2). It was not possible to draw comparisons within the other priority areas and for other types of HBOs due to low numbers in the sample (i.e. fewer than 30 cases per group of interventions).

The figures in Table 3.2 do not show any consistent patterns in whether smaller or larger schools were more likely to report positive change. It appears that relatively fewer interventions undertaken by larger schools reported positive change compared with smaller schools, however, none of the differences were statistically significant. Neither were any of the differences in the ratio of change by size of school statistically significant.

Table 3.2 Change reported for selected types of healthier behaviour outcomes within two priority areas, by size of school

<table>
<thead>
<tr>
<th>Priority area / type of HBO</th>
<th>Smaller schools</th>
<th>Larger schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% achieving change</td>
<td>Average ratio of change</td>
</tr>
<tr>
<td>Emotional Health and Well-being</td>
<td>95</td>
<td>2.5</td>
</tr>
<tr>
<td>General well-being</td>
<td>95</td>
<td>2.3</td>
</tr>
<tr>
<td>Healthy Weight</td>
<td>98</td>
<td>2.3</td>
</tr>
<tr>
<td>Exercise on school days</td>
<td>99</td>
<td>2.1</td>
</tr>
<tr>
<td>Improved meals</td>
<td>97</td>
<td>2.0</td>
</tr>
<tr>
<td>Improved snacking</td>
<td>94</td>
<td>2.6</td>
</tr>
<tr>
<td>Knowledge of nutrition and fitness</td>
<td>100</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Note: the categorisation of schools by size was based on pupil numbers for the South West region and for phase of education.

Focusing on the level of deprivation, measured here as the proportion of pupils eligible for Free School Meals, we were able to compare interventions within three priority areas: Emotional Health and Well-being, Healthy Weight and Under 16 Teenage Conceptions. In addition, we were able to draw comparisons within the same five types of healthier behaviour outcomes as in the analysis by size of school. Table 3.3 presents results of this analysis.
Figures in Table 3.3 show that the level of improvement was not related to pupil deprivation. None of the (rather small) differences between the figures were statistically significant.

### Table 3.3 Change reported for selected types of healthier behaviour outcomes within three priority areas, by proportion of pupils eligible for free school meals

<table>
<thead>
<tr>
<th>Priority area / type of HBO</th>
<th>Lower % FSM</th>
<th>Higher % FSM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% achieving change</td>
<td>Average ratio of change</td>
</tr>
<tr>
<td>Emotional Health and Well-being</td>
<td>93</td>
<td>2.6</td>
</tr>
<tr>
<td>General well-being</td>
<td>93</td>
<td>2.6</td>
</tr>
<tr>
<td>Healthy Weight</td>
<td>97</td>
<td>2.2</td>
</tr>
<tr>
<td>Exercise on school days</td>
<td>97</td>
<td>2.0</td>
</tr>
<tr>
<td>Improved meals</td>
<td>96</td>
<td>1.9</td>
</tr>
<tr>
<td>Improved snacking</td>
<td>91</td>
<td>3.0</td>
</tr>
<tr>
<td>Knowledge of nutrition and fitness</td>
<td>100</td>
<td>2.5</td>
</tr>
<tr>
<td>Under 16 Teenage Conceptions</td>
<td>98</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Note: the categorisation of schools by proportion of pupils eligible for free school meals was based on figures for the South West region and was specific to phase of education.

To sum up findings in this section, there was no evidence that some types of schools participating in the SWHSP Pilot Programme reported a greater change in the healthier behaviours they targeted than other types of schools. Positive change was reported consistently across all types of schools.

### 3.5 Perceived reasons for positive changes in behaviour and knowledge

Perceptions of reasons for consistent positive change across the programme were discussed in detail in the two published qualitative reports on the evaluation. This section summarises them.

Three factors stood out in relation to perceived improvements: the role of the programme in supporting changes; clear and practical support for the Healthy Schools Coordinator within the school; and gauging the right level of involvement for pupils, staff and parents in each intervention.

#### 3.5.1 The role of the programme in ensuring improvements

For schools, the principal contribution of the SWHSP model was that it ensured consistently high standards of health promotion across all schools, with support from
the local programme team that varied according to the level of health promotion expertise within schools. The local programme coordinator support made a difference to health promotion in schools by:

- **Developing and embedding a useful model of behavioural change** – linking them to national and local priorities; providing impetus and focus for health promotion work; giving status to the work among parents; and making health promotion more systematic and less *ad hoc*.

