sheffield-let's change4life: a whole systems approach to tackling overweight and obesity in children, young people and families

a local evaluation report

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1.0 introduction

1.1 report overview

1.1.1 the aim of the report

- The aim of this report is to present an independent critical appraisal of 'Sheffield - Let's change4life' (SLC4L). This is so commissioners, providers, practitioners, researchers and evaluators of public health interventions have an informed and empirically sound platform upon which to consider the future prevention of obesity in young people, particularly in Sheffield.
- The report provides the following:
  - A background to the SLC4L Programme. This includes consideration of the national and local political, fiscal and health contexts in which the programme was delivered.
  - A brief outline of the SLC4L Programme and the Healthy Communities Challenge Fund application.
  - An overview of the methods used and the theoretical underpinning of the evaluation.
- Following the structure of the SLC4L strategy map, research findings are presented beginning with the headline outcomes and finishing with the capacity and leadership elements. A comprehensive strand by strand review of interventions and findings is also provided.
- Recommendations for commissioners, providers and evaluators of public health interventions regarding the determinants of success in the prevention of overweight and obesity in children, young people and families are made.

1.1.2 who is the report for?

- This report is aimed at the policy makers, commissioners, providers and evaluators of public health interventions relating to the prevention of obesity, specifically childhood obesity.
- A national evaluation is currently being undertaken which will consider the 9 Healthy Town projects as a whole. This report therefore focuses solely on the Sheffield programme.

1.2 background to sheffield - let's change4life

1.2.1 the health context to sheffield - let's change4life

- Obesity has reached epidemic proportions globally with approximately 1.6 billion adults defined as overweight, and 400 million defined as obese (WHO 2009).
- In the United Kingdom, almost a quarter of adults (22 per cent of men and 24 per cent of women aged 16 or over) are classified as obese (NHS Information Centre, 2011). In Sheffield in 2008 (at the start of SLC4L), data showed that 22% of adults were obese and 34% overweight. Continuation of this trend predicts that, without intervention, 60% of men and 50% of women will be obese in the UK by 2050 (Foresight 2007).
- In childhood, the picture is equally worrying (Wang & Lobstein, 2006). Obesity is now the most common disease of childhood and adolescence in the developed world (Reilly, 2006).
- In the United Kingdom, 16.8 % boys and 15.2% girls aged 2-15 are classified as obese (The Information Centre, 2008) with evidence suggesting central obesity to be increasing particularly rapidly (Wardle et al., 2006). Those children from low socio-economic backgrounds have a greater risk of obesity compared with children in more affluent households (Parsons et al., 1999).
- In Sheffield, at the start of SLC4L, the proportion of children who were overweight was 13.2% at Y6 and 12.0% at reception (YR) age with obesity at 17.5% and 8.1% respectively. These figures were slightly below the national and regional average and prevalence in the city was lower than statistical neighbours. Obesity rates were also much higher in the least healthy communities within the City.

- High prevalence of obesity is a concern because of its severe impact on people’s physical and mental health and wellbeing. In adulthood, obesity is associated with numerous co-morbidities, including hypertension, major cardiovascular diseases, some cancers, obstructive sleep apnoea and type II diabetes mellitus (Lavie, Milani and Ventura 2009).
- In addition to the increased risk of poor health in later life, obese children face immediate health consequences such as abnormal lipid profiles, elevated blood pressure (Freedman, Dietz, Srinivasan & Berenson, 1999) increased asthma prevalence (von Mutius, Schwartz, Neas, Dockery & Weiss, 2001) and greater risk of type II diabetes mellitus (Fagot-Campagna et al., 2000).
- Overweight children also have increased odds of experiencing poor psychosocial health and low self-esteem with severely obese children and adolescents reported to have similar quality of life scores as those diagnosed with cancer (Schwimmer, Burwinkle & Varni, 2003).
- There is also a significant economic burden associated with obesity. Direct costs caused by obesity are estimated to be £4.2 billion per year and forecast to more than double by 2050 if current trends persist (Foresight, 2007).

1.2.2 the policy and political context to sheffield - let’s change4life

- A number of key policy documents framed the development of *SLC4L*. A brief summary of these is provided here.
- The Foresight report ‘*Tackling Obesities: Future Choices*’ (2007) provided much of the evidence base for *SLC4L*. In particular, the 7 thematic clusters of the obesity systems map (physical activity environment, individual physical activity, physiology, individual psychology, social psychology, food production and food consumption) acted as the foundation upon which a whole systems approach to tackling obesity in the City was overlaid.
- Addressing health inequalities in the City, although not the primary focus of *SLC4L* was nevertheless an important facet of the programme’s scope. To this end, the Marmot review; ‘*Fair Society, Healthy Lives*’ (Marmot, 2010) provided much of the evidence upon which *SLC4L* attempted to address health inequalities within the City.
- The social determinants of health i.e. the conditions in which people are born, grow, live, work and age influenced the whole systems approach of *SLC4L*.
- The Labour Government strategy, *Be Active, Be Healthy* (2009) and *The Healthy Weight, Healthy Lives Strategy* (2008), published by the Cross Government Obesity Unit, provided key reference points for *SLC4L* with the latter introducing the ambition for the UK to be the first major country to reverse the rising tide of obesity and overweight by ensuring that all individuals are able to maintain a healthy weight.
- One of the key activities within the strategy was to pilot the ‘Healthy Town’ approach.

1.2.3 healthy communities challenge fund

- In July 2008, as part of a £30 million Healthy Communities Challenge Fund (HCCF), committed in the *Healthy Weight, Healthy Lives* cross-government strategy for England, the Department of Health announced that every town/City in England had the opportunity to bid for up to £5 million of funding to make their inhabitants more healthy and active.
- Importantly, Local Authorities in partnership with Primary Care Trusts were invited to submit joint applications for innovative ways to improve the health of their inhabitants.
- The successful applicants were to be designated ‘Healthy Towns’ to acknowledge their commitment and aspiration to promoting health in their communities.
- Sheffield was successful in its application along with 8 other towns and cities; Dudley, Halifax, Manchester, Middlesbrough, Portsmouth, Tewkesbury, Thetford, and Tower Hamlets.
- Sheffield held the vision of developing a systemic, city wide programme focused on addressing the social and environmental factors that have led to the rising rates of obesity and overweight in children and families in the City.

1.2.4 the sheffield application to the healthy communities challenge fund

- Prior to Sheffield’s application to the HCCF, a 5-year Children and Families Obesity Plan was developed. This was achieved through workshops with key stakeholders within the City and was used to set the strategic context for the HCCF proposal.
- A Joint Strategic Needs Assessment between the Local Authority and the Primary Care Trust and the Cities annual ‘Every Child Matters’ consultation was combined with the best available evidence from interventions from around the world (including EPODE; Be Active Eat Well; and, We Can!) to understand the types of interventions that might be applicable at a population level. Importantly the specific needs of Sheffield and its population were taken into account.
- Importantly, given the extent of partnership required to ‘*make SLC4L happen*’, the programme was in-line with; the broader vision for the City, the Local Development Frameworks and associated Local Area Agreement priorities.
- Activities proposed within *SLC4L* were also an essential part of the delivery of elements of the cities Children and Young People Plan, Health and Wellbeing Plan, Plan for Transport, Open and Green Spaces Strategy, City on the Move (Physical Activity) Strategy and Focus on Food Strategy.
- In addition to the policy and evidence based approach to its design, *SLC4L* was also underpinned by five guiding principles:

1. **prevention:** A focus on tackling the determinants of obesity, preventing poor health and well-being and reducing the need for more intensive health interventions.
2. **equity and inclusivity:** Working with those who are most disadvantaged or excluded to ensure they have a strong voice in *SLC4L* and that the programme ‘includes’ and meets the needs of all people in its delivery.
3. **empowering communities:** Equip children and families with skills to understand and have a sense of ownership of factors affecting their health and weight; to improve their lifestyle; identify and remove barriers to healthy living from their neighbourhood; and, to shape services.
4. **learning from what works:** Ensure delivery is informed by Sheffield skills, drawing on the academic expertise of our two Universities, voluntary sector know how and commercial acumen. Use the strong national and international networks of the City, including membership of the WHO Healthy Cites Network, to drive forward innovation locally.
5. **fun:** Create a healthy Sheffield that is founded on children and families enjoying healthy lives. The programme will therefore have a strong focus on positive messages, celebration of success, and active play for all.

- The result was a citywide consensus on the approach taken for the HCCF submission and an overarching strategy for tackling obesity that was based on three tiers of intervention (Figure 1).

Figure 1: Sheffield’s three tier obesity strategy

- Confirming the partnership, the *SLC4L* Board was jointly led by the NHS and City Council Director of Public Health and the Executive Director of Children's Services within Sheffield City Council. They were supported by representatives from all sectors and with political backing from the lead Councillor for Children and Young People, within the local Liberal Democrat led Council.

1.2.5 proposed content of sheffield - let's change4life

- SLC4L* focused on tier 1 and tier 2 of the tiered obesity strategy. To extend the reach of interventions effectively into communities the programme proposed to utilise the schools network, the City's established community infrastructure, Enhanced Public Health Programmes, the network of Community Health Champions and peer supporters, and the national Change4Life social marketing campaign.

- The programme had 5 strategic objectives:

- Sheffield will be internationally recognised as leading the way in reducing obesity.
- Children and families from all Sheffield's communities will find it enjoyable, easy and affordable to sustain a healthy diet and to integrate physical activity into their daily lives.
- Culture and behaviour in Sheffield will change so that more families choose to live healthy lifestyles.
- The Sheffield - Let's change4life brand will be recognised, owned and promoted by people and organisations across the city.
- All partners in Sheffield will be able to demonstrate clearly the contribution they make to reducing obesity.

- To achieve these strategic objectives, the HCCF proposal outlined eight strands of work which reflected a desire to adopt a targeted and universal approach to tackling obesity but also to consider the importance of 'systems' as described by The Foresight report (2007) in the design.

- The eight strands of work were as follows:

- a breastfeeding friendly city:** To increase support for breastfeeding in communities, public places and workplaces.
- parents as positive role models for healthy eating:** To build the capacity of parents to improve their wellbeing and be positive role models for healthy living.
- schools at the heart of healthy communities:** For all schools to systematically empower children and families to live healthy lives and have good mental wellbeing.
- living neighbourhoods:** To remove barriers to active healthy living from neighbourhoods and create local environments that promotes wellbeing.
- healthy open spaces:** To increase the opportunities for children and families to enjoy safe, active and healthy recreation in the City's parks and open spaces.
- social marketing - change4life:** To develop an effective social marketing campaign that is owned by communities and that achieves positive behavioural change.
- community health champions:** To establish a network of local volunteers empowered to support people in their communities to live healthier lives.
- cross sector innovation:** To build innovative new partnerships that maximise the contribution of all sectors to reducing obesity and promoting healthy living.

- Whilst the programme retained 8 core themes, work packages within them changed throughout the project lifetime. This is discussed further in section 1.2.7.

1.2.6 proposed outcomes and outputs from sheffield - let's change4life

- Table 1 (column 2) provides a detailed description of the outcomes and outputs that were to be delivered by the *SLC4L* programme.
- These outputs and outcomes were identified through a needs assessment and extensive consultation with communities and partners previously outlined (see 1.2.4.).
- No definition was provided in the HCCF bid document regarding what was considered an outcome and what an output. The evaluation team therefore adopted the Improvement and Development Agency (I&DeA) definition (2007) to guide the programme evaluation process (see appendix 1).
- To understand the causal pathway of the outputs to the desired outcomes the evaluation team also built logic models for each of the strand activities.

1.2.7 revisions to the healthy communities challenge fund application

- Following a review of the Sheffield HCCF application by the programme director, once in post, a number of alterations were made to the original bid. These are outlined in column 3 of Table 1⁵.
- The changes to the activities within each strand were made due to: identified gaps in the programmes ability to deliver the vision, unrealistic initial targets, or staff/resource availability.
- In addition to the strand-level activity specific changes, the programme director worked closely with the evaluation team to refine and make clear the programmes process objectives. These were as follows:
- To establish a coherent, citywide programme of diverse activity that will help achieve the overall aim of the programme.
- To establish new, and build on existing, relationships with statutory, third sector and independent sector partners to make obesity prevention 'everybody's business'.
- To work jointly with key partners, specifically Sheffield City Council, third sector and independent sector organisations to develop, deliver and sustain the programme.
- To successfully commission a range of providers of the programme activities via agreed procurement routes.
- To establish robust performance and evaluation frameworks within which all providers will operate.
- To develop a strong 'Healthy Sheffield' brand using Change4Life.
- To reach an agreed number of beneficiaries with a range of low, medium and high impact activities.
- To target key 'at risk' populations using social marketing Change4Life clusters and local data.

strand	outcomes and outputs as defined in the hccf bid	revised plan
a breastfeeding friendly city	- Achieve a 44% prevalence of breastfeeding at 6-8 weeks from birth - Sheffield is recognised as a Breastfeeding Friendly City - Support 11,000 mothers (80%) to initiate and maintain breastfeeding. - Extend our current work with leisure and retail establishments so that an additional 300 public places 'welcome' breastfeeding mothers. - Increase by 150 the number of employers who support continued breastfeeding for mothers returning to work. - NHS and Local Authority maternity and early year's services achieving UNICEF Baby Friendly Status.	- Achieve 50% prevalence of breastfeeding at 6-8 weeks from birth - Achieve full UNICEF Baby Friendly Status - Support and encourage 13,000 mothers to initiate breastfeeding and understand the benefits - Support and encourage a minimum of 6,500 new mothers to maintain breastfeeding to 6-8 weeks and beyond - Accredit 300 public places to 'welcome' breastfeeding mothers - Accredit 100 employers as 'breastfeeding friendly' to support continued breastfeeding for mothers returning to work.
parents as positive role models for healthy eating	- Support 500 parents and carers to become 'graduate' positive role models for healthy eating. - Extend our Family Community Nutrition Programme by an additional 17 Community Food Educators and Community Nutrition Development Workers benefiting 5,000 people.	- Implement a Healthy Early Years Accreditation & training Scheme in all (n=36) Children's Centres and at least 20 other settings across the Early Years Sector 90 Early Years and Health Practitioners trained and resourced to provide Active Start sessions within settings - Implement a city wide programme of obesity training and awareness-raising with at least 400 professionals, 6 workplaces and actively engage at least 1000 members of public. - Develop and deliver a Sheffield Food Plan & Festival. - Implement the Healthy Choices Loyalty Reward Card and Healthy Choices Award with at least 200 retailers. - Museums Sheffield Food Glorious Food (FGF) exhibition to target 80,000 visitors. FGF community outreach activities across Sheffield and in local schools to target 10,000 individuals and families.

Table 1: Outcomes and outputs to be delivered by the Sheffield – Let’s Change4Life programme

⁴ In table 1.0, the activities shown in italics were either withdrawn or targets revised.

strand	outcomes and outputs as defined in the hccf bid	revised plan
schools at the heart of healthy communities	- Implement a rigorous whole school Change4Life programme in all of Sheffield's 174 schools reaching 65,356 school age pupils. - Ensure that all children and young people undertake at least one hour of physical activity each day. - Extend our Social, Emotional Aspects of Learning (SEAL) programme to 10 secondary schools and enhance delivery in 133 primary schools with a new specific Social, Emotional and Cultural Aspects of Food strand. - <i>Extend the National School Fruit Scheme to 5,629 Year 7 pupils.</i> - Increase school meal uptake by 149,340 meals served. - Establish 'growing' and cookery clubs in 174 schools and supporting 50 to sell healthy food in their community. - Develop a stay on school site for lunch policy and implement in 12 secondary schools.	Extend National School Fruit Scheme to 3,500 year 7 pupils
living neighbourhoods	- <i>Support local people to undertake 60 neighbourhood audits to identify barriers to safe walking, cycling and active play</i> - Train 110 people to undertake street audits and implement practical changes as identified through the audit process - Implement 200 practical improvements from these audits. - <i>Promote safe cycling in 50 schools using the Bike It approach benefiting 16,000 pupils.</i> - <i>Develop 20 neighbourhood walking maps targeted at families.</i> - Increase the number of food retailers that achieve our local Healthy Choices standard by 100 with at least 80% being in our least healthy neighbourhoods.	- Support local people to undertake 60 neighbourhood audits to identify barriers to safe walking, cycling and active play - Develop 10 neighbourhood walking maps - Work with schools where there is high car use for short journeys to undertake 9 school /desk based audits to promote walking as a form of transport to school - Promote safe cycling to 48 schools (24 per year) using the Bike It approach. - Healthy Choices Award moved into the Parents As Positive Role Model Strand.
healthy open spaces	- <i>Increase by 20% the proportion of our parks that offer high quality opportunities for safe active play for children and adults.</i> - <i>Promote family use of green spaces, including Green Gyms™ and under-used allotments in disadvantaged areas. Benefit 5,000 people.</i>	No alteration but the Green Gyms™ method was not to be used as this was a recognised national programme and Sheffield wanted a more flexible, local solution.

Table 1: Outcomes and outputs to be delivered by the Sheffield – Let's Change4Life programme

strand	outcomes and outputs as defined in the hccf bid	revised plan
social marketing - change4life	• Work with over 1000 children and parents, all schools, private sponsors and our local media (Sheffield Star and Radio Sheffield) to create a Sheffield Change4Life social marketing brand owned by the people of Sheffield. • Deliver 5 major campaigns, taking positive, accessible and achievable healthy lifestyle messages to over a third of our city population.	• No alterations
community health champions	• Extend the delivery of our accredited Introduction to Community Development and Health (ICDH) programme to benefit 300 people. • <i>Work with the Sheffield Well-being Consortia to establish a network of 180 local volunteer Community Health Champions who will empower 2,500 people to improve their own personal well-being.</i>	• Work with the Sheffield Well-being Consortium to establish a network of 240 local volunteer Community Health Champions who will have empowered over 3,600 people to improve their own personal well-being. 60 of these to be recruited through SLC4L funding to empower 900 people. • 60 CHCs trained to deliver Personal Health Improvement Plans with 500 individuals • Signpost to appropriate services 200 with £200 bursary where appropriate.
cross sector innovation	• <i>Pilot a healthy lifestyle Bursary scheme offering a city wide menu of opportunities (including Personal Health Improvement Plans) to initially benefit 500 people, delivered by the Sheffield voluntary, community and faith sector Wellbeing Consortium.</i> • Establish a Business Broker to: initiate 50 joint ventures with commercial and third sectors organisations; secure £300,000 in sponsorship; and, commission 6 weight management programmes. • Appoint a Healthy Urban Planner in the Local Authority to undertake a systematic review of planning, development and transport policy and practice to identify long-term, city wide approaches to removing obesogenic factors, including systematically identifying a long term approach to ending food deserts.	• Healthy Lifestyles Bursary Scheme changed and moved to Community Health Champions strand • Removal of the sponsorship target (in recognition of the challenging economic climate).

Table 1: Outcomes and outputs to be delivered by the Sheffield – Let’s Change4Life programme

2.0 the evaluation strategy

2.1 purpose

- The purpose of this evaluation was to critically appraise *SLC4L* to better understand the effects of a whole systems approach to reducing overweight and obesity in young people in Sheffield.
- In addition, the evaluation aimed to:
- Evaluate the overall capability, process and outcome elements of the programme and report on headline outcomes.
- Evaluate individual strand activities.
- To act as an evaluation advisor to the leads and *SLC4L* subcontracted activity.
- Identify links between the programme and the existing evidence base regarding the prevention of overweight and obesity in children, young people and families.
- Identify what *SLC4L* delivered and identify which of these activities were successful in addressing the aims and objectives of the programme and why/why not.
- To enhance findings from routinely collected data, conduct a number of nested studies using a mix of methods and media, across age groups, sectors and activities.
- Identify where activity was transferable and, where appropriate, generalisable.
- Provide recommendations regarding the determinants of success in the prevention of overweight and obesity in children, young people and families.

2.1.1 introduction to our approach

- Community-based change initiatives often have ambitious goals, and so planning specific on-the-ground strategies to evaluate those goals can be difficult. Likewise, the task of planning and carrying out evaluation research that can inform practice and surface broader lessons from an intervention is challenging, particularly outside of experimental conditions.
- The evaluation of the *SLC4L* programme aimed to overcome these challenges by adopting: 1) a theoretical underpinning, 2) the use of validated tools of measurement and 3) recognised methods of data analysis and interpretation. That said it was also important to be mindful of the fluid nature of the *SLC4L* programme and as such the evaluation worked within a pragmatic framework.
- A fuller description of our approach is provided in appendix 2. However, it is summarised in the *SLC4L Strategy Map* (Figure 2) which combines the Public Sector Score card (PSS) (Moullin, 2009) and the Theory of Planned Behaviour (TPB) (Ajzen, 1991).

Figure 2: Sheffield – Let’s Change4Life Strategy Map

2.1.2 understanding the slc4l strategy map

- The first two rows (blue and purple) show the main outcomes required for the project and represent an assessment of actual behaviour change and epidemiological benefit of the programme i.e. reduction in obesity prevalence.
- The third row (green) represents the desired outputs and outcomes in relation to changing people's attitudes and cognitions regarding components of the Theory of Planned Behaviour. Changes here indicate the pre-determinants of actual changes in behaviour
- The elements in blue (rows 4 and 5) show the desired outcomes of the different strands and demonstrate the investment of the programme in interventions aimed at preventing overweight and obesity. The final two rows (in yellow) show the main elements that needed to be in place to support the individual strands in achieving the desired outcomes and all these needed to be underpinned by effective leadership and receive high quality support from the programme board.

3.0 headline outcomes

3.1 introduction

The primary aim of *SLC4L* was to act as a stepping stone towards a headline outcome that 'by 2012 the obesity rates in Sheffield for YR6 will be falling'. The following section considers the extent to which the programme achieved this aim, taking into account the absence of an experimental research design.

3.2 reducing obesity

The following observations can be made from the National Child Measurement Programme (NCMP) 2008-2011 data. Reports here specifically focus on obesity trends (as opposed to overweight) in line with the primary aims of *SLC4L*. The full NCMP data report can be obtained upon request from NHS Sheffield.

3.2.1 ncmp - obesity prevalence data 2008-2011

- In the first year of the *SLC4L* programme (between 2008/09 and 2009/10), a marginal fall in obesity prevalence in Sheffield at Y6 was observed (18.7% vs. 18.6%). This should be compared to marginal increases in obesity rates in Yorkshire and Humber (18.6% to 18.8%), Statistical Neighbours (18.9% to 19.9%) and England nationally (18.3% to 18.7%) as depicted in Figure 3. No change was observed in Core Cities' data over the same period (21% to 21%).

Figure 3: Year 6 NCMP Obesity coverage and prevalence data 2006-2011

- In YR for Sheffield, over the same period, obesity rates had fallen from 9.4% in 2008/9 to 9.2% in 2009/10 (see Figure 4). This should be compared to marginal increases in average obesity rates for Core Cities (10.7% to 10.9%), Statistical Neighbours (9.91% to 10.1%) and England nationally (9.6% to 9.8%). In Yorkshire and Humber a decrease was also observed (9.6% to 9.2%).

Figure 4: Reception year (YR) NCMP Obesity coverage and prevalence data 2006-2011

- These data for YR and Y6 in Sheffield offered much encouragement in terms of the potential impact of programmes such as *SLC4L* and appeared to support the suggestion that the cumulative impact of national and local initiatives to promote healthy weight might be contributing to a 'levelling off' of increasing year on year rates for obesity in young people as reported elsewhere (Boddy, Hackett & Stratton, 2010; Ogden et al., 2010).
- This was particularly the case when viewing obesity prevalence in light of data for NCMP coverage in Sheffield. Between 2008/9 and 2009/10, a large increase in coverage for Y6 in Sheffield (Y6 88.7% to 96.6%) was noted, while those for the other comparators rose only slightly or even decreased over the same period (see Figures 3 & 4).
- Given anecdotal evidence that a rise in coverage is generally accompanied by a rise in prevalence, as the more overweight and obese children tend to opt out, 2009/10 data appeared to support the claim of a 'levelling off' of increasing year on year rates for obesity in the City since 2006/07.
- Whilst the lack of longitudinal data and the absence of an experimental research design would mean any causal link between falling obesity rates in Sheffield and *SLC4L* must be treated with caution, data for 2009/10 was nevertheless encouraging.
- However, the 2010/11 data (reflecting the second year of *SLC4L* intervention) suggests that the prevalence of obesity in YR and Y6 in Sheffield had risen (YR from 9.2% to 9.97% and Y6 from 18.6% to 20.24%) (See Figures 4 & 5). Data is therefore disappointing compared to 2009/10, indicating that any notion of a plateau of BMI being observed in young people in Sheffield is premature.
- In terms of Y6 national and regional comparators for 2010/11, increases in obesity rates were also observed for Core Cities (21% to 21.8%) Yorkshire and Humber (18.8% to 19.2%), Statistical Neighbours (18.9% to 19.9%) and England nationally (18.7% to 19.0%). However, the rate of increase appeared slower than for Sheffield. Furthermore, increases in these comparators could be partially explained by increased coverage, whereas coverage for Sheffield remained high but stable (Y6 96.2% in 2009/10 vs. 96.5% in 2010/11).

- In terms of YR data, a marginal fall in obesity rates was reported for all national and regional comparators; Core Cities (10.9% to 10.5%), Yorkshire and Humber (9.2% to 9.1%), Statistical Neighbours (10.1% to 9.67%) and England nationally (9.8% to 9.4%). The coverage for all comparators remained stable compared to 2009/10 data (see Figure 5).
- Whilst it is important to recognise the limitations associated with NCMP (see 3.2.2), and although Sheffield has consistently reported higher coverage for NCMP than national and regional comparators, the increases observed in both YR and Y6 data in 2010/11 are of concern. It is therefore essential that obesity remains high on the agenda for Sheffield in terms of public health priorities and that resource and effort remains focused on the vision of seeing obesity rates in the City falling in its young people.
- In addition, unpublished longitudinal data suggests direct measures of adiposity (such as waist circumference) are increasing at a greater rate than BMI (Griffiths, 2011). It is crucial therefore that tackling obesity remains a priority for the City.
- Of equal concern is data suggesting aerobic fitness has significantly declined in young people in the UK over the last decade (Boddy, Hackett & Stratton, 2010). Given cardio-respiratory fitness tracks from childhood into adulthood (Wedderkopp et al., 2004); poor fitness in childhood is likely to increase the risk of long-term health complications in later life. Increasing physical activity and improving cardio-respiratory fitness in young people as well as supporting them to achieve and maintain a healthy weight should remain a priority.

3.2.2 caveats to the ncmp analysis

- It is important to recognise that the findings reported here are based on analysis using the headline NCMP data for Sheffield. As such it does not provide a specific and causal picture of the impact of the work of *SLC4L*. For insights into this, readers are directed to strand level evaluations (section 5.0).
- When considering the impact of *SLC4L* on obesity prevalence data, it is also important to recognise that *SLC4L* did not target those considered overweight/obese at the time of the programme. Nor did it not focus exclusively on reducing overweight and obesity in YR and Y6 children. For example those children targeted through the breastfeeding strand of the *SLC4L* programme will not yet be in YR, and children engaged through the Stay on Site work in secondary schools were beyond Y6 at the point of intervention.
- Instead, the programme adopted a Universal as well as targetted approach with children, families and individuals across the lifespan. Therefore when viewing NCMP data trends, this should be taken into account. This leads to the intended school level analysis.
- Consideration was made in the evaluation plan to account for differences potentially resulting from *SLC4L* intervention at school level. Indeed, we had intended to present a summary of the analysis of NCMP data for matched schools (based on deprivation, socio-economic status and obesity status) with and without *SLC4L* interventions.
- However, in the final analysis only 19% of schools (22/118 on database⁵) didn't receive some form of *SLC4L* intervention. Therefore, we felt it inappropriate to confidently report outcomes and make assumptions about meaning based on school-level comparisons due to sample size.
- Moreover, we had concerns that any such comparisons would have been potentially misleading for policy makers and practitioners and therefore decided not to include this analysis in the final report.
- That said, school-level analysis confirmed that the programme had been particularly successful in providing a Universal approach to tackling overweight and obesity within schools. This is supported by the high percentage of schools receiving *SLC4L* programmes (81%).
- Furthermore, of those schools not receiving *SLC4L* intervention (n=22) only 6 (out of 42 schools) were from the lowest IMD quartile, confirming the programme had engaged with those most typically hard to reach.
- However, Y6 2010/11 NCMP data, comparing overweight and obesity prevalence for target 25 schools⁶ against Sheffield Average, suggests a significant difference still exists (Figure 5). This is despite the gap closing in 2009/10.

