

Evaluation of the Cycling City and Towns Programme

Interim Report

January 2011



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Available to download separately

Executive Summary

Introduction

This report presents the interim findings of the evaluation of the Cycling City and Towns programme. The aim of the report is to share emerging messages about the factors influencing cycling behaviour, and explore the potential benefits of increasing cycling levels amongst different groups of the population, particularly in terms of health and physical activity, reductions in carbon emissions, and decongestion. Transferable lessons about the design and delivery of cycling schemes are also drawn out. The report should be of interest to local and national bodies working on the promotion of cycling, and to researchers working in the areas of sustainable travel and behaviour change.

The Cycling City and Towns Programme

Between 2008 and 2011, the Department for Transport and the Department of Health will have invested over £43m (plus local match funding) to create the Cycling City and Towns (CCTs): Greater Bristol, Blackpool, Cambridge, Chester, Colchester, Leighton-Linslade, Shrewsbury, Stoke, Southend, Southport, Woking and York. The aim of the programme has been to explore whether and how increased investment in cycling as part of a whole-town strategy could lead to a significant and sustained increase in the number of cyclists and frequency of cycling. The programme has been overseen by Cycling England, and built on earlier experience in six Cycling Demonstration Towns which began receiving funding in 2005.

The Evaluation

An independent programme of monitoring and evaluation has been commissioned to assess robustly the outcomes and longer-term impacts of the CCT programme, as well as to capture lessons about the design and delivery of local cycling schemes. The evaluation is investigating *what* has changed in the CCTs, *why* it has changed, and the *context* for change. The aims of the evaluation are to:

- Measure the extent to which the anticipated outcomes and wider impacts have been achieved through the CCT programme and to assess whether it has provided value for money.
- Assess the effectiveness of individual interventions, including those targeted towards specific population groups and journeys.
- Understand the factors which influence local travel behaviours and how these can be addressed to encourage cycling behaviours.
- Explore the approaches which have been critical to the success of the programme.
- Generate evidence of good practice which can be used to inform the design and delivery of future initiatives aimed at encouraging cycling.

At the time of this interim report, the programme was still being implemented and therefore a full assessment of the programme and its outcomes and impacts will be undertaken after the programme has ended (see 'Measuring the final outcomes and longer term impacts of the programme' below). This report presents findings from three strands of the evaluation data collection: a baseline survey of residents in the CCTs (which was conducted in July-November 2009); interviews with local cycling teams which explored the design and delivery of the programme; and analysis of monitoring data on expenditure. The analysis presented

herein is an overview of the data available and further investigation of the range of data collected is ongoing.

Emerging findings

Cycling in the CCTs at baseline

The baseline survey identified that under a third of adult respondents aged 16 and over (28%) had cycled in the previous twelve months. One in five adults (19%) could be described as frequent cyclists, in that they said they cycled at least once a week, and one in ten (9%) could be described as occasional cyclists in that they said they had cycled at some point during the previous 12 months, but less frequently than once a week. The remaining adult respondents (72%) had not cycled during the preceding 12 months and could therefore be classified as non-cyclists.

The baseline survey revealed that individual CCTs were starting from very different baseline positions in terms of the proportion of cyclists (ranging from one in ten adults to six in ten adults), and also the frequency of cycling undertaken. Interviews with local cycling delivery teams found that strategies for investment in the CCTs have, in part, reflected these different starting points.

The analysis has identified that men, younger adults, adults in employment, adults from higher socioeconomic groups, and adults with children were those more likely to have cycled in the previous 12 months. The baseline survey also identified that an average of 80% of children across the CCTs had cycled in the previous 12 months. Adult cyclists were also more likely to be physically active than non-cyclists, in part because of the level of cycling undertaken but also because they undertook more activities of a physical nature (including walking, gardening and sport) generally.

Benefits of increasing cycling levels

Previous research¹ has shown that increasing cycling, and thereby physical activity levels, reduces the risk of premature death, and can reduce the development of illnesses such as diabetes and high blood pressure. The analysis of the baseline data found that almost 40% of adults surveyed were non-cyclists with low levels of physical activity, who would potentially obtain health benefits from taking up cycling.

The benefits of cycling could be experienced by existing non-cyclists and cyclists, the former through starting to cycle (even for short distances), and the latter through cycling more often and/or for longer distances. The CCT Programme Managers identified that both groups were targets for investment, alongside maintaining existing cycling levels for other cyclists.

A third of all trips of less than three miles made by non-cyclists² and a quarter of those made by cyclists reported in the baseline survey travel diary were undertaken by car (as driver). Overcoming barriers to cycling for such short distance trips amongst both non-cyclists and current cyclists, and thereby changing the modal split of trips in favour of cycling, could generate carbon emission benefits. Furthermore, over half of commuter trips of less than three miles made by non-cyclists and just under a third of those made by cyclists were reported to be undertaken by car. Decongestion benefits at peak travel times could be generated if more of these trips were undertaken by bicycle.

¹ DoH (2004). At least five a week. Evidence on the impact of physical activity and its relationship to health. A report from the Chief Medical Officer, London: Department of Health.

² Not including respondents who reported being unable to cycle due to disability or health problems.

Barriers to increasing cycling levels amongst different groups

The analysis of the attitudes and perceptions of CCT residents revealed that barriers to and enablers of cycling were varied and inter-related. The majority of baseline survey respondents felt that cycling should form part of a modern transport system and that more people should cycle for short journeys instead of using the car. However, barriers to cycling included the perceived safety of cycling on roads with other traffic, which was a concern for the majority of individuals interviewed. The provision of separate cycle paths and routes was widely supported as a measure to address this barrier.

A more complex set of barriers was identified through the analysis of the following baseline survey sub-groups:

1. Non-cyclists who indicated no intention to start cycling (46% of adult respondents to the baseline survey attitudes module);
2. Non-cyclists who indicated that there was a possibility they would start cycling in future (11%);
3. Cyclists who did not indicate an intention to cycle more frequently (24%);
4. Cyclists who indicated that they intended to cycle more frequently in future (4%); and
5. Non-cyclists who reported being to cycle due to disability or health problems (15%).

A barrier particular to non-cyclists was their past experience with cycling, and indeed their ability to ride a bike, with 22% of Group 1 above not knowing how to cycle. All respondents from Groups 2, 3 and 4 knew how to cycle. However, bicycle availability was identified as a constraint for 80% of individuals in Group 2. To overcome this barrier, many CCTs have invested in bicycle recycling, loan and hire schemes.

The baseline survey also identified that practicality (real or perceived) was a key barrier to cycling even for those in Groups 2 and 4 who indicated an intention to start cycling/cycle more: approximately half of respondents in these group agreed with the statement that "Cycling is not at all practical for the journeys I make". A commonly held concern across all population sub-groups, including existing cyclists, related to the security of parking a bicycle on the street, with over 40% considering it unsafe to do so.

Delivering cycling schemes in the CCTs

The strategies developed within each CCT have been designed to respond to identified local problems and opportunities, and to deliver a visible step change in the facilities for, and profile of, cycling. A key feature of the local strategies has been the application of a 'whole town' rather than a piecemeal approach to cycling investment, which has offered the opportunity to:

- tackle multiple barriers to cycling;
- develop dedicated specialist cycling teams which offered the broad range of skills required, and a strong focus on the delivery of strategy outcomes; and
- gain political and local community buy-in.

The challenges identified by the Programme Managers included establishing and maintaining the right combination of skills within cycling teams, which has been achieved through a combination of secondment, recruitment and contracting out.

Investment has been split between capital expenditure (£29.2m on cycle lanes, signing, parking facilities and enhanced junction crossings) and revenue expenditure (£14.2m on training, information, marketing and promotion), reflecting the different barriers to cycling (both structural and relating to skills and attitudes). Revenue expenditure quarter-by-quarter has been relatively constant throughout programme, whereas capital expenditure was more

variable. This reflected the more complex and challenging nature of some infrastructure schemes, and the potential delays that occur in the design, approval and implementation of infrastructure.

Themed investment in the CCTs

Among the range of CCT investment, five key themes of investment have been identified³. Each of these has been in response to a different set of challenges to, and likely benefits of, increasing cycling for different kinds of journey.

Cycling to workplaces

Over £1.5m (plus local match funding) has been invested across the 12 CCTs on interventions targeting journeys to work. The baseline survey revealed that there was considerable potential for modal shift from motor vehicles to cycling for short commuting journeys within CCTs. Practical barriers to cycling to work have been tackled through the provision of cycle parking, lockers/showers and Personal Travel Planning, whilst cycling has also been encouraged through initiatives such as Workplace Cycle Challenges and Bike Breakfasts.

Schools and Young People

In the region of £5m (plus local match funding) has been spent improving access to, and the facilities at, schools across the CCTs, and on Bikeability training which has been central to this theme. Investment has been driven by the aim of encouraging parents and children to cycle for short school-runs, rather than taking the car. In addition, instilling cycling as a healthy leisure activity for children has been a stated goal. Significant barriers to cycling to schools identified include low bicycle availability (particularly amongst lower socioeconomic groups), low levels of cycle training, and parental safety concerns. Targeting children via the schools they attend was believed to provide a means of accessing the wider family group and thus influencing household travel choices.

Cycling to stations

Over £3.5m (plus local match funding) has been invested in addressing a lack of secure parking at stations; improving access on station forecourts and wider infrastructure routes; facilitating onward journeys; and promoting the benefits of cycling. Cycling to stations at baseline was very low, but with many journeys being undertaken which involve a rail trip, there is evidence of potential to increase the use of bicycles to access train stations, with anticipated benefits particularly focusing on reducing congestion around the station.

Cycling to universities and colleges

Over £100,000 (plus local match funding) has been spent on promoting cycling at universities and colleges, seeking to influence the short and long term travel behaviour of staff and students. Investment has focused on security of cycle parking, but the importance of planning for cycling in campus development has been emphasised by stakeholders.

Neighbourhoods and population groups

The targeting of specific neighbourhoods or population groups has been a common element of CCT strategies. This has included more affluent areas, but has typically focused on lower socio-economic groups and deprived areas because of the range of health, economic and accessibility benefits likely to be realised if cycling levels could be increased. Integrated and intensive approaches have emerged to deal with the multiple barriers experienced by these groups/areas, including partnerships with key stakeholders such as the NHS, and schemes to provide bicycles (e.g. hired/recycled) in areas of low bicycle ownership.

³ These represent core activity in the CCTs, but it is important to note that significant investment was also made in areas other than these five.

Measuring the final outcomes and longer term impacts of the programme

The evaluation will seek to measure whether the investment in the CCT programme delivered the anticipated outcomes and assess whether it generated wider (intended and unintended) impacts, for example in relation to reductions in car use, increasing other forms of sustainable travel (such as walking) and generated health benefits. These can only be assessed after the programme has been fully implemented. This will be done through post-intervention surveys and analysis of monitoring data.

Behaviours can take time to change and the benefits generated by the investment may continue over a number of years; therefore, measuring changes in attitudes towards cycling as well as behaviours is important to indicate whether people are more likely to contemplate changing their behaviour in the future.

It is also important to demonstrate the extent to which the changes in observed behaviours and attitudes have been caused by the programme rather than other factors. The evaluation has been designed to enable comparisons to be made with non-programme areas, and will monitor the effect of national and local contextual circumstances on the outcomes, to help inform the transferability of the findings.

1 Introduction

1.1 Overview

The Department for Transport, the Department of Health and Cycling England will have invested over £140m between April 2008 and 2011 to promote cycling and to address a historic decline in cycling activity. Part of this investment (around £43m) has been to create one Cycling City and eleven Cycling Towns (CCTs). Alongside match funding from the participating local authorities, the investment aims to deliver a step change in the provision of facilities and the promotion of cycling as an activity.

This programme is building on the foundation provided by the first phase of investment in six Cycling Demonstration Towns (CDTs), who received enhanced funding between 2005 and 2008 and who are also part of the present phase of investment, thereby experiencing a second period of enhanced funding. The investment from the first three years of funding assisted the CDTs in generating an average increase of 27% in cycling trips⁴.

To assess the benefits of the investment in the new Cycling City and Towns⁵ an independent evaluation and monitoring programme started in March 2009. The evaluation team (led by AECOM with The Tavistock Institute and the Centre for Transport & Society) is working with Sustrans (who are leading the monitoring of cycling levels) to measure the extent to which the anticipated outcomes and wider impacts have been generated by the programme and to measure its efficiency, effectiveness and value for money.

This report provides a summary of the initial emerging evidence from the evaluation of the CCT programme. The findings in the report focus on approaches undertaken by the new Cycling City and Towns to deliver the investment, in particular how they approached increasing cycling for key population groups and destinations, identifying the lessons which have been learnt from this experience. The baseline survey findings provide an understanding of the cycling and wider transport behaviours of residents in the CCT areas and insight into the motivators and barriers to increasing cycling. It is too early in the evaluation programme to assess the impacts of present investment. Data are however presented on the baseline cycling levels in each city and town, supported by a review of underlying attitudes. Any references to changing cycling levels or behaviour therefore remain interim findings and do not represent robust evidence at this stage.

Structure of this Report

- **Section One:** The remainder of this section summarises the evaluation approach and methodology.
- **Section Two:** Provides an overview of the Cycling City and Towns programme including their strategic aims, the characteristics of the local areas and the baseline cycling levels.
- **Section Three:** Explores the main findings from the 2009 baseline survey and summarises the main benefits of individuals cycling.