- **Promoting high quality health promotion work** – enhancing work by giving more attention to it; encouraging schools to develop ‘bespoke’ activities rather than solely relying on the development of existing work; ensuring good practice was shared through networking meetings when developing activities/interventions; signposting links with good quality partners and providers.

- **Promoting changes in school ethos, policies and curriculum** – providing an opportunity to reflect on and explore pupils’ health needs and to develop existing provision or introduce new provision; facilitating school staff coming together in teams to deliver new activities and receiving training to do so; developing new activities that were considered to be of sufficient quality to be included in the curriculum.

- **Ensuring consistency of improvement in schools where staff did not have specialist health promotion knowledge** – especially in areas such as Sex and Relationship Education, Emotional Health and Well-being, healthy diet and physical activity.

### 3.5.2 School support for the Healthy Schools Coordinator

A well-supported Healthy Schools Coordinator was seen as pivotal to the success of the programme. Ensuring that the Healthy Schools Coordinator had a sufficient level of seniority and/or unequivocal support from school management helped the coordinator drive programme work forward and achieve a wider distribution of tasks among school staff. Using the SWHSP funding in the earlier stages of the programme to ‘buy out’ the Healthy Schools Coordinator’s time to manage and coordinate the interventions was considered to be an important part of the programme’s success.

### 3.5.3 Gauging the right level of involvement of pupils, staff and parents

Involving different stakeholders within the school and wider community to the right extent and at the right time was perceived as a key factor in achieving improvements. It was not always necessary for pupils, parents and staff to be involved in all aspects of the programme. The critical element was using existing mechanisms (e.g. staff forums, Schools Councils, parent feedback through the school website) to discuss and decide in what way different stakeholders should be involved.

- **For pupils**, there was some evidence that improvements occurred because pupils were involved in decision-making about interventions (e.g. ensuring they were fun and pitched at the right level in terms of age and previous learning).

- **For teaching staff**, improvements were achieved by ensuring that appropriate people were involved in terms of their teaching expertise and subject knowledge and that interventions were adequately resourced in terms of staff time and facilities.
• For parents, keeping them informed about interventions avoided parental concerns about their children’s participation and helped to ensure that important messages were not undermined outside the school. Consulting parents in advance of the intervention was in some cases seen as the key to its successful delivery.

3.6 Conclusions

This chapter examined the changes in healthy behaviours reported by schools on the online database, comparing different priority areas, different types of healthier behaviour outcomes and different types of school. It also summarised findings from the qualitative case studies with regard to which factors were perceived as facilitating these changes. The key findings were that most interventions (96%) reported positive change in the health-related behaviours or knowledge they targeted. The proportion of interventions reporting positive change was similar across priority areas and types of healthier behaviour outcomes. The average ratio of change was 2.5 which was similar across priority areas but varied by type of HBO targeted. The qualitative case studies highlighted the perceived importance of the role of the programme coordinators in supporting changes; of support for the Healthy Schools Coordinator within the school; and of gauging the right level of involvement for pupils, staff and parents in each intervention.

SWHSP aimed to encourage schools to introduce new interventions and importantly, provided a structure for them to record and report changes using outcome data measurements. This chapter has shown that the level of positive change reported in the programme was substantial. However, the changes observed cannot be unequivocally attributed to the programme because of the absence of a counterfactual, the extent of incomplete or inconsistent data (and possible bias), and uncertainty about how behaviours were measured. These issues are discussed further in Chapter 4.
4 Summary and Looking Ahead

In this chapter, we summarise the extent of change in healthier behaviours and distil the evidence from across the evaluation to consider the lessons learned for future school based health programmes. We highlight the lessons learned from data collection in schools, the key features of implementation, and consider the sustainability and transferability of SWHSP model.

Key findings

Substantial positive change was observed in the health behaviours and knowledge of pupils across the different phases of education, priority areas and types of schools taking part in the programme. All three studies carried out by NatCen Social Research should be considered together in order to establish the impact of the SWHSP Pilot Programme.

Although it is likely that the changes were influenced by participation in the programme, the research design does not allow us to attribute the change to the programme alone as we cannot disentangle the influence of the programme from changes that would have occurred anyway as pupils get older or from other influences in a child’s life. However, the SWHSP model did allow behaviour change to be monitored and measured.

Learning points from our experience of data collection by schools are outlined for the benefit of future evaluations.

Programme success was perceived by case study participants to rest on the support from local programme coordinators, choice of local priority and the choice of appropriate healthier behaviour outcomes and interventions.

Stakeholders considered the SWHSP Pilot Programme to be important for the success of health promotion in schools although there was scope for streamlining.