Figure 5: Y6 Obesity prevalence comparing target 25 schools against Sheffield average

- The picture is very similar for reception year, as depicted in Figure 6.

Figure 6: YR Obesity prevalence comparing target 25 schools against Sheffield average

⁵ NCMP database provided courtesy of NHS Sheffield

⁶ Target 25 refers to the top 25 schools in Sheffield based on prevalence of obesity and overweight.

- Data here suggests that although there is a need for a Universal approach to tackling obesity in light of high mean obesity data for Sheffield, it remains important that the gap between the Sheffield average and those with the highest rates of overweight and obesity in the City is closed through targeted intervention.
- Finally, in light of the difficulties encountered here using NCMP data for school-level evaluation, it is suggested that a longitudinal measurement programme of a consistent cohort of children would be better suited to evaluate the impact of future interventions in schools, than NCMP. With this in mind, the South Yorkshire cohort, established through the CLAHRC programme offers much potential (see section 6.0 for further details).

3.3 participation in sport and physical activity

- Increasing physical activity is central to addressing the health implications associated with overweight and obesity. In this section we provide brief comment on population level activity over the *SLC4L* period.

3.3.1 children's travel to school

- School census data is collected annually by Sheffield City Council, and records main mode of transport used to access school. There are two caveats to be borne in mind when analysing the pattern of children travelling to school.
- The first is the quality of the school census data, which in 2008 included some 8,700 children who did not state their preferred means of travelling to school. The second is that it is not possible to make a direct causal link between the effects of policy interventions relating to cycling in schools (Bike It, Cycling Proficiency) and changes in neighbourhood level data, since school catchments are not co-terminus with neighbourhood boundaries, and children do not always attend their nearest school.
- Thus the connection between school-based interventions and cycling or walking rates is only inferred. Bearing these points in mind it is pertinent to examine the city wide pattern of travel to school.
- Since 2008, there has been a significant increase in the proportion of children walking and cycling to school (see Figure 7). In 2008, 0.16% of pupils cycled and 56% walked to school, while 22.9% travelled by car. By 2011, the proportion of children cycling to school had increased to 0.24%, while 57% of pupils walked.

Figure 7: Self-reported travel to school data

- Over the same period, the proportion of children being driven to school fell to 20.7%. In essence, walking and cycling increased significantly, while car use fell.
- This should be viewed in the context of a nationwide reduction in car use as a result of rising petrol prices since 2008. Nevertheless, the significant increase in the number of pupils actively travelling to school is encouraging.

3.3.2 cycling to school and slc4l

- Though there has been a steady increase since 2008 in the number of children using a bike to get to school in Sheffield, the number of children cycling to school on a regular basis is still very low (<160) and accounts for fewer than 0.3% of children on the school roll.
- Almost two thirds of these children are at primary school, suggesting that the longer distance required to travel to access secondary school's is potentially a barrier.
- The neighbourhoods with the highest proportions of children cycling to school are Totley, Norton, Nether Edge, Brincliffe and Ecclesall. Each of these neighbourhoods is host to a Bike It school.
- Norton and Brincliffe were also the neighbourhoods which experienced the largest increases in children cycling to school between 2008 and 2011, along with Broomhill and New Parson Cross, though these increases were only in the order of 1%. There were falls of 1% in Dore, Millhouses and Endcliffe (See Figure 8).

Figure 8: Change in percentage of children cycling to school 2008-11

3.3.3 walking to school

- School census records indicate a significant citywide increase in the proportion of children walking to school, and this is reflected in Figure 9.
- While there is no clear pattern in terms of a disparity between different sides of the city, data for 2010 and 2011 shows a consistent distribution of neighbourhoods with high proportions of children walking to school.
- Crosspool, at 83%, has the highest walk to school rate in Sheffield, while the Rural Area (11.9%) to the west and Lodge Moor (19.1%) have the lowest. Areas which have seen notable increases between 2010 and 2011 include Bradway (7%), Sothall (9%), Beighton (8%), Waterthorpe (7%), Gleadless (8%) and Arbourthorne (6%).
- Neighbourhoods which saw a year on year reduction in walking rates include Broomhall (6%), Owlthorpe (3%), Acres Hill (6%), Darnall (4%), Park Hill (6%), Firth Park (4%) and Shirecliffe (3%).

Figure 9: Change in Percentage of Children in School Census stating that they walk to School, 2010-2011, by Neighbourhood

3.4 sedentary behaviours - screen time

- While this dataset was modelled in 2007, to the best of our knowledge there was no equivalent run for 2010, so it has not been possible to estimate change between the two time points.
- It is interesting to note however, that there is a clear split between the east and west of the city in terms of time spent watching television, with much higher rates in more deprived areas (see Figure 10).

Figure 10: Modelled consumption of television in the last 4 weeks, at neighbourhood level

3.5 better diet and nutrition

- In terms of better diet and nutrition the programme attempted to increase the number of children taking up school meals which was driven by the changes made to the school meal contract, so to favour health options.
- Figure 11 shows that the uptake of school meals in schools with *SLC4L* interventions is higher than the overall uptake rate.
- The trend in both rates is rising from a low point in 2008. If behavioural change is to be influenced by healthy meal choices in school, data here confirms that school meal uptake is one means by which this could be achieved.
- In terms of free school meals, Figure 12 highlights the change in the take up rate of free school meals as a proportion of those children who are entitled to receive them.

- The rate is consistently and significantly higher among children in schools with *SLC4L* interventions, despite a fall in 2011.
- This apparent fall is somewhat misleading however, since the actual number of children eligible for free school meals has risen year on year since 2008. There are now an extra 474 children taking up free school meals across the city compared with 2008, of which 559 attend schools with *SLC4L* interventions.
- When combining findings here with changes made to the school meal contract, so to favour health options, data is encouraging and suggests that *SLC4L* has made a positive and significant contribution to the future provision of healthy food for the Sheffield children who access school meals.

Figure 11: Comparison in paid school meal uptake between all schools and schools with *SLC4L* interventions

Figure 12: Comparison in free school meal uptake (as a % of those eligible) between all schools and schools with *SLC4L* interventions

3.6 satisfied stakeholders, value for money & sustainability

- Stakeholder response to *SLC4L* has been positive, particularly from participants in strand activities. For the purposes of brevity, strand specific examples can be found below.
- Briefly here, 93% of strand leads positively rated their engagement in *SLC4L*, 90% of mothers were extremely satisfied with the breastfeeding peer support service and participants in the living streets training reported *"having their eye's opened to the needs of their communities concerning barriers to physical activity"*.
- A 15% increase in young people's satisfaction with Sheffield's Parks and Green Spaces was also reported.
- In terms of wider stakeholders, the views of those attending *SLC4L* conference events in terms of whether *SLC4L* would have an impact on local obesity targets and policies is presented in Figure 13.

food glorious food
"an excellent display that can be related to on many levels, ideal for three generations to visit together and for schools. thanks for a very good learning experience that was also joyful" parent

Figure 13: Stakeholders opinions on the impact of *SLC4L* achieving targets and priorities

3.6.1 value for money

- A crude cost per contact summary using data from strand activities (i.e. attendance at food festival, *SLC4L* Schools, training & awareness) and evaluation studies (i.e. cohort) suggested a total of 253,912 contacts with individuals and families was achieved through *SLC4L*. This equates to a £34.96 per contact per year cost for the programme.
- Although a full cost-effectiveness study was outside the scope of this evaluation, an attempt has been made to provide an indication of project cost vs. outcomes achieved. This is presented in Table 2.

strand	strand cost (£)	project	project cost (£)	outputs (see section 5.0 for full details)	outcomes (see section 5.0 for full details)
breastfeeding (bf)	536,319	Peer Support & BF friendly status	536,319	- Breastfeeding support offered in all Sheffield children's centres (n=36) - Supported 7319 mothers to initiate breastfeeding 130 public places and 80 workplaces awarded BF friendly status	- BF initiation increased from 76.43-79.2% - BF prevalence increased from 44-54.7% - Mothers increased confidence to breastfeed in public - BF mothers in contact with peer support are more likely to meet BF maintenance target.
parents as positive role models	614,307	Food work	80,000	- Circa 20,000 people attended Sheffield food festival (FF) - Food Glorious food (FGF) welcomed 153,455 visitors, 192% above target.	93% had a positive experience at FF and 99% wanted another festival. 61% of sampled visitors to FGF, planned to make lifestyle changes as a result of exhibition
		Obesity training and awareness	347,737	- Training and awareness activities engaged over 8000 people via 1 1 public events and 23 workplace sessions	Significant (p<0.05) improvement in health professional's intention and confidence to influence the prevention and management of obesity with their patients.
		Healthy Choices Award	111,570	150 outlets were awarded the Healthy choices Award and of these 96% achieved BF friendly status - Introduction of a Loyalty card scheme for HCA members	- Opportunities to access healthy food options have increased markedly. - Steps made towards creating a BF friendly environment and enhanced mother's confidence to breastfeed in public places.
		Healthy early years	75,000	25 Children's centres completed Healthy early year's award.	Sheffield's children centres adopted Healthy early years award as the gold standard in promoting healthy lifestyles for children and families
schools	747,947	Promoting Physical Activity	160,562	24 schools engaged (96% of target), providing physical activity for over 1146 children > 550 children involved in weekly activities.	Significant (p<0.05) improvement in self-efficacy, attitude towards physical activity and behavioural intention observed.
		Social, Emotional and cultural aspects of food	71,855	School nutrition action plans developed initiate lunchtime changes	- Significant (p<0.05) improvement in the physical fitness of participants. - Enhanced social interaction and improved dining behaviour of children.

Table 2: Cost vs. output per strand

strand	strand cost (£)	project	project cost (£)	outputs (see section 5.0 for full details)	outcomes (see section 5.0 for full details)
schools continued		School fruit scheme	59,530	- Free Fruit Scheme established in 7 secondary schools 1730 pupils in Y7 receiving free fruit.	- Children motivated to eat healthy at baseline - Reduction in attitudes towards healthy eating post free fruit partly due to presentation of some of the fruit.
		Grow and cook clubs	246,000	94 schools involved in growing club support/clubs and 55 cooking clubs established. 7 schools acting as growing training hubs	Growing clubs yielded a significant increase in physical activity ($p<0.05$) including a 40% increase in active travel to school.
		includes young people's food & cookery	25,000	All 27 secondary schools trained to deliver 'Licence to Cook' ahead of legislation	A multitude of personal and social benefits were reported as a result of participation in the cooking clubs.
		Stay on site (SOS) and additional school meal uptake work	70,000 110,000	11 schools recruited to SOS programme - City School case study: 19 members of staff running extra-curricular clubs 41 clubs available during lunch 20 members of staff signed up to lunch-time patrols	- The SOS policies created a positive dining culture and increased the number of students staying in school at lunchtimes. - City school case study: - Reduction in pupils leaving school at lunch time 154/day to 20/day - Average school meal increase of 6% - Free school meal uptake increased 17% 50% reduction in queuing time
living neighbourhoods	509,444	Street Audits (including implementation fund)	339,255	- Living streets training delivered to 5 community areas - A total of 11 Living Streets Audits were completed in 12 areas 97 people trained to deliver street audits	55 health-related improvements to the physical environment were identified and implemented
		Bike It & Travel 4 Life	145,189	- Travel for life engaged with 17 schools and completed school audits relating to their local environment - The Bike It programme delivered in 31 primary schools with 24,265 pupils recorded as taking part in 2010	- Travel 4 Life contributed to a significant ($p<0.05$) increase in walking to school. - Significant ($p<0.05$) increase in cycling to school observed in Bike It schools. - Significant decrease in sedentary travel to school (5.7% in bus use and a 1.6% reduction in car use).

Table 2: Cost vs. output per strand

strand	strand cost (£)	project	project cost (£)	outputs (see section 5.0 for full details)	outcomes (see section 5.0 for full details)
living neighbourhoods continued		Walking maps	25,000	10 neighbourhood walking maps produced	- Concept considered excellent in public consultation with 86% positive about maps - Despite several attempts, no data returned on effect of maps upon walking behaviour
healthy open spaces	404,780	Active Parks	227,182	20 play sites were developed or improved	A 15% increase has been measured in young people's satisfaction with Sheffield's parks and green spaces
		Use of green spaces	177,598	36 community garden plots have been accessed and attended regularly 15 community garden tenants achieved an Open College Network qualification	Participants showed significant ($p<0.05$) improvements in growing skills and knowledge
social marketing	84,430	Change4life brand	82,207	Co-ordination of branding with the national change 4 life campaigns in support of the wider government initiative	A significant ($p<0.01$) increase in knowledge and awareness of the <i>SLC4L</i> brand was observed throughout the programme
		Delivery campaigns	2223	- <i>SLC4L</i> website developed - <i>SLC4L</i> has received local, national and international coverage including numerous academic and public health conferences and workshops. - Programme conferences attracted 400+ delegates from across the UK. 15 articles in Sheffield Star/Telegraph and 5 mentions on Radio Sheffield	- A significant ($p<0.01$) increase in knowledge and awareness of the <i>SLC4L</i> brand was observed throughout the programme 512 unique visitors to the site each month and has had 5353 visitors in total up to Aug 2011 84% of a sample ($n= 82$) of health professionals, practitioners and public health specialists reported that the programme had been well communicated with partners across the city.

Table 2: Cost vs. output per strand

strand	strand cost (£)	project	project cost (£)	outputs (see section 5.0 for full details)	outcomes (see section 5.0 for full details)
community health champions	255,546	Community health Champions	170,000	- Community Health Champions have completed over 12,000 hours of voluntary work in Sheffield's least healthy communities - Created 220 Community Health Champions through the <i>SLC4L</i> programme 11 host organisations involved 60 CHC underwent 1 to 1 training	59 Community Health Champions have obtained paid work with 48 in work relating to the training they have had as Champions 2325 people were recorded as being 'supported' by Community Health Champions - Those attending 1 to 1s reported significant ($p < 0.05$) improvements in physical activity, self-confidence and social isolation
		Community development health	85,546	ICDH training delivered to empower people to support themselves and others to make positive lifestyle changes	85% of participants reported making healthy food choices more often with a further 68% reporting that their family's food choices were also healthier - Participants reported significant ($p < 0.05$) improvement in self-confidence and emotional wellbeing 94% of participants correctly identified the recommended weekly intake for fruit and vegetables
cross sector innovation	231,985	Voucher scheme	62,000	Programme transferred to community health champions strand	
		Business broker	52,940	- Business (Health) Champion scheme established. - The Business Broker programme launched a wide variety of events promoting health-related activity in Sheffield workplaces.	8 large companies signed up for the Business Champion scheme and 693 people participated in weight management workshops - The project led to greater awareness within SCCI of health issues and the benefits to companies.
		Healthy urban planner	117,045	The Healthy Urban Planner integrated changes to the Sheffield Development Framework City Policies and Sites in favour of the promotion of health and well-being	- Progress made on identifying food deserts and promoting understanding of planning's role in reducing inequalities. - Difficult to quantify impact.

Table 2: Cost vs. output per strand

3.6.2 sustainability

- In terms of the sustainability of the *SLC4L* programme vision, maintaining political and senior leadership support and prioritising obesity in the strategic fabric of the City will be critical.
- This could be achieved through prioritisation of obesity within the Cities shared targets and policies, including the yet to be confirmed public health outcomes framework.
- The development of a multi-stakeholder City wide obesity strategy could also be an appropriate mechanism for translating the programme's vision and plans for sustainability into a commitment for action.
- However, overcoming the funding barriers and the likely need to also consider alternative agendas (e.g. social welfare issues) means plans for sustainability will require careful consideration and ownership from key partners across the City.
- Nevertheless it can be stated that a number of elements of the programme, such as the new Sheffield Development Framework which is expected to be in place until 2026, are expected to leave a sustainable legacy.
- Partnership working at board and operational level is also likely to have a positive impact on the obesity agenda at least in the short term.

4.0 theory of planned behaviour outcomes

- An attempt to understand the pre-determinants of change albeit from an individual perspective is a particular strength of the evaluation approach adopted here.
- To facilitate this, the theory of planned behaviour model was adopted to help make sense of why and how individuals and families might have changed their behaviour as a result of taking part or interacting with *SLC4L* and to explain changes in actual behaviour where they have been observed. For a fuller description of the model the reader is guided to appendix 2 of this report and Ajzen, (1991).
- Briefly here, the model suggests that our behaviours are a product of our attitudes, our willingness to comply with the social norms and our perceived confidence taking into account any barriers we might face. These aspects form what is called a behavioural intention and the stronger that intention, the more likely an individual is to perform a given behaviour.
- To help facilitate understanding, Figure 14 provides an example of how the model can be used to explain the increase in breastfeeding maintenance rates that were observed across the city during *SLC4L* (see section 5.2 for report on breastfeeding data).

Figure 14: Using the TPB to understand increases in breastfeeding maintenance rates

- The pink box is focused on evidence of encouraging attitudes that will influence women to be more in favour of breastfeeding. This includes making women aware that it's common, lots of women do it, it's cheaper, it has lots of beneficial effects for mother and the baby and that these benefits are long-term and that there are also some consequences of not breastfeeding, and so on.
- The turquoise box focuses on evidence of encouraging women to see breastfeeding as being a socially approved behaviour i.e. De-stigmatising breastfeeding, promoting breastfeeding as responsible behaviour, providing role models of breastfeeding mothers.
- The red box focuses on evidence of encouraging women to feel able to breastfeed, providing women with a sense of control over breastfeeding, providing support for breastfeeding such as peer support programmes, and removing barriers to breastfeeding by providing access to breastfeeding friendly workplaces and public places.

- Evidence of change in one or all of these aspects will provide an understanding of why behaviour change has occurred and so in the case of breastfeeding the changes described above help us understand why the breastfeeding maintenance rates might have increased across the city.
- Detailed data for strand level change in domains of behavioural intention can be found in the strand specific section of this report. As such the following provides a narrative overview of where changes to the pre-determinants of behaviour have occurred as a result of *SLC4L*.

4.1 change in attitudes towards adopting healthy behaviours

- Whilst it is important to recognise and account for the potential self-selection bias of participants the first key point to make here is that as a sample (n=1028) baseline scores for domains of behavioural intention were high (see Figure 15) across all strands.
- Data therefore suggests individuals appeared to view making healthy choices favourably at the point of access to the programme and presents an encouraging picture in terms of the potential acceptability of public health messages across the city.
- A strand level example of this is the targeted physical activity programme. Data suggests that pupils had very positive attitudes towards physical activity at point of entry indicating that the programme was engaging children for who exercise was already appealing but more importantly potentially failing to recruit those for whom it wasn't. Despite high scores at baseline, follow-up data from the Sharrow school pilot showed that participants attitudes and motivation to take part in physical activity had increased significantly over time ($p<0.05$). See section 5.4.4 of this report for more details.
- Cooking clubs, school nutrition action groups and growing clubs also improved the attitudes of children and parents towards healthy eating and physical activity.
- Mothers receiving peer support reported more favourable attitudes towards breastfeeding and paired t-tests revealed a significant ($p<0.05$) increase in the attitudes towards healthy lifestyle choices of employees who had taken part in the workplace training & awareness activities.
- Conversely, children receiving free fruit reported a decrease in attitudes towards healthy eating which data revealed was most likely due to the presentation of the food as opposed to a general dislike of the fruit per se.
- Clients accessing the community health champions 1-to-1 scheme also reported wanting sustainable lifestyle options rather than a quick fix such as a cash bursary and these short term approaches appeared to be a negative influence on the initiation of health behaviour change.

Figure 15: Baseline scores as a whole sample for domains of behavioural intention

4.2 healthy choices as being a socially approved behaviour

- In terms of encouraging healthy choices as being a socially approved behaviour there is much evidence to suggest that the programme has had a broad and positive impact.
- Significant increases in measures of subjective norm have been observed in a number of the strand level interventions. Targeted physical activity, growing clubs, the cohort study and cooking clubs all reported making a positive contribution to an individual's desire to comply with the social norms of making healthy choices that were presented in these programmes.
- Policies in schools such as stay on site and school nutrition action groups (SNAG's) have also positively influenced the culture of children dining in school which has enhanced social interaction and improved the dining behaviour of the children as a result.
- The healthy choices award has been presented to 150 outlets while 210 have achieved baby friendly status. This has contributed to creating a normative environment where healthy choices are available across the city.
- The extension of the breastfeeding peer support programme to all children's centres and the coverage of community health champions have strengthened the number of positive role models in the city which has been shown in previous research to be an important part of supporting socially approved behaviours (Cardinal, 2001; Rogers et.al., 2006).
- The brand of *SLC4L* appears to have done much to foster a consistent and normative message about healthy lifestyles and based on a sample of 1775 participants, a significant increase ($p<0.05$) in the awareness and understanding of the *SLC4L* was observed over the lifetime of the project.
- In light of the reported knowledge and awareness of the *SLC4L* brand, it will be important that the messages associated with it are maintained within the social structure of the city.
- However, there is work to be done to engage parents in the debate. Data suggested that recruitment and retention difficulties were encountered by some of the school club activities involving parents.
- As part of the training and awareness programme, parents were also invited to attend family run sessions following the receipt of letters from the National Child Measurement Program but despite 7 events organised, no parents attended. The timing of these sessions was perhaps a factor given a clash with a period of school leave. Nevertheless, efforts to utilise parents to model healthy behaviours to their children will do much to enhance the social acceptability of healthy living across the City.

4.3 changes in perceived confidence

- One of the strongest determinants of future behaviour is an individual's perceived confidence (Ajzen 1990). Therefore, empowering individuals with a sense of control over their choices and providing opportunities to gain positive experiences of health promoting behaviours seems particularly important.
- This has been the case for many of the programmes within *SLC4L*. Data revealed that increases in physical activity that were observed with targeted physical activity & growing clubs and increases in breastfeeding maintenance were largely explained by increases in perceived behavioural control.
- Participation in the ICDH programme resulted in a significant increase in confidence which translated into 85% of participants reporting making healthy food choices more often (Figure 16).

Figure 16: Outcomes from participation in the ICDH programme

- Interview data from individuals supported by community health champions and breastfeeding peer support workers highlight how these programmes have empowered people into positive lifestyle behaviours (see Figure 17).
- Whilst increases in confidence can do much to support individuals into new behaviours, there was evidence that cognitive change was not always accompanied by behavioural change.
- Data from the food glorious food exhibition identified that of those who reported thinking about making a change, 32% were not sure how to go about it. Furthermore, despite some parent cooking clubs providing a multitude of personal and social benefits some participants reported implementing change really difficult.
- What is clear from the data here, which is also supported by the literature is that strategies are required which actively seek to provide the skills necessary to help individuals plan and prioritise health promoting behaviours in order to close the gap between their intention to make healthy choices and their actual implementation of their positive intentions (Orbell & Sheeran, 1998).
- When individuals are ready to change the provision of high quality accurate information and signposting to appropriate support is therefore critical. Whilst there are some good examples of this within this programme such as breastfeeding peer support and community health champions to name but two, support structures were often in the form of individuals. Moving forwards support could equally consist of the acquisition of lifestyle skills for intervention participants such as better time management and strategies to help make change happen.

breastfeeding

"i find the thought of breastfeeding embarrassing and to watch breastfeeding is embarrassing... without support i might not have maintained breastfeeding"
breastfeeding mum

community health champion

"walking with the group is easier to keep motivated, make friends and reduce stress. i'm doing a walk leader course which will give me more knowledge and confidence"
health champion

Figure 17: Participant feedback on the impact of breastfeeding peer support and community health champions

4.4 overcoming barriers to change

- The final facet to consider in identifying the pre-determinants for behaviour change is overcoming barriers to change and this has been one of the strengths of the systems approach of *SLC4L*.
- Community street audits have challenged barriers to activity in the physical environment of communities including drop kerb installations, improved street lighting, and the provision and distribution of dog-poo bags.
- The extension of the breastfeeding peer support programme, the coverage of community health champions and the introduction of Business Health Champions has strengthened the number of positive role models in the city, contributed to a significant ($p < 0.05$) increase in awareness of the *SLC4L* brand and helped overcome barriers to accessing supportive information and in doing so helped individuals and workplaces to implement new behaviours.
- Data suggests that the universal training and awareness programme has also done much to de-stigmatise the conversation of obesity between professional and patient and challenge commonly held beliefs regarding obesity and overweight.
- Furthermore, a paired sample t-test revealed significant differences in professionals attitudes before and after training in intention to prioritise tackling obesity ($p = 0.005$) and confidence to influence the prevention and management of obesity ($p = 0.003$), within their role. However, more evidence is required to assess the long-term impact of such interventions given the limitations of the research design adopted here.

4.5 tpb summary

- The interaction between *SLC4L* programmes of activity through a whole systems approach certainly strengthens the message of the importance of obesity prevention and there is clear evidence that such an approach has fostered an intention to adopt healthy behaviours amongst those who participated in the programme.
- It is of course important to be mindful of the potential self-selection bias of those taking part however an emerging trend was the tension between wanting to make healthy choices and being able to implement these choices.
- It might therefore be the case that the tone of the message towards the promotion of healthy behaviour needs to change and an emphasis be placed on 'helping people implement intentions' as opposed to simply telling them being healthy is a good idea.
- Part of this effort should also focus on supporting parents to model healthy behaviours to their children and thereby enhancing the social acceptability of healthy living within the City.
- In terms of commissioned intervention activities, these should also embed strategies to support motivated individuals and their families to 'implement their intentions' to make healthy choices.
- The brand of *SLC4L* appears to have done much to foster a consistent and normative message about healthy lifestyles and it will be important that these messages are maintained within the social structure of the city. Furthermore, maintaining a shift in focus away from individual risk factors for obesity or isolated interventions and considering simultaneously, the factors identified in the Foresight obesity systems map (Foresight, 2007) should be central to the city's policies on obesity moving forward.

5.0 strand by strand review of interventions and research findings

5.1 introduction

- The following section provides a critical review and analysis of *SLC4L* on an individual strand-level basis.
- This evaluation comprised the use of routinely collected data and independent studies undertaken by the evaluation team and considers data up until March 2011 (programme end).
- The 'take home' messages from each strand are presented at the beginning of each strand section. A short introduction, accompanied by the strand aims and objectives and area of influence according to the foresight systems map is then provided.
- Given the volume of activity that occurred under the banner of *SLC4L*, strand background and delivery specifics have been kept purposefully brief. Details of each strand of work have been reported previously (Sheffield Lets Change 4 Life conferences in March 2010 and November 2010) and readers are guided to <http://www.sheffieldc4l.org.uk/about/conference/> for further information.
- A discussion of the progress and success of strand activity against stated outcomes and outputs is then presented. Where strands have undergone additional evaluation activity the method, results and key findings are outlined.

5.2 creating a breastfeeding friendly city

5.2.1 take home messages

- **a programme of breastfeeding awareness & peer support has contributed to a city wide increase in;**
  - Breastfeeding initiation rates (76.43% to 79.2%)
  - Breastfeeding prevalence at 6-8 weeks post birth (44% to 54.7%)
  - Confidence of mothers to breastfeed in public
- **breastfeeding mothers who are in contact with peer support are more likely to meet the 6-8 week maintenance target**
- **although breastfeeding maintenance is increasing, the health inequality gap is widening. this suggests that a targeted approach to breastfeeding peer support with particularly low prevalence groups might be beneficial**
- **clear exit strategies are required to signpost non breastfeeding mothers with an established breastfeeding routine, to alternative sources of support**
- **sheffield successful in achieving the unicef stage 2 award**

5.2.2 strand introduction

- Evidence shows that breastfeeding plays an important role in the prevention and management of obesity (<http://www.babyfriendly.org.uk>).
- Breastfeeding is one of the Recommended Community Strategies and Measurements to Prevent Obesity in the United States from the National Centre for Chronic Disease Prevention and Health Promotion <http://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>.