² "Analysis and synthesis of evidence on the effects of investment in six Cycling Demonstration Towns" Cycling England, November 2009 <http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2010/03/analysis-and-synthesis-report.pdf>

⁵ An evaluation of the programme in the first six Cycling Demonstration Towns is also being undertaken. For further details and reports from the interim findings please see <http://www.dft.gov.uk/cyclingengland/cycling-cities-towns/monitoring-and-evaluation-of-the-cycling-city-and-towns-programme/>

- **Section Four:** Considers the barriers to and enablers of cycling for residents in the programme areas.
- **Section Five:** Describes the nature of investment made by the CCTs and the skills and expertise required to deliver the cycling programmes in the CCTs.
- **Section Six:** Provides an overview of the investment made in workplaces, stations, schools, infrastructure, further and higher educational providers, and local neighbourhoods and communities.
- **Section Seven:** Includes a look forward to the remaining evaluation activities to assess the effectiveness and impacts of programme.

1.2 The Evaluation Approach

1.2.1 Background

In 2009, the Department for Transport, Cycling England and Department of Health commissioned a comprehensive evaluation of the Cycling City and Towns programme, to provide robust evidence on the impacts of increased investment and targeted activity in these areas. The evaluation team is working closely with the Cycling City and Town Programme Managers and officers within the delivery team, as well as local and national stakeholders, to ensure that the evaluation is as inclusive and comprehensive as possible.

1.2.2 Overarching Approach

Evaluation Scope

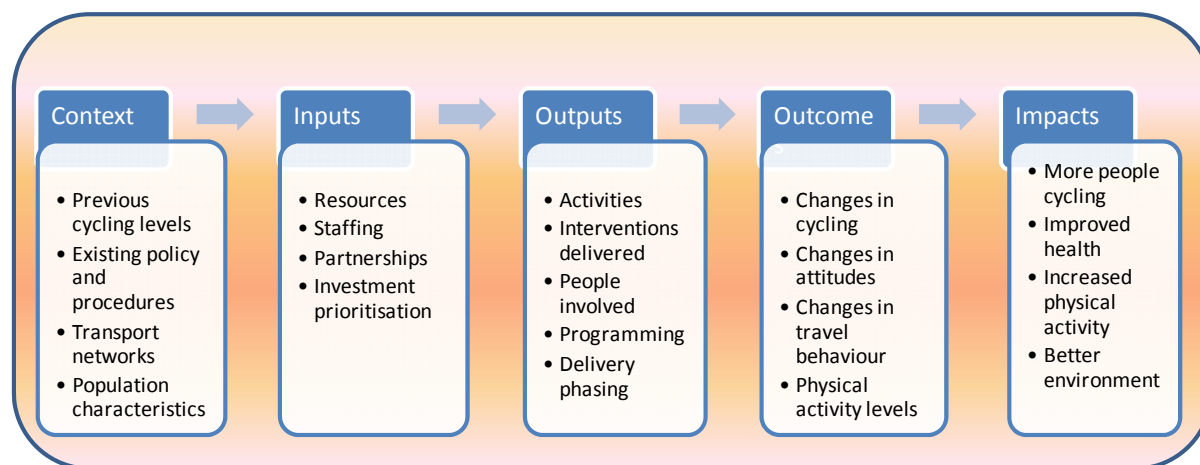
The aims of the evaluation are to:

- Measure the extent to which the anticipated outcomes and wider impacts have been achieved through the CCT programme and to assess whether it has provided value for money.
- Assess the effectiveness of individual interventions, including those targeted towards specific population groups and journeys.
- Understand the factors which influence local travel behaviours and how these can be addressed to encourage cycling behaviours.
- Explore the approaches which have been critical to the success of the programme.
- Generate evidence of good practice which can be used to inform the design and delivery of future initiatives aimed at encouraging cycling.

A systematic approach has been adopted to explore and assess the programme through each of its stages:

- Strategy development in light of the local context and existing travel behaviours;
- Designing the local programme, establishing a delivery team and allocating resources;
- Delivering the interventions; and
- Achievement of outcomes and impacts.

An evaluation model is at the centre of all activities, and assists in considering the investment programme from its rationale, through objectives to the longer term impacts (Figure 1.1).

Figure 1.1: Evaluation Model

1.2.3 Methodological Approach

The evaluation of the programme will draw on a range of evidence sources as illustrated in Table 1.1 below.

Table 1.1: Overview of Evidence Informing the CCT Programme Evaluation

Source of Evidence	Contributed to Interim Report?	Informs Analysis of...			
		Strategy / Context	Inputs	Outputs	Outcomes and Impacts
Baseline survey of households in programme areas	✓	✓			✓
Post programme survey of households					✓
Interviews and accompanied journeys with residents		✓		✓	✓
Interviews with CCT delivery teams inc. programme managers	✓	✓	✓	✓	
Monitoring expenditure and delivery of interventions	✓		✓	✓	
Data from monitoring of cycling levels in CCTs					✓
Interviews with national stakeholders		✓			
Interviews with local stakeholders (e.g. Train Operating Companies)		✓			

At the time of this interim report the CCT programme is still being implemented and therefore a full assessment of the programme and its outcomes and impacts will be undertaken after the programme has ended. A fuller discussion of the remaining stages of the evaluation is presented in Section Seven. This report draws on the initial findings from three aspects of the study and summaries of the methodological approaches are presented below:

1. The baseline survey of households in the programme areas.
2. Interviews with CCT delivery teams.
3. Monitoring of expenditure and delivery of interventions.

The Baseline Survey of Households in CCTs

The baseline survey was a household survey of a random sample of 16,343 households across the 12 CCT programme areas (equating to approximately 1,350 households in each CCT). The survey was undertaken between July and November 2009.

A household response rate of 58% was achieved through the survey with information obtained on 26,493 adults (classified as respondents aged 16 and over) and 4,278 children (aged 5-15). The main part of the survey was a face-to-face in-home interview of all household members (aged 5 and above), obtaining information on cycling behaviour, physical activity and socio-demographics.

A pre-selected sub-sample of households was asked to complete 7-day travel diaries. Diaries were completed in 85% of targeted households and 10,359 diaries obtained for 8,750 adults and 1,609 children.

After other parts of the survey had been completed, all adults were given a self-completion, cycling attitudes questionnaire to return in the post and responses were received from 8,822 adults, representing 33% of the adult interview sample.

A fuller description of the survey elements is presented in Appendix A alongside details about the analytical approaches which have been undertaken. However, when interpreting the findings from the surveys the following should be considered:

- The baseline survey was undertaken at an early stage in the delivery programme (delivery programmes commenced between October 2008 and March 2009) before the majority of investment activity had taken place (CCTs required time to develop their strategies and set up delivery teams, etc). The post programme survey will allow a comparison to be made between two points in time and allow an assessment to be made of changes in cycling activity resulting from the investment. Ongoing monitoring within each CCT, including historic counters in place before March 2008, will also be also used to assess changes in cycling levels.
- The survey was undertaken during summer/autumn 2009 and, given that cycling is highly seasonal, it needs to be acknowledged that levels of cycling are likely to be higher than the annual average. The post programme survey will be conducted during the same time of the year to ensure consistency and to allow a valid assessment of changes in cycling activity. It is also noted that many survey questions asked about cycling behaviour over the previous 12 month period and have been designed to obtain data on typical behaviour over the year.
- A random population sample of households was selected for the survey (through a two-stage clustered sample design) and a response rate similar to the National Travel Survey achieved (National Travel Survey achieved 59% response rate in 2008). Similar weighting procedures have been applied to those used in the National Travel Survey. To account for non-response bias the sample data for each CCT has been weighted to be representative of the characteristics of the population within the CCT area. The 7-day diary data has been weighted for a drop-off in trip reporting over the survey week. The self-completion cycling attitudes questionnaire data has been weighted to take into account systematic bias in the nature of the respondents (for example, taking into account that cyclists were more likely than non-cyclists to return the questionnaire).

- The findings rely on the self reporting of behaviour and in common with other surveys are subject to potential errors in recall (under reporting and over reporting), inaccurately reported details of behaviours and social desirability biases. However, by using different questions/methods for measuring behaviour (i.e. interview questions and diaries) it has been possible to more robustly assess levels of behaviour. Where possible, results will be analysed alongside more objective assessments of behaviour (e.g. from the cycle count data). Comparisons will also be made of changes in cycling behaviour in the CCTs and those recorded in the National Travel Survey. The National Travel Survey uses similar procedures and instruments to the CCT survey and hence a comparison is more valid.
- Tests for statistical significance require the estimation of standard errors for the variable under consideration. In almost all social surveys the samples obtained are not a simple random sample. The calculation of robust standard errors requires account to be taken of complex sampling. A method for deriving robust standard errors for National Travel Survey data was produced in 2010⁶. Robust standard errors have not been estimated at the present time for the baseline survey data. Tests for statistical significance assume a simple random sample. Caution should be exercised for results that are marginally statistically significant.

(N.b. Figures reported may not sum to 100% due to rounding.)

Interviews with CCT Delivery Teams

A series of semi-structured depth interviews were undertaken with Cycling City and Town officers (including programme managers, schools officers and wider CCT delivery team members) and stakeholders such as Train Operating Companies, to consider how strategies for encouraging cycling were developed and implemented. The programme of interviews was structured around the stages of programme delivery, incorporating strategy development, delivery and outcomes. Lessons and good practice emerging are being identified and the evaluation is seeking to understand which interventions are encouraging people to cycle more, where and why.

Monitoring of expenditure and delivery of interventions

As part of the programme, CCTs prepare quarterly financial claims (Annex C Progress Update Forms), which are submitted to the Department for Transport. These forms represent the best summary of investment allocation within each town and have been used to generate values of spend presented in this report. The Annex C forms contain two separate sets of data. First, the investment provided by Cycling England, which is allocated to individual quarters across the three year programme. Secondly, the matched funding provided by each CCT, identified as a single value for each intervention.

At this stage in the evaluation, only the financial values for the Cycling England investment have been examined. In the final evaluation, total investment including matched funding will be considered. The reason for exclusion of matched funding at this stage is that the CCTs were only required to match the CE investment over the course of the whole programme (rather than for individual interventions or for each financial year), and final matched funding figures will not be available until after the completion of the programme in March 2011.

⁶ (DfT (2010). National Travel Survey. Standard Errors: 2009. Accessed at <http://www.dft.gov.uk/pgr/statistics/datatablespublications/nts/#technical> (11/01/11)).

2 The Cycling City and Towns: A Summary

2.1 Introduction

The Department for Transport (DfT) established Cycling England (CE) in 2005 with the aim of working with local authorities and others to develop programmes which would get ‘more people cycling, more safely, more often’.

As part of its work programme, CE made the decision to trial the impact of continental European levels of cycling funding in a town/city-wide programme of investment. At the beginning of the programme in 2005, the level of funding for cycling initiatives in English local authorities was around £1 per citizen, per year. In contrast, European towns and cities which had successfully increased cycling levels had been spending around £10-20 per year for many years.

The Cycling Demonstration Towns (CDT) programme, from 2005 to 2008, saw six towns across England receive higher levels of funding to increase their cycling levels. In January 2008, the Government allocated a further £140m to Cycling England to fund three more years of investment. Some of this funding, approximately £43m in total, was allocated to the twelve new Cycling City and Towns. Competition for the funding was intense with 74 authorities in England submitting bids and detailed plans. Of these, 19 were selected for interview based on the following criteria:

- Strong leadership;
- Robust and deliverable strategy;
- Confidence that a step change could be achieved in cycling levels; and
- Evidence of match funding.

In June 2008, Greater Bristol was named as England’s first Cycling City, and the 11 new Cycling Towns were named as Blackpool, Cambridge, Colchester, Chester, Leighton-Linslade, Shrewsbury, Southend, Southport and Ainsdale, Stoke-on-Trent, Woking and York.

2.2 The Cycling City and Towns

The Cycling City and Towns vary in their size, characteristics and existing cycling culture. The approaches, strategies and investment priorities for promoting cycling have also varied between each CCT, in part a reflection of previous investment levels. This section presents a brief overview of each CCT, highlighting the key challenges and opportunities present on being awarded CCT status, and summarises the main activities in each area over the period of the programme.

Summary of Emerging Findings

- A common goal was to encourage people out of their cars and to use more sustainable transport modes. This was in order to reduce congestion levels and carbon emissions, and increase levels of physical activity.
- Cycling England encouraged the towns to develop targeted investment programmes focused on specific groups, places and journey purposes, including schools, workplaces and rail interchanges.
- Overcoming barriers to cycle use, including bicycle availability and lack of cycling facilities, was at the centre of promoting cycling as a viable travel option and an enjoyable, safe and healthy leisure activity.
- Investment involved a wide range of partner organisations, including voluntary and community groups, seeking to generate a culture of cycling.
- Towns were seeking to make cycling a mainstream activity, attractive to a wide range of people.
- Investment in cycling was designed to enhance the regeneration of existing areas or the future sustainability of new developments.

Blackpool Fact File

Background and Topography: Blackpool, with a population of 140,000 in the 2001 Census, is the third largest settlement in England's North West conurbation after Manchester and Liverpool. In addition, 150,000 people live in the town's immediate catchment along the Fylde Coast. Blackpool's economy relies heavily on its tourist visitors. However, a gradual decline in the number of visitors and a weakening local economy has led to Blackpool becoming the 12th most deprived authority in England⁷. As a result, the town faced numerous challenges, including high unemployment and health problems; regeneration was therefore at the heart of the Council's long-term strategy. The terrain is fairly flat and investment in cycle training and events, such as the annual 'Ride the Lights' which was run for the first time in 2006, provided a foundation for the CCT programme investment. The Promenade offered a focal point for encouraging leisure cycling amongst residents and tourists.