4.1 Changes in behaviour

4.1.1 Measuring change

The evidence from the quantitative analysis of the schools’ data showed substantial positive change in the health behaviours and knowledge of pupils across the different stages of education, priority areas and types of schools taking part in the programme. Within the broad priority areas of Emotional Health and Well-being, Healthy Weight,
and so on, interventions were grouped according to their healthier behaviour outcomes, and where the numbers in each group were sufficient for analysis, we compared the rate of change observed. Positive change was observed across all types of interventions, ranging from 88% of interventions targeting improved behaviour to 100% of interventions concerning participation in activities related to emotional health, well-being and food, and knowledge concerning teenage conceptions.

We investigated the extent of change for pupils by calculating the ratio of change across interventions. The average ratio of change was 2.5, meaning that the number of children assessed as achieving the outcomes at the follow-up was 2.5 times higher than at the baseline. The average ratio of change did not vary across priority areas – the differences observed were not statistically significant.

We have emphasised throughout the report that we are not able to attribute this change to the SWHSP Pilot Programme. To do this, we would need an estimate of the counterfactual – that is, an estimate of the change in behaviour that would have occurred among the children had they not taken part in the SWHSP Pilot Programme. In programme evaluations, counterfactual estimates are typically obtained from a comparison group. A comparison group is as similar as possible to the children who took part or were exposed to the intervention. An estimate of the intervention’s effectiveness is obtained by subtracting counterfactual estimates obtained from the comparison group from intervention group outcomes.

For this study, it was not possible to create a comparison group in the South West, given that the programme was targeted at schools with high proportions of pupils from disadvantaged households; and there were not enough non-participating pupils who were similar in their personal and school characteristics. Also, schools opting to take part in the programme were likely to vary from non-participating schools in staff motivation and their capacity for participation. To create a comparison outside of the South West would have involved measuring their behaviours and knowledge at baseline and follow-up similar to the pupils in the SWHSP which was not feasible in this project. This approach would also introduce the risk of differences in outcomes being affected by regional differences.

We therefore have to bear in mind that although it is likely that some of the positive change observed was influenced by SWHSP, we cannot disentangle the influence of the pilot programme on healthier behaviour from changes that would have occurred anyway as pupils mature or from other influences in a child’s life.

Despite the fact that we cannot attribute the change in healthy behaviours directly to SWHSP, children’s healthy behaviours did change positively during the course of the programme and the programme offered the opportunity for health promotion work addressing the issues that were of greatest concern to individual schools, local areas and vulnerable children. The qualitative evidence showed that staff viewed the programme positively on the whole and perceived a range of positive impacts on pupil behaviour. Also, at the school level, the programme was seen as inculcating an ethos of healthy lifestyles and teachers’ professional development. In this respect it was seen as very successful.

The remainder of this chapter discusses the experience of data collection, highlighting areas for consideration should this exercise be repeated in the future, reflects on the lessons learned on implementing the programme and the sustainability of school-based health promotion activity in the future.
4.2 The experience of data collection

4.2.1 Value

The value of gathering and recording data for providing evidence of the programme was understood by the local programme coordinators and Healthy Schools Coordinators taking part in the case studies. Data collection was also seen as having wider benefits. First, in some cases the information had helped to identify pupils with additional needs beyond the scope of a particular SWHSP activity. Second, the evidence was considered valuable for Ofsted inspections, for example, showing how the school was responding to Ofsted’s health and well-being indicators as part of their self-evaluation process.

4.2.2 Challenges

Even though schools were supported for collecting data for the SWHSP Pilot Programme, the evidence from the case studies and the quality of the data in the database indicated that the process was challenging for some schools. The usability of the data was undermined principally by the large amount of missing data (particularly the follow-up data), with the possibility that the findings were biased towards the interventions that were associated with positive change. Other problems included different baseline and follow-up measures, unclear specification of the target group, and differences between the numbers in the target group and the number of pupils measured. As a result, a large proportion of the interventions could not be included in the analysis of behaviour change.

The evidence from the case studies provided explanations for these data problems. The SWHSP Pilot Programme was a grass-roots programme, designed and delivered at the school level in response to the specific needs of school and local children, rather than a framework of activities and specifications that were imposed from a central level. The key challenges for schools are outlined below and learning points are identified.

Data collection

Challenges

- Using existing data for recording baseline and follow-up measures was an efficient approach, but existing surveys did not always reflect the activities of the SWHSP Pilot Programme and therefore bespoke data collection was required.
- Collecting data specifically for the SWHSP Pilot Programme ensured that the measures directly reflected the intervention, but this approach was time-consuming.