- At the time of *SLC4L*, Sheffield was already working towards UNICEF Baby Friendly status. The *SLC4L* Programme aimed to take the promotion of breastfeeding beyond healthcare settings to locally accredit public buildings, parks, libraries and retailers as part of a campaign to change the culture to make breastfeeding the norm in Sheffield.
- The *SLC4L* funding also aimed to expand the breastfeeding peer support model to 'an industrial scale' to provide greater access across the City which included the provision of a peer support worker in every Children's Centre.

5.2.2.1 aim

- Make Sheffield a Breastfeeding Friendly City

5.2.2.2 objectives

1. Deliver a Breastfeeding Peer Support service across the city to increase breastfeeding prevalence and duration.
2. Undertake social marketing insight to investigate the barriers and motivations to breastfeed in Sheffield and develop and deliver a social marketing campaign based on this insight.
3. Develop and deliver the Breastfeeding Friendly Award working with local public venues and workplaces across the city to develop practice that supports breastfeeding mothers.

5.2.2.3 link to the foresight obesity systems map

- This strand of activities focused on influencing some of the identified causal relationships within the psychological (self-esteem, social interaction, education) and physiological clusters (breastfeeding, child growth, early life feeding).

5.2.3 breastfeeding peer support programme

5.2.3.1 progress against outcomes and outputs

- A strong component of '*making Sheffield a breastfeeding friendly city*' was the breastfeeding peer support programme. Breastfeeding peer support is an approach in which women who have personal and practical experience of breastfeeding offer support to new mothers or mothers-to-be in a group or 1-to-1 setting.
- The service includes; ante-natal support, contact 48 hours from discharge from maternity unit, breastfeeding drop in sessions and baby massage classes.
- Through *SLC4L*, breastfeeding peer support is now offered in each of the Cities 36 children's centres. This represents 100% of the target.
- The primary outcome used to assess the impact of the peer support service was city-wide breastfeeding maintenance figures at 6-8 weeks post birth. In September 2010, Sheffield reached a 54.7% prevalence rate which exceeded the original target of 44% and the revised target of 50%.
- This represents a 2% increase in breastfeeding at 6-8 weeks in 2009/10 and 2010/11. The latest figures of 51.8% (Q1 2011) confirm that the rate is still above target.
- Although breastfeeding maintenance at 6-8 weeks is increasing as a city average, the health inequality gap is widening as can be seen in Figure 18. This suggests that a tailored approach to breastfeeding peer support might be beneficial.
- Supporting 13,000 mothers to initiate breastfeeding was also identified as a key indicator of performance for the peer support service. However, throughout the duration of the programme, the total of new mothers was only 9442. Thus the target was not achievable. Of the 9442 mothers, 7319 initiated breastfeeding (77.5%).
- For the year prior to peer support (quarter (Q)3 2008 - Q2 2009), the mean percentage breastfeeding initiation rate for the city was 76.43%.
- After peer support (Q3 2009 - Q2 2010) this figure increased to 77.38%. At the time of this report initiations rates were 79.2%.
- In January 2011 the PCT and Local Authority were successful in achieving the UNICEF stage 2 award. Stage 3 of this accreditation is in progress with the aim for Sheffield to be accredited by September 2012.

Figure 18: Percentage of babies coming up to 8 weeks old, who are known to have been receiving breast milk at 6-8 weeks

5.2.3.2 impact on breastfeeding for mothers known to have accessed peer support

- All data recorded on the peer support service has been supplied by the service provider. Data only includes mothers who have actively engaged with the service.
- Initial delays experienced by the service provider in setting up the data collection process resulted in service data only being available for Q2 and Q3 2010/11, (July to December).
- During that period, 2162 mothers entered the peer support service with 1126 contactable at 6-8 week follow-up. Of these, 82.3% (927) reported breastfeeding at 6-8 weeks. This equates to 42.9% of all those entering the service.
- Due to the delays in data collection it is inappropriate to draw any firm conclusions as to the extent to which the peer support service met the original target of supporting 6500 new mothers to maintain at 6-8 weeks. However, the 82.3% maintenance rate is extremely encouraging.
- The data currently collected by the service provider to assess the impact of the peer support service only reflects the breastfeeding behaviour of those mothers who respond (i.e. answer the phone) at the time-points of breastfeeding assessment (48 hours, 10 days and 6-8 weeks). It does not reflect the type, frequency or quality of support that the mothers receive.
- With this in mind, it is suggested that city level data is used to assess breastfeeding initiation and 6-8 week maintenance and the service focuses on collecting data that reflects the peer support journey for mothers. This should be city-wide and held centrally.
- This could include; assessing which aspects of peer support are most beneficial and for whom, identifying areas for service development, and gaining greater insight into the experiences of mothers receiving peer support.
- It is likely that such an approach would reduce the burden of data collection on the peer support service but moreover provide information with which to enhance the offer.

5.2.3.3 the experiences of mothers receiving peer support

- To better understand mother's experiences of receiving peer support and explore the impact of the programme on breastfeeding status, a cross-sectional study was conducted with a convenient sample of 380 mothers recruited from 36 children centres across the city. (The full report can be accessed by contacting NHS Sheffield).
- The sample consisted of 46 (12%) mothers aged 18-24 years; 251 (66%) aged 25-34 years; 72 (19%) aged 35-44 years, 11 (3%) 45 years and older. In total, 338 (89%) were white ethnic origin; 15 (4%) Pakistani and 8 (2%) Indian, 19 (5%) classed as 'Other'.
- All Peer support workers were asked to complete a questionnaire with every mother they were in contact with during a two week period in September/October 2010.
- In addition, a workshop with breastfeeding peer support staff captured the thoughts and experiences of those delivering the programme to date.

5.2.4 main findings

- The sample (n=380) reported the peer support programme to have a positive impact on a number of variables such as helping mothers to initiate breastfeeding, providing aspects of social support and increasing the self-confidence of those mothers engaged.
- A total of 78% of mothers (297 out of 380) self-reported currently breastfeeding with 42% of these reporting either meeting or exceeding the Sheffield city breastfeeding maintenance target of 8 weeks.
- The mean duration of breastfeeding for these 297 mothers was 12 weeks (90 days) and they reported that the programme had had a marked impact on their ability to maintain breastfeeding.
- Encouragingly 77% of all mothers who are currently breastfeeding, reported feeling confident enough to be able to breastfeed in public.

- 6.5% (24 out of 380) of mothers reported never breastfeeding. It is unknown why these mothers are engaging in peer support.
- As a sample (n=380), mothers attending peer support found the information provided and help received from the peer support worker, to be the most useful elements of the service.
- Although differences in usefulness of the service were noted based on breastfeeding status, results suggest the vast majority of mother's are extremely satisfied with the peer support service (see Figure 19)

Figure 19: Mother's attitude regarding satisfaction and usefulness of peer support

- In October 2010 the evaluation team delivered a workshop with all members of staff involved with breastfeeding peer support worker's to capture thoughts and experiences in delivering the programme so far.
- The team were asked to write their individual responses to the following four questions:

1. Tell us what has gone well so far (think about your role and and/or your Involvement with the service)
2. Tell us any issues you have had about delivering the service to date
3. Tell us about any support you need to perform your job better
4. How do you feel your role contributes to Sheffield - Let's change4life programme

- Many of the responses around achievements in delivering the service to date related to:

"raising awareness and support for the peer support program" and "establishing groups/cafes across the city to encourage more mothers to engage"

- Although many of the comments were positive, workshop data revealed issues regarding the administration burden of delivering peer support, a lack of training received and the high turnover of staff leading to stress amongst team members.
- To tackle these issues, the peer support workers suggested;

"wider bank of staff on hand to support home visits and to cover sickness"

"improvement in communication and more time to complete paperwork"

5.2.5 discussion

- The findings of this evaluation suggest mothers who are in contact with peer support and initiate breastfeeding, are more likely to meet and exceed the 6-8 week Sheffield maintenance target.
- This is particularly encouraging given the World Health Organisation, (WHO, 2003) recommends supporting mothers to breastfeed for at least 12 months. It is important to note however, that data presented here is not sufficiently robust to make a direct comparison with the city wide prevalence data at 6-8 weeks (50.9%).
- The data also demonstrates the significance of peer support during ante natal care on initiation rates for breastfeeding. Mothers considering breastfeeding in this sample said that the service provided them with the education and confidence needed to initiate breastfeeding from birth.
- Currently, the peer support programme adopts a one size fits all approach city wide. However, data here suggests that a tailored approach to the service might provide a more effective and potentially cost-effective model.
- It was evident that mothers had different needs depending on their breastfeeding status and therefore a clear pathway of signposting would be recommended to ensure natural progression through the service to receive appropriate support for their stage of breastfeeding.
- It is recommended that clear exit and/or referral strategies are developed to signpost non breastfeeding mothers, or mothers with an established breastfeeding routine, to alternative sources of support.

5.2.6 breastfeeding insights & social marketing - progress against outcomes and outputs

- A Breastfeeding Insights & Social Marketing commission was awarded to 'Ci Research' and 'The Hub' marketing company *"To determine perceptions, attitudes and behaviours in relation to breastfeeding in Sheffield and to make recommendations in order to encourage more women to initiate and maintain breastfeeding"*
- The research concentrated on ten priority neighbourhood areas, defined in terms of low breastfeeding initiation rates and high deprivation indices. Key recommendations were as follows;
- In terms of improving the general perceptions of breastfeeding in public, educating people about the value of breastfeeding, a more detailed understanding of the range of health benefits and working with schools and colleges to educate the younger generation about breastfeeding was suggested.
- Recommendations focusing on encouraging more mothers to initiate and continue breastfeeding include ensuring all women understand the value of breastfeeding at an early stage in pregnancy; provide support immediately after birth to ensure mothers learn correct techniques and health professionals to work closely with key influencers regarding their role in supporting the mother.
- The full report from 'Ci Research' and 'The Hub' marketing can be accessed via NHS Sheffield.

5.2.7 breastfeeding friendly city award - progress against outcomes and outputs

- To encourage a supportive breastfeeding culture across Sheffield there was a recognised need to focus on public places and retail outlets.
- Work here focused on promoting breastfeeding friendly facilities in Sheffield public places and businesses including restaurants, cafes and workplaces in the form of a Breastfeeding Friendly Award.
- The Breastfeeding Friendly Public Place Award was given to those venues that could demonstrate that mothers could breastfeed their children in a safe and comfortable environment with the full support of their staff.
- The programme awarded 130 public places and 80 workplaces with the Breastfeeding Friendly award representing 43% of the 300 target for public places and 80% of the workplace target of 100.
- Data collected by the evaluation team suggests that the burden of reporting and moreover reporting to a number of partners contributed somewhat to the shortfall in the target.
- Although we have observed an increase in Breastfeeding rates in the City, it is not possible to determine the extent to which increases have resulted from the Breastfeeding Friendly award. Instead, we rely on previous studies which confirm the importance of a reinforcing environment to promote breastfeeding to substantiate the impact of this aspect of Sheffield - Let's change4life (http://www.unicef.org.uk/Documents/Baby_Friendly/Infosheets/effectiveness_infosheet.pdf)

5.3 parents as positive role models

5.3.1 take home messages

- **sheffield children's centres have adopted the healthy early years award as the 'gold standard' in promoting healthy lifestyles for children and families.**
- **training and awareness activities engaged over 8000 people. a significant ($p < 0.05$) improvement in health professional's intention to prioritise tackling obesity and confidence to influence the prevention and management of obesity with their patients was observed.**
- **a total of 150 outlets awarded the healthy choices mark with 96% of these, also achieving baby friendly status.**
- **sheffield food festival attracted 20,000 visitors. providing tailored versions of the sheffield food plan might increase ownership.**
- **food glorious food welcomed 153,455 visitors, 192% over the original target. a sample of 102 visitors suggested 61% planned to make lifestyle changes as a result of the exhibition. however, data also identified a need to provide more information about services in sheffield that can help with lifestyle change at the point of decision**

5.3.2 strand introduction

- Parental obesity is a key risk factor for childhood obesity and this strand aimed to encourage mothers and fathers to undertake more physical activity and understand dietary requirements in order to address parental and childhood obesity.
- The Avon Longitudinal Study of Parents and Children (ALSPAC) obesity study has provided the evidence for this activity (<http://www.bristol.ac.uk/alspac/>), and is in line with the Recommended Community Strategies and Measurements to Prevent Obesity in the United States from the National Centre for Chronic Disease Prevention and Health Promotion <http://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>

5.3.2.1 aim

To empower parents of young children to become positive role models for healthy living.

5.3.2.2 objectives

1. Commission social marketing insight and implementation around preconception and Dads as positive role models.
2. Deliver a staff training and public awareness raising programme across Sheffield, to increase awareness, knowledge and skills around prevention and treatment of overweight and obesity in children, young people and families.
3. Develop and implement a City wide Food Programme, plan and deliver the first Sheffield Food Festival celebrating the food and culture of Sheffield with a focus on health, the environment and the economy.
4. Support Museum Sheffield's *Food Glorious Food* exhibition, city-wide learning and engagement programme and exhibition, with peoples' stories and experiences of food at its heart.
5. Develop and deliver the Healthy Early Years (HEY) accreditation programme across the city.
6. Expand the Healthy Choices Award for restaurants and caterers across Sheffield who offer their customers a choice of healthier options as part of their menu.

5.3.2.3 link to the foresight obesity systems map

- This strand of activities focused on influencing some of the identified causal relationships within the food production (taste, demand for healthy food, costs of food, availability of food, advertising, time pressures, portion sizes), food consumption (convenience, nutritional quality, variety, exposure, abundance, portion size, eating patterns, grazing etc) and psychological clusters (Food literacy, self-esteem, social interaction, child-parent relationships, media, education, peer pressure and understanding of obesity as a disease).

5.3.3 healthy early years award, (hey) and training scheme

- progress against outcomes and outputs

- HEY is an accreditation scheme which aims to assure the quality of the promotion of physical and emotional health in Sheffield early years settings.
- A total of 25 Children's Centres, 5 Private and Voluntary settings and 29 Child-minders had either completed the award or were working towards completion at the time of this report. This represents 69% of the children's centre target and 170% of the other settings across the Early Years Sector target.
- In addition, a further 43 settings have indicated that they wish to work towards the award in 2011/12.
- The award has been adopted by the Children's centres as the 'gold standard' in promoting and adopting healthy lifestyles for children and families accessing their services.
- The target of 90 Early Years and Health Practitioners to be trained and resourced to provide Active Start sessions was not achieved and indeed the target removed early into the project. This was due to lack of appetite locally for the training, which highlights the difficulties in embedding new methods within existing services.

5.3.4 obesity training and awareness programme

5.3.4.1 progress against outcomes and outputs

- Carnegie weight management⁷ were commissioned to deliver a city wide obesity training and awareness programme for professionals, parents, families and the general public.
- Training & awareness activities actively engaged with over 8000 individuals across Sheffield. The definition for 'actively engaged' was that people must participate in an activity rather than simply attend. Therefore, the term engaged is used here in the broadest sense.
- 11 public events (92% of the target of 12) were delivered with 4849 people. The number of people engaged exceeded the target (n=1000) by 485%.
- In addition, 1912 people attended Family Focussed Sessions and 700 within Parent Sessions.
- Parents were also invited to attend family run sessions following the receipt of letters from the National Child Measurement Program. Despite 7 events organised, no parents attended. This highlights a specific need to better communicate the use of NCMP to parents and engage them in the process to a greater extent.
- In terms of the workplace, 23 sessions were delivered with 693 employees. This represents 383% of the target (n=6) for events and 462% of the target (150) for individuals engaged in the workplace.
- The abundance of extra sessions delivered here were due to an identified need and in terms of the workplace, a successful partnership with the Healthy Business Co-ordinator. These revisions were able to be accommodated within the financial envelope due to efficiencies of delivery, economies of scale, and the flexible nature of the programme.

5.3.4.2 training of professionals whose role links to obesity

- One of the key aspects of the training and awareness programme was engagement with professionals whose role has a direct link to obesity in young people i.e. school nurses.
- Against a target of 400, a total of 571(143%) professionals accessed the training. Of these 321 undertook core training and 250 the enhanced. This is a significant over delivery on the original targets. It demonstrates the need for the service and the willingness of professionals to be involved.
- Theory of planned behaviour data collected at point of entry to the training revealed that as a sample (n=166) those engaging with the training and awareness programme were unsurprisingly highly motivated to adopt health promoting behaviours (See figure 20).
- Interestingly, members of the public who were sampled during open display sessions (n=71) reported being more motivated than health professionals (n=65) to promote and engage in healthy lifestyles.
- Notwithstanding the presence of researcher and self-selection bias, as well as the small sample size, one explanation for the data here is that the professionals have a better understanding of the process of changing behaviour and thus their responses are perhaps more realistic. If this be the case, there appears a need to improve the effectiveness of the behaviour change strategies that professionals currently employ and provide opportunities for them to gain a sense of efficacy from using them with clients.
- Previous studies investigating views of treatment deliverers (i.e. nurses, doctors and therapists) and treatment recipients (Lester, 2005; Pellatt, 2007; Pryor & O'Connell, 2008) have also identified this gap. Moreover, this has been observed in programmes focused on the prevention and treatment of childhood obesity (See Staniford, Breckon, Copeland & Hutchison, 2011).
- It is clear that a gap exists between professional's intention and that of the public regarding lifestyle behaviour change.

⁷ Carnegie weight management changed their trading name to 'More-Life' in 2012.

Figure 20: Comparison of Theory of planned behaviour at point of entry to training

5.3.4.3 the impact of training on health professionals

- To explore the impact of the training and awareness programme on health professional's attitudes and professional practice in obesity, a convenient sample of 14 professionals who were undertaking the training were recruited. The evaluation team had requested data to be collected at each training session; however an administration error by the delivery team meant that only a small sample was recruited.
- From communication with the training and awareness delivery team we are also aware that some participants engaged and completed the training, but did not engage or complete the evaluation. Therefore, there is a potential self-selection bias in the data.
- All participants were female and based in Sheffield for work. Nearly all (93%) had a strong element of interaction with families and young people as part of their role with 71% reporting providing physical activity and nutrition advice on a regular basis with clients.
- Attitudes and confidence towards managing and tackling obesity, importance of promoting healthy lifestyles and domains of behavioural intention were assessed via questionnaire before and after training.
- Results suggested 64% had an increased awareness of the issues relating to obesity, 57% had an increased ability to initiate conversations with parents about their children's weight and 71% confirmed that they had an increased knowledge of the support services available to overweight and obese children in Sheffield.
- A paired sample t-test revealed significant differences before (4.02 ± 1.27) and after (4.74 ± 1.52) training in intention to prioritise tackling obesity ($p=0.005$) and confidence (3.77 ± 0.49 vs. 4.30 ± 0.73) to influence the prevention and management of obesity ($p=0.003$), within their role.
- No significant change was observed for the domain of subjective norm ($p=0.266$) and a marginal significant change ($p=0.07$) was observed in the attitude of professionals towards being involved in tackling obesity at work.
- Data here suggests that the programme of training and awareness had a significant and immediate impact on health professional's confidence and intention to tackle obesity within their work role. That said it is important to be mindful of

the small and limited diversity of the sample, the immediacy of follow-up, potential self-selection bias and lack of longer term assessment.

- Although the limited evaluation of the training and awareness programme presented here suggests that there is much to commend these programmes as part of a core training offer for professionals who work with families and young people, longer term follow-up with a broader sample is required to better understand the potential of this service.

5.3.5 healthy choices award - progress against outcomes and outputs

- The Healthy Choices Award gives recognition to caterers across Sheffield who provide customers with a choice of healthy options as part of their menu.
- At the time of this report 150 outlets have achieved the award which represents a 75% contribution to the revised target of 200 retailers and 150% of the original target of 100. These include some of the city's larger employers (John Lewis) and also SME's (Nonna's) suggesting that the project has a broad appeal.
- In addition, 96% of the Healthy Choice award holders also achieved baby friendly status. This confirms; willingness for employers to take on the 'systems' messages promoted through Sheffield Let's Change4Life, highlights internal partnerships and cross project working and reinforces Sheffield becoming a breastfeeding friendly city.
- The Healthy Choices Award scheme also introduced a loyalty card to reward members of the public for making healthy choices in accredited venues. Whilst it was the intention to assess the impact of the Healthy Choices award (including the loyalty card) on businesses attitudes towards healthy eating and behavioural changes adopted by the public, no evaluation questionnaires were returned, despite being distributed to all outlets.
- A number of attempts were made by the evaluation team and the project workers to collect data in relation to the loyalty card aspect of the strand, but with no success. This demonstrates the difficulty of assessing pragmatic interventions and the lack of data here is frustrating.
- With hindsight, it might have been more appropriate to embed the evaluation within the award process or offer an on-line evaluation facility. However, both of these options would have required an increase in time and associated financial investment.

5.3.6 sheffield food plan & festival - progress against outcomes and outputs

- The Sheffield Food Plan aimed to ensure that Sheffield had a co-ordinated approach to food. This included establishing ownership from organisations across the Sheffield First Partnership, being recognised as a model of national best practice and securing senior level commitment to deliver the plan and ensure sustainability.
- According to the project logic model and timeline, the Food Plan should have been implemented by November 2010. However, a delay in appointing the Food Plan consultant and changes in the political landscape occurring within Sheffield City Council had a direct influence on the project timescales.
- Consequently at the time this report, a draft version of the food plan had been agreed and undergone public consultation (in which over 400 children were engaged) but the plan was still awaiting implementation.
- Despite delays in the project, the Food Plan has produced a number of positive outcomes. These include; positive changes to the Sheffield school meals contract and securing funding from the Rural Communities Strategy to develop a Sheffield Food campaign brand with local food producers.
- The Delivery of a city wide Food Festival was also achieved in June 2010 and again in July 2011. These events attracted over 20,000 people to Sheffield city centre on each occasion.
- In 2010, 40 local food businesses and approximately 25 local chefs were involved. *SLC4L* strands also contributed including a 100 Calorie Shop and the Healthy Choices Award, as well as opportunities to find out about growing your own food.
- Data from the 2010 festival suggested that 93% of people interviewed had a positive experience with 99% wanting the Festival to continue annually in the City.

- During the 2010 Food Festival, the evaluation team conducted a small nested study to explore different stakeholder's views regarding the Food Plan. The purpose of this study was to identify factors for successful implementation and sustainability of the Food Plan and ascertain to what extent stakeholders were prepared to take ownership of the new strategy.

5.3.7 method

- A survey with 33 respondents from community, voluntary, private and public sector was conducted during the Sheffield Food Festival 2010-11. See Figure 21 for the sector distribution.

Figure 21: Sector distribution for Food Plan Survey

- In addition, 5 semi-structured interviews with stakeholders from private and voluntary sector were carried out at the Sheffield Food Festival 2010-11.
- The highest proportion of respondents in a management position was found in the private sector (9/15), owing to a high representation of small businesses, whereas the highest proportion of employees (5/10) was found among the public sector respondents.

5.3.8 results and discussion

- Survey data showed that the majority of respondents (63.6%) were aware of the Food Plan despite little information being publicly available at the time. Private sector respondents were least aware of the Food Plan of those sectors represented.
- Of the respondents, 58% agreed and 21% agreed strongly that the Food Plan would become important for their work; although 73% perceived that they would have little influence on its content.

- Interviewees expressed stakeholders taking ownership of the Food Plan to be crucial for successful implementation and sustainability.
- Strong partnerships were considered to be particularly important for community/voluntary organisations and necessary for the Food Plan to have a long-term impact on health in the city.
- A large proportion (80%) of those interviewed, regardless of sector, mentioned funding as a major factor to make implementation possible and expressed their concern for implementation if funding not be secured.
- Data here revealed that the strategic aims of the Food Plan are of interest to stakeholders on a personal and organisational level despite little information being available at the time of this study (June 2010). How this engagement is enhanced and turned into active support for implementation, evaluation and sustainability, is a key challenge for the Food Plan to succeed.
- With this in mind, consultation with a wide range of stakeholders should be an on-going process throughout implementation and evaluation.
- Enhancing stakeholder ownership should be a focus for successful Food Plan implementation, evaluation and sustainability. To do this, it is important to recognise that organisations might be more prepared to take ownership of the plans strategic aims if they relate to the services they provide.
- Concern was expressed that the Food Plan in reality might simply add extra meetings and administration to already limited time frames. To avoid this, building the Food Plan delivery on already existing initiatives to profit from knowledge about target groups that local workers have is recommended.
- In terms of sustainability, involving the business sector to sponsor Food Plan actions/initiatives and showing the benefits to business in terms of revenue through Food Plan events is considered important.
- Crucial for the Food Plan to succeed appears to be ensuring that it is attractive and accessible to all stakeholders. Presenting and communicating target group tailored versions of the Food Plan might increase the chances of people and organisations taking ownership of its ideas.

5.3.9 food glorious food - progress against outcomes and outputs

- Food Glorious Food (FGF) was a city-wide learning and engagement programme and exhibition which aimed to offer an opportunity for people from diverse social and cultural backgrounds to be involved in a series of experiences focused on the customs and cultures of food.
- The exhibition took place at Weston Park Museum, Sheffield with a Community outreach programme running across the city. During its 8-month period the exhibition welcomed 153,455 visitors, 192% over the original target of 80,000.
- In terms of the community outreach programme over 2000 people took part in family programmes and 1300 young people aged 8 – 13 engaged in food related sessions at after school clubs, summer schools and community events. This represents 33% of the 10,000 target.

5.3.10 assessment of impact of fgf on intention to change lifestyle behaviour

- To assess the impact of the exhibition on people's intention to change lifestyle behaviour, a cross-sectional study adopting a convenient sample of 102 participants was conducted. Data collection took place over a one week period during November 2010.
- The sample of 102 visitors included 8, under 18 years old (8%), 4 (4%) 18-24 year olds, 29 (28%) 25-34 year olds, 40 (39%) 35-44 years old, 20 (20%) 45 and over and 1% not stated.
- The exhibition attracted people from a broad range of areas in Sheffield, with the highest number from S6, S8, and S11 - some of the most affluent areas of the city.
- Data also revealed the sample highly valued leading a healthy lifestyle (60%) and perceived they were knowledgeable in this area. Furthermore, 36% and 57% of the sample self-reported meeting or exceeding the government guidelines for physical activity and 5-a day, respectively.
- Whilst it is important to recognise the likely self-selection bias, 61% of respondents indicated that they planned to make lifestyle changes as a result of seeing the exhibition. Of these 33 (32%) reported thinking about a change but not sure how to.

- Therefore, there could be a need to provide more information about services in Sheffield that can help people and families with lifestyle change at the point of decision.

5.3.11 insights preconception and men's health - progress against outcomes and outputs

- As part of the parents as positive role models strand two pieces of social marketing insight work were to be commissioned. The first aimed to explore the awareness around men's weight, diet and physical activity including men's perceptions and attitudes in relation to their health and that of their children.
- The second focused on understanding the awareness around pre-conception, pregnancy and postnatal weight, diet, health and physical activity. This included men, women and healthcare professionals and staff in non-clinical settings in Sheffield.
- Due to delays in the formulation of the commissioning brief, the funding for these two pieces of social marketing insight was held back and the tender not published until April 2011. As a result comment on the effectiveness of this work is beyond the scope of this report.