Existing Cycling Behaviours: In the 2009 baseline survey, four in five adults (81%) were classified as non-cyclists⁸ in that they reported not having cycled within the previous 12 months.

Cycling Strategy: At the beginning of the programme the Cycle Blackpool team set themselves the objective of achieving a measurable change in the total number of cycling journeys completed across the programme area. An increase in physical activity levels was also identified as being a key measure of success. Flagship interventions within the Cycle Blackpool programme included the cycle hire and recycling schemes, providing access to bicycles, which aimed to address a perceived barrier to cycling. These have been supported with a range of cycling events to raise the profile of activities around the town. Investment has also been made in improving cycle route infrastructure, with the development of four 'signature cycle routes' linking the Promenade to residential areas and major trip attractors.

Greater Bristol Fact File

Background and Topography: As England's first 'Cycling City' Greater Bristol received close to a quarter of the Cycling City and Towns programme funding between 2008 and 2011. The project has been delivered through a partnership between Bristol City Council and

⁷ Source: Blackpool Cycling Town Strategy Document

⁸ Source: Evaluation baseline survey 2009, AECOM.

South Gloucestershire Council. In 2008 the total population of this Greater Bristol investment area was 570,000.

Existing Cycling Behaviours: At the start of the Cycling City programme there were 45,000 daily car trips to work of less than three miles in length (50% of all daily trips) providing scope for encouraging commuters to cycle to work. In 2009 the baseline survey reported that 28% of adults had cycled during the previous 12 months.

Cycling Strategy: Although the Greater Bristol Cycling City programme was intended to be wide reaching, by targeting new cyclists in particular, there was also an emphasis on increasing cycling to schools and workplaces. The Cycling City also focused on achieving a general change in perceptions of cycling across the population of Greater Bristol. An important element of the Cycling City strategy was the development of cycle routes and wayfinding improvements. These were intended to improve cycle access to local destinations while also giving new cyclists the confidence to explore the wider cycle network in the knowledge that routes are coherent and well-signed. The team also instigated two residential 20mph limit areas in order to improve safety perceptions and encourage cycling for local journeys to schools, work and other facilities.

Cambridge Fact File

Background and Topography: Located 44 miles to the north of London, Cambridge is a prosperous area experiencing rapid suburban population growth (currently 180,000). The city is best known for its university, with a large resident student population. Cambridge is also the location for a large community of high-tech businesses which provide a major source of local employment. Cambridge has benefited from a strong cycling culture amongst its students and residents. Supported by flat terrain, cycling has become a mainstream activity for many.

Existing Cycling Behaviours: Cambridge had the highest cycling levels of any CCT in the 2009 baseline survey, which identified that 59% of adults had cycled during the previous year. It is also notable that 23% of adults from Cambridge who had not cycled in the previous 12 months nevertheless had a bike available, compared with 14% on average across all CCTs.

Cycling Strategy: The main focus of the Cycle Cambridge strategy was to spread the existing cycling culture into villages and new developments, driven by continued rapid population growth on the city's outskirts. A key objective of the programme was to target suppressed demand for cycling, as a result of perceived and actual barriers to cycle usage, with considerable investment made to improve cycle route provision between the city centre and outlying villages. Alongside these infrastructure improvements an extensive marketing and events programme was delivered, to engage those living in the city's periphery.

"Our vision in Cambridgeshire is for cycling to be promoted as an attractive and practical alternative to the private car and as an enjoyable, safe and healthy activity in its own right."

Cambridge Programme Manager

Chester *Fact File*

Background and Topography: Chester is situated on the Wales-England border at the southern tip of England's North West region. The area for Cycling City and Towns investment was home to 120,000 people, making Chester the seventh largest area in the programme. Prior to 2008, investment in cycling was targeted to the National Cycle Network, cycle routes and the promotion of cycling as a mode of travel to school through the Safe Routes to School programme.

Existing Cycling Behaviours: Sixty-seven percent of adults were classified as non-cyclists in the 2009 baseline survey.

Cycling Strategy: Barriers to cycling which were highlighted in the Cycle Chester Strategy included severance caused by the River Dee and Chester's ring road. The strategy aimed to remove these as barriers to cycle use through improving route infrastructure, parking at workplaces and signage provision. Chester has also targeted commuter journeys with the aim to reduce car use for short distance trips.

Colchester *Fact File*

Background and Topography: Colchester is located 50 miles to the northeast of London in the County of Essex in one of the driest regions in England. The town's topography was generally considered to be favourable for cycling, though there are some moderately steep radial approaches. In 2008 there was little existing 'culture' of cycling in the town, with disjointed infrastructure identified as a key barrier to new cyclists. There was considerable out-commuting to London via the town's main rail station, Colchester North, providing a potential focal point for the promotion of cycling. Other major destinations within the town included the hospital and the University of Essex's Wivenhoe campus.

Existing Cycling Behaviours: A third of adults had cycled in the preceding 12 months according to the 2009 baseline survey. Additionally, just over 1 in 5 adults (22%) had not cycled in the previous 12 months but had reported having a bicycle available to them. This was higher than the average of 14% across the CCT programme.

Cycling Strategy: Cycle Colchester's strategy aimed to increase the number of people making regular cycle trips, with a particular focus on children cycling to selected schools and people cycling to workplaces. The Cycle Colchester programme has sought to deliver a range of school-based interventions relevant to particular local needs, including: Bikeability training; events; cycle parking and other infrastructure; and activities delivered by Bike It and Bike Club officers. Another focus for the Cycle Colchester investment was increasing cycling to rail stations, where investment has been made to improve cycle routes, parking provision and to promote cycle-rail interchange with commuters. Furthermore, Personalised Travel Planning has been delivered to residents from the area of Highwoods alongside investment to improve the route infrastructure to major local destinations, including the hospital.

Leighton-Linslade *Fact File*

Background and Topography: The adjoining settlements of Leighton Buzzard and Linslade are 30 miles to the northwest of London. With a population of just 38,000 it was the smallest area in the Cycling City and Towns programme. Prior to 2008, cycling investment focused on strategic route provision and maintenance, alongside the provision of training for young people. Leighton Buzzard rail station has also been included in the national Station Travel Plan pilot scheme⁹. Private sector funding linked to the South Leighton Urban

⁹ <http://www.dft.gov.uk/pgr/sustainable/lt3planning/travelguide/bestpractice/rail/stationtravelplans/>

Extension has also contributed to sustainable transport provision with an aim of transforming Leighton-Linslade into a 'sustainable travel town'.

Existing Cycling Behaviours: The 2009 baseline survey found that 1 in 5 adults (21%) had cycled in the previous 12 months.

Cycling Strategy: The Leighton-Linslade GoCycle team focused their interventions specifically to encourage people cycling to the town centre; children regularly cycling to school; and rail commuters regularly cycling to the rail station.

The aim of the [Leighton-Linslade GoCycle] project is to make cycling the most significant mode of travel after the car.'

Leighton-Linslade Programme Manager

Owing to the compact size of Leighton-Linslade, interventions to promote cycling to schools were delivered in all 18 local schools. These included Dr Bike clinics (which offer cycle maintenance training) and Bikeability training. Some schools also hosted Bike Clubs and additional events including Bike Breakfasts. Commuters have also been targeted to encourage them to cycle to work and/or the rail station with a promotional programme including loan bikes, free bike checks, cycle training, bike buddies and a route planning service.

Shrewsbury Fact File

Background and Topography: Shrewsbury is situated around 30 miles northwest of Birmingham and is the County town of Shropshire, with a population of 75,000. Whilst Shrewsbury is relatively flat and compact, barriers to cycling in the town centre were considered to include short sections of steep hills and several one-way traffic routes.

Existing Cycling Behaviours: The baseline cycling level in Shrewsbury was above the average for the CCT programme, with a third of adults cycling in the previous 12 months. In 2008, the Cycle Shrewsbury team identified that 62% of journey to work were under about 3 miles¹⁰.

Cycling Strategy: The Cycle Shrewsbury strategy aimed to deliver an increase in children cycling to school, people cycling to work and recreational cycling trips. To address these objectives, the team invested in school cycle parking, a Bike It Officer and Bikeability training. After-schools clubs were also promoted to increase recreational cycling amongst children. In regard to cycle commuting there was intensive engagement with a number of large employers; interventions included bike breakfasts, cycle infrastructure grants, bike maintenance (Dr Bike) and cycle skills sessions.

Southend Fact File

Background and Topography: Southend is located within the County of Essex, roughly 35 miles to the east of London. With a population of over 160,000 it was the fifth largest area in the programme. Southend has a flat terrain, a favourable climate and pre-existing cycle routes (including the National Cycling Network 16 Seafront Route).

Existing Cycling Behaviours: Twenty-eight per cent of adults in 2009 had cycled in the previous 12 months, which was in line with the average level across the CCT programme.

Cycling Strategy: The strategy targeted an increase in cycling across the investment area as a whole and, in particular, an increase in the number of children cycling to school and

¹⁰ Source: Shrewsbury Cycling Town Strategy

people cycling to work. In order to increase cycling to school, the Cycle Southend team focused on delivering a programme of Bikeability training and employing a dedicated Bike It officer to work with schools to deliver cycling events. Cycling to work was promoted via a pre-existing business network called MoveEasy. The team engaged with 12 businesses to promote cycling to their employees, with grants provided for cycle infrastructure. All cycle routes being delivered under the Cycle Southend programme have been designed to lead to the town centre to facilitate both cycle commuting and cycling to local facilities.

Southport and Ainsdale *Fact File*

Background and Topography: Southport is located 15 miles north of Liverpool. The Cycling Town includes the population of Ainsdale to the south of Southport, resulting in a total population in the investment area of over 90,000. With 4.5 million visitors per year, tourism is an important element of Southport's economy. The area has a flat terrain with relatively low traffic flows.

Existing Cycling Behaviours: The town had average cycling levels at baseline in 2009, with 27% of adults having cycled in the previous 12 months.

Cycling Strategy: The long-term vision was one where a cycling culture supported and enhanced the town's regeneration. The strategy defined by the Southport Cycling Town team targeted an increase in the number of children cycling to school and in the number of recreational cycling trips. Although primary schools were targeted across Southport, there was specific emphasis towards engagement with the town's five secondary schools. Interventions included Level 3 Bikeability training, Bike It, Bike Club and inter-school races as part of a Go Ride programme. Southport also focused on recreational cycling and this was promoted to both residents and tourists. Interventions included: cycle routes to and along the seafront; a public cycle hire scheme; organised summer rides including those specifically for women; and events including the Tour Series.

Stoke-on-Trent *Fact File*

Background and Topography: Stoke-on-Trent was the second largest settlement in the Cycling City and Towns programme with a population of over 240,000 people. Located in the West Midlands, the city is 30 miles south of Manchester and 30 miles north of Birmingham.

Existing Cycling Behaviours: In 2009 Stoke-on-Trent had the lowest cycling levels of any of the CCTs (10% of adults had cycled in the previous 12 months).

Cycling Strategy: The Cycle Stoke strategy noted that no discernible cycling 'culture' existed before 2008. In addition, the strategy noted that the existing network of cycle paths was in need of enhancement and promotion, and parking facilities for cycles were considered to be inadequate.

"Cycle flows in the area are low which may be attributed to the lack of cycle facilities and cyclists having to share the same road space with heavy and fast traffic flows"

Stoke-on-Trent Programme Manager.

The focus of the Cycle Stoke team was to increase cycling across the investment area in general and children cycling to school in particular. In order to achieve this, the team invested resources in improving access for cyclists by means of route infrastructure and enhanced wayfinding to primary destinations within the town centre. Specific interventions included contraflow cycle lanes, road crossings and radial routes to the centre of Stoke. Cycling to schools in Stoke-on-Trent was promoted through a range of infrastructure and

promotional measures. These included: cycle parking at schools; Bikeability training; Bike It officer engagement; organised after-school rides; and the involvement of school children in Tour Series race events.

Woking Fact File

Background and Topography: Woking is part of the Greater London commuter belt and is located outside the M25 to the south-west of the city of London. The population of Woking Borough was just over 91,000 in 2008 and the town is compact with few hills. The Basingstoke Canal towpath provided an east-west artery for cycle journeys and the Cycle Woking Strategy noted that the majority of people in the borough lived within two miles of it.

Existing Cycling Behaviours: The town had a higher than average baseline level of cycling in 2009, with 34% of adults having cycled in the previous year.

Cycling Strategy: At the beginning of the programme the decision was taken to focus on cycling trips across the town, children cycling to school and commuter journeys to rail stations. The Cycle Woking investment strategy therefore involved a mix of wide-reaching interventions to increase the viability of cycling throughout the borough, alongside interventions focused towards specific areas and target groups. The Basingstoke Canal and the towpath acts as a spine providing access to many residential areas and specific destinations. Enhancement of this asset was therefore a key feature of the Cycle Woking investment, with new links to adjacent developments, improved signage, and installation of crossing facilities.

The programme aimed to increase cycling to schools through investment in cycle parking at schools, Bikeability training, Bike Clubs and Go-Ride officer engagement. These were supported by the construction of mountain bike tracks and a range of events. Together these interventions not only encouraged cycling to schools but also promoted cycling as a mainstream activity amongst children.

York Fact File

Background and Topography: York is situated 15 miles to the northeast of Leeds, within England's Yorkshire and the Humber region. With a population of over 184,000 in 2008 the area was the third largest in the Cycling City and Towns programme. The urban environment of York has a largely flat topography and an historic street layout which has led to restrictions on motor vehicle movements.

Existing Cycling Behaviours: A third of adults in York had cycled in the previous 12 months which was higher than the average for the programme.