Learning points

- Schools undertaking a similar initiative in the future may wish to consider using the same measurement tools throughout the programme in order to save time for staff and produce data that is more reliable.
Specification and measurement of healthier behaviour outcomes

Challenges

- Some schools were not able to specify healthier behaviour outcomes that were SMART (specific, measurable, achievable, realistic, time-bound). Healthier behaviour outcomes that were vague were difficult to measure. An example of a vague outcome measure was ‘changing the ethos of the school’. The interventions aimed at reducing Under 16 Teenage Conceptions could not adequately be measured within the time-frame of the programme.

- In some schools, there was a delay in the specification of healthier behaviour outcomes, for instance because of the complexity of the health problems.

- The healthier behaviour outcomes included areas of knowledge and participation in activities, which are steps towards healthy behaviour rather than outcomes, making comparison problematic.

Learning points

- Schools need support to identify healthier behaviour outcomes that are appropriate and sufficiently specific to be measured within the timescale of the programme.

Two other general messages for improving data collection were identified in the qualitative case studies.

1. Support from the local programme coordinator

The involvement of the local programme coordinator was particularly important in terms of:

- Reinforcing the value and importance of data collection
- Organising seminars on what good evidence looks like
- Offering advice on activities and measuring progress
- Helping to develop an action plan.

2. Developing an action plan

In the earlier stages of SWHSP Pilot programme schools planned proposed actions and were encouraged to write a formal action plan. In the latter stages the case study evidence suggested that doing so was considered to be a vital element of developing healthier behaviour outcomes that were SMART and identifying how progress would be measured. Greater encouragement was therefore provided by local programmes to write a formal action plan in all cases.
4.3 Lessons learned from programme implementation

The case study evidence identified the following implementation practices to be important for programme success that may be applicable to other school-based health promotion activities.

Local programme support

Support from the local programme was considered to be valuable or essential in relation to:

- providing the impetus and funding to raise the profile of health promotion among competing priorities;
- facilitating training and networking needed to share ideas between schools;
- helping schools clarify pupil needs, priorities and activities through action planning and gathering data;
- providing on-going advice and emotional support related to action planning and dealing with the day-to-day challenges and frustrations;
- signposting or developing high quality health promotion interventions.

A consistent theme was that local programme support was particularly important in promoting healthier behaviour where healthy school coordinators and other staff did not have specialist knowledge in areas such as Sex and Relationship Education, Emotional Health and Well-being, and Healthy Weight, or where there was reduced capacity to develop their knowledge in these areas themselves. They complemented the work of Healthy Schools Coordinators who were key to the delivery of interventions and the recording of data.

Choice of local priority

The local priority needed to be perceived as relevant to pupil needs for it to be successfully embedded. The choice of local priority was found to be most successful where there was a ‘dove-tailing’ between existing sources of data and evidence about pupil needs, the suggestions of local programme coordinators, existing school priorities and filling gaps in existing provision.

Having a greater choice of local priorities or increasing the flexibility in the way a specific priority could be tackled were approaches that were welcomed by the schools. However, the merits of this broad approach need to be weighed against the impact on measurement and evaluation.

Choice of healthier behaviour outcome and intervention

Evidence from the case studies suggested that there were different levels of programme success for different healthier behaviour outcomes (and the quantitative analysis found varying levels of change in pupil behaviour). This is likely to be because of a combination of the following factors:

- some behaviours were easier to change than others
• some behaviours could be changed within the timescale of the programme whereas others may not be observed until a later date
• the effectiveness of interventions varied
• the quality of measurement was variable.

All these factors need to be considered when selecting healthier behaviour outcomes in order to manage expectations about the likely impact on pupil health and well-being.

The qualitative evidence found that the complexity of a particular priority or activity was one of a number of factors that could affect the impact on healthier behaviour outcomes. Other factors that helped or hindered were:

• activities that were fun and engaging, promoting enthusiasm
• appropriateness of activity by age and learning need
• involving staff
• staff qualities: enthusiasm, trust, respect
• method of delivery
• involvement of parents
• practical resourcing issues: cost, timetable, preparation time.

More detail about each of these aspects can be found in the published qualitative reports (referred to in Appendix A).

4.4 Sustainability and implications for school based health programmes

With the SWHSP Pilot Programme formally coming to an end, an important consideration is the extent to which the programme can continue and whether there are wider implications for school-based health programmes that can be gleaned from the SWHSP experience.