5.3.12 walk and talk programme

- The Walk and Talk programme is a free, 6 -12 week physical and emotional well-being counselling programme for young people aged from 16 to 25. It is part of YMCA White Rose's (formerly Sheffield YMCA) 'Interchange' Services which provide Counselling and Emotional Well-Being Support for young people under 25, particularly those from vulnerable, often hard-to-reach groups.
- Walk & Talk primarily involves one-on-one counselling support which may be combined with a short walk outside with the option of attending three group sessions, supported by Emotional Well-Being workers.
- Group sessions include a choice of fun physical activities as well as information about healthy eating and lifestyle choices. The programme also sets participants a 'Big Challenge', such as a longer walk in the countryside and provides follow up sessions for those who need on-going support and/or signposting.

5.3.12.1 the aims of walk & talk:

- Improve young people's confidence, emotional well-being and physical health and work to overcome harmful ways of thinking and behaving around food and exercise
- Embed new life-enhancing habits around food and exercise which can be sustained after the programme ends.
- Support those young people who wish to lose weight, helping them to increase their awareness of (1) healthy eating and exercise, and (2) the ways in which emotional problems can interfere with our efforts to control what we eat.
- Increase young people's understanding of the value of exercise in maintaining good mental health - psychological (the sense of accomplishment) and biochemical (increases in the levels of neurotransmitters associated with mood)
- To improve the understanding of workers in the Change 4 Life programme of mental health issues for young people in transition to adulthood and of how to signpost their service users towards appropriate support when needed.

5.3.12.2 client profile:

- 34 referrals have been received to date (mid-September 2011), 12 male and 22 female, of whom 6 are from BME background, and 4 identify as LGBT. Other vulnerable groups represented include 6 who are NEET, 6 with disabilities (including learning difficulties) 5 have been excluded from school, 4 have been homeless or in supported hostels and 5 who have been through the care system.
- 2 have had involvement with the criminal justice system, 6 have parents with mental health problems and 3 are young parents. A sizeable proportion (13 individuals) has previous or current involvement with statutory mental health services, MAST or Social Care. At least 9 fall into 2 or more of these vulnerable groups.
- Goals expressed by clients include wanting to lose weight, get fitter, eat healthier, get out of the house more, decrease anxiety and increase confidence. Mental health/EWB issues presented include self-harm, suicidal ideation, high anxiety, paranoid feelings, an eating disorder and low self-esteem.

- It is clear from the client profile and presenting issues that this service has attracted young people with complex histories and situations, something that was not anticipated at the outset, given that the programme aimed to only offering short term focussed counselling.
- This necessitated making changes to the intervention to accommodate the needs of the participants, which provided a valuable opportunity to see how effective this intervention is with vulnerable client groups (who often do not access mental health services).

5.3.12.3 outcomes achieved

- This programme did not fall under the formal evaluation of the *SLC4L* programme. However, a brief evaluation report can be accessed from the walk and talk service. In addition, a pre-post analysis of the programme is currently in progress and the reader is directed to <http://interchangesheffield.org.uk/ymca-white-rose> for further details.

5.4 schools at the heart of healthy communities

5.4.1 take home messages

- **targeted physical activity significantly ($p < 0.05$) improved the physical fitness of participants (an increase of 28 steps per minute equating to a 100% increase from baseline).**
- **changes to the school dining environment made via school nutrition action groups encouraged more pupils to dine in school, enhanced social interaction and improved the dining behaviour of the children. however, a system whereby pupils eligible for free school meals cannot be identified at the point of food order is encouraged.**
- **11 secondary schools implemented sos policies, which saw improvements in school meal uptake, physical activity and lunchtime behaviour.**
- **growing clubs yielded a significant increase in participant physical activity ($p < 0.05$) post intervention including a 40% increase in self-reported walking or cycling to school. however, levels still below recommended.**
- **growing clubs appear to engage children in physical activity without explicitly labelling it as activity which might be preferable for those whom competitive based activity is prohibitive.**
- **a multitude of personal and social benefits were reported as a result of participation in the cooking clubs. however, minimal dietary impact was observed. time scarcity was perceived as the main barrier to dietary change, and thus future programmes would benefit from the incorporation of time-management strategies.**
- **in a cohort of 32 pupils across two schools only 6 met the recommended number of steps per day (12,000 - 15,000). encouragingly, where slc4l interventions had taken place significant ($p < 0.05$) increases in physical activity were observed (equating to 233 steps per pupil per day).**
- **pupils and parents have positive attitudes and intentions towards healthy lifestyles but this is not always manifested in the adoption of health promoting behaviour. future interventions should focus on closing this intention-behaviour gap.**

5.4.2 strand introduction

- Funding for *SLC4L* has been distributed amongst several projects, including smaller projects running within Sheffield schools. Primary and secondary schools across Sheffield were given the opportunity to gain funding in order to put in place new health strategies within their school. For Primary Schools the strategies mainly focused on:
  - Improvement of food, nutrition and physical activity knowledge via provision of cooking and growing clubs out of school time.
  - Improvement of lunchtime nutrition and dining environments via School Nutrition Action Groups (SNAG).
  - Increases in physical activity via targeted physical activity schemes also out of school time.
- Secondary schools were offered strategies that also focused on improvements on lunchtime nutrition and the dining environments, although this took a different approach to Primary schools as application was altered according to the needs of the age group. Secondary schools also had the opportunity to make improvements within part of the school curriculum, as unlike primary schools, lessons on food technology are provided at this level and so knowledge on health could be targeted within the school day.
- The schools at the heart of healthy communities strand, delivered through the multi-agency Sheffield Food in Schools Group, builds on the foundations of the Healthy Schools Programme and supports schools to prevent obesity in children through a whole school approach.
- Activity is focused on physical activity, nutrition, and social and emotional aspects of learning based on the whole school approach.
- This is in line with the National Healthy Schools Programme and the National Centre for Chronic Disease Prevention and Health Promotion evidence on preventing obesity in schools
<http://www.cdc.gov/healthyyouth/keystrategies/index.htm> and the Recommended Community Strategies and Measurements to Prevent Obesity in the United States from the National Centre for Chronic Disease Prevention and Health Promotion <http://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>

5.4.2.1 Aims

This strand aims to lead to a reduction in obesity prevalence in school aged pupils, impact on parental attitudes towards food, eating and physical activity, and increase fruit and vegetable consumption.

5.4.2.2 objectives

1. Encourage children and young people to be more active, working with the School Sports Partnerships, to target interventions at the most inactive children.
2. Encourage healthy eating, cookery and school meals through the provision of free fruit, cookery clubs, growing opportunities, School Nutrition Action Groups, and Stay on Site Programmes in Secondary Schools.

5.4.2.3 link to the foresight obesity systems map

- This strand of activities focused on influencing many of the identified causal relationships across the food (convenience, nutritional quality, variety, exposure, availability, portion size, taste, advertising), activity (parental modelling, learned activity in childhood, cultural patterns of activity, physical education, recreational activity) and psychological clusters (Food Literacy, self esteem, social interaction, parent-child relationship, media, education, passive entertainment).

5.4.3 free fruit scheme

- The Free Fruit and Vegetable Scheme was already established in Sheffield schools prior to *SLC4L*. The scheme was part of the 5-A-DAY programme to increase fruit and vegetable consumption in young people. A number of evaluations of the scheme have previously taken place
(see http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_078158.pdf)

- The purpose of this evaluation was to assess the impact of the scheme on children's attitudes towards healthy eating and extend previous evaluations by adopting a theoretical underpinning.
- A sample of 805 pupils (male = 381 and female = 424) from 8 secondary schools returned completed theory of planned behaviour questionnaires (using Likert 1-7 scales) before and 3-months after a school free fruit programme to explore the schemes impact on attitudes towards healthy eating.
- The sample was predominantly white (n=628) but also consisted of pupils who were black afro-Caribbean (n=46), South Asian (n=78) and not stated (n=54).
- Data revealed that prior to receiving the free fruit, children had positive attitudes towards healthy eating (5.89 ± 1.07) and strongly believed they had the confidence and skills (5.74 ± 1.06) to eat healthily should they so choose.
- Intention to eat healthy (5.63 ± 1.26) and a willingness to comply others positive opinions regarding healthy eating were also strong (6.11 ± 0.96). In essence, the population appear motivated to eat healthily.
- A repeated measures ANOVA revealed a significant and negative effect for time for subjective norm ($p=0.04$), attitude ($p=0.02$), intention ($p=0.02$) but not PBC ($p=0.16$). No interaction effects for gender were observed ($p>0.05$).
- Data suggests that participants had poorer attitudes towards healthy eating post free fruit but that their confidence to eat healthily had stayed the same.
- An explanation for these findings could be that the presentation of some of the fruit and vegetables was poor. This was confirmed by teacher feedback who commented that the vegetables in particular were not appealing to the children and that at the time of evaluation a large proportion of the fruit was mouldy upon delivery.
- Another explanation could be that the scheme introduced fruit and vegetables that were either new to children or that they didn't like and this could have had a negative impact on their attitude towards the scheme itself. However, teacher interviews suggested that trying new foods was an important part of the scheme.
- It is encouraging however that the participants here did not appear to be less confident about their ability to eat healthy food and moreover teacher interviews revealed that the scheme had produced some positive change in pupil behaviour in the classroom. No objective measures were taken to substantiate this claim.

5.4.4 targeted physical activity

- *Data here is taken from the 2009/10 programme unless stated.*
- The primary aim of the targeted physical activity programme was to significantly increase the '3 hour physical activity' participation rates of year 6 children, in the 25 schools with the highest reported overweight and obesity at Year 6.
- A total of 24 of the 25 (96% of target) targeted schools engaged with the project, providing physical activity clubs for over 1146 children and 550 on a weekly basis.
- The project also aimed to recruit the most inactive children (according to PESSYP data) as well as improving attitudes towards participation in physical activity across all participants. However, data on the precise number of inactive children who engaged with the programme is unavailable. This is because where targeting of inactive children was felt to be inappropriate schools recruited on a whole year group basis.
- That said, data from a case study of 19 participants revealed 51% (n=9) were self-reported inactive. In 2010/11, data based on teacher experience reported that 364 previously inactive children participated in the programme.
- To assess the impact of the programme on participant's attitudes towards physical activity, theory of planned behaviour questionnaires were distributed before and 2-months after intervention, first to a pilot programme in Sharrow and then across a sample of 14 schools.
- A significant ($p<0.05$) improvement in self-efficacy (PBC), attitude towards physical activity and behavioural intention was observed for pupils at the pilot school (n=43) (see Figure 22).

Figure 22: TPB for attitudes towards Physical Activity

- However, no significant ($p > 0.05$) difference was observed in the wider programme ($n = 150$). Moreover, data suggested all pupils to have very positive attitudes towards physical activity at point of entry.
- This would suggest that the targeted physical activity programme was engaging with children for whom exercise was already appealing.
- In terms of the impact of targeted physical activity on the physical fitness of those taking part, a sample of 19 participants (8 male and 11 female) were assessed using a 2-minute skip test over a 5-month period in 2010/11.
- To control for a possible learning effect, 3 time points were compared; baseline, 3-months from baseline and 5-months from baseline. Means and standard deviations are presented in table 3.

	baseline skips/2min	3-month skips/2min	5-month skips/2min
male	60.75 (± 41.66)	77.63 (± 48.69)	119.50 (± 81.75)
female	54.81 (± 31.76)	68.63 (± 39.05)	107.36 (± 42.51)
sample	57.31 (± 35.28)	72.42 (± 42.31)	112.47 (± 60.34)

Table 3: Results of 2 minute skip tests and 3 different time points

- A repeated measures ANOVA revealed no significant effect for gender but a significant difference within participants over time ($p < 0.01$).
- Data here suggests that targeted physical activity has the potential to significantly improve the physical fitness of participants. That said, studies with a larger sample size and a validated measure of cardio-respiratory fitness are required to further substantiate this claim.

5.4.5 stay on site scheme

background

- Secondary schools mainly focus their health strategies on food provision and the curriculum delivered via food technology lessons. With this in mind, SLC4L allocated up to £10,000 funding for schools to apply for, to improve the lunch experience of pupils in secondary schools through the development of a stay on site policy (SOS).
- SOS policies aim to encourage students to remain within the school grounds at lunchtimes by improving the lunchtime experience. It is hoped that such policies would improve the food choices of pupils and also have a positive influence on behaviour.
- Schools accomplish SOS changes through a SOS plan, which is usually developed through an alliance of school staff, caterers, students and student councils, with some management input from health professionals.
- To date, 11 Secondary schools have developed SOS policies. To assess the impact of these policies on school meal uptake, lunchtime physical activity participation and pupil behaviour, a case study approach with two schools was adopted.
- In addition, the study aimed to:
  - To understand barriers and facilitators to SOS policy implementation
  - To demonstrate the impact of the new policies on numbers of students staying on site and numbers having school meals
  - To understand how changes were achieved
  - To consider how these changes have affected the students

method

- Two secondary schools that developed a SOS policy took part in the study; City School and Westfield Sports College.
- Socioeconomic status based on IMD score was calculated for each school. (Local Information System and Data Observatory, IMD scores 2010: <http://www.lasos.org.uk/StatsMaps.aspx> accessed 12th May 2011):
  - The ward of The City School; Richmond, has an IMD Score of 32.92, which is considered to be average in comparison to the overall ward mean score of 28.26
  - The ward of Westfield Sports College, Beighton, has an IMD Score of 18.12, which is classed as below average in comparison to the overall ward mean score of 28.26 and is significantly lower than the Richmond ward.
- Teachers who had high involvement with the development of the Stay on Site policies were invited to take part in semi-structured interviews which explored background information on the school, how they became involved with SLC4L and how the SOS policies were implemented.
- A researcher from Sheffield Hallam conducted all interviews which were also audio -recorded and transcribed verbatim.

results

- From the interviews with teachers at City School and Westfield sports College ($n = 2$) 19 raw data themes emerged and these were sub-divided into 9 higher order themes. The key aspects are discussed in the following section.

discussion

implementation

- In terms of initial project involvement, it was evident that City and Westfield schools became aware of the SOS funding through the Healthy Schools Programme network. Encouragingly, this demonstrates that the message of *SLC4L* was being broadcast through existing health promotion networks.
- Furthermore, the support received from the Healthy Schools team was reported to be important to the successful generation and implementation of the schools ideas for SOS. City school indicated that success was down to good partnership and the equal input from the school and *SLC4L* as the quotes below suggest;

"it's not just because of the funding it's people coming in and sharing ideas and pointing us in other areas where good practice might be"
- teacher

- Although improving the healthy food options and dining culture for pupils was important to these schools irrespective of budget, the *SLC4L* funding was identified as the catalyst for these schools implementing their ideas.
- It will be important to recognise the potential need for 'seed corn' funding with projects such as SOS, particularly where plans are made to roll it out across the city.

communication and ownership

- In addition to support received from *SLC4L* staff, the importance of good communication and the need to fully engage with catering staff and pupils when developing new food and menus was raised. This was particularly the case to ensure any changes fitted within the cooking environment and considered the needs and preferences of students.
- To facilitate this, City School maintained weekly meetings and made action plans with the caterers for menu development. City school also invested time in broadcasting the vision of the project to staff in order to gain volunteers for activities and supervision.
- Westfield College worked closely with the kitchen supervisor in menu development and consulted with students via the student's council to confirm ideas prior to implementation as the quotes confirm.

"every child matters team consulted with students and other staff to ask what they wanted and to see who would be prepared to run lunchtime clubs" - teacher

- Evidence of the interaction with parents and the SOS policies was mixed. Westfield College had, at the time of interview, no interaction with parents but purely maintained communication with students and focused on their needs.
- City school on the other hand had decided that including parents was important and liked the way primary schools demonstrated to parents what was available for their children to eat.
- With this in mind City began to send menus home, which provided parents with information on what their child was eating and also gave them the opportunity to comment and feedback their thoughts on the food.
- As a result of this consultation with parents, City school updated their menu every term in line with feedback, which provided new food for students on a regular basis.

benefits of sos

- The SOS policy implemented at the City School was reported to have made significant improvements to student experience and behaviour.
- Prior to SOS, City and Westfield schools had high numbers of students leaving the premises at lunchtimes and complaints from the local shops and members of the community about student behaviour were common. However, engaging with students and parents on the agenda of 'staying on site' via survey proved extremely valuable to implementing the SOS policy.

"the starting point was very much the survey and the results from the parents and the students and also our own experiences" - teacher

- As a result of changes made to the school dining environment and dining process in the case of City school, the average number of students leaving site at lunch has reduced from 154/day to 20/day.
- Dinner queues are reported to have reduced due to implementation of pre-ordering, cashless systems and multiple food outlets. Teachers have also reported improvements in student behaviour during lessons; however, no objective assessment of this change in behaviour has been made.
- City school have also observed a 6% increase in school meal uptake and a 17% increase in uptake of free school meals, which they attribute to the improvements made in the menu and the facility for students to choose and order what they want beforehand.
- Westfield Sports College have had some successes around engaging pupils with new lunchtime activities, such as Wii-fit club, which they felt was due to the originality of the clubs on offer however, Westfield College were still mid-implementation at the time of the interview and so it is inappropriate to comment further on any perceived improvements.

student engagement

- To engage students, rewards systems and alternative activities were used in both schools particularly to motivate students who previously misbehaved or were difficult to engage. Both schools stated that this approach, rather than punishment, was more motivational and was more effective at engaging the pupils and helping them to learn.
- City and Westfield schools also introduced a number of new and original clubs in order to spark an interest and get the children involved in physical activity (Boccia club, tchoukball, Wii fit club etc).

"there were a number of boys who were maybe running around the corridors etc. the boxing contender programme works with them periods 3,4 and 5 so takes them out of the equation, but it offers them numeracy and literacy but also talks to them about their behaviour. they enjoy the boxing side of it as well" - teacher

changing the dining environment and culture

- Interview data identified that central to the successful implementation of the SOS policy was the re-organisation of lunchtimes and a change in the dining environment and culture for the students. It is insufficient to simply enforce students to stay on school grounds over the lunch period. An environment and culture needs to be generated that it becomes normal and socially approved of to remain on site.

- To begin this process, both schools changed numerous factors about their lunchtimes with a focus on providing a more efficient service.
- City school implemented new outdoor seating for increased space, a new cashless system was installed, multiple food outlets were introduced, new branding and menus were created, taster sessions were made available and new plates and cutlery were purchased. This meant that City School had a lunchtime system that worked better for the students and was less of a hassle in terms of queue times, payments, and places to sit and time to eat.
- As a result more students participated in the school lunchtime creating a positive social norm.
- Westfield College were also keen to introduce branding to their menus and food, they revamped the presentation of food and the type of food available through the use of an external company. They also started to implement taster sessions and installed TV screens to display food options and healthy messages.

summary

- In summary, the SOS policy as reported in City School and Westfield Sports Academy has proved extremely successful in creating a positive dining culture and increasing the number of students staying in school at lunchtimes. Data here also suggests that SOS can impact positively on student behaviour albeit based on anecdotal evidence.
- Good communication with kitchen staff, parents and pupils is key to building and implementing successful changes around menus and lunchtime activities. External support from the Healthy Schools team also helped guide the school in the right direction in terms of implementation.
- Innovation, rewards and an alternative lunchtime programme was more effective in preventing poor behaviour and encouraging learning in students who tended to be less engaged than punishment based schemes. Student engagement and ownership is therefore key to this type of policy working.
- Systems such as bio-metric payment (finger/card readers instead of cash), pre-ordering food and having multiple food stations have been shown to drastically reduce queues and improve the students lunchtime experience.
- Branding on packaging can make the food seem more appealing to the students and the type of food available can also influence a pupil's decision to stay on or off site, so pupil input into the menu is vital. Taster sessions can help engage pupils in school food programmes and if they like what is on offer in school, they are less likely to move off-site during lunchtimes. This will help create a positive social norm regarding school lunchtimes.

5.4.6 school nutrition action groups (snag)

background

- School Nutrition Action Groups (SNAG) are partnership groups between pupils, teachers, health professionals and caterers which aim to make positive changes in nutrition, food/drink options and dining environments within school.
- SNAG's have a focus on increasing school meal uptake and are typically delivered via audits and consultations, which inform, monitor and adapt school policies.
- To explore the impact of SNAG's a mixed method cross-sectional study was conducted in 2 out of 10 SNAG's schools, Beck Primary and Reignhead Primary.
- Beck Primary catchment (Shiregreen and Brightside), has an IMD Score of 40.62, and Reignhead Primary School catchment (Beighton) has an IMD Score of 18.12. The Sheffield average is 28.26.
- The study comprised; semi-structured interviews with the lead teacher (n=2) involved in the SNAG in both schools; focus groups and questionnaires with pupils from Beck primary (n=7) and flip camera footage/photos of the dining areas in both schools.

results and discussion

- Interview data revealed that changes to the school dining environment encouraged more pupils to dine in school, better reflected a schools ethos and improved the dining-room behaviour of the children (see appendix 4 for pictures of dining areas).

"a sound system has been put into place with some of the slc4l money. generally the music keeps the children quieter"

"it's a bit caf-ish now and it's more social and it reflects the school better than it ever did. the ethos of the school now goes through into the dining room, before when you walked through it was really dull and the colours were really out. whereas now it does reflect the school" - teacher

- The creation of action plans supported by input from the Healthy Schools coordinators appeared central to the successful implementation of SNAG. Furthermore, learning from other schools experiences was reported to be useful.

" they'd worked with other schools, gave us the feedback and they were the ones that really pushed us, otherwise i think we would have made a few mistakes" - teacher

- A key challenge to in-school dining was reported to be physical space. This was due to the large number of pupils needing to eat lunch at the same time. Interview data revealed that the SNAG process offered a number of strategies to tackle this. These included: expanding into outside areas for the summer months, changing the position of tables and the process of pupils collecting their food and offering a staggered system with meal-times.
- Focus-group data and teacher interviews revealed pupils to be more receptive to special menus, theme days and ideas that they had suggested themselves. School meal uptake was found to be higher on days where special food or days had been advertised.
- Enhancing the capacity for social interaction by using round tables and adopting year-group based meal times also improved school meal uptake. Pupils also reported the social element of lunchtime to be important.

"playing with friends and seeing my friends" "i get upset if i can't sit with my friends" - pupil

- Providing pupil's with choice and allowing them to see the menu for the week in advance was reported to enhance school meal engagement. The water policy was reported to have a positive impact across the school.

"water policy has been fully introduced into the school with water coolers now available in the dining room. all school dinner children have water only and some lunch box children have started leaving drinks at home and having the water" - teacher

- However, lunchbox policies were reported to be more difficult to implement due to parents being resistant or not accepting certain conditions. It was also suggested that the free school meal scheme was not used to its optimum a) because parents were often unaware they were eligible and b) because the pupils were self-conscious. Schools were keen to identify eligible pupils and to develop a system whereby free school dinner pupils could not be identified when getting their food.
- In summary, data here suggests that SNAG's can have a positive impact on the dining experience of pupils. This can be achieved by improving the physical dining environment, introducing themed days and menus and providing enhanced social interaction during the lunchtime period.
- Whilst teachers reported observing a rise in school meal uptake, this was perceived to be temporary and markedly influenced by theme days.

5.4.7 growing and cooking clubs

- The focus of this aspect of the schools strand was to establish access to growing and cookery clubs for all Sheffield school pupils and support 50 schools to sell healthy food in their community.
- Data suggests that 92 growing clubs and 55 cooking clubs were established. It is unknown how many of these schools were able to demonstrate that they had sold healthy food to their community.
- In addition, this programme of work has helped to establish a directory of growing providers for schools, implemented growing workshops/training sessions and agreed sponsorship with a Sheffield restaurant to sponsor growing activity in 12 schools
- The growing and cooking projects also resulted in a number of partnerships between schools and public and private organisations including the Parks and Countryside's Team at Sheffield City Council, SPELL a voluntary sector organisation and the Royal Horticultural Society.
- To assess the impact of growing clubs and cooking clubs the evaluation team conducted 2 nested studies. These are outlined below (for growing see 5.4.7.1 and for cooking 5.4.7.2).

5.4.7.1 growing clubs^a

purpose

- The purpose of this study was to assess the effectiveness of a *SLC4L* school growing club as an approach to increasing physical activity among primary school children.
- The secondary purpose was to better understand the potential of growing clubs to positively influence attitudes and intentions towards physical activity using the Theory of Planned Behaviour model.

background

- Identifying effective interventions which promote physical activity amongst children has been long recognized by the Government as a priority. Growing clubs in schools provide a credible setting to address health issues such as nutrition and physical activity.

^a This evaluation activity was undertaken by Harriet Farr as part of her Undergraduate programme

- Current research has yet to explore the ability of growing clubs to provide an alternative form of physical activity and stimulate cognitions associated with physically active behaviours amongst children.
- It was hypothesised that participation in a school growing club would increase physical activity in school aged children as measured by pedometer.

methods

- 10 children (2 boys and 8 girls) aged 8-9 years from Lower Meadow Primary (LMP) School were involved in the study. LMP School is in the Batemoor and Jordanthorpe EPHP area.
- A mixed method quasi-experimental design was adopted for the study whereby repeated measures were used to evaluate a growing club intervention with a convenient sample and matched controls.
- The design is similar to that used by Baranowski et al. (2000) who successfully evaluated the effectiveness of gardening as a health intervention.
- Pedometers and physical activity diaries measured behavioural changes in physical activity. A Theory of Planned Behaviour questionnaire assessed the ability of growing clubs to govern positive intentions towards physical activity.
- Qualitative data in the form of interviews with participants and teachers provided fidelity about the practical applications of growing clubs in schools.
- Upon written informed consent 5 participants took part in a school growing club which lasted for 6-weeks. These 5 participants were matched with a control group based on age and gender who did not attend any after school clubs.
- All measures were taken before and after the growing club.
- Upon completion of the growing club a 15-minute focus group was carried out which provided an opportunity for participants to reflect upon their experiences of the intervention. To gain a greater insight into the wider impact of the school growing club a 60-minute semi-structured interview with the teacher leading the project was also conducted.

results

- A paired t-test revealed a significant ($p < 0.05$) increase in physical activity over time in the intervention group. The mean number of steps increased from 6581.4 (± 2177.6) at baseline to 8572.8 (± 1800.5) at 6-week follow-up (see Figure 23).

Figure 23: Change in Physical activity status before and after growing club

- Interestingly, this figure is still below the recommended daily step-count for children of 12,000 (Tudor-Locke et al., 2004).
- The control group reported a mean number of steps of 9502 SD± 1227.9.
- An independent t-test revealed no significant difference between intervention and matched controls for physical activity ($P>0.05$) at baseline or follow-up.
- A noticeable increase in all domains of behavioural intention was observed in the intervention group (See Figure 24) however differences over time and between groups were non-significant ($p>0.05$).

Figure 24: Theory of Planned Behaviour before and after a growing club

- Data from the physical activity diaries revealed a 40% increase in the number of children who self-reported walking or cycling to school post growing club.
- At follow-up children in the intervention group reported taking part in more structured sport/exercise outside of school, which represented a 60% increase on baseline scorers.

qualitative findings

- In terms of the focus group and teacher interview data it was evident that the growing club influenced domains of self-esteem and provided support for health promoting behaviour.

"i've really enjoyed growing club, it's more fun being outside and i feel better because of the fresh air and being with my friends." - pupil

"the enthusiasm of the children is wonderful to see and that's very tangible. seeing the children grow in confidence is very rewarding. children in the growing club are trained in life skills such growing seeds and they can then teach others. this gives children a sense of achievement." - teacher

- The growing clubs provided an opportunity for children (n=3) to experience an environment not normally available or one that they preferred to more traditional and skill based physical activity.
- Participants (n=3) commented that the growing club impacted on their physical activity and lifestyle choices beyond the club. This is despite the growing club not focusing on how gardening can be used to stay physically active.
- Data from the teacher interview identified a need to enhance the link to physical activity.