Cycling Strategy: The focus for the investment has been to encourage new cyclists. Investment was directed towards increasing the number and frequency of children cycling to school, through a range of interventions including after school clubs, cycle training, and maintenance courses (including bespoke courses for girls). People were also encouraged to cycle to work, and interventions included cycle parking provision and events. Large employers were prioritised in order to engage the greatest number of commuters through the investment period. There was also a specific focus, via targeted marketing and events, on women cycling and those living in relatively deprived areas. In order to create a more coherent cycling network, supporting new and existing cyclists, investment has focused on improving access to the centre of York and between key suburban destinations.

3 The Baseline Survey of Cycling in the CCTs

Summary of emerging findings

- The baseline survey has demonstrated that under a third of adults and an average of four fifths of children in the CCTs could be classified as cyclists at the beginning of the programme.
- The individual CCTs were starting from very different baseline positions in terms of the proportion of individuals cycling, and also their frequency of cycling. The strategies for investment have, in part, reflected these differences with different population groups being targeted to increase their cycling levels.
- Age and to a lesser extent gender influenced adults' propensity to cycle in the CCTs, with cycling activity being lower for respondents over 54 whilst 16-19 year olds were the most likely to be cyclists.
- Adults in households with children aged between 5 and 15 had a greater probability of being cyclists than those in households without children.
- For all age groups adult cyclists were substantially more likely to be physically active. This highlights the potential health benefits of more people cycling in the CCTs.
- A clear potential target population identified by the baseline survey is the 14% of adult respondents who had a bicycle available but who had not cycled in the previous 12 months.
- There is well established evidence that increasing cycling and thereby physical activity levels reduces the risk of premature death, developing diabetes and high blood pressure.
- A third of trips made by potential cyclists (defined as non-cyclists who did not report having a disability or health problem which prevented them from cycling) of less than three miles were undertaken by car, identifying potential carbon emission benefits of cycling for these trips.
- Furthermore, over fifty percent of short distance (under three miles) commuter trips made by potential cyclists were undertaken by car. Decongestion benefits could be generated if some of these trips were undertaken by bicycle.

3.1 Introduction

The baseline household survey, undertaken in 2009, provided a rich data source to enable an examination of cycling behaviours, attitudes and perceptions, and how these relate to socio-demographic characteristics and other travel activity. In particular, it offered the opportunity to explore questions such as:

- How many people were already cycling in the CCTs?
- What were the characteristics of these cyclists and non-cyclists?
- What are the potential benefits of cycling?

This section presents a summary of the headline findings from the baseline survey taking each of the above questions in turn. The analysis both confirmed the findings of previous research into cycling activity and provided an opportunity to explore further the underlying

characteristics of cyclists and non-cyclists in the CCTs. An overview of the baseline survey approach is provided in Appendix A, with the approach to data weighting provided in Appendix B. For the results reported in this section the survey data was weighted so that it was representative of the population of the CCT areas.

3.2 How Many People Were Already Cycling?

Under a third of adult respondents aged 16 and over (28%) had cycled in the previous twelve months¹¹. One in five adults (19%) could be described as frequent cyclists, in that they said they cycled at least once a week¹², and one in ten (9%) could be described as occasional cyclists in that they said they had cycled at some point during the previous 12 months, but less frequently than once a week. The remaining adult respondents (72%) had not cycled during the preceding 12 months and could therefore be classified as non-cyclists.

The National Travel Survey 2009¹³ reported that 32% of people (aged 5 and above) said they cycled at least once per year and 14% said they cycled at least once a week. There has been no change in these percentages since 2003. The most recent year in which the National Travel Survey reports results separately for adults is 2007¹⁴ when it is reported that 24% of adults aged 16 and over in Great Britain said they cycled at least once per year and 10% of adults said they cycled at least once a week. This indicates that baseline cycling activity of adults in the CCTs was higher on average than that in Great Britain as a whole.

Table 3.1 provides a summary of cycling activity in each CCT, showing the percentage of adult respondents classified as frequent, occasional and non-cyclists. The CCTs have been grouped according to their baseline levels of cycling activity.

The highest proportion of cyclists was recorded in Cambridge (where approximately half of adults were frequent cyclists), and the lowest in Stoke-on-Trent (where one in ten adults had cycled in last 12 months). A group of eight CCTs was identified where around a quarter to a third of respondents had cycled in last 12 months. This evidence reflects the different baseline cycling levels across the CCTs and the importance of each town developing investment strategies appropriate to their populations.

The level of cycling amongst children also varied from 69% in Blackpool to 95% in Cambridge (Table 3.2). The average across all the CCTs was 80% of children having cycled in the past 12 months.

¹¹ Respondents were asked 'Have you ridden a bicycle in the last 12 months?'

¹² It should be noted that 15% of adults reported cycling at least once in the last seven days prior to the survey and 10% of diary respondents reported at least one cycle trip in the diary week. The results for frequency of cycling in the last 12 months can be considered to represent an upper bound estimate for cycling activity.

¹³ National Travel Survey 2009. Available at: <http://www.dft.gov.uk/pgr/statistics/datatablespublications/nts/>

¹⁴ National Travel Survey 2007. This is the most recent year when frequency of cycling is reported separately for adults. Available at: <http://www.dft.gov.uk/pgr/statistics/datatablespublications/nts/>

Table 3.1: Frequency of adult cycling across CCTs

	Group	Town	Frequent Cyclist	Occasional Cyclist	Non-Cyclists	Total	Sample Unweighted
1	Cambridge stands alone as a town with a significantly higher level of cycling than average. The majority (59%) cycled and most of these were frequent cyclists.	Cambridge	49%	10%	41%	100%	2220
2	The majority of CCTs fell into this group where around a quarter to a third of respondents had cycled in last 12 months.	York	26%	7%	67%	100%	2414
		Woking	21%	13%	66%	100%	2179
		Chester	20%	12%	68%	100%	2256
		Shrewsbury	20%	12%	68%	100%	2181
		Colchester	20%	11%	69%	100%	2180
		Bristol	18%	10%	72%	100%	2156
		Southend	18%	10%	72%	100%	2152
		Southport	17%	10%	73%	100%	2156
3	Leighton and Blackpool represented a third group of towns that had lower levels of cycling (with around one in five respondents having cycled in last 12 months)	Leighton	12%	9%	79%	100%	2189
		Blackpool	11%	8%	81%	100%	2145
4	Stoke-on-Trent had the lowest levels of cycling (with fewer than one in ten respondents having cycled in last 12 months)	Stoke-on-Trent	5%	5%	90%	100%	2265

Base: Adult (aged 16 plus) respondents to household survey (n=26,493 unweighted)

Table 3.2: Frequency of children cycling across CCTs

	Group	Town	Frequent cyclist	Occasional Cyclist	Non-Cyclists	Total	Sample unweighted
1	Almost all children (90-95%) in Cambridge, Chester and York had cycled in the previous 12 months	Cambridge	86%	9%	5%	100%	346
		Chester	86%	9%	5%	100%	330
		York	73%	17%	10%	100%	346
2	For this group of CCTs the proportion of children who had cycled ranged from 75% to 83%. In Bristol, 80% of children had cycled and half of children had cycled frequently	Colchester	67%	16%	17%	100%	364
		Southend	64%	18%	18%	100%	379
		Shrewsbury	65%	16%	19%	100%	381
		Bristol	50%	30%	20%	100%	346
		Southport	65%	14%	21%	100%	349
		Woking	61%	18%	21%	100%	354
		Leighton	57%	18%	25%	100%	309
3	Almost a third of children in Stoke and Blackpool had not cycled and around half of children had cycled	Stoke-on-Trent	51%	19%	30%	100%	425
		Blackpool	47%	22%	31%	100%	349

	frequently in the previous 12 months						
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Base: Child (aged 5-15) respondents to household survey (n=4278 unweighted)

3.3 What were the Characteristics of Cyclists and Non-Cyclists?

This section provides a summary of the key baseline data, covering characteristics of respondents such as age, gender, presence of children within households, physical activity and socioeconomic factors.

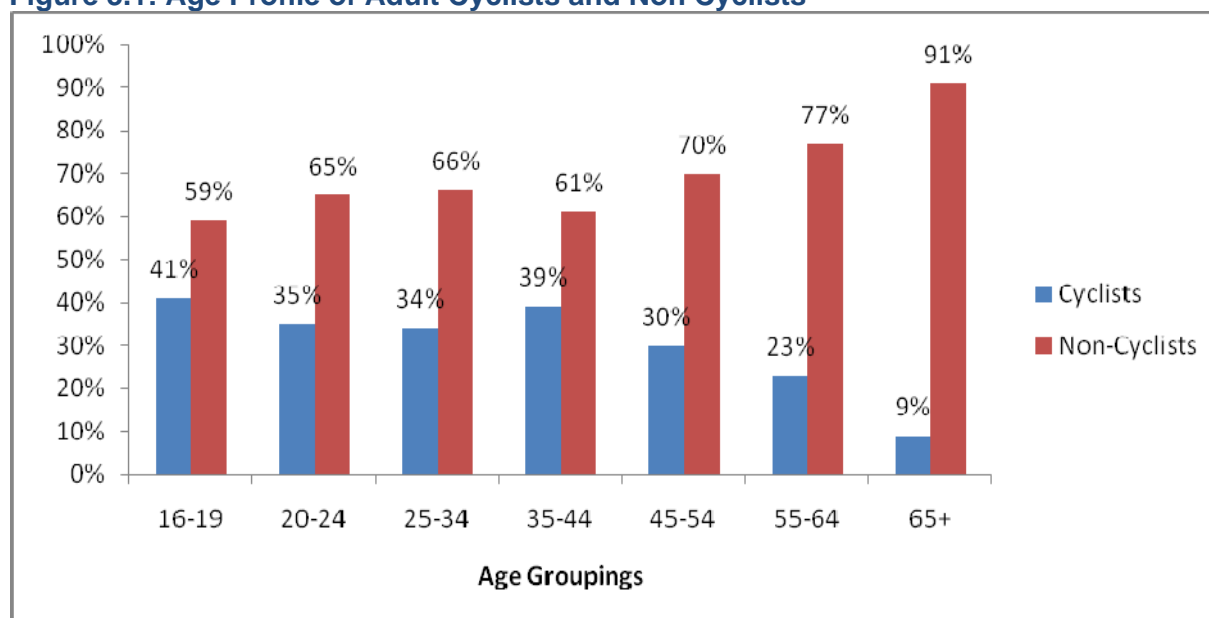
3.3.1 Age and Gender

Male adult respondents were more likely to be cyclists than female adult respondents (three in five men compared with two in five women). Young men in the 16 to 19 age group in particular were more than twice as likely to be cyclists (55%) compared with young women of this age (27%). The travel diary data also shows that men made one and a half times more cycling trips per respondent than women. The National Travel Survey 2009 reported that men made three times as many cycling trips as women¹⁵. The baseline survey therefore suggests the gender difference in cycling is lower in the CCTs than the rest of Great Britain.

A gender difference was not evident among boys and girls (aged 5-15) responding to the survey, who were almost equally likely to have cycled in the preceding 12 months (82% of boys cycled and 78% of girls cycled).

In terms of age, respondents aged 54 and under were more likely to be cyclists than older respondents (Figure 3.1). Between 30% and 40% of respondents in the age groups below 55 could be classified as cyclists, compared to 23% for 55-64 year olds and 9% for respondents over 65. The National Travel Survey 2009 reports a similar age distribution for cycling trips.

Figure 3.1: Age Profile of Adult Cyclists and Non Cyclists

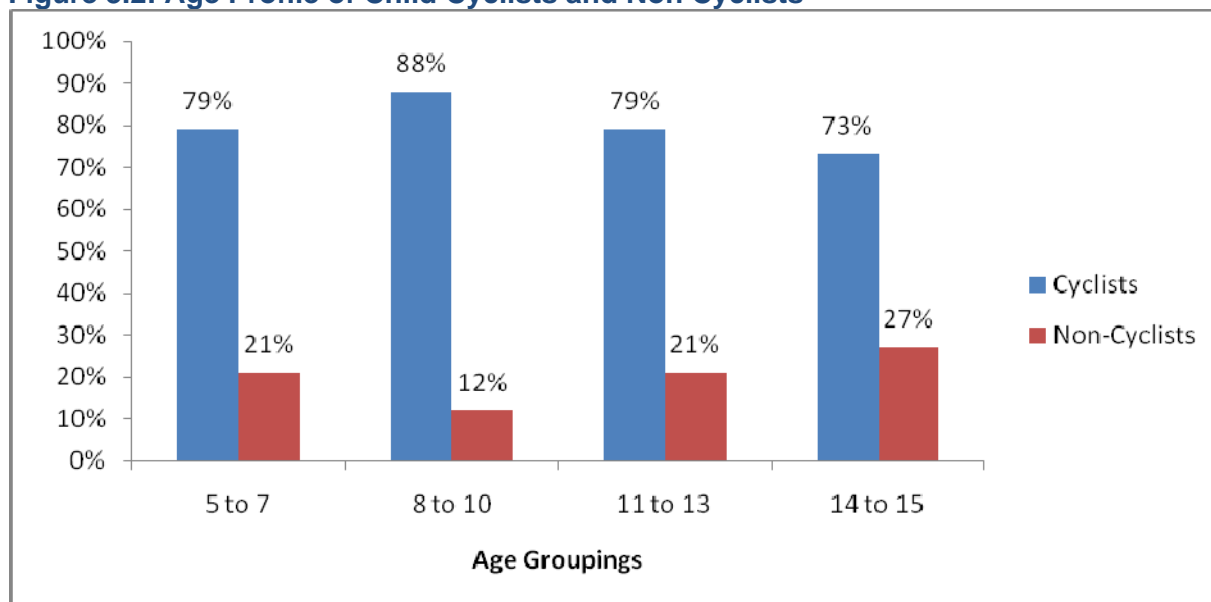


Base: Adult respondents (aged 16 and over) to household survey (n= 26,339 unweighted)

Children aged between eight and ten were more likely to have cycled (9 in 10 of this group) compared to younger and older children (Figure 3.2). Children aged between 14 and 15 were the least likely to have cycled (just under three quarters had cycled).