Factors linked to the sustainability of activities and interventions supported by SWHSP were:

• whether funding had been used to pump prime activities;
• whether activities were seen to be having an impact;
• whether there was a commitment by the school to sustain activities and
• the capacity of school staff to continue to work on health promotion.

The infrastructure of SWHSP was considered by case study participants to be valuable for:

• developing high quality health promotion interventions;
• providing an impetus to get started;
• signposting resources for teaching staff; and
• producing and embedding changes in the school ethos, policies and curriculum related to health and well-being.

Case study participants were unsure as to whether health promotion in schools could be sustained without a local programme to keep these issues on school agendas. Many believed that local programme support could be streamlined or reduced through greater use of templates and toolkits, provided there was initial training, ongoing advice from a coordinator and greater peer support via ‘clusters’ of schools.
Appendix A

Qualitative interviews and case studies

As explained in section 1.2 above, there were three components of qualitative work: a scoping study among coordinators, school case studies to explore early implementation issues and further case studies in different schools to gather reflections on the later stages of implementation and perceived impacts. The methods for these components are outlined below.

Scoping study

The scoping study was carried out early on in the programme (November and December 2009) to investigate early practice issues and challenges at the developmental phase of the programme. This stage involved eight face-to-face in-depth interviews and two telephone interviews across ten programme areas with staff responsible for coordinating the local programmes. The ten local programme areas were purposively sampled to enable the research to describe and understand the full range of views and experiences across the SWHSP Pilot Programme.

The primary sampling criteria used were:

- The location of the programme team, e.g. whether it was based solely in the local authority (LA), primary care trust (PCT), or in both.
- The type of area e.g. borough, unitary, county or city
- The staffing structure of the programme team.

The sample also included a range of areas with single or multiple priorities, a range of schools (e.g. primary, secondary, special schools, pupil referral units) and areas that provided different types/levels of support, for example, school visits, phone support and training days.

The interviews explored in detail the implementation plan in each area, from the perspective of those involved in designing and delivering it. The barriers, challenges and successes in early implementation were discussed.

Initial school case studies

The aim of the first stage of school case studies was to explore the experiences of the early implementation of the SWHSP Pilot Programme, including the perspectives of a range of relevant school staff, pupils and parents.

Case studies were conducted in twelve selected schools: nine primary schools and three secondary schools (of which two were special schools). Schools were purposively selected to achieve diversity across a number of sampling criteria. School level criteria included school type (primary, secondary, special/pupil referral unit) and

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11 This means sampling to ensure that key characteristics of relevance to the study are represented among those selected.
the rate of free school meal eligibility. Programme specific criteria included local programme area, programme cohort and type of healthier behaviour outcomes.

The research interviews with staff lasted between 40 and 90 minutes and mini discussions with pupils and focus groups with parents lasted between 40 minutes and one hour, depending on the nature of the involvement of each participant in the programme. Fieldwork took place between late May and October 2010. Schools received an honorarium payment of £400 for participating in the case studies. In total there were 50 data encounters (single or joint interviews, groups), with 46 staff, 97 pupils and 17 parents.

Second stage school case studies

The aims of these case studies were to describe the later stages of implementation and delivery of SWHSP; provide an insight into the longer-term perceived impacts of the programme; map the factors influencing the sustainability and transferability of ‘healthy school’ activities; and to build on learning from the previous case studies.

These case studies involved interviews with local programme coordinators in selected areas to examine specific developments in their areas and assist in the selection of school cases. On the first visit to selected schools, a 90 minute in-depth interview was carried out with the Healthy Schools Coordinator and documentary information was gathered about priorities, activities and desired healthier behaviour outcomes. The second visit involved in-depth interviews or small discussion groups with staff involved in the management and delivery of the programme; small groups or interviews with pupils involved in SWHSP activities; and, where possible, small groups or paired interviews with parents. The content of these interviews was informed by the information gathered on the first visit. The interviews and groups principally investigated support offered to the schools by the local programme; the delivery of SWHSP within the schools; and perceived challenges, impacts and successes arising from the programme.

Fieldwork had to be carried out flexibly in response to circumstances at the schools. The length of interviews and groups varied from fifteen minutes to about an hour depending on the level of involvement in the programme or activities of the staff, pupils and parents. Overall the combination of interviews and groups allowed the research team to build up a detailed picture of each case. Interviews with Healthy Schools Coordinators took place between March and June 2011, and fieldwork with other members of staff, pupils and parents between April and early July 2011.

All the interviews and group discussions conducted across the three stages of qualitative work were digitally recorded for verbatim transcription and analysed using Framework, a qualitative data analysis package developed by NatCen Social Research.