"the main aim of the club is to get children to understand where food comes from but it's a very good point though to make the link between physical activity." - teacher

- Participants communicated a number of commonly identifiable barriers to long-term adherence to physical activity including; weather (n=2), feeling tired (n=4), not having a garden at home (n=1).

discussion

- This study demonstrates the potential of school growing clubs to enhance children's intentions to be active and increase their actual participation in physical activity both during the growing club and in the wider context.
- The increase in scores for perceived behavioural control and data from the qualitative component of the study suggest increases in self-efficacy might explain the observed increased activity for participants in the intervention group.
- Worryingly, as a whole sample none of the children met the recommended daily step count of 12,000.
- Growing clubs appear to engage children in physical activity without explicitly labelling it as activity which might be preferable for some children for whom competitive based activity is prohibitive.
- That said, data here identifies a need to provide a clearer message for pupil and teacher regarding what constitutes physical activity. Furthermore, equal emphasis should be given to food and activity promotion during growing clubs.
- The findings presented here should be considered in light of the small sample size and matched control rather than randomised controlled design. To enhance the generalisibility of findings to a wider population, future research needs to combine a more robust design with a larger and more diverse sample.

5.4.7.2 cooking clubs⁹

- The increasing prevalence of childhood obesity and poor dietary patterns amongst young people in the UK has justified attempts to place children at the centre of nutrition policy.
- Recent programmes have placed an increasing focus on the establishment of healthy eating patterns in childhood through school-based cooking interventions.

⁹ This evaluation activity was undertaken by Emma Kaye as part of her Undergraduate programme

- With this in mind, the primary aim of this nested study was to assess the impact of school cooking clubs on nutritional knowledge, attitudes and cooking skills in participating parents and children.

methods

- A sample of 17 participants was recruited from two schools within the Sheffield area. The sample consisted of 3 parents (age range 25-35; 3 female), 10 children (age range 8-10 years; 7 female and 3 male) and 4 teachers (age range 25-45; 3 female and 1 male). All participants were white British.
- A cross sectional qualitative design using semi-structured interviews and focus groups was used. Participants were recruited by means of purposive sampling framework.
- Data was analysed following an interpretative phenomenological analysis (IPA) framework (Fade, 2004). A total of 3 focus groups were conducted, 2 with parents and 1 with children. All of whom had taken part in the cooking clubs.
- The focus groups explored experiences of the cooking club, skills acquired, attitude towards food and food knowledge, and confidence relating to food preparation. In addition, 4 one-to-one semi-structured interviews with teachers explored perspectives and experiences of project implementation.

results and discussion

- A total of 4 super-ordinate themes were identified from parent focus groups, 2 from the child focus groups and 3 from teacher interviews. Given the qualitative nature of this study the results and discussion are presented together. Consideration of the implementation of cooking clubs begins the narrative.

implementing cooking clubs

- Data from teacher interviews revealed the importance of involving local communities in the planning of cooking initiatives. This was particularly the case where ensuring cultural diversity was concerned.
- Recruitment and retention difficulties were encountered by some clubs involving parents. Employing a parent and child format also raised difficulties regarding levels of engagement;

"trying to get parents to do it with their children and not just watching their children do it, that's been very difficult" - teacher

- In terms of participant views on improving the cooking clubs a more hands-on approach was desired, and there was an agreement that perhaps the social nature of the sessions did not provide adequate preparation for cooking independently at home;

"in this course, we've all just done separate chopping, and its part of a team. because i'm not doing any cooking as though i would've been if i were in the kitchen, it's not quite the same" - parent

- However, enabling everyone to participate in cooking would have required a larger kitchen and so creative ways to engage all participants in the cooking process are required.
- It was also suggested that for parent only sessions, food samples should be taken home, actively involving children in the tasting of new foods.

impact on skills, knowledge and attitudes towards food

- Participants reported trying new food stuffs, learning cooking skills and experiencing enhanced feelings of personal competence as a result of taking part in the cooking club and these aspects are similar to the domains of self-efficacy as described by Bandura, (1997).
- Similar to previous evaluations (Carter, 2010), the child focus groups provided evidence of the feasibility and effectiveness of cooking programmes as a form of nutrition education for primary school children.
- Data here suggests that cooking clubs appear to work because they emphasise concrete experiences with food for participants rather than focusing on abstract concepts. Indeed, active participation was seemingly the most enjoyable element of the programme:

" i like the part where we actually get to cook things, and where we get to try things that we've never tried before." - pupil

- Furthermore, exposure to food in a positive social-affective context can further enhance a child's preference (Birch et al., 1990). Thus cooking and subsequently consuming food in an enjoyable context must be a priority for cooking clubs.

cooking clubs impact on dietary behaviour

- No change in dietary behaviour was observed. Although there was an indication that the children's participation may have had a small influence on family practice;

"my mum tried the pizza and she liked it and my dad liked the smoothie!" - pupil

"my mum, my dad and my little sister all tried the crumble and they said it was the best crumble that they've ever had!" - pupil

- Given that participants reported increases in self-efficacy and cooking skills, the lack of behavioural change could, according to the TPB, be attributed to low levels of perceived controllability. That is, environmental or external constraints on action (Armitage and Conner, 2002) such as perceived lack of time.

**researcher: have you tried any of the recipes at home?
"no, not had chance! when all the kids are home from school, it's hectic!" - parent**

- Furthermore, one participant reported initiating dietary changes when eating out, yet not at home, which is perhaps further supportive evidence of perceived time constraints.
- Therefore, to enhance cooking clubs effectiveness at eliciting actual changes in behaviour it is recommended that a time management or diary planning element is included.

family cooking clubs

- Data here revealed little difference between parent only, child only and parent-child cooking clubs in terms of changing attitudes and influencing actual behaviour of participants.
- However, given that children are unlikely to have sufficient influence to establish long-standing healthy eating patterns in their families (Bourdeaudhuij, 1997); the need to actively involve parents remains strong.
- This will be a challenge as data here suggests parents are difficult to recruit. Nevertheless, efforts should be made to engage parents as they have the utmost control over their children’s eating behaviour, shaping the development of food preferences not only by the foods made accessible, but also through their own eating styles and child-feeding practices (Scaglioni et al., 2008).
- The value of the parent-child interaction in the cooking club process should also not be overlooked as a tool to provide exposure to food in a positive social-affective context.
- Where parents wish to learn new cooking skills apart from their children, separate yet simultaneous groups for the parent and child might be a promising format to explore.

conclusions

- Although a multitude of personal and social benefits were reported as a result of participation in the cooking clubs, minimal dietary impact was observed. Time scarcity was perceived as the main barrier to dietary change, and thus future programmes would benefit from the incorporation of time-management strategies.
- The analysis highlights the importance of family involvement in school-based cooking initiatives. Whilst there is debate regarding the efficacy of parent-only verses parent and child cooking programmes, the need to target both is clearly justified.
- This study demonstrates that cooking programmes present a feasible and effective form of nutrition education for primary school children.
- Finally, there exists a strong need to involve local communities in the planning of cooking initiatives. Doing so holds the potential to improve the appropriateness, accessibility and uptake of future school-based cooking clubs.

5.4.8 schools cohort study

background

- The aim of the cohort study was to explore children's experiences of engaging in *SLC4L* through the school and home environment using a number of interactive evaluation methods.
- The cohort would also provide an opportunity to collect data from participants that might have been influenced by a number of themes of work concurrently.

method

- A total of 34 pupils took part in the cohort study. The sample consisted of 11 (9 female and 2 male; 10 White British and 1 Asian) pupils in year 5 from Beck Primary and 23 (19 female, 4 male, 22 White British and 1 Black Caribbean) from years 4 and 5 from Lower Meadow Primary.
- The catchment area for Beck Primary (Shiregreen/Burngreave) recorded significantly higher combined overweight and obesity and obesity prevalence than the Sheffield average in YR and Y6 and has an Index Multiple Deprivation Score (IMD) of 40.62, compared a Sheffield mean score of 28.26.
- Lower Meadow Primary (Beauchief and Greenhill/Gleadless Valley), demonstrated combined overweight and obesity and obesity prevalence similar to the Sheffield average in YR and Y6 and an IMD score of 32.32, compared to the Sheffield mean score of 28.26.

- At Beck Primary a repeated measures study was conducted with data captured at two time points from the same sample of pupils. At Lower Meadow Primary a cross-sectional study design, across 3 comparable groups was implemented. This involved a comparison of pupils taking part in 3 different *SLC4L* school clubs (cooking, growing and street dance clubs) and a control comparison of non-club participants. Data was captured in February 2011.
- Data was also collected to provide an insight into family activities and eating habits, which was to be captured innovatively through diaries, flip cameras, photos and pedometers.
- A total of 10 schools in the Sheffield area were invited to participate in the cohort study. Four schools responded, two of which decided not to participate due to a perceived burden on teachers and pupils.
- Beck Primary commenced the study in July 2010 and followed up participants in April 2011. Lower Meadow Primary decided to begin in the 2010-2011 school year limiting opportunity for follow-up.
- To facilitate engagement and retention, schools had a significant input into the design and delivery of the cohort study and written informed consent was gained from the parents/guardians of all participants prior to data collection.
- Parent and child specific TPB questionnaires captured intentions towards healthy eating and physical activity, USB Flip Cameras captured videos of eating and physical activity habits over 7 days and pedometers recorded number of steps, number of Km and number of Kcal over 7 days. Food and physical activity diaries were also used to measure self-reported food intake and activity participation over 7 days.

results and discussion

beck primary physical activity data

- A paired t-test revealed a significant difference ($p < 0.001$) between baseline (7375 steps) and follow-up (9938 steps) for number of steps, per pupil per day. This equates to an overall increase of 2,563 steps - 233 per pupil. (See table 4)
- Furthermore, at follow-up, 3 pupils were achieving the current physical activity recommendations for 6-12 year olds of 12,000 -15,000 steps per day (Tudor-Locke et al., 2004).
- Although this is encouraging, the mean activity count for pupils from Beck Primary did not meet the current recommendations with some pupils reporting as little as 6783 steps per day.

july 2010												
Pupil	1	2	3	4	5	6	7	8	9	10	11	Average
Average steps per day	5423	2793	10131	8364	8807	9182	4734	7519	0	0	9426	7375
april 2011												
Pupil	1	2	3	4	5	6	7	8	9	10	11	Average
Average steps per day	12293	9184	14524	7611	8369	8943	0	6783	6487	13995	11193	9938

Table 4: Average steps per day at Beck Primary school

lower meadow primary physical activity data

- In the final analysis, 21 pupils in 4 groups were compared for 7 day physical activity (see Table 5). The mean step count per day was highest for the cooking club (12,007) and lowest for the growing club (6,955).
- ANOVA revealed no significant difference (p = 0.180) between the groups which, given the small sample size and large variance observed in the data, is unsurprising.
- Pupils reaching the recommended steps per day were also low. Only 3 pupils out of 21 reached an average of 12,000 steps or more (highlighted via red circles), with 2 of these pupils participating in cooking clubs.
- Between-club analysis revealed cooking clubs to be the only group who on average met the step recommendations. However, this is skewed by pupil 11 who recorded 22758 steps.

growing							
Pupil	1	2	3	4	5	6	Average total
Average steps/day	5423	2793	10131	8364	8807	9182	4734
cooking							
Pupil	7	8	9	10	11	12	Average total
Average steps/day	7702	4671	11002	13923	22758	11984	12007
street dance							
Pupil	13	14	15	16	17	18	Average total
Average steps/day	8356	6943	10763	11784	8521	4211	8430
non-club							
Pupil	19	20	21	22	23		Average total
Average steps/day	12047	0	10606	10485	10155		8658

Table 5: Average steps per day across growing, cooking, street dance and non-club pupils

theory of planned behaviour

beck primary - child tpb:

- Theory of planned behaviour questionnaires (using a 1-7 Likert scale) were used to assess child motivation to eat healthily and adopt physical activity.
- No significant difference was observed between baseline and follow-up for any domain of behavioural intention (p>0.05). Moreover, mean scores for behavioural intention for healthy eating (baseline 6.59 vs. 6.55 follow-up) and physical activity (baseline 6.55 vs. 7.00 follow-up) were extremely high suggesting participants were motivated to begin with and stayed motivated regarding the adoption of healthy behaviours.
- This is particularly encourgaing given that pupils at Beck Primary School were not recruited because they were involved in a specific club. That said, we must recognise the potential for a Hawthorne effect in this data.

parent tpb:

- Theory of planned behaviour questionnaires (using a 1-7 Likert scale) were used to assess parent motivation to adopt a healthy lifestyle themselves. Parents were also asked to express how important it was for them to model healthy choices for their children.
- As with the child data, parent's intention to adopt a healthy lifesyle was high (6.55) and remained high between measurement time points (6.22).
- In terms of modelling healthy behaviours, data revealed high scores for intention at baseline (6.74) and follow-up (6.26) with no significant difference between time points (p>0.05). This suggests that parents were motivated to make healthy choices themselves and to influence their children through vicarious experience.

lower meadow primary - child tpb:

- Mean scores for behavioural intention for healthy eating and physical activity were high regardless of club attendance (table 6).
- No significant difference existed between clubs for behavioural intention to eat healthily (p> 0.05) but interestingly children attending growing clubs reported the lowest scores.

club	subjective norm		intention		attitude		pbc	
	Healthy Eating	Physical Activity	Healthy Eating	Physical Activity	Healthy Eating	Physical Activity	Healthy Eating	Physical Activity
growing	5.25	5.00	4.75	6.75	4.9	5.30	6.62	5.25
cooking	6.20	6.20	6.20	6.20	6.68	6.72	5.90	5.90
street dance	6.75	7.00	6.50	6.75	6.85	6.85	6.37	6.50
none	5.80	5.40	5.00	5.40	5.80	5.48	5.70	6.1

Table 6: Behavioural intention for healthy eating and physical activity

- Data here suggests that growing clubs appear to be an acceptable format for those individuals who are less active and have less desire to engage in clubs designed to promote health behaviours. In light of the small sample size however, such ascertions should be treated with caution.

flip cameras

beck primary

- Examples of flip camera stills are provided in appendix 5. Images provide evidence of health promoting behaviours at baseline which were maintained at follow-up.
- A greater number of images of physical activity were recorded at follow up, suggesting that either participation increased or that the pupils were more aware of what to record and what was meant by physical activity.
- Flip camera data appears to demonstrate that the school environment plays a large role in providing opportunities to be physically active. However, this could of course just be a reflection of when the pupils decided to use the cameras of which we of mindful.

lower meadow primary

- Examples of flip camera stills from each of the school clubs are displayed in appendix 5. In comparison to Beck Primary the images of food do not seem to be as healthy with recordings of crisps, Nesquik, chips, burgers, pies, cakes and pizza.
- Overall, the images from the cooking club appears to display more diverse types of activity (school playground, swings, bikes, climbing frame, Wii-fit and Kinect) and more healthy food (fruit, veg, salads) in comparison to the other two clubs.
- Pupils from the growing club recorded the least activity and the most images of unhealthy food such as crisps, cakes and pizza. This is consistent with the pedometer data and the scores recorded for behavioural intention.

food and physical activity diaries

- The data received from the diaries was not as clear and consistent as hoped. Due to the nature of the material it was decided not to include this data. For future research we feel that paper-based diaries are not an appropriate form of data capture for this particular population.
- Data captured from the flip cameras was a much more successful measure and future research should concentrate efforts in capturing real life data rather than capture on paper.

5.5 living neighbourhoods

5.5.1 take home messages

- **street audits identified health-related improvements to the physical environment with many of the changes maintained/owned by the community. however, it is important to recognise the longer time-scales required to implement capital projects of this nature.**
- **'travel 4 life' established partnerships with other slc4l strands and the city councils' road safety and travel teams extending the promotion of active travel.**
- **in schools receiving bike it a significant increase in cycling to school and a reduction in sedentary travel to school was observed. the largest decrease seen in bus use (5.7% reduction compared to a 1.6% reduction in car use).**
- **10 neighbourhood walking maps have been produced with positive user feedback. however, the impact of the walking maps on physical activity behaviour is unknown.**

5.5.2 strand introduction

- Evidence from National Institute of Health and Clinical Evidence (NICE) shows that being outdoors encourages people to be more active.
- Increasing physical activity is crucial to preventing the development of obesity in children and adults (Guidance on the promotion and creation of physical environments that support increased levels of physical activity <http://guidance.nice.org.uk/PH8>), and is in line with the Recommended Community Strategies and Measurements to Prevent Obesity in the United States from the National Centre for Chronic Disease Prevention and Health Promotion <http://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>

5.5.2.1 aim

To bring the streets back to life and make walking and cycling the most natural options for travel and help reconnect people to their local communities.

5.5.2.2 objectives

1. Using a community development approach, engage local communities (and schools) to identify barriers within their neighbourhood to walking, cycling, access and use of green and open spaces and active play.
2. Engage all age groups in this work with particular emphasis on engaging young people who often find little to do within their local neighbourhoods.
3. Implement the street audit changes recommended by communities.
4. Develop and distribute 10 local area walking maps.
5. Promote the Travel4Life Programme in schools.
6. Implement the Bike It Programme of cycling training and support in 48 schools to encourage more children to safely cycle to school.

5.5.2.3 link to the foresight obesity systems map

- This strand of activities focused primarily on influencing the casual relationships identified within the physical environment theme (perceived environmental danger, access to opportunities, costs of exercise, walkability, safety and opportunities for active travel) as outlined by Foresight.

5.5.3 neighbourhood audits - progress against outputs and outcomes

- A total of 11 Living Streets Audits were completed in 12 areas which equates to a 100% completion rate based on the revised target of 11. This equates to 18% of the original target of 60, which given the timescales was clearly unrealistic and appropriately revised.
- A total of 97 people were trained to deliver the street audits which represents 88% of the 110 target.
- The audits were conducted in the following areas of Sheffield; Arbourthorne, Norfolk Park, Batemoor & Jordanthorpe, Darnall, Heeley & Gleadless, Low Edges, Foxhill, Highgreen, Netherthorpe and Upperthorpe, Stocksbridge and Manor Castle. Figure 25 maps the audit areas against overweight and obesity prevalence at year 6.

Figure 25: Street audit neighbourhoods plotted against overweight or obese Y6 pupils

- A total of 4 young people were engaged in the community audit at Foxhill. The audit carried out at Gleadless was conducted by a group of young adults. The majority of the work with young people was focused in Foxhill and Gleadless.
- The audits identified a range of improvements to the physical environment including drop kerb installation, street lighting, setting up walking groups, a new ramp at a local swimming pool, fly tipping clean up, outdoor gym and distribution of dog poo bags. Importantly many of the changes have been maintained/owned by the community themselves.

- A qualitative review of the street audit training process was completed by a third party and can be accessed via NHS Sheffield.
- Based on the original 60 audits, 200 practical improvements were to be identified and implemented. In light of the revised target of 11 audits, the evaluation team reduced the practical improvement target by the same factor yielding a revised aim of 36 improvements. 55 were identified which equates to 153% of the target.
- 10 audit areas submitted proposals to an implementation fund. All improvements have been implemented at the time of this report; with some anecdotal feedback suggesting positive impact i.e. Chapeltown baths report a significant increase in children with disabilities using the pool since implementing a ramp. However, fuller comment pertaining to the impact of these capital projects is beyond the timescales of this evaluation.

5.5.4 travel 4 life - progress against outcomes and outputs

- 'Travel 4 life' aimed to promote active travel to school and safer physical activity in the local community through a programme of tailored education to pupils in schools. This included pedestrian training, walking buses and resources developed for use within school curriculum.
- The project engaged with a total of 17 schools during the *SLC4L* period representing 189% of the original target (n=9).
- 'Travel 4 Life' established partnerships with other *SLC4L* strands and the City Councils' road safety and travel teams extending the promotion of active travel.
- An important element of 'Travel 4 life' was pedestrian audits of areas surrounding schools. As a result of these audits, poster campaigns and DVD's have been produced which attempt to help children and families overcome barriers that prevent them from walking and cycling to school.
- In addition, 4 school walking maps have been developed based on feedback from children and families on the barriers which prevent them from being active.
- The significant increase in headline walking to school data (see section 3.3.1) suggests a positive contribution from the Travel 4 Life programme, although in the absence of an experimental research design, causal links cannot be substantiated.

5.5.5 bike it - progress against outcomes and outputs

- Bike it is a project that was already in place in a number of Sheffield schools prior to *SLC4L* funding. Therefore, this report focuses on the work that *SLC4L* funding has supported.
- The *SLC4L* funding has been used to fund an additional Bike It officer (employed 23/3/2009) to extend the programme of work towards a target of 48 schools.
- The Bike It programme has been delivered in 31 primary schools which represents 65% of the 48 target.
- In 2010, 24,265 pupils were recorded as taking part in the Bike it programme. This far exceeds the 16,000 target representing a 152% increase. To increase engagement, schools encouraged pupils to cycle to school by providing free breakfast clubs and bike doctor schemes.
- To better understand the impact of the Bike It programme on cycling behaviour the evaluation team conducted an independent review of routinely collected self-report data in the form of the Sustrans hands-up surveys.
- Although hands up surveys are self-report data and by their nature prone to the Hawthorne effect and researcher biases, pragmatically they provided an opportunity to sample a large number of participants, across a breadth of schools with limited resource implications.
- The data was cleaned and where possible confounding variables controlled, for example schools with a clear seasonal bias to their data - i.e. pre intervention assessment in January and follow-up in June, were removed from the sample for analysis.

- A total of 12 schools were included in the final analysis, all of whom had 12-month pre and post Bike It data. This represented 2047 children. 95% confidence intervals were applied to data which revealed that the bike it project had resulted in significant increases in cycling activity when considered as a whole sample and in 5 schools individually (see Figure 27).
- A positive trend for cycling activity was noted in all schools.
- A significant reduction in sedentary travel to school was also observed with the largest decrease seen in bus use (5.7% reduction compared to a 1.6% reduction in car use). This perhaps suggests that it is those individuals who already have some autonomy in travelling to school that the project has most impacted as opposed to those parents and children who use a car to travel to school.
- Data here might have implications for other industries and organisations in the city such as the council who have a partnership with the local bus transport provider to try and promote the use of public transport.

5.5.6 neighbourhood walking maps - progress against outcomes and outputs

- The neighbourhood walking maps project aimed to develop 10 walking maps, with 4 focused on the schools with highest in car use for short journeys. The remainder of the maps were directed at large employing organisations to encourage active travel to and from work.
- In total, 10 maps were produced representing 100% of the target.
- Figure 26 displays the walking map areas against obesity prevalence in year 6.

Figure 26: Walking map areas plotted against overweight or obese Y6 pupils

- Maps have been distributed in hard copy through primary and secondary care NHS, *SLC4L* conference, City Council and Schools and Sheffield Chamber of Commerce. In addition, 20 maps have been downloaded via the *SLC4L* website: Broomhill was most popular with 13 downloads.
- To inform the design of each map, a public consultation was conducted. General comments suggested that the concept was excellent and 86% of users were positive about the maps on first impression. However, a number of individuals (n=9) also indicated that the walking routes themselves could have been clearer and importantly that more hand-holding and guidance was required in order for the maps to have an impact.
- The impact of the walking maps on physical activity behaviour is unknown. In the first instance each map included a returns slip which invited individuals to provide feedback on the maps and comment on whether the map had been useful in increasing walking behaviour. No questionnaires were returned.
- In an attempt to gather data on the effectiveness of the walking maps, the walking map co-ordinator and the evaluation team attended a 'walkers' event with a view to recruiting participants. However, no one attended the event.

Figure 27: Cycling pre and post Bike it Intervention

5.6 healthy open spaces

5.6.1 take home messages

- the community garden has been running since july 2011 and 36 plots have been accessed and attended regularly (58 individuals and organisation showed interest prior to the gardening opening).
- sheffield wildlife trust completed community garden outreach work with 27 organisations
- 20 out of the proposed 23 play sites have been developed or improved. a further 2 sites are to be completed by the end of the 2011 financial year.
- 15 community garden tenants achieved an open college network qualification with grow training and benefitted from developing their knowledge and skills prior to accessing their plots.
- physical activity and fruit and vegetable consumption was lower than recommendations for those attending the grow training (exercising on 3.66 days/week, consuming 3.33 portions of fruit and vegetables/day). however, these individuals had positive attitude scores (tpb) of 3.33 on a scale of 1-4 (4 being the most positive), towards healthy lifestyles.
- a 15% increase has been measured in young people's satisfaction with sheffield's parks and green spaces.
- due to delays with both the community garden and the play sites it has not been possible to fully evaluate their impact.

5.6.2 strand introduction

- Evidence from National Institute of Health and Clinical Evidence (NICE) shows that being outdoors encourages people to be more active. Increasing physical activity is crucial to preventing the development of obesity in children and adults (Guidance on the promotion and creation of physical environments that support increased levels of physical activity <http://guidance.nice.org.uk/PH8>).
- This strand aims to empower families to make more use of their local green spaces, removing the barriers and increasing the ways in which people are active within the City's green spaces and is in line with the Recommended Community Strategies and Measurements to Prevent Obesity in the United States from the National Centre for Chronic Disease Prevention and Health Promotion <http://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>

5.6.2.1 aim

To create safe, healthy, accessible open spaces for children and families to enjoy.

5.6.2.2 objectives

1. Develop and provide innovative high quality active play opportunities for families and young people.
2. Engage families in improving their health through growing healthy food.

5.6.2.3 link to the foresight obesity systems map

- This strand of activities focused on influencing some of the identified causal relationships within the food (nutritional quality, taste, exposure, and demand for health) and activity (parental modelling, recreational activity) clusters.

5.6.3 community allotment - progress against outcomes and outputs

- In the first instance the community garden project faced a number of challenges to implementation including soil contamination at the planned development in Walkley. As a result a new site was identified in Parsons Cross and since then the programme has made significant strides forwards.
- The community garden officially opened in July 2011. 58 people and organisations have filled out expression of interest form with a total of 36 plots currently occupied. Of these, 2 plots are held with local schools, 2 with nurseries and 1 with a church group. Families accessing the plots include local individuals as well as families from Zimbabwe, Jamaica and Ireland.
- The garden has gathered a lot of interest and has developed quickly since opening.

"our first families came on site in july this year and as you can see already we've got signs of wonderful crops being grown" - strand lead

- In general individuals and families are attending their plots once a week, with some attending every day. Many plots are being used by families, increasing social contact and family time.

"well its team work, its family, son in law, son, my husband, children - they've planted things up, they've had an input into what they want to put in their bit of plot" - community garden user

- Images taken from flip cameras demonstrate the progress that has been made in the allotments since July 2011:

- 15 of the current tenants attended 6 week training courses before accessing their plots and a short evaluation of these training courses is provide below.

5.6.4 grow training

- Those interested in plots were given the opportunity to attend grow training days or 6 week grow courses provided via Sheffield Wildlife. Completion of the 6 week courses resulted in a formal Open College Network (OCN) qualification.
- In-service grow training was also offered to staff of organisations, such as children centres, who had also expressed interest in the plots. The training was to provide additional support, knowledge and skills in preparation for owning a plot.
- Three 6-week OCN training courses were run in Spring 2011 and 2 children's centres were involved in In-service grow training.
- To gain insight and to evaluate the impact of the training on growing skills and participant confidence and attitudes towards growing, semi structured interviews and focus groups with 8 participants and the course leader of one of the training groups were conducted. Measures were also taken on attitudes via TPB with flip cameras used to capture progress and skill development visually.

5.6.4.1 results and discussion

- Those sampled reported being motivated to achieve a healthy lifestyle with attitudinal scores (TPB) of 3.66 on a scale of 1-4 (4 being the most positive). Although, the average physical activity per week (3.66 days/week) and portions of fruit and vegetables consumed per day (3.33 portions/day) were lower than the recommendations.

"i've become more aware of what i'm eating because i've got a new compost bin, so i'm that keen to fill it up so it's a ton more vegetables" - community garden user

- High scores were given for enjoyment and usefulness of the sessions with average scores of 9.66 and 10 respectively, out of a possible 10 .Some individuals now grow at home and have started trying more new foods.
- Interview's revealed that most individuals felt the course was too short and would have liked to have continued and gained further knowledge. That said, subsequent one-day courses were available and so comments here suggest some individuals made use of this.

"i think because it's been a quick course, we've gone through everything quite quickly, which is why we're going to go to the one on friday again just to take it a little bit further" - community garden user

- All participants learnt something new from sowing seeds to crop rotation and attendees commonly reported that the grow training had many social benefits and that this would be enhanced once they had their plots.