¹⁵ National Travel Survey 2009. Available at: <http://www.dft.gov.uk/pgr/statistics/datatablespublications/nts/>

Figure 3.2: Age Profile of Child Cyclists and Non Cyclists



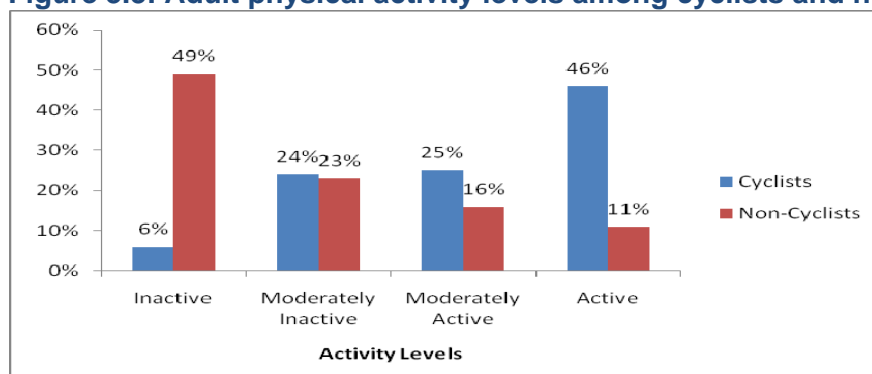
Base: Child respondents (aged 5-15) to household survey (n=4,234 unweighted)

The baseline survey also identified that cycling amongst adults was related to the presence of children in the household. Adult respondents aged between 35 and 44 with young children were more likely than those without children to cycle. Forty-eight percent of adults in this age group with children aged 5-15 had cycled in the last year compared with 20% of adults in this age group without children aged 5-15.

3.3.2 Physical Activity Levels

Another key issue explored in the evaluation is the relationship between cycling and overall physical activity. It is expected that individuals that start cycling or increase cycling will increase their overall physical activity¹⁶ (see Section 3.4). The baseline survey identified that adult cyclists were significantly more likely to be physically active than non-cyclists (Figure 3.3), when categorised according to the Cambridge EPIC index of physical activity (see Appendix C for Cambridge EPIC classifications).

Figure 3.3: Adult physical activity levels among cyclists and non cyclists

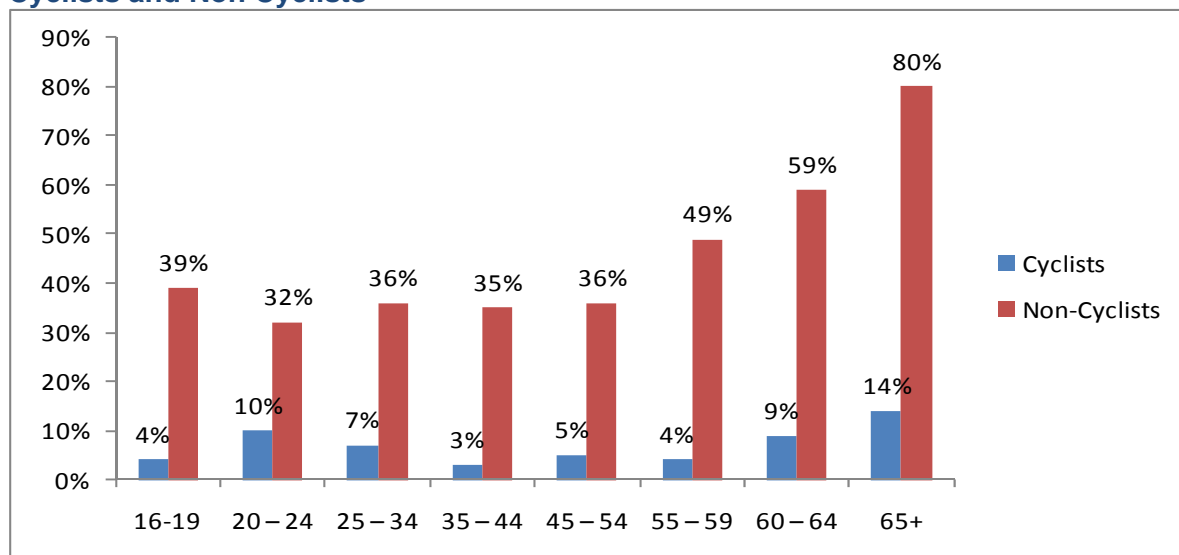


Base: Adult respondents (aged 16 plus) to household survey (n= 26,332 unweighted)

¹⁶ Assuming that cycling does not completely substitute similar levels of physical activity from other sources such as walking or sport.

This difference in physical activity was also seen across all age groups, particularly for respondents classified as inactive (Figure 3.4). Cyclists were significantly less likely to be classified as inactive compared to non-cyclists. Particularly noticeable is the high levels of inactivity amongst non-cyclists aged 60 and above. This suggests that cycling could help to address low levels of physical activity amongst older people.

Figure 3.4: Proportion of CCT population classified as Inactive by Age Group of Cyclists and Non Cyclists



Base: Adult respondents (aged 16 plus) to household survey (n= 26,332 unweighted)

It was not possible to categorise children aged 5-15 by the EPIC categories as the classification was designed to measure adult levels of physical activity. However, a review of environmental correlates of physical activity in young people reported that time spent outdoors has been found to be a positive correlate¹⁷. A series of questions were asked in the child questionnaire about hours per day in a typical week spent outside, participating in sport, and participating in sedentary activities. In general children who were cyclists were slightly more active than children who were non-cyclists. On average, children who were cyclists spent 1.3 hours per week outside (compared with 1.2 hours for non-cyclists), 1.2 hours per week participating in organised sport or other exercise (compared with 0.7 hours for non-cyclists) and they spent 3.6 hours per week on sedentary activities (compared with 4.3 hours per week for non-cyclists).

3.3.3 Economic and Social Characteristics

The socioeconomic characteristics of adult respondents also varied between those classified as cyclists and non-cyclists. Adult cyclists were more likely than non-cyclists to be in employment (around 7 in 10 were in employment compared to just under half of adult non-cyclists). Adult cyclists were also significantly less likely to be from lower socioeconomic groups, with under a quarter (24%) coming from group DE, compared to 41% of non-cyclists¹⁸.

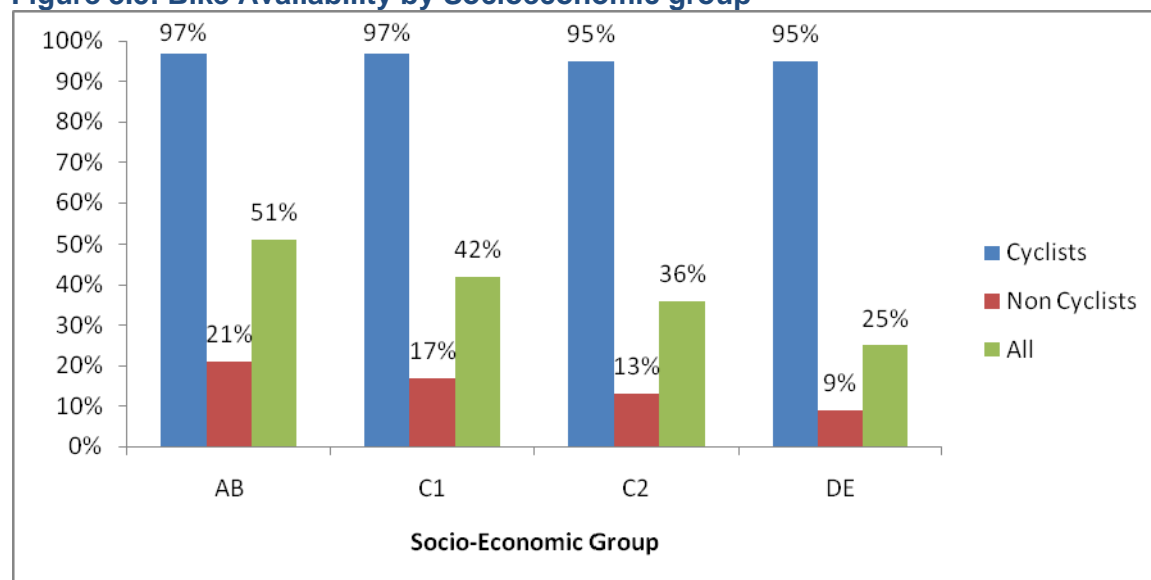
¹⁷ Ferreira, I., van der Horst, K., Wendel-Vos, W., Kremers, S., van Lenthe, F.J. and Brug, J. (2006).

Environmental correlates of physical activity in youth - a review and update. *Obesity Reviews*, 8, 129–154.

¹⁸ The classification of socioeconomic groups is taken from 'Occupation Groupings: A Job Dictionary, (6ed, 2006), The Market Research Society. <http://www.mrs.org.uk/publications/downloads/occgroups6.pdf> Broadly, A = professionals and senior managers; B = middle managerial; C1 = junior managerial and non-manual workers; C2 = skilled manual workers; D = semi-skilled and unskilled manual workers; E = unemployed/long term sick

One possible explanation for this relationship is the availability of bicycles¹⁹. The availability of a bicycle varied strongly between socioeconomic groups (Figure 3.5), with respondents in group AB (51%) being twice as likely as those in DE (25%) to have a bicycle available. It should, however, be acknowledged that as well as possible financial constraints, not wishing to cycle could be a reason for not owning a bicycle.

Figure 3.5: Bike Availability by Socioeconomic group



Base: Adult respondents (aged 16 plus) to household survey (n=17,009 unweighted)

This pattern was also evident for respondents who had not cycled in the previous 12 months (the red bars in Figure 3.5), with those in group AB being more than twice as likely to have access to a bike (21%) compared with respondents from group DE (9%). Access to a bicycle was evidently not the only barrier to cycling as these respondents did have access but still had not cycled. Across the twelve CCTs, 14% of non-cyclist respondents had a bicycle available but had not cycled in the preceding 12 months. These individuals represented a potential target group, particularly for interventions designed to encourage the use of already available bikes. The possible explanations for why these individuals are not cycling are explored in Section Four.

3.4 What benefits could be realised if more people cycled more often?

3.4.1 Introduction

This section presents an analysis of the physical activity and travel behaviour of cyclists and potential cyclists, in order to investigate the scale of benefits that could result if more people cycled more often.

This section only considers the potential benefits for respondents who were physically able to cycle. Just under a quarter (22%) of non-cyclists said they had a disability or long term illness which limited their activities and most of these (75%) specifically stated that they had a health problem which limited their ability to cycle. It was not possible to examine using the available data the extent to which some of these non-cyclists could be enabled to cycle through, for example, the use of specialised cycles.

The focus in this section is therefore on the benefits for current cyclists cycling more often and potential cyclists starting to cycle. (Potential cyclists are defined as all non-cyclists who

¹⁹ The chart shows that a small percentage of cyclists reported not having a bicycle available to them. This could perhaps be due to respondent error, or to recent loss/theft of a bicycle.

did not report having a disability or health problem which prevented them from cycling.) There are a number of possible benefits in increasing cycling for these two groups, including:

- Health benefits;
- Congestion and carbon benefits;
- Travel cost savings; and
- Increased access to destinations and services.

This section focuses on benefits associated with health, congestion and carbon.

3.4.2 Health Benefits

The main health benefits of cycling are its contributions to increased levels of physical activity. A strong body of evidence has built up linking regular physical activity and good health²⁰. It has been found that regular physical activity:

- Reduces the risk of dying prematurely (especially through coronary heart disease and strokes);
- Reduces the risk of developing diabetes;
- Reduces the risk of developing high blood pressure and the level of blood pressure in those with high blood pressure;
- Reduces the risk of developing colon and breast cancer;
- Reduces feelings of depression and anxiety;
- Helps control weight; and
- Helps build healthy bones, muscles and joints.

It has also been shown for the Cambridge EPIC index that the relative risk of all-cause mortality is decreased for people in the active, moderately active or moderately inactive groups compared to those who were inactive (0.83 for moderately inactive, 0.68 for moderately active and 0.68 for active)²¹. This highlights that any action that moves people long-term from the inactive groups to the active groups (or even from the inactive group to the moderately inactive group) will lead to health benefits. As a moderate to vigorous form of physical activity that can contribute to people meeting the CMO's recommendations, cycling has an important role to play.

Potential cyclists were more likely than current cyclists to be categorised as inactive. This represents a large group (almost 40% of all adults surveyed) who would potentially obtain health benefits from taking up cycling.

This finding is confirmed by the results for another question in the survey which asked respondents 'In a typical week during the past year did you practice any of these activities (walking, cycling, gardening, housework, DIY, other physical exercise and sport) vigorously enough to cause sweating or a faster heartbeat?'. Only 38% of potential cyclists said that they had been active to this extent compared with 69% of cyclists. Potential cyclists in higher

²⁰ DoH (2004). At least five a week. Evidence on the impact of physical activity and its relationship to health. A report from the Chief Medical Officer, London: Department of Health.