"so there were things that i didn't know about crop rotation that i wouldn't have even thought about, you know, and certain things to plant that perhaps wouldn't need a lot of care like potatoes" - community garden user

"it's not just about what we've learnt, it's about actually we've started to come together as a group that will be sharing that space"
- community garden user

- Images from the training course demonstrate that the activities undertaken were of a practical nature, allowing participants to engage in sowing, maintenance of growing areas and caring for plants. These skills will be directly transferable to the plots (see Figure 28).
- Individuals were well prepared for when they gained their plots and many were keen to involve their children and grandchildren

"it might be nice at some stage to have a similar course specifically aimed at the kids or perhaps some of those older kids"
- community garden user

"you know finding safe spaces for kids isn't always easy it's going to be able to give that"
- community garden user

- Training provided individuals with the opportunity to engage in growing and it is reasonable to suggest that this has created and maintained an interest in the plots.
- Due to the delay in the set-up of the community garden it has not been possible to evaluate the impact of the plot further. It is therefore suggested that an evaluation framework that considers the cognitive, behavioural and long-term health benefit of the community garden is embedded within the programme going forward.

5.6.5 development of play sites - progress against outcomes and outputs

- Delays to match funding significantly delayed the Play sites programme, whereby 23 additional or improved play sites were to be developed.

5.6.5.1 results and discussion

- Despite delays, 11 sites were completed in Year 1.
- In year 2, a further 9 play sites were developed and 2 more are to be completed by the end of the 2011 financial year.
- A 15% reported increase was measured in young people's satisfaction with Sheffield's Parks and Green Spaces after the implementation of the first 11 sites.
- Park developments were often underpinned by community consultations. For example work at Phillimore park was conducted based on feedback from the local school, the park community association and the local youth club.

Figure 28: Images captured from the 6 week OCN grow training course

- Improvements or additions in the parks included:
- New landscaping and trees, with the removal of overgrown shrubs to improve safety and to provide a more welcoming environment
- New or improved play equipment including seats, climbing frames, nest swings and zip wires
- New multi-use games courts
- Progress of the sites was documented via timeline photographs, shown in Figure 29.

Figure 29: Timeline photographs displaying progress of play site development

- The evaluation of the play sites theme was due to include an assessment of energy expenditure via an accelerometer study. However, delays in the development of sites and difficulty in recruiting the participation of schools meant that this study has yet to be completed.
- This is particularly unfortunate as it was hoped that this study would provide insight into the difference between traditional (swings, roundabouts) and more innovative (boulder climbs, snake paths) play equipment in terms of energy expenditure.

5.7 social marketing - change4life

5.7.1 take home messages

- the sheffield - let's change4life website has proven a consistent method of promoting the program with an average of 512 unique visitors to the site each month.
- a significant ($p < 0.01$) increase in knowledge and awareness of the slc4l brand was observed throughout the programme.
- slc4l has received local, national and international coverage showcasing the work being delivered, and broadcasting key learning.
- 10,000 pieces of media coverage have been distributed over the lifetime of the project.
- over 400 people from across the country attended the slc4l conferences in apr 2010 and nov 2010.
- establishing shared ownership of project communications was difficult with a lack of consistency in understanding the importance and benefits of 'one brand' communications. therefore, future programmes might wish to seek a communications agreement with all partners prior to commencement.

5.7.2 strand introduction

- This element of the programme underpins the other programme strands and supports an innovative approach to service delivery and shifting attitudes and culture, which is key to the long-term prevention of obesity.

5.7.2.1 aim

- Help communicate the Change4Life/ Healthy Towns messages to the Sheffield public – with a particular emphasis on target communities, and ensure that the programme has a 'visible presence' in the City.

5.7.2.2 objectives

1. To develop one, strong 'Healthy Sheffield' brand which will have a life beyond the HCCF funding and can be used to brand a range of health promotion/public health activities in the City.
2. Develop and deliver full social marketing campaigns for 4 key strands to achieve positive behavioural change in Sheffield's residents.
3. Shift attitudes and raise awareness of key decision makers in the city to ensure that healthy choices are easy choices.

5.7.2.3 link to the foresight obesity systems map

- This strand focused primarily on influencing the causal relationships identified within the psychology themes (Self-esteem, media, education, conceptualisation of obesity as a disease) as outlined by Foresight.

5.7.3 social marketing - progress against outcomes and outputs

- The aim of this strand was to create a visible presence in the city through the establishment of one strong 'healthy Sheffield' brand which not only lasted beyond the duration of *SLC4L*, but would represent a sustainable social marketing platform which could be used to tackle a broad range of public health issues in the city.
- To optimise this, the decision was made to co-ordinate branding with the national change 4 life campaigns in support of the wider government initiative.
- Recognition of the national campaign has been high with 60% of all adults recognising the logo (Department of Health, 2010).

Figure 30: Knowledge of *SLC4L* amongst Year 7 children before and after receiving free fruit in school

- A significant ($p < 0.01$) increase in knowledge and awareness of the *SLC4L* brand was observed throughout the programme and 68% of attendees ($n=44$) at the Food glorious food exhibition reported recognising the Sheffield - Let's change4life logo and understanding the basic tenants of the programme.
- In conjunction with the evaluation of other strands, knowledge of the *SLC4L* campaign was assessed using a questionnaire. Below are two examples from school children and professionals.
- Generally, knowledge of the campaign increased after children had received free fruit with 48% of children having some understanding of the program after receiving free fruit (see Figure 30).
- Knowledge was slightly higher amongst professionals with 66% reporting a good understanding of the program before training; however obesity training had a positive impact on knowledge of the campaign.
- A range of media coverage has occurred throughout the duration of the programme including the development of a briefing paper with which 10,000 copies were distributed across Sheffield in January 2010.
- A media launch for the programme took place in June 2010 and the programme director was invited to speak at numerous conferences and workshops nationally and internationally which contributed to the awareness raising campaign.
- Conferences were held in April 2010 and November 2010 attracting over 400 delegates from across the country. This provided an opportunity to showcase the work being delivered, learn about achievements and successes and attend practice sharing sessions allowing further exploration of the work involved.

- 84% of a sample ($n=82$) of health professionals, practitioners and public health specialists reported that the programme had been well communicated with partners across the city (see Figure 31).
- *SLC4L* has received local, national and international coverage. However, the extent of this coverage has been limited: 15 articles in the Sheffield Star / Sheffield Telegraph mentioned *SLC4L* and 5 mentions on Radio Sheffield since the start.

Figure 31: Knowledge of *SLC4L* amongst Professionals before and after obesity training

- Establishing 'one brand' communications was difficult due to competing priorities of partners and therefore future programmes might wish to seek a communications agreement with all partners prior to commencement.
- Whilst the *SLC4L* branding has been used widely across Sheffield by those directly involved with the programme, there is still a need for it to be recognised and used by all staff involved in public health across the city.

5.7.3.1 slc4l website

- The Sheffield - Let's change4life website was launched in January 2010 and has proved a consistent method of promoting the program with an average of 512 unique visitors to the site each month with 8,358 visitors in 2010.
- Up to August of 2011, the website has already had 5,353 visitors; over 83% of last year's total visits suggesting there will be more visitors this year than last. The *SLC4L* brand is still being actively promoted across Sheffield which might be a driver for people searching on Google.
- However, the average time spent whilst visiting the site has reduced by one minute in 2011, suggesting that the content of the site is of reducing interest to visitors.

5.8 community health champions

5.8.1 take home messages

- the icdh course appears to elicit positive change in domains of wellbeing and contributes to the uptake of health promoting behaviour albeit based on self-reported data.
- data revealed 85% of participants reported making healthy food choices more often with a further 68% reporting that their family's food choices were also healthier as a result of the training.
- 220 community health champions have completed over 12,000 hours of voluntary work in sheffield's least healthy communities. 59 have obtained paid work with 48 in work relating to the training they have had as champions.
- data here confirms that the programme has been of great benefit to those individuals who became community health champions.
- 2325 individuals have been supported by chc to live healthier lifestyles and over 9000 individuals from sheffield least healthy communities have had contact with a chc.
- the extent to which people and communities live healthier lives as a result of the community health champions support still requires investigation however with only 30 personal health improvement plans delivered in the community (6% of the target).
- the 1-to-1 service, as designed, suffered from a lack of referrals from health professionals, potentially as a result of it being volunteer-led.
- despite the 1-to-1 programme failing to achieve its targets, those clients who did engage reported improvements in physical activity, self-confidence and social isolation.
- clients also reported wanting sustainable lifestyle options rather than a quick fix such as a cash bursary.
- some host organisations reported that the requirement to obtain baseline information damaged relationship-building between the volunteer champion and client.

5.8.2 strand introduction

- This strand includes two complementary themes of work; the Introduction to Community Development & Health (ICDH) Programme, and the Community Health Champions. These activities are in line with the Recommended Community Strategies and Measurements to Prevent Obesity in the United States from the National Centre for Chronic Disease Prevention and Health Promotion <http://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>.
- The ICDH course used innovative and experiential methods to enable learners to gain skills and confidence benefiting themselves, their families and their communities.
- Community Health Champions are volunteers "hosted" by voluntary and community organisations, encouraging healthy eating, physical activity and mental wellbeing.
- Data here should be viewed in light of the fact that the ICDH (in operation since 1997) and Community Health Champions (launched in January 2009) programmes were already in place in Sheffield prior to SLC4L funding. Furthermore, both had previously demonstrated success in supporting participants to initiate and sustain health promoting behaviours.

5.8.2.1 aim

- To empower people to support themselves and others to make positive lifestyle changes in their communities.

5.8.2.2 objectives

1. To establish a network of Community Health Champions to support people in their communities to lead healthier lives.
2. Deliver the ICDH training to empower people to support themselves and others to make positive lifestyle changes.

5.8.2.3 link to the foresight obesity systems map

- This strand of activities focused mainly on influencing some of the identified causal relationships within the psychological clusters (Stress, food literacy, self-esteem, parent-child relationship, individualism, media, education, conceptualisation of obesity as a disease).

5.8.3 introduction to community development & health - progress against outputs and outcomes

- The ICDH course aimed to recruit and train 300 individuals in Enhanced Public Health Programme areas covering 15 geographical neighbourhood clusters with the poorest health.
- At the time of this report 256 course graduates were recorded representing 85% of the target courses delivered in 18 locations within Enhanced Public Health Programme areas. (NB: Since the report was drafted, the target of 300 learners was exceeded as projected courses completed on schedule).
- The ICDH course has recruited learners from a diverse and traditionally hard-to-reach populations including; the Yemeni Community and women from BME communities affected by domestic violence and seeking refuge.
- In addition to the ICDH course, four new training programmes have been developed. Understanding the Role of a Health Champion course which ran four times with 24 participants completing the course; a Diabetes awareness course which ran twice with 24 participants; Understanding the role of a Learning Buddy ran once with 6 participants; and Moving into Employment which ran twice with 13 participants including 7 from Autism Plus.
- To explore the impact of the ICDH course a nested study with ICDH 'learners' was undertaken. Details are as follows:

5.8.3.1 purpose

- To explore with ICDH graduates the extent to which the training programme had empowered them to make positive lifestyle changes and given them the confidence to support others to the same end.
- A sample of 35 participants who had completed the ICDH course were recruited to take part in a cross sectional survey at the end of the 20/6/2010 ICDH programme. The short survey was delivered using Qwizdom, which is an Electronic Voting System that utilises handheld remotes to engage users in the process of evaluation. Qwizdom has the added benefit of users being able to view a graph of the results from each question in real time.
- An assessment of self-reported global self-confidence, dietary behaviour, physical activity knowledge and emotional wellbeing was also conducted.

5.8.3.2 results

- Data revealed that participants post ICDH course reported greater self-confidence and improved emotional wellbeing. It is particularly encouraging to observe that 72% of the sample also felt more able to cope with life-situations as a result of the training programme.
- In terms of impact on actual behaviour, it was beyond the scope and resource of this evaluation to objectively measure such change however self-reported data here revealed that 85% of participants reported making healthy food choices more often as a result of their training. Furthermore, 68% of participants reported that their family's food choices were also healthier as a result of the training (Figure 32).

Figure 32: Family Healthy eating after completing ICDH course

- Post training, few participants (38%) were able to correctly identify the recommended daily amount of physical activity for children. Instead the majority (62%) opted for 30-minutes, the adult recommendation, which perhaps reflects the numerous and sometimes confusing messages that exist regarding physical activity across the lifespan.
- Encouragingly, 94% of participants correctly identified the recommended weekly intake for fruit and vegetables. It could be argued that this knowledge is likely to have contributed to the positive food choices participants reported here.

5.8.3.3 discussion

- Based on the findings here, the ICDH course appears to elicit positive change in domains of wellbeing and contributes to the uptake of health promoting behaviour albeit based on self-reported data.
- It is suggested that knowledge of the physical activity guidelines for children and adults and skills to implement physical activity into daily life is enhanced as part of the training programme. This will be particularly important in light of the latest guidelines released by DH which can be download here : http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_128210.pdf
- The programme exceeded the target number of beneficiaries and succeeded in recruiting individuals from traditionally marginalised and hard to reach groups. Based on this the ICDH course appears to represent good value for the financial investment provided by *SLC4L*.

5.8.4 community health champions scheme - progress against outcomes and outputs

- The total number of Community Health Champions recorded during the *SLC4L* programme period was 220. However, to be counted as 'recruited to post' at least 16 hours of volunteering needed to have been undertaken.
- Based on this 164 of the 220 recorded counted towards the overall target of 240. *SLC4L* funded 60 Community Health Champion places (to March 2011) while the Big Lottery, through 'Altogether Better', funded 180 places to September 2011. By September 2011, 227 Champions had completed at least 16 hours of volunteering (representing 95% of target).
- Despite the project falling short of its recruitment target, 162/164 (99%) Community Health Champions completed at least 70 hours of volunteer work with 70 of these completing 100 hours or more. This represents over 12,000 hours of voluntary work in Sheffield's least healthy communities. By September 2011, 131 Champions had completed 100 hours.

- A total of 19 host organisations have been involved across the City in the Community Health Champion programme including those in Manor/Castle, Southey, Parson Cross, Longley, Sharrow, Norfolk Park, Upperthorpe, Netherthorpe, Darnall, Tinsley, Gleadless, Flower, Firth Park and High Green demonstrating a strong component of partnership and community engagement.
- 59 Community Health Champions have obtained paid work, 48 are in work relating to the experience and training they have had as Champions, 11 of which were recruited to Health Trainers posts in the region.
- This data confirms that the programme has been of great benefit to those individuals who became community health champions and participated in the training programme.
- The extent to which people and communities live healthier lives as a result of the Community Health Champions support is less clear. At the time of this report 2325 people were recorded as being 'supported' by Community Health Champions which represented 93% of the original target (n=2500) and 65% of the revised target (n=3600).
- Whilst, the definition of 'supported' lacks objectivity there is some support for the benefit of Community Health Champions to individuals and communities through 'real life' case studies which can be viewed on the *SLC4L* website: <http://www.sheffielddc4l.org.uk/about/community-health-champions>

5.8.5 community health champions 1-to-1 programme

- As part of the revised programme of work (Table 1) the Community Health Champion strand included a 1-to-1 bursary scheme.
- The purpose of this scheme was to pilot a model of engaging with overweight/obese people and those 'at risk' of overweight within their communities and supporting them 1-to-1 to make positive lifestyle changes to benefit their health. The voucher element was included to overcome any financial barriers to making these changes.
- The 1-to-1 scheme also aimed to develop the skills base and capacity of Health Champions to offer individualised support and deliver individualised Personal Health Improvement Plans to clients.
- A total of 60 (100% of the target) Community Health Champions underwent 1-to-1 training to deliver the Personal Health Improvement Plans and voucher scheme. However, only 30 Personal Health Improvement Plans were delivered which represented 6% of the 500 target and 30% of a revised target of 100 set in July 2010.
- As a result, the project was ended early and any under spend was re-profiled to fund sustainability work for other *SLC4L* projects.
- The review of the project revealed a number of key issues as to why this programme didn't meet its targets.
  1. The 1-to-1 scheme was more in-line with a paid health trainer model and simply not appropriate for a volunteer role. This might explain the apparent reticence of health professionals to refer patients into the service. One host organisation actively promoted the scheme to its service users but had no take-up at all, possibly because of service user reluctance to rely on a volunteer.
  2. The paperwork involved in evidencing change (in particular elements of the theory of planned behaviour) and safeguarding clients and champions was prohibitive for many of the volunteer health champions, many of whom have limited academic background.
  3. Participants who did engage in the first instance reported wanting sustainable lifestyle options rather than a short term fix via the bursary funding as they were concerned about the longer term viability once the bursary funding was gone.
  4. The 1-to-1 scheme overlapped with existing provision within the city including the health trainer scheme, the physical activity referral scheme and the South Yorkshire conditions management programme.
- Although the 1-to-1 pilot failed to achieve its target's the impact of the scheme on those individuals who did take part was investigated. Details of this study are provided below.

5.8.5.1 purpose

- To investigate the impact of the Community Health Champions 1-to-1 bursary scheme on client lifestyle change. The sample consisted of 4 participants (3 male and 1 female) recruited from the Community Health Champions 1-to-1 bursary scheme. The age range of the sample was 35-44. Participants were residents of communities in Sheffield including S5 (n=2), S7 and S55. All participants were white British, married, single (n=2) or divorced.
- This study adopted a longitudinal design with mean follow-up 16 weeks from baseline. Client data was collected by the Community Health Champion using the Personal Health Improvement Plan (PHIP) at first appointment and then followed up on average 16-weeks later.
- Consumption of fruit and vegetables, moderate and vigorous physical activity, social isolation and a general health score were assessed via self-report as part of the PHIP using simple likert scales. Domains of planned behaviour were assessed via a 7-point likert questionnaire which followed the Theory of Planned behaviour model and were incorporated into the PHIP.

5.8.5.2 results

- Client's scores for all components of planned behaviour increased over time as is shown in table 7. A paired sample t-test revealed a marginal significant (p=0.54) change in perceived behavioural control.
- This could explain the changes observed in self-reported physical activity and social isolation. Previous studies (Armitage, 2005; Sheeran, Conner & Norman, 2001) confirm that PBC (a form of self-efficacy) is a strong moderator of actual behaviour and therefore supporting an individual to make small positive changes to their lifestyle is likely to enhance domains of self-confidence and lead to future engagement in health promoting behaviour.

	subnorm	attitude	pbc	intention
baseline	5.38	4	3.88	4
follow-up	6.21	5.28	5.5	5.42

Table 7: Clients TPB scores

5.8.5.3 discussion

- With this in mind data here suggests that where the 1-to-1 programme is delivered by Community Health Champions, it has the potential to positively impact on client health.
- Whilst the sample size is extremely small and thus generalisations to larger populations withheld, there is some support here for the original rationale for the programme.
- Furthermore, if issues of Community Health Champion confidence and perceived/actual ability to deliver the intervention could be overcome, combined with a simpler method of evidencing programme impact and documenting client change, the 1-to-1 programme has the potential to provide much needed support to overweight/obese people and those 'at risk' of overweight within their communities to make positive lifestyle changes to benefit their health.
- A key challenge to overcome for the 1-to-1 scheme is recruitment and central to this the willingness of health professionals to refer patients to a 1-to-1 volunteer service. This clearly did not happen here which despite high quality and well received training; the 1-to-1 service simply couldn't attract referrals.
- It seems therefore that the 1-to-1 service as designed was not generally suitable as a volunteer role.

- Data from other services within Sheffield, such as the Diabetes programme, suggest that the role of the CHCs might work best in support of paid Health Trainers as opposed to being responsible for 1-to-1 work by themselves. It is in this support capacity that CHC's can add significant value (organising activities and groups, taking people to appointments or shopping etc), but it seems essential that the Health Trainer receives GP/health professional referrals and that the Health Trainer is also responsible for developing and monitoring plans with the client.
- In support of the latter point, some host organisations reported that the requirement to obtain baseline information actually damaged relationship-building between volunteer Champion and client and it is important to recognise where CHC's can bring best value to the health promotion agenda.

5.9 cross sector innovation

5.9.1 take home messages

- the healthy urban planner made many changes to the sheffield development framework city policies and sites document to promote health and well-being. when finally approved, this will be the reference document for planning decisions until 2026. these changes will help ensure that new housing and other developments promote active travel, access to healthy food and access to open spaces.
- a strategy was developed in the city's food plan to combat 'food deserts' i.e. areas where healthy food is not easily available. however while there has been progress in developing the strategy, this needs to be followed up by specific action to address the issues identified.
- overall, significant strides have been made to embody health and well-being in future planning policies. however there is some way to go before these issues are seen by planners as part of their 'core business'.
- one of the main achievements of the business broker post was setting up the business (health) champion scheme designed to increase awareness of slc4l and improve workplace health. eight large employers signed up for this scheme.
- four of the organisations with business champions hosted weight management workshops run by carnegie weight management, aimed at improving practices in the workplace around eating and physical activity. in total, including sessions held for sheffield council and sheffield homes, 693 people participated against an initial target of 150.
- in addition, the business broker set up and promoted a number of events for the business community promoting greater activity and better mental health. several of these activities will continue in future years without additional funding.
- overall there was limited progress on getting across the 'bottom-line' benefits of a healthy workforce to employers and on overcoming cultural resistance in male-dominated organisations with mainly manual employees.

5.9.2 strand introduction

- The Cross Sector Innovation strand is about "engaging new partners to build lasting valued relationships that lay the foundations for a healthier future in Sheffield".
- Specifically, two areas have been addressed by this programme: the Healthy Urban Planner - embedding relationships between planning, health, and the voluntary sector - and the Business Broker developing relationships between the private sector and the health / obesity agenda.
- A third area which was originally identified in this strand in the original bid concerned Personal Health Improvement Plans and the bursary scheme. This aspect was changed and moved to the Community Health Champions strand (section 3.8).

5.9.2.1 aim

- To build innovative new partnerships across all sectors to promote healthy living.

5.9.2.2 objectives

1. Systematic review of planning, development and transport policy and practice to identify long-term, city-wide approaches to removing obesogenic factors, including 'food deserts'.
2. To develop a Healthy Urban Planner Post to lead on, and contribute to, a range of planning projects with the aim of combating obesogenic environments, and to create living neighbourhoods by removing barriers and creating local environments that promote wellbeing.
3. To develop a Healthy Business Co-ordinator Post within Sheffield Chamber of Commerce and Industry to raise awareness of SLC4L and the impact that health related issues can have on business.

5.9.2.3 link to the foresight obesity systems map

- This strand of activities focused on influencing some of the identified causal relationships within the psychology and activity clusters. The Foresight report demonstrates that obesity is 'everybody's business' and that tackling it successfully will require a cross-sector approach. In particular it stresses the need to engage with planners to help promote development that can contribute to the creation of a healthier environment.

5.9.3 business broker scheme

- The idea of the Business Broker was to create a post within Sheffield Chamber of Commerce and Industry (SCCI) to raise awareness of Sheffield - Let's change4life within the business community to improve the health of employees and their families.
- Greater awareness of health issues is likely to lead to benefits not just to the employees themselves, but also to their families as they make changes to their diet and physical activity. It will also lead to benefits to companies, for example through reduced absence and greater productivity.
- The main desired outputs of the Business broker were; (1) improving practices in the workplace around eating and physical activity; (2) raising awareness within the workplace of SLC4L and the importance of healthy lifestyles; and (3) greater participation and engagement from the private sector in SLC4L.
- A further objective in the original plan was to secure £300,000 sponsorship from the private sector for health-related activities. In the event, this aspect was removed due to the challenging economic climate. However while the sponsorship target clearly needed to be considerably reduced, it was possibly premature to assume that all businesses will be affected in the same way and to abandon the target altogether.

5.9.3.1 progress against outputs and outcomes

- The Business Broker was appointed in June 2009, reporting both to SLC4L and to SCCI. When he left the Chamber for another post in August 2010, a replacement was found internally and there was a handover period which provided continuity.
- One early activity was the setting up of a Healthy Business Group to act as a steer for the business broker, link in with other Chamber forums and create a strategic approach on how to engage the business community. This group was made up of representatives from a number of companies including several SMEs. The people attending were a mixture of those who wanted to improve workplace health and others who saw the Forum as an opportunity to market their services or obtain funding from SLC4L. The group met three times, but then decided to adopt the Business Champion programme instead.
- The Business Champion programme was designed to increase awareness of SLC4L and engage key employers in the programme who can demonstrate that they have prioritised workplace health. Originally, called Healthy Business Champions, the first word was dropped to avoid confusion with Community Health Champions.

- The impact of the Business Broker strand is analysed in terms of each of the three desired outputs and outcomes.

5.9.3.2 improving practices in the workplace around eating and physical activity

- The weight management workshops run by Carnegie Weight Management were very successful in contributing towards this outcome. Sessions were run for four major employers – Blundells, Outokumpu, Specsavers, and Forgemasters. In the case of Blundells, this involved presentations to 200 staff and fifteen minute individual Health MOT appointments with 50 staff. In total, including sessions held for Sheffield Council and Sheffield Homes, 693 people participated against an initial target of 150.
- The sessions run by Carnegie were well received. Interview data presented in Figure 33 suggest that the scheme had positively influenced attitudes towards healthy lifestyles, helped initiate positive lifestyle change and embed a culture of healthy lifestyle within Blundell's through a Health and Wellbeing committee with monthly meetings and a regular newsletter.
- Whilst these comments are encouraging, it is important to be mindful of the quality of the data here and in the absence of objective measures of change, such outcomes should be treated with caution.
- Nevertheless, data does confirm the topic of Health and healthy lifestyles as of interest to business. Moreover, programmes such as Health MOT's, can make a positive contribution to the health agenda within the workplace.

benefits of workshops at blundells

- 1 to 1 health MOTs were also appreciated by staff
- More engaged healthier and happier staff providing benefits both for the company and for individuals
- New Health and Wellbeing committee established with monthly meetings and a regular newsletter
- Improved practices around healthy eating including sharing healthy recipes via the newsletter
- Improved practices around physical activity: tips given in newsletter. Walk and picnic for employees, families and friends taking place in the summer.
- Awareness of healthy lifestyles increased

**Anna Benjamin, Recruitment & Personnel Officer,
Blundells Estate Agents**

Figure 33: Feedback from Blundells regarding the impact of the Business Champion programme

- In addition to the Health MOT events, a number of sessions were run for Business Champion organisations by Yoga UK, focusing on mental health, reducing stress, and relaxation techniques.
- The Business Broker also launched a wide variety of events promoting activity. These included several 'netwalking' events, a 5-a-side football tournament, a 'Santa Jog' and Bike to Work days.
- The 5-a-side tournament was a particular success with 280 people participating in the 2010 tournament. This carried *SLC4L* branding and has been confirmed as an annual event with self-generated funding and backing from the Football Association.
- Benefits for Business Champions varied depending on what was in place before *SLC4L*. Westfield Health whose own well-being programme was already well advanced benefitted most by integrating different aspects of health and wellbeing together, rather than viewing them as separate.

5.9.3.3 raising awareness of slc4l and the importance of healthy lifestyles within the workplace

- There were a number of activities contributing to this output of the business broker. They included several 'Health at Work' seminars promoting activity, healthy eating and mental health. A 'Healthy Workforce Day' was held in October 2009 which included two seminars from the Healthy Business group promoting *SLC4L*.
- The November 2009 edition of the Chamber's First for Business magazine – distributed to 15,000 local businesses focussed specifically on business and health and on *SLC4L*, while some subsequent editions also featured articles relating to *SLC4L*.
- *SLC4L* and the Business Broker activities have been promoted on the Chamber website, with many businesses following the web link to the *SLC4L* website. In addition a healthy business update 'e-shot' publicising the health agenda went out to several thousand businesses.

5.9.3.4 greater participation and engagement from the private sector in slc4l.