²¹ Khaw, K.T., Jakes, R., Bingham, S., Welch, A., Luben, R., Day, N., Wareham, N. (2006). Work and leisure time physical activity assessed using a simple, pragmatic, validated questionnaire and incident cardiovascular disease and all-cause mortality in men and women: The European Prospective Investigation into Cancer in Norfolk prospective population study. *International Journal of Epidemiology*, 35(4),1034-43.

socioeconomic groups were those most likely to answer yes to this question (50% of those in socioeconomic group AB said they had compared with 32% in socioeconomic group DE).

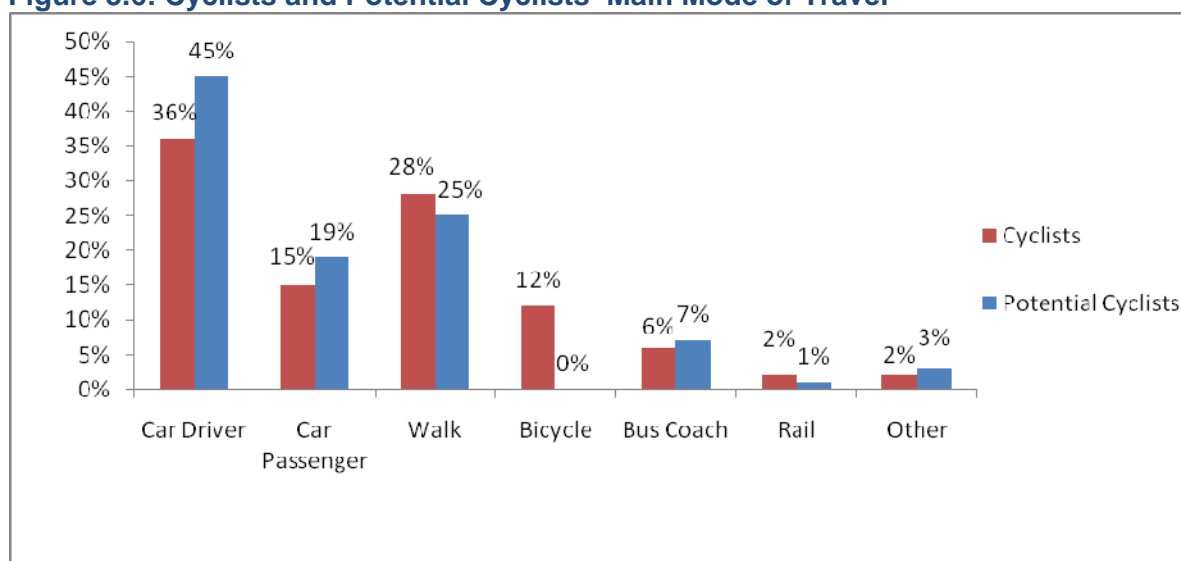
Only a small proportion of cyclists were categorised as inactive (6%), and these were most likely to be those who cycled infrequently. For example, two in ten of the cyclists who cycled less than once a month were inactive and a further third moderately inactive. Encouraging or enabling these cyclists to cycle more could therefore lead to important health benefits.

From the above findings it can be estimated that around a quarter of the potential cyclists participated in other physical activities such as walking and sports. However, most were not as active as cyclists and a significant proportion demonstrated low levels of physical activity (particularly those aged over 65, those with no formal educational qualifications, those from socioeconomic group DE, and women). Increasing levels of cycling amongst these groups would increase their physical activity levels and thereby lower their risk of health problems.

3.4.3 Congestion and Carbon Benefits

Increasing the take up of cycling has the potential to reduce congestion and carbon emissions if cycling trips replace trips by car. The reduction of short distance car based journeys in urban areas is a potentially important contributor to congestion and carbon reductions. Figure 3.6 shows the proportion of trips made by different modes of transport recorded by cyclists and potential cyclists in the seven-day travel diaries.

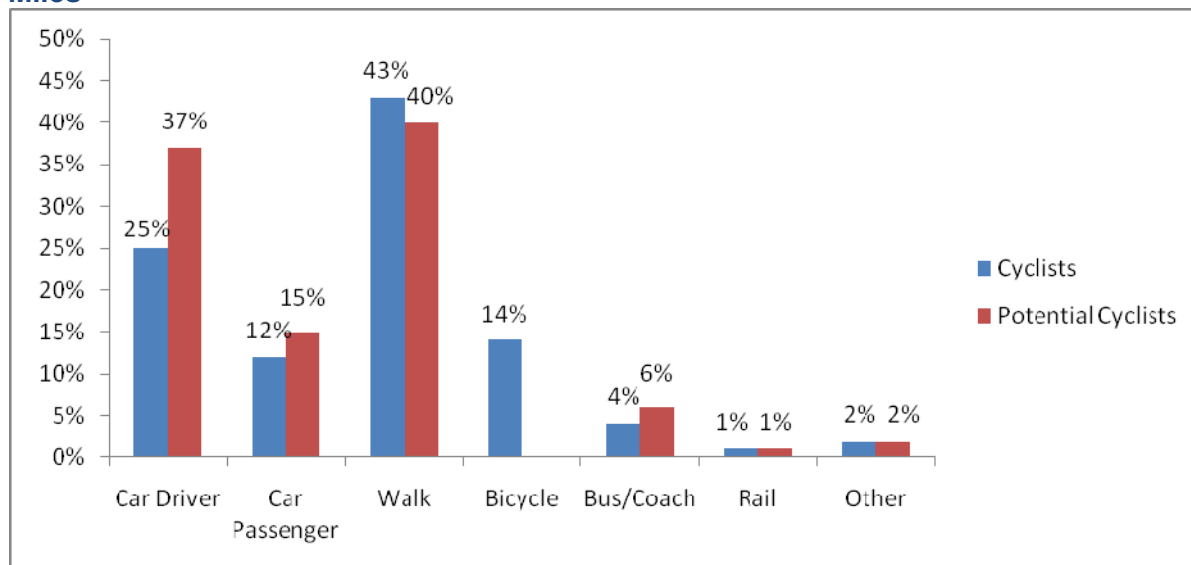
Figure 3.6: Cyclists and Potential Cyclists' Main Mode of Travel



Base: All trips made by cyclists and potential cyclists in travel diary week (n= 132,624 unweighted)

The majority of trips made by potential cyclists were as a car driver or passenger (64%). In comparison cyclists made a lower proportion (51%) of their trips by car. Figure 3.7 shows the proportion of trips of under 3 miles by main travel mode made by cyclists and potential cyclists.

Figure 3.7: Cyclists and Potential Cyclists' Main Mode of Travel for Trips Under 3 Miles



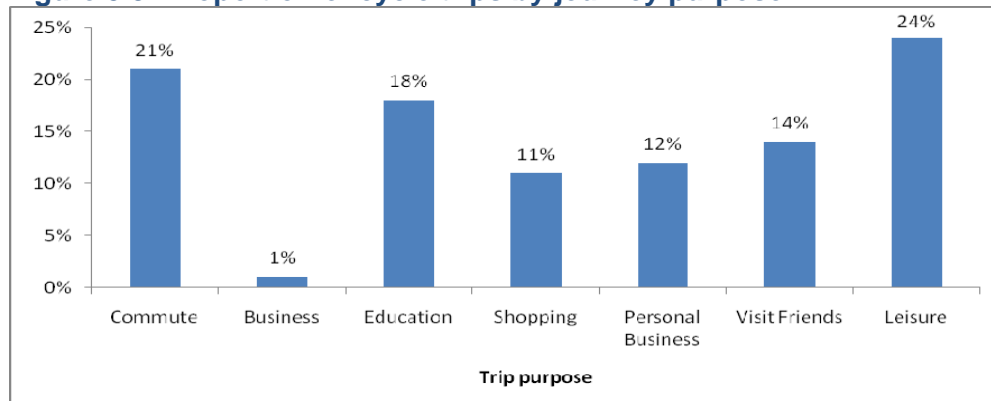
Base: All trips under 3 miles made by cyclists and potential cyclists in travel diary week (n= 83,395 unweighted)

The chart shows that over a third of short trips made by potential cyclists (which could feasibly be undertaken by bicycle) were in fact made by car (as driver). Further analysis shows that half of the short commuter trips made by potential cyclists (55%) were made by car.

Although current cyclists used the car proportionately less frequently than potential cyclists, one in four of the short trips made by cyclists were undertaken by car (as driver), indicating the potential for more of their trips to be made by bicycle. Just under a third (31%) of short commuter trips made by cyclists were car journeys.

Figure 3.8 shows the proportion of cycle trips made by journey purpose during the travel diary week. Two in five trips were for commuting (21%) or education (18%). The National Travel Survey reported that 26% of all trips are made for these purposes in 2009. This highlights that cycling is popular for commuting and education journeys and that there is potential for encouraging those that do not cycle for these purposes to do so (especially where their journeys are under 3 miles). One quarter of cycle trips were for leisure (24%), made for recreational, sport and health reasons.

Figure 3.8: Proportion of cycle trips by journey purpose



Base: All cycle trips in the travel diary week (n= 9,543 unweighted)

Further analysis suggested some examples of areas where current cyclists could be encouraged or enabled to cycle more:

- Cyclists aged 60 and over made fewer cycle trips for leisure than those aged 25-59 but they made a similar proportion of trips for other purposes (with the exception of commuting). Leisure cycling amongst the over 60s may therefore represent a target area for increase.
- The majority of commuter trips by bicycle (61%) were made by adults with no children. In comparison, over half of the leisure trips made by bicycle (55%) were made by adults with children aged 5-15. Utility cycling amongst parents (especially mothers, since women were less likely than men to commute by bicycle already) may therefore represent a target area for increasing cycling levels if barriers can be overcome.
- A similar proportion of cycle trips for commuting and leisure were made by cyclists from high and low socioeconomic groups. However, those in higher socioeconomic groups who commuted by bicycle also tended to make regular leisure trips by bicycle. Nearly half of all cyclists who made both commuting and leisure trips by bicycle were in socioeconomic group AB (compared with 22% from socioeconomic group DE). This suggests that cycle commuters may be split between those who cycle out of choice and those who cycle out of necessity, which in turn suggests the possibility of increasing leisure cycling amongst the latter group.

4 Overcoming the Barriers to Cycling

Summary of emerging findings

- The analysis of respondents' existing cycling behaviour, attitudes to cycling and stated intentions for future cycling behaviour identified five sub-groups in the population. This analysis is based on the Stages of Change model of behaviour.
- Eleven percent of adults were non-cyclists who indicated that they were contemplating cycling in the future. Four percent of adults were existing cyclists who indicated they intended to cycle more often.
- The majority of respondents in each group agreed that 'cycling should form part of a modern transport system', and over 80% of respondents who indicated they were considering cycling more agreed 'that more people should cycle for short journeys instead of using the car'.
- The barriers to cycling identified by the analysis included the perceived safety of cycling on roads with other traffic, which was a concern for the majority of each population sub-group. Furthermore, over 30% of respondents who indicated they might start cycling or cycle more often felt it would be unsafe to do so in their local neighbourhood. Over three quarters of all respondents therefore supported an increase in the provision of separate cycle routes.
- Willingness to cycle could also be related to an individual's self-identity and their image of cycling. However, only 8% of respondents who might start cycling and 6% of respondents who might cycle more often would feel embarrassed to cycle in their local neighbourhood.
- An identified constraint was the practicality of cycling, with approximately half of respondents who indicated they might change their behaviour agreeing with the statement that "Cycling is not at all practical for the journeys I make".
- All respondents who indicated an intention to start cycling or to increase their cycling activity knew how to cycle. However, a key constraint for 78% of respondents who might start cycling was that they did not have a bicycle available.

4.1 Introduction

Section Three shows how the baseline cycling levels varied across the 12 CCTs, and between different population groups. The baseline household and attitudes surveys provided a source of data from which to consider the barriers to cycling for adults and to gain better insights on approaches to generate higher cycling activity levels. A question on future intention to cycle was included in the attitudes questionnaire based on the *Stages of Change* model developed by Prochaska and DiClemente²².

The survey responses allowed us to group adult respondents in terms of their cycling behaviour and their expressed future intention to cycle. This generated the following five categories of respondents:

1. Non-cyclists who indicated no intention to start cycling (46% of adult respondents);

²² Prochaska, J.O. and DiClemente, C.C. (1982) Trans-theoretical therapy – toward a more integrative model of change. *Psychotherapy: Theory, Research and Practice* 19:3. pp. 276-288.

2. Non-cyclists who indicated that there was a possibility they would start cycling (11%);
3. Cyclists who did not indicate an intention to cycle more frequently (24%);
4. Cyclists who indicated they intended to cycle more frequently (4%); and
5. Non-cyclists who reported being unable to cycle due to disability or health problems (15%).