- Those businesses who have taken advantage of the Business Champion programme have engaged considerably with *SLC4L*, not only through the sessions provided for their employees, but also in terms of participation in *SLC4L* conferences etc.
- Involvement of other businesses however has been limited. There is some evidence that many businesses see this mainly in terms of corporate social responsibility, i.e. peripheral to the company, and are unaware of the 'bottom-line' benefits to the company.
- Another issue, which was recognised by the business broker, was cultural resistance to health initiatives in male-dominated manual work environments due to 'macho attitudes'.
- Overall within *SLC4L* there could have been opportunities to involve the private sector more. The Head of Business Development at SCCI said that one of the most useful initiatives would be for SCCI and others to negotiate offers on healthy products with supermarkets and pass them on to staff in member organisations. A separate pack of offers aimed at teenagers might also help promote healthy living in this important group.

5.9.3.5 sustainability

- Several activities of the business broker are likely to continue beyond the life of *SLC4L*. These include net-walking and the self-funded annual five-a-side tournament. In addition there will be opportunities to build on the links with organisations participating in the Business Champions programme.
- There will be some lasting benefit too from the workshops provided by Carnegie Weight Management. For example, Blundells have planned a number of activities and a monthly Health and Wellbeing newsletter.
- The project has also led to greater awareness within SCCI of health issues and the benefits to companies, partly due to the links with other *SLC4L* strand leads.

5.9.3.6 recommendations

- The Sheffield Chamber of Commerce and Industry should consider how best to keep the focus on health and well-being, both within the Chamber and members who have participated in the various activities. This could include using business champions as case studies to demonstrate the benefits.
- SCCI should work closely with Public Health and others to consider how best to get across the 'bottom-line' benefits of a healthy workforce. In addition, they should identify how best to address cultural resistance in male-dominated mainly manual areas, as in fact the likely benefits could potentially be much larger.
- It is recommended that future health initiatives involve the private sector much more. The lack of private sector representation on the *SLC4L* programme board for example may have limited the opportunities for all sectors to work together to further the aims of the programme.

5.9.4 healthy urban planner

- The main aim of the Healthy Urban Planner post was to lead on, and contribute to, a range of planning projects with the aim of combating obesogenic environments, and to create living neighbourhoods by removing barriers and creating local environments that promote wellbeing. It also planned to contribute to the programme aim of creating safe, healthy, accessible open spaces for children and families to enjoy.
- Planning influences how people interact with their local environments and therefore it is important that planning policies favour developments that contribute to a healthier environment e.g. by providing access to open spaces and to healthy food options. While health issues have always been around in planning policies, a need was perceived to make this relationship more mainstream.

5.9.4.1 progress and success against stated outcomes

- The Healthy Urban Planner was in post from the spring of 2009 until the end of March 2011. This strand focused on ensuring that council planning policies promote healthy living and included three main areas: (1) reviewing planning, development and transport policies for their impact on health and well-being (2) Helping develop new proposals for the green network, cycle routes and open spaces, and (3) improving access to healthy food in 'food deserts'. These are considered in turn below.

5.9.4.2 sheffield development framework

- A key task for the Healthy Urban Planner was to review the 'health content' of the draft Sheffield Development Framework City Policies and Sites document. The Sheffield Development Framework is an important document as it is the reference point for consideration of all planning applications in the City. Also once approved, it is likely to be in place until 2026.
- This review took into account guidance documents from a variety of sources on what constitute 'healthy development'. The review led to changes to the document which address the barriers to healthier environments. These include specific changes promoting improvements to the walking / cycling environment and ensuring residential developments take into account access to facilities and open spaces.
- The changes included design guidance given to developers on how to encourage walking and cycling. In addition, developers of certain new schemes needed to provide an assessment of transport issues demonstrating that they have taken steps promote walking and cycling.
- Another change was that all new large housing schemes need to be within a ten minute walk of a range of local facilities. This increases the opportunity for trips on foot and creates more walk-able neighbourhoods. Developers of such schemes also need to provide open space, including play areas.
- Other health-related aspects include space standards for new housing to ensure they are of good quality and adaptable to the needs of differing ages and abilities, protecting shop use.
- The resulting City Policies and Sites Consultation Draft were approved by the City Council in May 2010. 840 responses

were received during the ten-week consultation period from June to August 2010. While the final version is not expected to be formally approved by the City Council until the end of 2012, the 'health content' is thought unlikely to be contentious. Once approved, the policy is likely to be in place until 2026.

5.9.4.3 green infrastructure

- Although not included in his original remit, the Healthy Urban Planner represented the City Council on a steering group run by South Yorkshire Forest developing a strategy for investment in green space across the Region. A draft strategy was completed in November 2010 for consultation. The aim is to attract investment in open spaces. While health is only one of the considerations here, green space is a key determinant of recreation and greater activity.

5.9.4.4 access to healthy food

- One of the agreed outputs of the healthy urban planner was to facilitate access to healthy food and combat 'food deserts' i.e. areas where healthy food is not easily available. He was a member of the 'Access to Food' sub-group which has been looking at this area. The Food Plan has been approved by the Executive Management team at the City Council and will be going to Cabinet for final approval in July 2011.
- Other work here has included working with the Parks and Countryside department to support new food growing initiatives and identify potential sites for community food growing.

5.9.4.5 other activities

- The Urban Planner also provided planning input to the Sheffield Health Inequalities Plan, which has been well received, and has provided advice on over 250 planning applications or enquiries, including housing developments and schools.

target/indicator	progress 2009/10	comment
% of new residential development within 30 mins public transport time of a GP, hospital, major health centre, and a primary and secondary school	100% within 30 mins of GP or secondary school; 89% of a hospital.	Data on primary schools not available.
Open space provisions will be increased in areas of shortage where the opportunity arises	None of the applications granted resulted in 'new' open space.	
No net loss of open space in areas of shortage	One planning permission granted which reduced open space significantly (by 0.35 ha).	This was for a sports hall which improved the sports 'offer' of the site.
Increase in walking and cycling	Trips on foot or cycling increased by 18.1% compared with the previous year	
6 cycle routes to be completed by 2026	Cycle route between City Centre and Northern General Hospital completed.	
All housing schemes comprising 10 or more units to achieve Building for Life (BfL) 'good' rating or above	Of the 14 schemes assessed, 9 were 'average' and 5 'poor'.	This is the first year schemes have been assessed on BfL.

Table 8: Short term impact of the healthy urban planner post

5.9.4.6 impact

- While the main impact of the Healthy Urban Planner will be seen in the medium and long term (i.e. once the Sheffield Development Plan is finally approved) it may already have had some impact on some of the indicators described above in Table 8.

5.9.4.7 feedback from stakeholders

- As the Sheffield Development Framework has not been formally agreed, it is difficult to identify stakeholders who can vouch for its impact on the overall outcomes of Sheffield - Let's change4life during the timescale of the project.
- One source of feedback was feedback from the consultation on the Sheffield Development Framework. A small selection of the many responses is given in Figure 34.

Figure 34: Stakeholder feedback on the Sheffield Development Framework

- In addition, semi-structured interviews were held with the Forward and Area Planning team Manager at Sheffield City Council and the Director of Health Improvement.

5.9.4.8 interview with planning team manager

- The Planning Team Manager, who was the Healthy Urban Planner's line manager at the City Council, believed that the project has had a clear impact and will have a lasting influence on ensuring that planning issues include a focus on health issues well into the future.

"an excellent project providing a health focus which permeated through the planning service. while health issues were previously considered to some extent, this was limited and having someone championing health issues within planning has given a very positive benefit to the service" - planning manager

- While the main beneficiaries of the project will be the general public, developers too would benefit as the additional emphasis on health issues - e.g. more open spaces - will enhance the selling potential of their properties.
- The post enabled the Planning Service to coordinate more effectively with the Council's Public Health Improvement Team, Parks & Countryside, Activity Sheffield and other teams whose work links to health. Strong links were established with Sport England and Natural England, while there was also joint working with community assembly teams and community groups, including a city-wide conference on planning which included health issues.

5.9.4.9 interview with director of health improvement

- Sheffield City Council's Director of Health Improvement, who chairs the Health and Well-being Consortium, also believed that there had been significant benefits of this strand.
- In particular there was some progress on identifying food deserts and promoting understanding of planning's role in reducing inequalities. The Healthy Urban Planner accelerated progress on the Food Plan, where planning is much more embedded than it would otherwise have been.
- Overall, the Director of Health Improvement described the main benefit of the strand as 'providing a pipeline through which health can be poured into the planning arena'. As a result of the programme there was a greater awareness of food issues within planning and the Planning Department played a more active role in promoting health issues and healthy lifestyles.
- However, for these benefits to be long lasting, the Director of Health Improvement also felt there needed to be observable returns on the investment, essentially 'we need to see results'. One example was to use the work on identifying food deserts to do something to address the issue. 'We now know what to do, but haven't yet implemented the findings'.
- In addition to enabling planning to be more aware of health issues, the Urban Planner post also helped some public health practitioners get a wider perspective and not just focus on diet and exercise programmes, but also on getting more play areas etc.
- While there was some progress on ensuring that planning development and transport processes promote healthy living, these are not, he thought, yet seen as core business by planning as a whole. There is therefore some way to go here.
- Overall, he felt that there had been significant benefits of the project, with greater emphasis on health in planning, but was not sure it was seen as part of the 'day job'. Nevertheless there had been progress in changing policies which could have a lasting benefit to the City.

5.9.4.10 key recommendations

- The Planning Department need to develop a strategy for embedding the learning from the Healthy Urban Planner project in order that health and well-being issues are seen as priority issues by all staff in the department.
- The work on identifying food deserts needs to be followed up by specific action to address the issues.
- Continued supervision of the Sheffield Development Plan is needed to make sure that the health focus is not weakened in any way and that its implementation is not delayed.

5.10 capability and capacity review

5.10.1 take home messages

- establish a clear vision for the programme and communicate it regularly and consistently to all stakeholders and in particular the programme leadership so that they are able to communicate a clear and consistent message to the organisations that they represent. where changes occur in programme personnel (at board or delivery level), new members should be fully briefed in this regard.
- ensure that strand leads/service coordinators are clear on their roles and responsibilities and that those responsibilities are informed by the aims and principles of the programme, not simply the agendas of existing services.
- where representation at board level changes, it should be the responsibility of the board itself to ensure that all new parties are briefed and clear regarding roles and responsibilities
- there is a need for a multi-agency obesity forum to exist to maintain the priority status of obesity across relevant stakeholders in the city and to broadcast successes across organisations
- where a partnership (between senior leaders and/or strand leads) is developed, this should be based on a transparent rationale and be beneficial to all parties and the programme as a whole.
- it appears important to be realistic in terms of what can be achieved within short to medium term timescales given the complex nature of obesity and the number of partners that are required to affect it at a population level. furthermore, short term timescales create an environment of client provider rather than partner and instead a longer term vision, with clearly identified process goals should be developed.
- on-going use of the change for life brand should be considered to maximise sustainability.

5.10.2 background

- As stated in section 2.0, the Public Sector Scorecard (PSS) has been used to form part of the theoretical underpinning for the *SLC4L* evaluation.
- The PSS examines the capability and capacity elements of an organisation/programme i.e. what it needs to do to support its people and processes so that they can achieve the required outcomes. These include supporting and developing staff, better partnership working, adequate resources and fostering a climate of innovation and learning. Importantly, these should all be underpinned by effective leadership (see figure 4 - The PSS Strategy Map for a *SLC4L* specific example).
- To investigate the capability and capacity elements of *SLC4L*, as outlined within the PSS, the evaluation team conducted in-depth semi-structured interviews with board members and strand leads. The specific aims of this 'process evaluation' study were as follows:
- To understand the board's role in *SLC4L*
- To understand the board members' and strand leads' individual roles within *SLC4L*

- To develop a clear picture of the board's role and responsibilities and how these were communicated to each board member
- To develop a clear picture of each strand lead's roles and responsibilities and how these were communicated to them
- To better understand the experiences of *SLC4L* board members and stand leads
- To identify implications for practice.

5.10.3 method

- A total of 9 board members and 14 strand leads from the *SLC4L* programme consented to be interviewed. Participants were drawn from a number of different organisations across the city and had been involved in the programme for between 6 and 20 months at the time of interview.
- A purposive sampling was used to recruit participants most relevant to the research question (Patton, 2002) and participants were selected on the grounds that they could provide insight into a number of potentially important mechanisms for programme capability and capacity according to the PSS. These were:
- Programme leadership, Partnership working, Role/Impact of the programme vision, Community input/influence and Sustainability.
- Interviews were conducted by a trained researcher with extensive experience of interview-based research. All interviews were conducted at locations convenient for each interviewee (e.g. private offices).
- A semi-structured interview guide was developed. The interview guide was informed by mechanisms for programme capability and capacity according to the PSS and this provided a deductive framework, which allowed the interviewer to guide the line of questioning in order to collect data relevant to the research topic in a systematic, yet open ended manner.
- Within each interview, open ended questions, reflective listening and summarising were used extensively to invite descriptive responses and obtain elaboration and clarification where appropriate.

5.10.4 data analysis

- All interviews were digitally recorded and subsequently transcribed verbatim with interviews ranging in duration from 21.55 to 67.26 minutes.
- Following previously established guidelines (e.g., Miles & Huberman, 2004), the interview transcripts were inductively content analysed and Computer Assisted Qualitative Data Analysis Software (CAQDAS) in the form of QSR-NVivo (Version 8) was used to facilitate the data analysis process.
- "CAQDAS is not intended to replace the ways people learn from their data, instead it is designed to increase the effectiveness of such learning" (Bazeley, 2007, p.2). Importantly, the initial analysis was conducted by an independent researcher with no previous involvement in *SLC4L*.
- Transcripts were examined and coded within NVivo to identify meaningful units of information (i.e., quotes that represented a single, recognisable aspect of the participants' views). Individual meaning units or codes that related to a common topic were categorized into lower-order themes and subsequently coalesced into higher-order themes.

5.10.5 results

- To allow direct comparisons to be made between the experiences of board members and those of the strand leads, the board and strand interviews were analysed separately.
- A total of 56 raw data themes emerged from the board interview transcripts and 59 from the strand transcripts.
- These were coalesced into 16 and 15 lower order themes for the Board interviews and Strand interviews respectively. The data from these themes has been synthesised to establish a view on the leadership of the programme and the capability and capacity elements of the programme as highlighted in the PSS strategy map. This is presented in the following discussion section.

5.10.6 discussion

5.10.6.1 effective leadership

- It was clear from the outset of the programme that leadership (in terms of political and strategic support) was perceived to be critical to the success of Sheffield Let's Change4Life. Indeed, data sampled from 82 health professionals, practitioners and public health specialists identified it as potentially having the greatest influence on project success (Figure 35).

Figure 35: Stakeholder views on what are the key success factors for *SLC4L*

- The public sector scorecard strategy map workshops held with key stakeholders prior to the commencement of the programme also confirmed its importance and placed it as the underpinning for the whole programme (see figure 4 - The PSS Strategy Map).
- The original application to the Department of Health and Public sector scorecard workshops with stakeholders identified four key attributes of effective leadership that were perceived to be important for this programme and are explored here. Specifically these were:
  1. A group based approach to leadership whereby the programme was jointly led by NHS Sheffield and Sheffield City Council with the full support of the Sheffield First Partnership.
  2. The Director of Public Health and Executive Director of Children and Young People's Services were to provide strategic leadership for the project
  3. There would be political support with the delivery driven forward by the Cabinet Member for Children and Young people.
  4. Partners owning and championing the vision of the programme within their organisations was particularly important with an aspiration for a culture change regarding partnership working around obesity.
- Interview data suggested that the programme board had been successful in steering the project smoothly through a number of political and financial challenges and they should be fully recognized for strong leadership in achieving this.

- A key part of this appeared to be the strong leadership shown by the Director of Public Health and Executive Director of Children and Young People's Services and interview data confirmed that their role was central to driving the programme forwards (see quote below).

“those two people have driven the programme forward and kept it on the people's agenda's..it's important to note the role that their leadership has played in getting this to move forward”
board member

- So too was political representation which despite changes in personnel remained strong throughout the programme. This is particularly encouraging given that these aspects were highlighted as key factors of effective leadership from the outset.
- Data from board minutes confirmed that the board met regularly and therefore provided a consistent opportunity for problem solving and overcoming project challenges. However, attendance was inconsistent and there was no representation from the private sector or business communities.
- Due to the tight timescales for programme implementation, the board had to be assembled quickly and adopt an operational rather than strategic focus and this was necessary at the start. However, several interviewees felt that the strong operational focus appeared to have remained, potentially limiting opportunities for strategic leadership.
- Terms of reference for the board were mentioned and it is important that these existed. However, it is unclear to what extent they considered the specific roles and responsibilities of the board members, particularly the balance between operational and strategic duties.
- This query is raised because interview data identified that some board members expressed a lack of individual role clarity and felt distant from the programme if they were not directly overseeing an aspect of the project. Furthermore, being a programme champion within their respective organisations was perceived to be an important role for some but not all the board members.
- Differences here could be partially explained by the lack of a project manager for the first 6 months of the programme which highlights the difficulty associated with implementing large scale programmes such as *SLC4L* with an extremely short lead-in time.
- It is recommended that at a national level, greater consideration is given to the time-scales needed for public health teams and associated partners to deliver large scale multi-agency programmes.
- Nevertheless, it is clear that the *SLC4L* received strong leadership and in key areas throughout its duration. It is essentially that this senior and political support remains beyond the programme funding.

5.10.6.2 leading the culture change

- As highlighted in the original bid to the Healthy Communities Challenge Fund, an aspiration for the project was to initiate a culture change regarding organisations working together around obesity and a number of positive attributes of this were observed through the interview data.
- These included evidence of senior partners working towards a shared agenda with a desire to overcome differences in organizational culture as the quote below suggests. It is of course important to be mindful that many successful partnerships already existed within the city and so data here should not be surprising.

“putting different people together, from different public sector organisations, everyone has got their own agenda...we've all got to communicate together even though we've got different languages organisationally, with different ways things are done”
board member

- However, there are a number of challenges that remain. It was clear from the interview data and board attendance that some organisations had invested to a greater extent in Sheffield - Let's change4life than others and there was still a sense of work to be done for partners to extend and embed services beyond the short term timescales and funding of *SLC4L*.
- It is likely that the short timescales of the programme funding did little to breakdown an environment of client provider rather than partner. Therefore, adopting obesity as a core offer and strategic priority across a number of different organisations going forward will mean partners doing more than just 'nodding it through'.
- Therefore, to change the culture regarding working together around obesity it appears important that a longer term vision, with clearly identified strategic goals is developed.
- Partners should take equal ownership in this vision, not necessarily on a financial basis as different organisations are always going to have larger or smaller budgets for different priorities, but more in terms of a shared ownership of the input and outcomes required to tackle a given agenda.
- Despite some concerns, partnerships and in particular organisations working together emerged as a strength of the whole systems approach. This is discussed in the following section.

5.10.6.3 joint working and partnerships

- Joint working within and across organisations was identified as one of the four key requirements for the programme to be effective. The potential importance of this aspect is perhaps best summed up by a quote from one of the board members:

“i think there is a real recognition that we have got to join up on this agenda, better than we have been doing in the past. if we can turn this into an opportunity, in these times, it will provide us with a powerful way forward”
board member

- So the logical question to ask is did this happen and if so how?
- Data from the first strand away day evaluation suggested that there were a number of barriers to overcome in the first instance and these are presented in the 3 quotes below.
- Some of these barriers were internal and historical, whereas others were a result of organisations and departments coming together for the first time.

“different work streams and organisations rarely working together”
strand lead

“very negative, lots of history and issues to take on like departments not working together and a lack of shared knowledge”
strand lead

“being clear how scc can work in partnership with nhs and voluntary sector”
strand lead

“having the knowledge and experiences of this programme to draw on, we’re now very aware of the obesity issue when we design things. so, for example if somebody says oh, we need to have the car park right next to this building, you say well why? you know, you can walk a bit further”
board member

“i wouldn’t even have been aware of that project going on let alone having met the person involved if we weren’t part of the same programme”
strand lead

- Despite these early challenges, data suggested that the development of external partnerships, especially at strand level was a key outcome of SLC4L. Indeed, strand leads perceived this was more the case than for internal partnerships as Figure 36 shows.

Figure 36: Partnership development within SLC4L

- This might be a reflection of the fact that internal synergies were already established but moreover it demonstrates that the programme generated strong partnerships across a number of different organisations at an operational level.
- Perhaps more telling is that in a sample of 82 health professionals, practitioners and public health specialists from across Sheffield, 97.5% confirmed that the programme had helped build citywide partnerships.
- Data from the board interview transcripts also identified that the programme had been successful in impacting existing services and/or partner organisations through the provision of additional financial support. However, this view appears to conflict with the initial programme aims that focused on creating new solutions and innovation around the prevention of obesity.
- Nevertheless, it is encouraging to note cross organisational partnerships have begun to influence working practices which is where the impact of a whole systems approach is seen as the quotes below confirm.

- There were however a number of challenges regarding partnership working.
- Consistent with the board interviews, strand interview data suggested these challenges related to the complexities associated with delivering such a diverse programme (i.e. one that involves so many different partners and services).
- Central to this was the need to encourage mutual partner commitment and the development of a shared agenda.

“if i’m completely honest i think there’s people in the leads room who want to be there and recognise the difference they’re making which it makes it easier for me to do my job, and there’s people in the leads room who don’t want to be there who find it an extension to their job that they don’t find necessary” - strand lead

- Poor communication between the different strands in the beginning of the programme and subsequent difficulties associated with coordinating work was also raised as an ongoing challenge.

“i think it is difficult because much of the work does cross over and i’ve gone to external organisations who’ve said to me ‘oh we’ve had so and so in from another project already,’ which doesn’t look very professional in the business world” - strand lead

- Conflicts of interests were also noted with partners demonstrating different priorities or agendas to those of the programme.
- All that said, the overwhelming message from the strand interview data was that the programme had helped to develop partnerships between individuals, organisations and communities who would not have come together had it not been for the systems approach adopted here. Examples include; community health champions interacting with town planners and members of particular communities coming together to reduce barriers to physical activity within their locality which they themselves observed through the street audits.

- Interview data revealed that a catalyst to improving the interaction between strand leads and thereby creating better partner relations was the programme away days. Data from the strand interviews revealed that for a number of projects this was the first time that they realised they were part of a much bigger programme.
- Knowing this made a difference to the way they understood their role and what they needed to do to improve communication and strengthen links between partners as the quote below surmises.

“if only we’d known this from the start, we would have had a far better awareness & made better links with other partners. if we’d been sat down initially and told right, this is what you’re doing, this is what’s going on at the same time, and you’re all working together to the same aim, it would have speeded up the process incredibly” strand lead

- So why didn’t partners/strand leads know they were part of a much bigger programme from the outset? One explanation could be the lack of clear project management within the first 6-months of the programme and changes to strand delivery staff.
- Alternatively, perhaps the issue here was a lack of a clear vision.
- So why didn’t partners/strand leads know they were part of a much bigger programme from the outset? One explanation could be the lack of clear project management within the first 6-months of the programme and changes to strand delivery staff.
- Alternatively, perhaps the issue here was a lack of a clear vision.

5.10.6.4 shared vision

- The original application has a clearly stated vision and so it appears that it is the case that the vision had not necessarily been articulated in the first instance loudly enough or broadly enough and perhaps got lost understandably in a desire to get project activity started.
- Data from the March 2010 away day supports this view with only 14% of strand leads and project officers indicating the vision of the programme was clear to them.
- At board level, interview data highlighted a consistent if broad view regarding the programme vision with the majority of members highlighting a link to reducing health inequalities in the city. However, the specifics of the programme vision varied with little reference to childhood obesity.
- Views on the vision within board transcripts ranged from creating a cultural shift and community empowerment to reducing childhood obesity and addressing the health inequalities gap. It was also suggested that in the context of the City’s needs agenda, that obesity was still a low priority for stakeholders.

"the vision for the programme is to influence sheffield people and give them opportunity to access services that can help them become healthier or lead healthier lifestyles" - board member

"it's about a shift in local culture around childhood obesity really, so healthy eating physical exercise and the environment"- board member

- This perhaps reflects subtly the different interests of partners but could again highlight the fact that the specific vision of the programme wasn't communicated regularly. This of course would make it difficult for leaders to then articulate this to the organisations they represent which could explain the data observed at strand level.
- One explanation for this could be that because *SLC4L* represents such a complex programme, expressing the vision 'simply', was a difficult task and as a result variations occurred. Therefore a 'sound bite' that represented the essence of the programme might have been useful at the start.
- All that said, the latest data suggests that strand leads, project officers, health professionals and partners external to the programme had a much better understanding of the programme by the end of 2010. This was helped by the two conference events that took place and an increase in project activity and associated outcomes.

5.10.6.5 community engagement - delivering change

- Community engagement has been positive for the programme in terms of improving the city's capability to deliver behavioural change.
- The programme recruited 164 community health champions supporting over 2325 people. This represents over 12,000 hours of voluntary work in Sheffield’s least healthy communities. The city now boasts over 150 outlets with the healthy choices award, 210 have achieved the breastfeeding friendly award and John Lewis store in Sheffield has overhauled their menus to incorporate healthy prepared meals.
- All schools and children's centres have engaged with the programme and data from teacher interviews revealed the importance of involving local communities in the planning of cooking initiatives and this was particularly the case where ensuring cultural diversity was concerned.
- The living streets training and subsequent street audits identified health-related improvements to the physical environment with many of the changes maintained/owned by the community. It also enhanced interaction between community members as the quote here suggests.

**“the community groups are working better together. the aim is to have everybody working together and that is brilliant”
batemoor and jordanthorpe resident**

- A minimum of 250,000 contacts have been made with the programme with activities taking place in virtually all communities within Sheffield.
- Although community engagement at a strand level was positive in terms of people taking part in activity, it wasn't clear to what extent communities owned or were able to effectively influence the broader vision of the programme.
- Although the community and voluntary sector were represented on the programme Board, interview data and board minutes revealed that they did not always attend or seem clear as to their role. It is clear that work still needs to be done to engage this sector.
- The nature of the living street audits and subsequent grant funding also suggested that the wants and needs of some of the communities were not always directly aligned with the aims of *SLC4L* but instead used the programme resources for broader aims such as road safety and tackling inequalities.

5.10.6.6 project management

- There is little doubt that this programme has benefitted from strong project management. This has been provided at board level but also by strand leads and the programme director and project support team.
- The liaison between the board and the programme director has been effective and the methods of communication via briefing papers and strand level presentations appropriate.
- Data from board interviews also highlighted the importance of a strong programme manager who has driven the programme forward and recognised the efforts of the strand leads.
- There are a few areas for improvement however. In particular, while the delay in appointing the programme director was perhaps longer than expected, programme management during the intervening period was limited. This is perhaps inevitable in such projects, but steps need to be taken to minimise the impact and potential delays in getting activities off the ground.
- In addition, a constant frustration was the lack of availability of good news stories from the project activities. It is likely that this is purely a result of a lack of time for project leads to dedicate to this but where it has been done well such as community health champions, the projects themselves have benefitted
- The timeliness of reporting and indeed the timescales in which these reports needed to be completed were also a common frustration for all professionals involved in the programme. This was exacerbated when the programmes were supported by external funds and projects therefore required more than one format of reporting to be undertaken.
- Email correspondence was mentioned in both good and bad terms and although it is the most common method of communication, there is a danger that it can be overwhelming.
- The positive referencing of the strand away days that was observed throughout the strand interview transcripts is a good reminder of the importance of face-to-face communication in building partnerships and strengthening working relationships.

5.10.7 capability and capacity summary

- In summary then, there appear to be 5 key messages to take from the capability and capacity aspects of the *SLC4L* programme. These are:
1. **Establish a clear vision for the programme and communicate it regularly and consistently to all stakeholders** and in particular the programme leadership, so that they are able to communicate a clear and consistent message to the organisations that they represent.
  2. **Balance strong operational governance with strategic leadership and ensure that the board has terms of reference and that all members are clear on their roles and responsibilities.** Where representation at board level changes, it should be the responsibility of the board itself to ensure that all new parties are briefed and clear regarding roles and responsibilities. Furthermore, that a balance is outlined between operational and strategic duties.
  3. **Provide opportunity through away days and meeting forums to engage people face-to-face.** Therefore, there is a need for a multi-agency obesity forum to exist to maintain the priority status of obesity across relevant stakeholders in the City and it will be important for senior leaders to set the culture of this forum. Furthermore, where a partnership is developed, this should be based on a transparent rationale and be beneficial to all parties and the programme as a whole.
  4. **Ensure all partners feel part of something bigger and recognise their role in achieving a common purpose.** Moreover, ensure that strand leads/service coordinators are clear on their roles and responsibilities and that those responsibilities are informed by the aims and principles of the programme, not simply the agendas of existing services.
  5. **Broadcast success** and recognise that Multi-agency programmes such as *SLC4L* require senior project champions to drive it forward as has been seen here and without this, programmes have the potential to stall. On-going use of the Change4Life brand should also be considered to maximise sustainability.

5.11 moving beyond healthy towns

- Although the healthy towns programme was delivered under the healthy weight healthy lives strategy, the learning from *SLC4L* has application to the coalition ambition within the obesity call to action white paper, Healthy Lives, Healthy People.
(http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_130487.pdf)
- Specifically, how public health prevention activities can be delivered across a number of agencies, including local authority. In addition *SLC4L* demonstrates that the adoption of a life course approach as a model for intervention is feasible although it requires organisations who have traditionally not come together to do so in order to deliver it effectively.
- Finally, *SLC4L* offers much in terms of how organisations might realise the ambition for adults to adopt health promoting behaviours through a systems approach, whilst retaining the necessary focus on children and young people.
- With this in mind, it is encouraging that, NICE is currently consulting on public health guidance regarding 'whole systems approaches to public health, specifically obesity – of which the findings from *SLC4L* has formed a strong part.

6.0 what works, what doesn't work, why and what next

- Tables 9 and 10 provide a high level summary of factors that appear to 'work' and 'don't work' in terms of delivering a whole systems approach to preventing childhood obesity. For a project level discussion of factors and mechanisms for success please refer to the individual strand evaluations in section 5.0.

what works	why	what to do next
utilising the model of foresight as an underpinning for a whole systems approach to tackling obesity	The evaluation of <i>SLC4L</i> suggests there is little doubt that a whole systems approach represents a significant step-forward in the design of population based prevention programmes in public health. The <i>SLC4L</i> approach has helped stakeholders and key decision makers across the city to consider the numerous determinants of obesity simultaneously rather than commissioning interventions that target specific risk factors in isolation. It is important to recognise that the obesity systems map developed by Foresight (2007) was the start point of this approach. Map activities and programmes currently existing within the city against Foresight and establish a vision to connect these interventions under the banner of a whole systems approach.	Where gaps are evident, consider how they can be closed with existing provision and/or through establishing and engaging with other stakeholders. To achieve this will require innovation and an element of informed risk taking based on sound economic projections, rather than direct financial investment to pump prime activity.
strong strategic leadership with a desire to overcome differences in organizational culture	The <i>SLC4L</i> programme was borne out of a desire from the Director of Public Health & the Director of Children & Young Peoples Services to overcome differences in organizational culture to tackle obesity cohesively across Sheffield. The importance of this strong leadership from the outset cannot be understated and must be the starting point for a systems approach. The political support given to the <i>SLC4L</i> programme helped drive the programme. There was a clear desire to tackle the issues of obesity rather than seeing the obesity agenda as an opportunity to gain political ground or public will and this attitude was crucial and remains crucial going forwards.	Continue to lobby strategic and political leaders to maintain obesity as a priority for the City. This could be achieved through prioritisation of obesity within the Cities shared targets and policies, including the public health outcomes framework. The development of a multi-stakeholder City wide obesity strategy could be an appropriate mechanism for translating the programme's vision and plans for sustainability into a commitment for action.

what works	why	what to do next
bringing professionals and practitioners together through a shared vision	A particular strength of this programme has been the development of external partnerships, especially at strand level. Importantly, these partnerships have been formed between individuals, organisations and communities who would not have come together had it not been for the systems approach adopted here. This approach has also had an impact on working practices and there is evidence that the determinants of obesity are better understood across a range of stakeholders than before <i>SLC4L</i>.	Create opportunities such as discussion forums and away days for project designers, managers and deliverers to interact and develop partnerships with individuals and organisations from different backgrounds. In addition, ensure the remit and purpose of these forums is defined and understood to avoid disengagement and a lack of role clarity.
one brand, one message	The brand of <i>SLC4L</i> appears to have done much to foster a consistent and normative message about healthy lifestyles and it will be important these messages are maintained within the social structure of the city. The one brand approach appears to reduce confusion and provides a consistency of message. Individuals and families commonly reported 'recognising it' even if they didn't fully understand what it meant.	Consider how best to utilise the brand of <i>SLC4L</i> within current or future social marketing campaigns. Point to consider - is <i>SLC4L</i> too closely aligned with childhood obesity to extend its remit to other areas of public health?
rewarding/kite marking success and good practice	Data from the Healthy Choices Award, Healthy Early Years Award and the Breastfeeding friendly Status Award confirm the importance of rewarding/kite marking good practice. These programmes, particularly with private business, confirm to City residents and visitors the importance of healthy lifestyle messages within the city.	Continue to recognise and reward good practice, particularly within the private/business sector.

Table 9: What works, why and what to do next

what works

what works	why	what to do next
the provision of high quality information and signposting to appropriate support.	When individuals are ready to change, the provision of high quality information and signposting to appropriate support is critical. Whilst there are some examples of this, such as breastfeeding peer support and community health champions, data here suggests there is still more to do to support people in making healthy changes to their behaviour.	Ensure that high quality information and signposting to support services is available at likely contacts with intervention participants and/or the general public.
the provision of high quality training that focuses on building self-worth and life skills	There is substantial evidence that the strands of work within <i>SLC4L</i> had a positive impact on participant's attitudes and intentions towards the adoption and initiation of health promoting behaviours. This in itself is encouraging. Data suggests that this occurred as a result of programmes focusing on building participant's self-worth and confidence and providing a positive experience of health behaviours within a supportive environment i.e. community health champions, breastfeeding peer support, let's get cooking programme, ICDH courses and so on.	Programmes should seek to enhance their current offer and curriculum with a focus on life-skills, forward planning and strategies to better implement intentions to make healthy choices. Intervention and programme designers are encouraged to collaborate with academics, psychologists and behaviour change practitioners in enhancing these programmes.
public showcase events and displays	The number of people engaged with the public open displays (i.e. food festival, training and awareness events, food glorious food etc) and positive comments on evaluation forms from such events is encouraging. There is little doubt that the brand and key messages of <i>SLC4L</i> has benefitted from such a public presence.	Continue to recognise the importance of engaging and showcasing public health work with the public. Importantly, ensuring that the events are fun and provide a positive experience of health for those in attendance.

Table 9: What works, why and what to do next

what works

what works	why	what to do next
community audits and local funding opportunities	The living street audits and associated capital funding provided an opportunity to engage local people and communities who, perhaps for the first time, have been given a platform from which they could make changes to their local environment.	To continue the dialogue between <i>SLC4L</i> and local communities/residents, (if not already occurring). It might be useful to rejuvenate board membership from the community and voluntary sector. Moving forward it will be important that Community Assemblies own this model of working.
using schools as platforms for engaging children and their families in healthy lifestyle activities	Data here suggests that the strategies employed within the schools strand of the programme have proven effective in engaging children. As a result we have seen increases in physical activity, physical fitness and improved knowledge and skills in cooking and healthy eating.	Provide continual support for school schemes and clubs. Consider developing a resource for teachers that discusses methods of best practice and provides info on how to set up or improve school schemes/clubs.
inclusion of children & parental consultation in intervention design and implementation	Evidence from our evaluation suggests that the involvement of key stakeholders can improve the appropriateness, accessibility and uptake of projects - as demonstrated by the cooking clubs.	Continue to involve local communities, especially those targeted for intervention (i.e. children and parents in this instance) in the planning of local health projects.
the integration of the public sector scorecard (pss) and theory of planned behaviour (tpb)	The integration of the PSS and the TPB provided a comprehensive and theoretically underpinned model upon which to consider the impact of <i>SLC4L</i> . This approach was particularly useful in identifying the steps required to see the project realised (the strategy map see Figure 1) which facilitated evaluation. The inclusion of the TPB also ensured that the cognitive aspects of change were assessed, something that is often overlooked in evaluation of such programmes.	Programmes should consider in their evaluation the cognitive, behavioural and long-term health benefit of programmes but also consider the processes required to make the programmes a reality. Combining the TPB and PSS is one approach which appears to offer some efficacy. In addition the city should continue to monitor its progress in addressing obesity and use the resulting information in the development of future strategy.

what doesn't work

what doesn't work	why not	what to do next
short-term timescales	Evaluation data pointed to short-term timescales creating an environment of client provider.	Establish a 'long term' agreement with stakeholders to work towards a shared vision that cohesively tackles the thematic clusters of the Foresight map (2007).
an overly complex vision statement	Expressing the vision of a complex programme like <i>SLC4L</i> appeared difficult at all levels. As a result, it was not articulated in the first instance loudly enough or broadly enough to enhance shared ownership.	A 'vision sound bite' that represents the essence of a complex & multi agency public health programme might enhance understanding and shared ownership.
an operational focus of the board can limit strategic opportunities	Due to the tight timescales for programme implementation, the board had to be assembled quickly and adopt an operational rather than strategic focus. However, the strong operational focus appeared to have remained, potentially limiting opportunities for strategic leadership.	For future programmes, the balance between strategic and operational duties at board level should be established from the outset. In addition, championing of a programmes vision and strategic aims to ensure obesity is everyone's business, should be a priority for key leaders.
lack of shared ownership of project communications	Evaluation data revealed that there was a lack of consistency in understanding the importance and benefits of 'one brand' communications within the project. This meant that individual organisations and partners were often competing for ownership of project success or news stories and media coverage.	Future programmes might wish to seek a communications agreement with all partners prior to commencement.

what doesn't work

what doesn't work	why not	what to do next
current approaches to engaging the private sector	There is little doubt that the economic climate had a negative impact on certain elements of the <i>SLC4L</i> programme including sponsorship. Nevertheless, engagement with the private sector generally could have been enhanced. Although the business broker post had made significant strides forward in this area, it remains unclear the extent to which the private/business sector own the bottom line benefits of health and obesity. This could be a result of the need for long lead-in times with this sector but might also be because health is still not seen as a priority.	Enhancing the cost-benefit model of health that is presented to businesses might facilitate engagement. Essentially, there is a need to be able to demonstrate return on investment and be specific about what it is the programme is asking businesses to do i.e. taking part in a workshop or establishing health screening within the organisation. A representative from the private sector on the <i>SLC4L</i> board might provide insight into the thoughts and requirements of this sector in terms of health. In addition, forging such partnerships at strategic level is likely to enhance the potential to embed health within the workplace and workforce.
trying to fit existing programmes to new and a number of agenda's concurrently	Common amongst strand leads was the notion of trying to make existing work and projects fit a number of different agendas. This was particularly difficult in terms of reporting.	Where match funding was provided, establishing <i>SLC4L</i> activity from 'the day job' was also a point of difficulty. It will be important going forward that programmes can clearly establish their likely impact on the priority agenda for which they were commissioned i.e. obesity.

Table 10: What doesn't work, why not and what to do next

what doesn't work

what doesn't work	why not	what to do next
adopting the ncmp as a method of assessing longitudinal change to assess programme effectiveness	Provision was made within the evaluation plan to attempt to explore NCMP data at school-level, with a view to making comparisons between matched (based on deprivation, socio-economic status and obesity status) schools with and without <i>SLC4L</i> intervention. However, in the final analysis only 22/118 schools failed to receive some form of <i>SLC4L</i> intervention. Therefore, we felt it inappropriate to confidently report outcomes and make assumptions about meaning based on school-level comparisons due to small sample sizes. We recognise this limitation.	To robustly evaluate the impact of future interventions in schools, a longitudinal measurement programme of a consistent cohort of children is required. One option for this could be a link to the South Yorkshire CLAHRC obesity cohort study. Details of this can be found here: http://clahrc-sy.nihr.ac.uk/south-yorkshire-cohort.html It is also important to be mindful that NCMP data does not reflect the full impact of the programmes work in obesity. Therefore, NCMP should form one of a number of indicators by which work on obesity is measured going forwards.
overly complex measures of assessment	Although a validated tool, the TPB questionnaires were deemed over complicated and therefore not easily understood by participants. This at times hindered data collection. However, the use of validated tools and objective measures should remain a priority.	Evaluators are therefore encouraged to pilot methods of data collection wherever possible prior to programme implementation.
data collection via service deliverers	Data is not always collected efficiently or on time due to the large burden of this task on top of their already busy workload. We found that demands for data collection at baseline also had potential to damage the relationship between client and service provider by over-burdening participants.	Going forwards it will be important to consider alternative methods for data collection, such as online forms and to develop strategies to maximise data capture opportunities thereby limiting participant and practitioner burden.

Table 10: What doesn't work, why not and what to do next

7.0 references

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appendix 1: i&dea outcomes and outputs definition

All the interventions will be measured by the achievement or contribution to outcomes and therefore it is important that those planning interventions understand what is meant by “outcomes” and the differentiation between outcomes, outputs and processes. A recent report from the Improvement and Development Agency (I&DeA) defined these as follows:

Outcomes are end results, describing states of well-being, or referring to results achieved by a service or intervention over time. An example of outcomes given by I&DeA revolves around a hypothetical support programme for parents of 3-year olds, leading to:

- fewer temper tantrums after three months;
- fewer conduct disorders after five years;
- reduced involvement in crime after ten years.

All three of these are outcomes.

Outputs describe service activity, often counting the number of clients served and procedures undertaken; they are thus often *quantitative* in nature. An example given by I&DeA is of a parenting support programme providing 3 home visits to 200 families over a 1 year period.

Processes are defined as a means of describing the way in which activities are undertaken. The example given by I&DeA is that of the type of training programmes offered to staff, the specific types of support they are given to carry out their work, and the review procedures for the families and children

Improvement and Development Agency (2007), 'Tools for Improving Outcomes and Performance:

Comparing Six Different Approaches,' p.1.

appendix 2: the evaluation strategy

- The evaluation process was framed by the 6 key principles outlined by the Centre for Disease Control and Prevention (2002) for the evaluation of public health and physical activity interventions;

1. **Engage stakeholders:** Those persons involved in or affected by the program and primary users of the evaluation.
2. **Describe the program:** Need, expected effects, activities, resources, stage, context, logic model.
3. **Focus the evaluation design:** Purpose, users, uses, questions, methods, agreements.
4. **Gather credible evidence:** Indicators, sources, quality, quantity, and logistics.
5. **Justify conclusions:** Standards, analysis/synthesis, interpretation, judgment, recommendations.
6. **Ensure use and share lessons learned:** Design, preparation, feedback, follow-up, broadcast knowledge.

- Adhering to these six steps facilitated an understanding of the programme's context (e.g., the programme's history, setting, and organisation) and improved how the evaluation was conceived and conducted.
- To achieve consistency in our approach, a theoretical underpinning to our evaluation was imperative. So too was the use of validated tools of measurement and recognised methods of data analysis and interpretation. That said it was also important to be mindful of the fluid nature of the *SLC4L* programme and as such the evaluation worked within a pragmatic framework.

method

design

- The evaluation adopted a mixed methods approach including audit of routinely collected data, cohort studies, nested studies, semi structured interviews with strand leads and board members as well as programme participants.
- The collection of data was both cross-sectional and longitudinal, differing depending on the type and nature of the intervention, the pragmatics/costs of data collection and the timescales involved. (Detailed methods of evaluation for each strand of activity are provided in section 5.0).

headline measures

- The *SLC4L* programme represented a stepping stone towards a headline outcome that 'by 2012 the obesity rates in Sheffield will be falling'.
- To assess the extent to which this was achieved, data collected for the 2009/10 and 2011/12 Sheffield Child Measurement Programme measured in children at Year 6 and reception year (YR) was used.
- To assess the effectiveness of *SLC4L* in achieving positive change to key health indicators, a matrix of measures was developed.
- To reduce the data collection burden and to allow for the identification of year on year trends within the data, routinely collected data from various sources within the City was sought that pertained to key determinants of obesity, namely formal and informal physical activity, sedentary behaviours and dietary intake - see headline outcome matrix below.
- Whilst every attempt was made to obtain full and complete data-sets, several measures ceased to be repeated which limited their application here. With this in mind, only data that extended for the lifetime of *SLC4L* is considered here.

theoretical underpinning

- A number of recognised and validated models previously used to evaluate community-based behaviour change programmes, including physical activity and obesity were employed to guide our approach.
- Specifically; the Public Sector Score Card (Moullin, 2002, Moullin, 2009), the Theory of Planned Behaviour (Ajzen, 1991), Theory of Change (Weiss, 1995), and Realistic Evaluation (Pawson & Tilley, 1997). A brief discussion of these models is provided here.

public sector scorecard

To monitor the achievement of key outcomes and outputs, as well as capturing and understanding the views of key stakeholders the evaluation adopted the Public Sector Scorecard (PSS) (Moullin, 2010) as part of its framework.

- The PSS represents an integrated quality management and performance measurement framework which focuses on the outcomes organisations and their stakeholders wish to achieve, including financial outcomes such as value for money; the processes that deliver those outcomes; and the organisation's capability to support its people and processes in delivering those outcomes.
- The latter includes its organisational culture, the way it manages its people and its resources, and partnership working, all influenced by effective leadership - see above.
- The PSS has been designed for services in both the public and third sectors and is consistent with the recommendations of the Darzi report that '*NHS services... will need to develop their own quality frameworks combining relevant indicators defined nationally, with those appropriate to local circumstances*' (Darzi, 2008).
- The Public Sector Scorecard has been previously used to help evaluate the government's ethnic minority employment task force, an NHS task force and to improve and monitor Sheffield's Stop Smoking Service.
- A key output of the PSS was the *SLC4L* strategy map (below) which shows the relationship between the various capability, process and outcome elements of the project.

strategy map

reducing obesity in children & families

- The overall strategy map was developed following a number of interactive sessions, mainly in the summer of 2009, with programme board members, strand leads and others involved in each strand, and with Sheffield Youth Forum.
- Through the process of developing the strategy map it became clear that to assess the impact of the project purely on changes to actual behaviour was unrealistic. Therefore the approach taken was to integrate the Public Sector Scorecard with the Theory of Planned Behaviour to understand how the programme influenced an individual's behavioural intention, the pre-determinants of actual behaviour

headline outcome matrix

main outcome	dates	database	level
reception and y6 prevalence of overweight/obese (ni 55/56)	2005/6- present	Population Health Register	LSOA, Neighbourhood, Service District, EPHP, LA
breastfeeding initiation (ni 53) breastfeeding maintenance 6-8 weeks after birth	2009, 2010, 2011	Population Health Register	LSOA, Neighbourhood, Service District, EPHP, LA
participation level aged 16 and above in active recreation	APS 1-5 (2005-2011)	Sport England Active People Diagnostic, Sport Market Segmentation	LSOA, Ward, LA
levels of walking levels of cycling	2006, 07, 08, 09	Sport England Active People Diagnostic, Sport Market Segmentation	LSOA, Ward, LA
school children eating school meals	2006- present	School census data	LSOA, Neighbourhood, Service District, LA
level of tv and screen time above 2 hours per day	2007	Sport England Active People Diagnostic, Sport Market Segmentation	LSOA, Ward, LA
children travelling to school (mode of transport used) numbers walking numbers cycling, ni 198, ni 167	2006-present	School census data	LSOA, Neighbourhood, Service District, LA

the theory of planned behaviour (tpb)

- The TPB has often been used to study health related decision making behaviour in adults and in youth (Lien, Lytle, & Komro, 2002). The TPB has also been found efficacious as a model for predicting physical activity (Hagger et al. 2002; Hausenblas et al. 1997; Symons Downs and Hausenblas 2005).
- Within the TPB (below), the immediate determinant of behaviour is intention. Intention represents the motivational factors that influence behaviour (Ajzen, 1991). The TPB model suggests that intention is directly driven by three major constructs; attitude, subjective norm, and perceived behavioural control (PBC.) The model purports that the stronger intention, the more likely an individual will perform a given behaviour (Ajzen, 1988).

- Attitude is defined as the degree to which an individual has a favourable or unfavourable evaluation of the behaviour. Subjective norm measures the importance others hold about performing or not performing a given behaviour and one's willingness to comply to those referents. PBC describes the perceived ease or difficulty an individual has for performing a given behaviour.

the theory of planned behaviour model

- In addition, PBC is thought to directly affect behaviour by accounting for factors outside an individual's control and especially for behaviours not under volitional control (Ajzen & Madden, 1986).
- The TPB is a validated theoretical framework for studying the determinants of physical activity in adults and children (Biddle and Nigg 2000)
- With this in mind and considering the nature of the *SLC4L* programme the TPB represented an appropriate theoretical underpinning for the evaluation.

use of tpb within the evaluation

- Components of the TPB were used to facilitate comparisons between and within strands in terms of the influence of programme activities on the behavioural intention of participants.
- Essentially, use of the TPB provided evidence of cognitive change where it occurred.
- The evaluation team provided each strand lead with a set of TPB based questionnaires. Strand leads were responsible for the distribution and collection of TPB questionnaires unless otherwise agreed.

theory of change

- The "Theory of Change" (Weiss, 1995) is a way to describe the set of assumptions that explain both the mini-steps that lead to the long term goal(s) of interest and the connections between programme activities and outcomes that occur at each step of the way.
- Within the evaluation of *SLC4L*, the Theory of Change was used primarily to assess the effectiveness of the development and subsequent delivery of activities within each strand.
- To achieve this, the evaluation team developed a logic model for each strand (see example in appendix 3). These logic models were re-visited as the programme content changed and thus provided a real-time descriptor of how the programme evolved.
- A brief description of logic models is provided here.

logic models

- A logic model describes the sequence of events for bringing about change by synthesizing the main programme elements into a picture of how the programme is supposed to work.
- A logic model outlines a programme's overall mechanism of change by linking processes (e.g., workplace wellness programme) to eventual effects (e.g. reduced absence). The logic model can also display the infrastructure needed to support programme operations and can therefore easily be used as an evaluation framework.
- A detailed logic model can also be used to strengthen claims of causality and be a basis for estimating a programme's effect on endpoints that are not directly measured but are linked in a causal chain supported by prior research.
- The logic models for each strand within the *SLC4L* programme enabled the evaluation team to assess whether the strands adhered to their prescribed work plan and if indeed that work plan was effective. They also looked at outputs and outcomes and were used to reveal assumptions concerning conditions for strand effectiveness.

realistic evaluation

- Realistic evaluation has been used previously as an underlying framework for community based evaluation in the UK (Judge et al., 1999). As an approach realistic evaluation represents an alternative to traditional randomized control methods in evaluating social programmes (Pawson & Tilley, 1997).
- Rather than solely focusing on purely "what works?" realistic evaluation focuses on the question "*why does a programme work, for whom, in what circumstances?*"
- The evaluation approach used within *SLC4L* was guided by the principles of realistic evaluation which were blended with the other theories described here.

case study analysis

- To support the evidence provided by the quantitative headline outcomes, data collected from components of the TPB and via nested studies, the evaluation also took note of the case study methodology.
- Case study research can be most useful in facilitating a deeper understanding of a programme, particularly a multi-faceted one such as *SLC4L*.
- As an approach, case studies are generally used to emphasise detailed contextual analysis of a limited number of events or conditions and their relationships (Soy, 2008). Case studies are particularly valuable when used to examine contemporary real-life situations and often act to answer the why questions that are unresolved from a purely quantitative analysis.
- Case studies were used primarily in the evaluation of 'what works' at strand activity level. The evaluation used case studies to engage with programme users and stakeholders i.e. school aged children and made use of the latest technology such as Flip cameras so to make the case study process more engaging for the participant and researcher.

ethics

- The majority of this evaluation came under the remit of audit rather than research as it was concerned with what is being done rather than what should be done (Wade 2005).
- However, the research team were cognisant of the need to ensure that the standards of audit in terms of design, data collection, and analysis should be at least as high as for research.
- Thus whilst there was no requirement in terms of research governance to seek ethical approvals from the NRES, the project gained ethical approval for the evaluation from the Faculty Research Ethics Committee, Sheffield Hallam University.
- Where required written informed consent was attained prior to data collection.
- All data generated by the evaluation was treated confidentially, reported anonymously and stored in accordance with the Data Protection Act (1998).

evaluation caveats

- The methods employed to assess the effects of *SLC4L* against programme outcomes represented a theoretically sound and empirically based approach.
- The methods chosen also allowed researchers and practitioners to better understand whether or not the programme had an impact on a cognitive and behavioural level but also provide insight into what worked/didn't work in terms of the approach adopted (see section 6.0). However, there were a number of challenges.
- Some participants engaged with strand activities, but did not engage or complete evaluation. Therefore, this evaluation reports the outcomes of participants who engaged and/or completed the evaluation and we are mindful of the potential self-selection bias in the data.
- For some of the activities the evaluation recruited small sample sizes which limit the generalisibility of the results to the wider population.
- In the design we have attempted to control for seasonal variations however, this was not always possible.
- Whilst every attempt was made to utilise objective measures of assessment, in the majority of cases, the data provided is self-reported. Findings should be considered in light of the inherent biases that exist with this form of data.
- Data presented was accurate at the time of reporting. Any subsequent delivery and/or changes to programmes are therefore not reflected here.
- Much of the data were based on uncontrolled pre-post study designs. Whilst the nature of the interventions and the timescales involved meant that controlling for change within the design was not always possible, the absence of experimental evaluations unfortunately means firm conclusions about the causal reasons for change are limited.
- Furthermore, many projects within *SLC4L* were not piloted and evaluated before implementation, nor implemented within a research design. Therefore, the extent to which observed changes are solely due to the programme itself cannot be rigorously tested.
- It is possible however to operate experimental designs within public health interventions. Indeed, previous authors have recommended 'stepped wedge' designs (Brown & Liliford, 2006). These tend to involve implementing an intervention in different regions in random order, thus allowing inference about cause and effect.
- Although this design helps overcome many of the objections to controlled studies within service delivery such as purposefully withholding potentially effective interventions from some clients, it does require a multi-site approach.
- It would have been possible to achieve this through the Healthy Town's programme but this would have required Cities to work together at the bidding stage and for the Department of Health to have facilitated this from the outset. Such an approach might therefore be better suited to national rather than local programmes.

appendix 3: example logic model - bike-it

inputs

funding

£5 million funding from Healthy Communities Programme Fund.

£5 million match funding from NHS Sheffield and Sheffield City Council

staffing

Paid staff

Consultancy

Volunteers

other

Materials

Equipment

Facilities

activities **outputs** participation

bike it

adults

parents

children

local residents

bike it officers

local council

nhs sheffield

outcomes

short medium long

Bike officers appointed and in post

Bikes purchased and delivered to schools where lack of bike ownership is a barrier to participation

Promote safe cycling to 24 schools using Bike it approach

Encourage, train and support children to cycle safely and confidently. Personalise cycle session for each school e.g. - bikeability training, cycle to school day

Work with parents to reduce 'adult barrier' , fear, in allowing children to cycle

Organise fun promotional events with incentives and rewards such as bike breakfasts, guided picnic rides etc

Children and adults become more physically active through using modes of active transport. Measured through hands up style

Bike it! operating in 30 schools by end of march 2011

assumptions

Children have access to a bike

external factors

View points of local residents post audits - should improvements and expenditure be made elsewhere.

Receive county council support and school support

appendix 4:
snag images

appendix 5:
flip camera footage

beck: baseline flip cameras

beck: follow up flip cameras

lower meadow:
growing club

street dance club

cooking club

contact details:

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