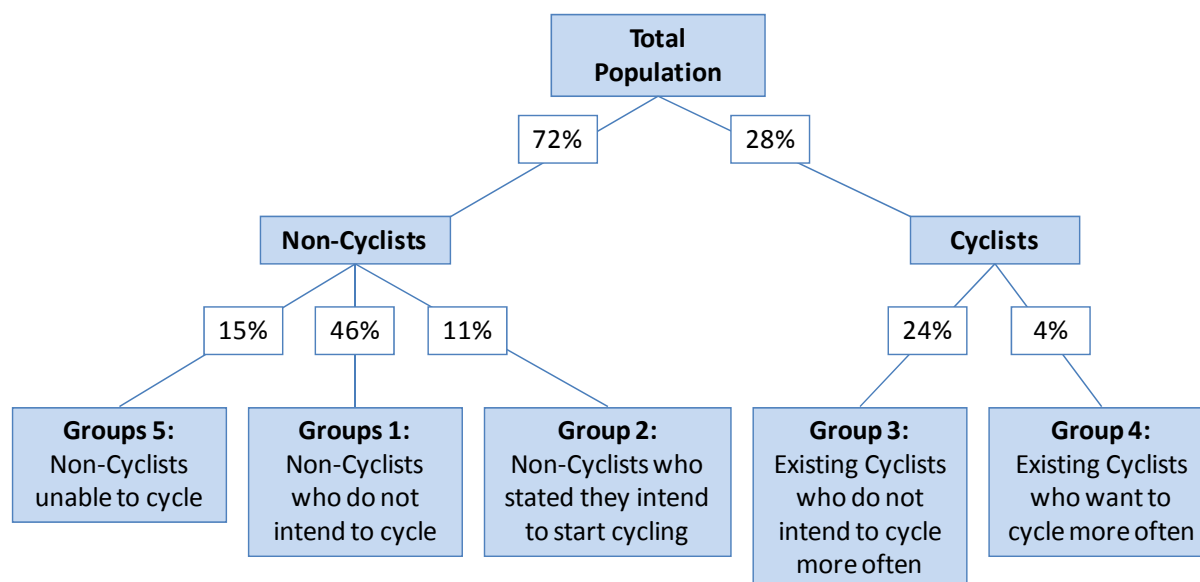
Only those respondents who completed the attitudes questionnaire survey were included within this analysis.

Intention to Cycle and the Stages of Change Model

The Stages of Change Model (sometimes referred to as the Transtheoretical Model) is an influential model of behavioural change that suggests change in behaviour occurs by moving through five stages of readiness from pre-contemplation through to contemplation, preparation, action and maintenance. It has been widely applied in health promotion. The Stages of Change Model is not explicit about what influences movement between the stages and there is a need to draw on other theories of behaviour for this. In the attitudes questionnaire the respondents were asked to select what stage of readiness to cycle they were in from 'there is no chance at all of my becoming a regular cyclist in the future' (pre-contemplation) to 'I already cycle regularly and have done so for more than 6 months (maintenance).

Figure 4.1 shows the logic structure of the analysis, which focused on identifying both the physical and attitudinal barriers to cycling.

Figure 4.1: Cycling population sub-groups



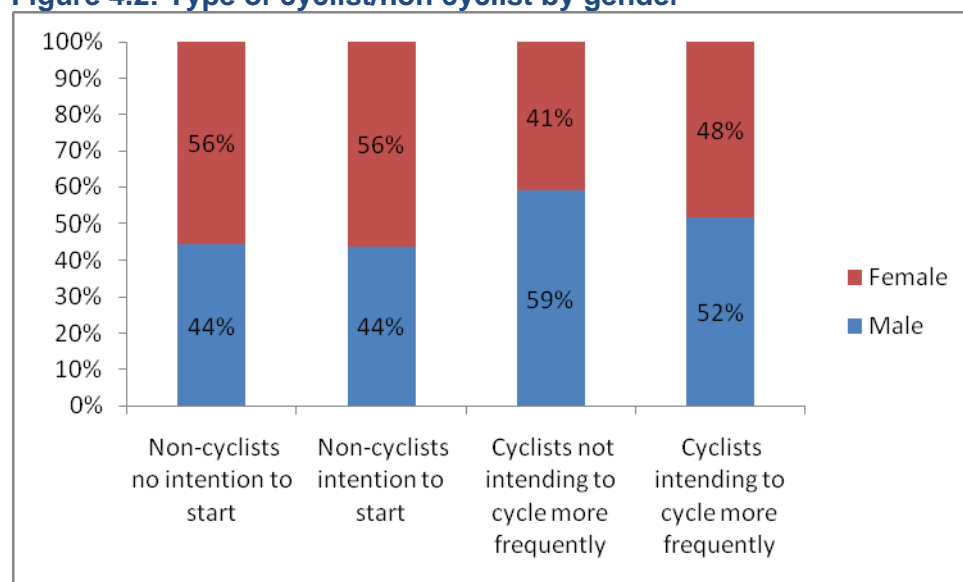
Almost one in five of those in Group 5 said they would like to be able to take up cycling. Although it was not possible to examine using the available data the extent to which some of these individuals could be engaged to cycle through specialised cycles, for example, this may be an option local areas could explore to develop a highly inclusive cycling strategy.

The next section presents a summary of the characteristics of the four other population groups, leading into an analysis of the main barriers and enablers to changing cycling behaviour.

4.2 Who is in each Population Sub-Group?

Section Three has identified significant differences between cyclists and non-cyclists with regards to socioeconomic characteristics and levels of general physical activity. Consideration was subsequently given to the four sub-groups to determine factors that may influence their propensity to cycle. Figure 4.2 shows that there were significant differences between men and women in their cycling behaviour and intentions. A higher proportion of women were non-cyclists, both intending and not intending to start cycling. In contrast, men were significantly more likely to be cyclists not intending to cycle more (men represented 59% of this group).

Figure 4.2: Type of cyclist/non cyclist by gender

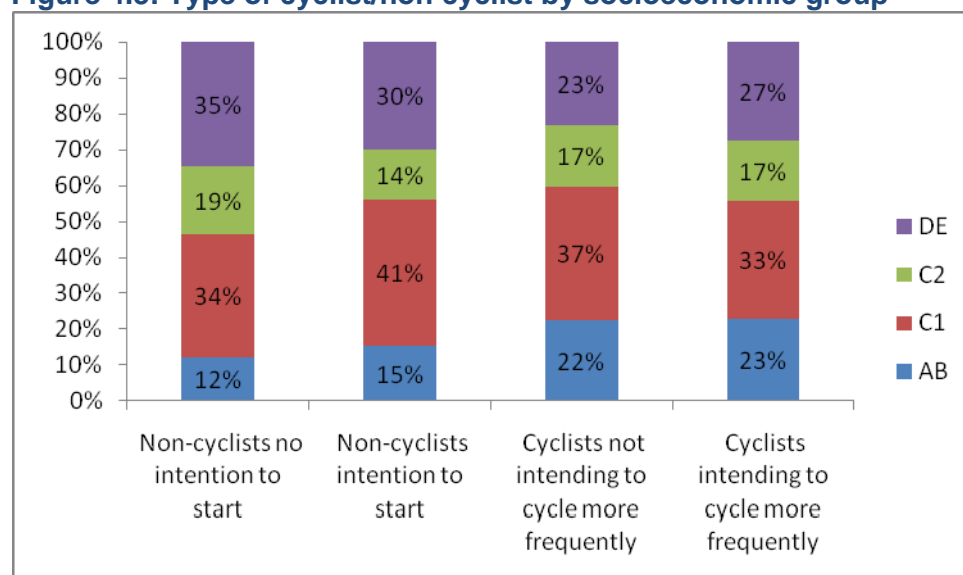


Base: Adult respondents self completion survey (groups 1-4 only) (n= 5,515 unweighted)

More than a quarter (26%) of non-cyclists with no intention to start cycling (group 1) were aged 60 or over. This result, and the lower physical activity levels for the over 60s (see Section 3.2.2), provided an indication as to this sub-group's low potential to take up, but high likely benefit from, cycling. Respondents aged 25 to 34 were more highly represented than other age groups amongst non-cyclists who intend to start (group 2, 24%). There were also higher proportions of both cyclists intending and not intending to cycle more frequently amongst 35 to 44 year olds (27%) compared with the non-cyclist groups.

Figure 4.3 shows that there were significant differences between the four cycling categories in terms of socioeconomic group. Non cyclists not intending to start had proportionately more respondents in socioeconomic group DE and in contrast both cyclist groups had higher proportions of those in socioeconomic group AB. A high proportion of non-cyclists who intend to start were from socioeconomic group C1 (41%).

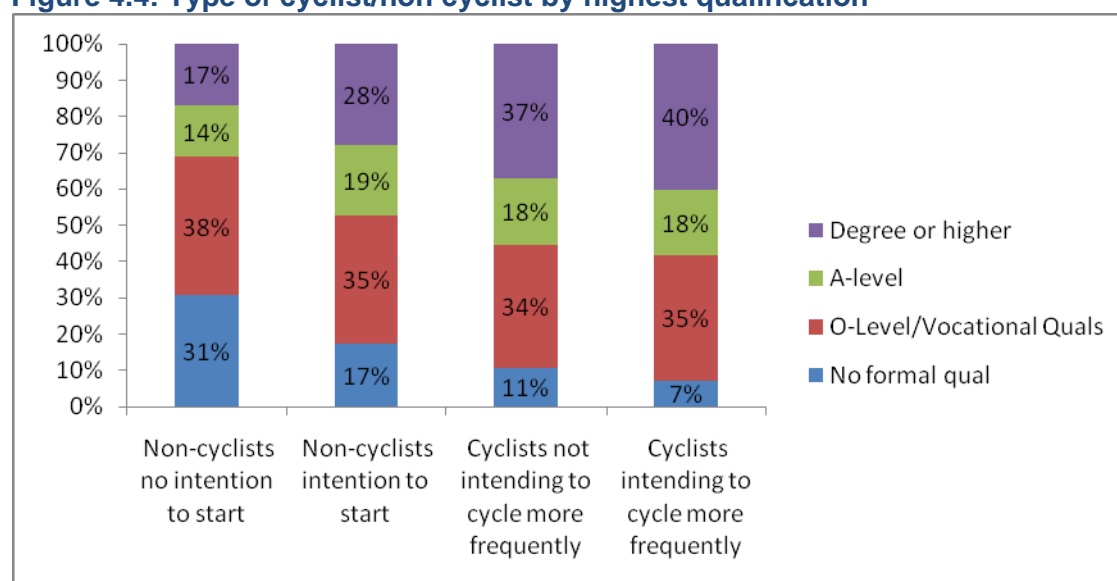
Figure 4.3: Type of cyclist/non cyclist by socioeconomic group



Base: Adult respondents self completion survey (groups 1-4 only) (n= 4,976 unweighted)

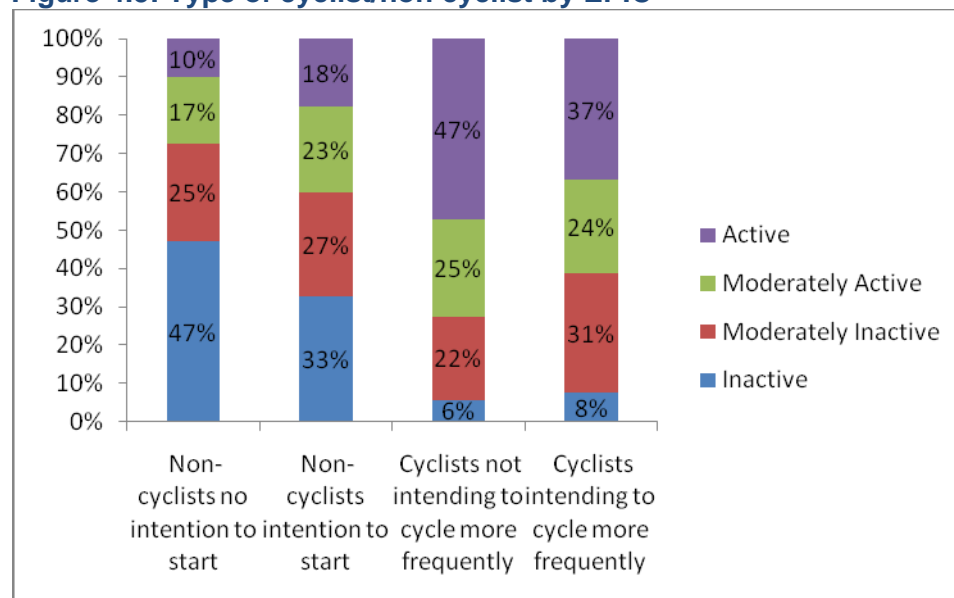
Figure 4.4 demonstrates that almost one third of those who do not cycle and do not want to cycle (group 1) had no formal qualifications (31%). Those educated to degree level or higher comprised a high percentage (40%) of cyclists who intend to cycle more frequently (group 4).

Figure 4.4: Type of cyclist/non cyclist by highest qualification



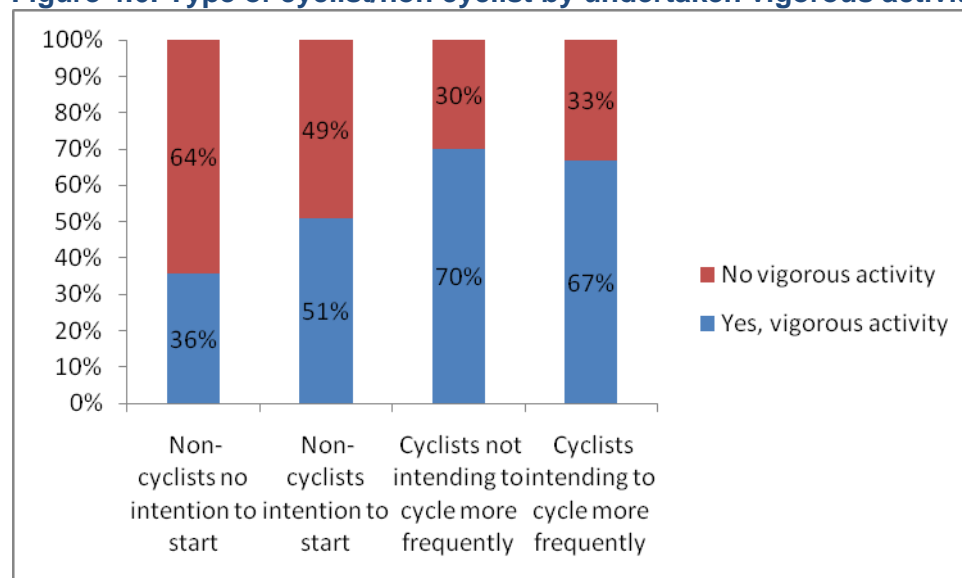
Base: Adult respondents self completion survey (groups 1-4 only) (n= 5,490 unweighted)

The comparison of the four groups by the Cambridge EPIC index of physical activity shown in Figure 4.5 demonstrates notable differences. Almost half of group 1 non-cyclists (47%) were inactive. This is significantly higher when compared to those who stated an intention to start cycling (group 2, 33% classified as inactive) and those who already do cycle (6-8% classified as inactive). Cyclists not intending to cycle more frequently (group 3) had the highest proportion of active respondents (47%), reflecting in part their higher existing cycling levels.

Figure 4.5: Type of cyclist/non cyclist by EPIC

Base: Adult respondents self completion survey (groups 1-4 only) (n= 5,491 unweighted)

Figure 4.6 supports this with differences between the cycling categories with regards to the amount of vigorous physical activity that they undertake. In particular, more than half (51%) of group 2 non-cyclists intending to start cycling said they had participated in vigorous activity in a typical week during the past year. In comparison, only 36% of group 1 non-cyclists with no intention to cycle had participated in vigorous activity.

Figure 4.6: Type of cyclist/non cyclist by undertaken vigorous activity

Base: Adult respondents self completion survey (groups 1-4 only) (n= 5,490 unweighted)

4.3 What are the Barriers and Enablers of Cycling?

4.3.1 Introduction

This section presents an analysis of the perceptions and attitudes to cycling and the past experience of cycling of each population sub-group. The key barriers to, and enablers of, cycling are identified as:

- The perceived safety of cycling;
- The role of individual's self-identify and image of cycling;
- The past experience of cycling;
- The perceived benefits of cycling;
- The perceived practicalities of cycling, particularly for short distance local trips;
- The anticipated enjoyment of cycling;
- The levels of awareness of the provision of facilities for cyclists in the local areas of respondents; and
- The concerns over bicycle security.

Throughout this section, figures refer to the percentage of respondents in each group agreeing or strongly agreeing with the statements in question.

4.3.2 Perceived Safety

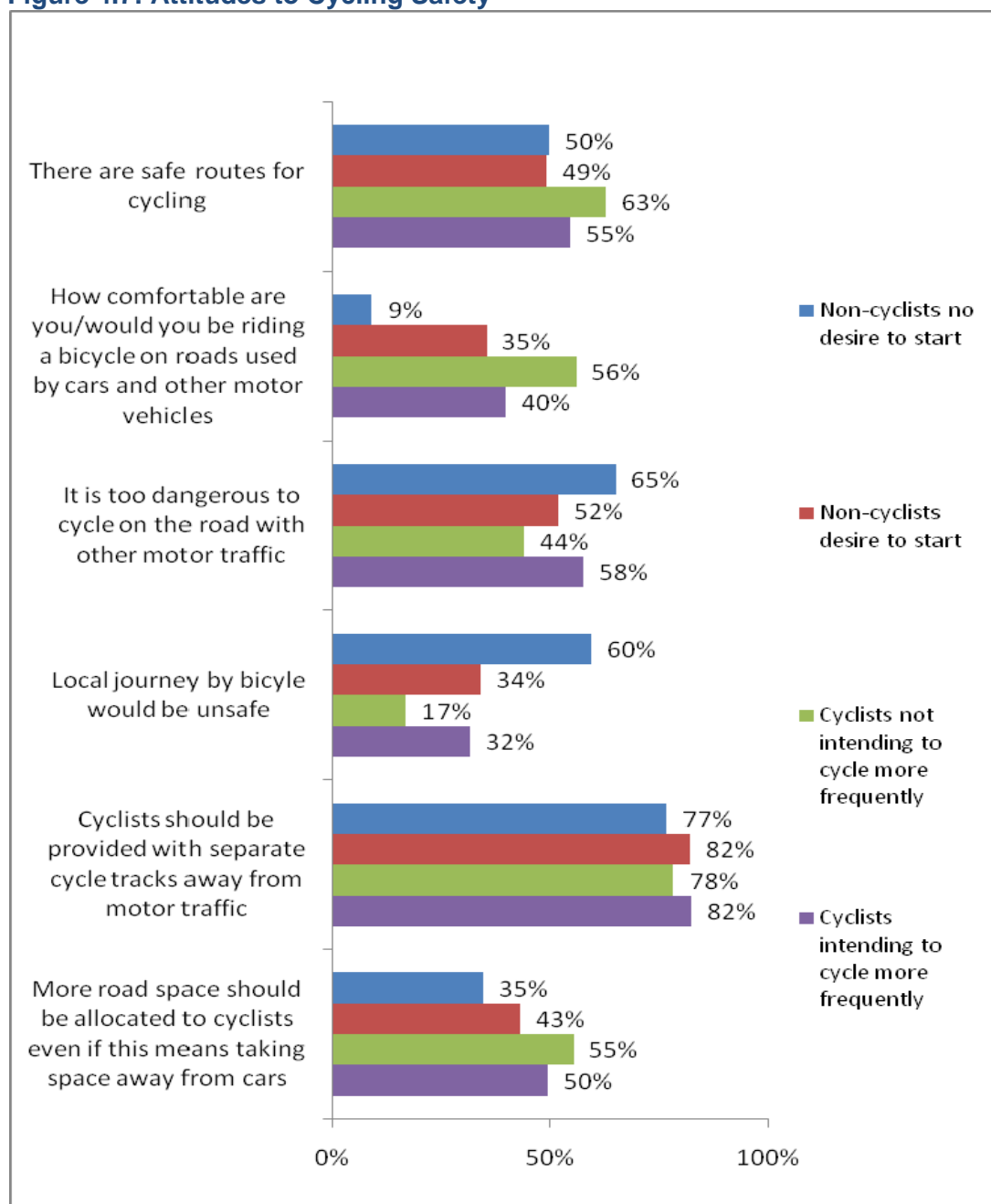
The perceived safety of cycling on roads with general traffic was a concern for the majority of each population group (Figure 4.7), with the exception of group 3 (cyclists who do not intend to increase their frequency of cycling, who also represent the group which cycled most frequently). All other groups had between 52% and 65% of respondents who considered it 'too dangerous' for them to cycle on roads.

The majority of group 1 (60%) also felt that it would be unsafe for them to cycle for a short distance of under two miles in their local neighbourhood. Approximately a third of those in groups 2 and 4 would feel unsafe cycling in their local neighbourhood, but only one in five adults in group 3.

One possible explanation for these perceived safety concerns could have been the levels of provision of cycle routes within each individual neighbourhood. The majority of respondents in each group supported the provision of separate cycle routes and a majority of respondents in group 3, which included the most frequent existing cyclists, supported the further re-allocation of road space to cyclists.

However, between 50% and 63% of respondents in each group agreed with the statement that safe routes existed for cycling in their area. This indicated that perceptions of safety are not merely related to the availability of routes or paths for cyclists, but also a consequence of other factors which could include an individual's cycling ability, experience and confidence.

Figure 4.7: Attitudes to Cycling Safety



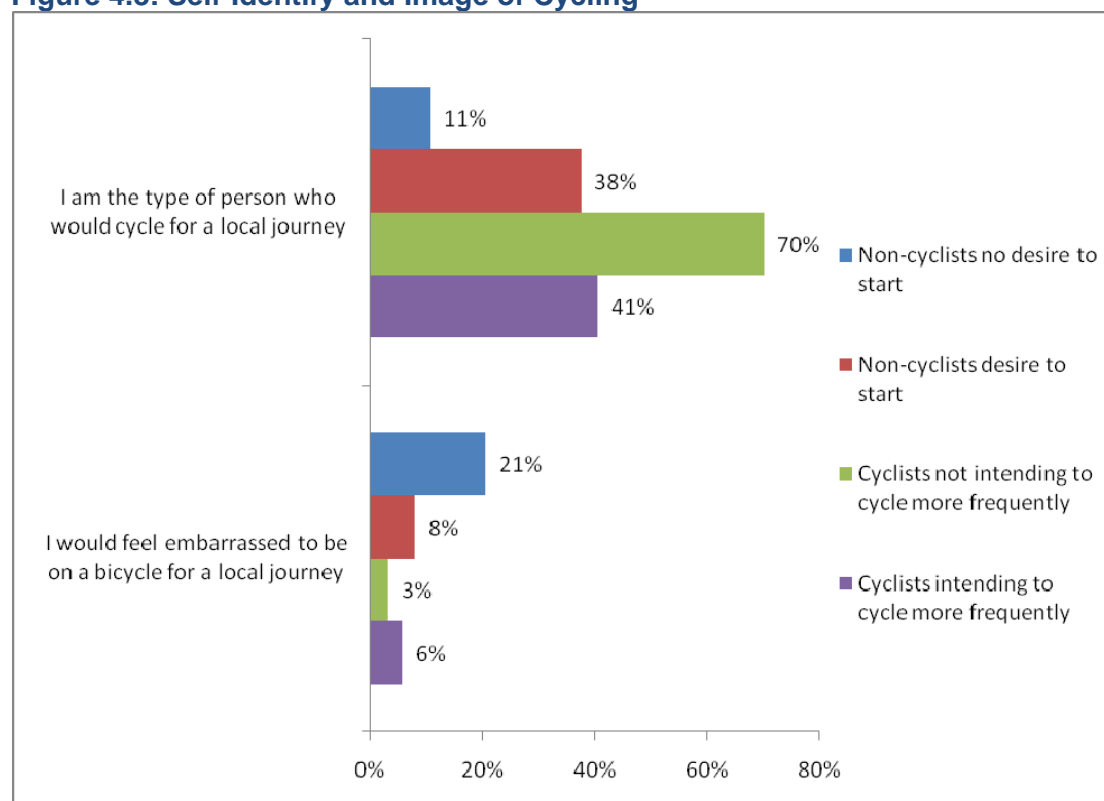
Base: Adult respondents (aged 16 plus) to the self-completion survey (n=5,953 unweighted)

4.3.3 Self-Identity and Image

The perception of cycling as a practical and viable mode of transport, and its acceptance as such across the population groups, could be hypothesised as a potential barrier to cycling for particular journeys. Willingness to cycle could also be related to an individual's self-identity and their image of cycling.

Respondents were asked whether they agreed with the statement that 'I am the type of person who would cycle for a journey like this (two miles in their neighbourhood)'. Figure 4.8 shows that only 11% of group 1 respondents agreed, far lower than the other three groups. It is perhaps not surprising that nearly three quarters of respondents in group 3 agreed with this statement.

Figure 4.8: Self-Identify and Image of Cycling



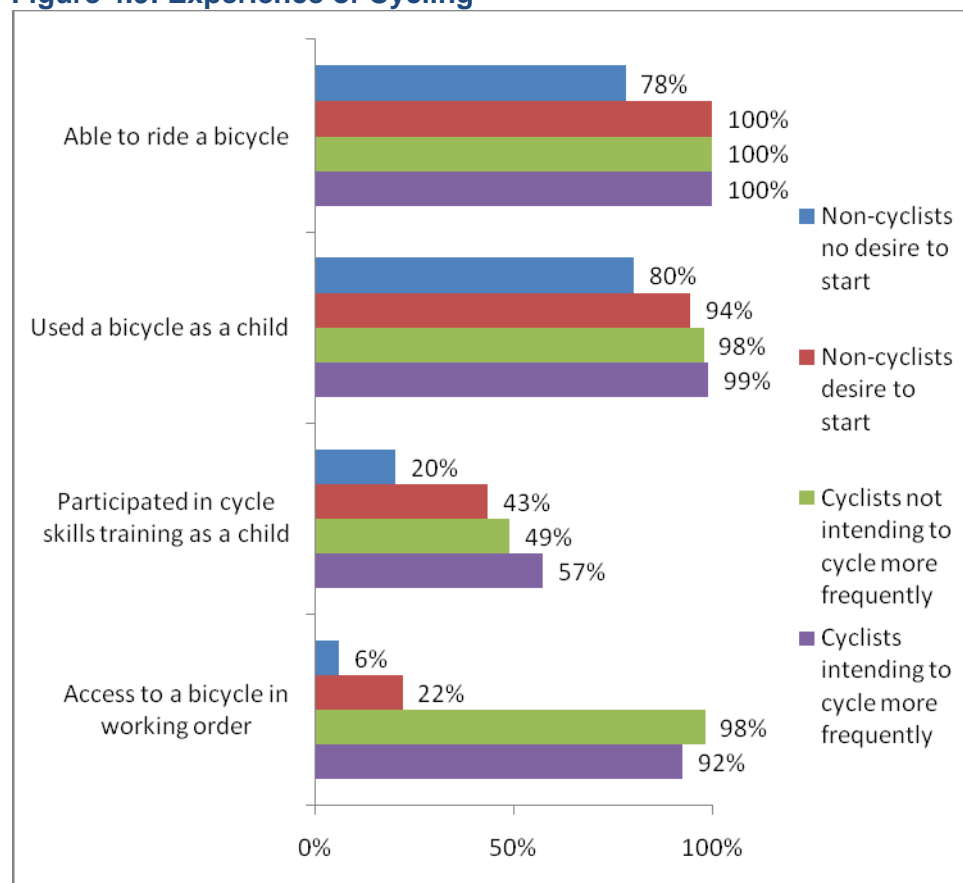
Base: Adult respondents (aged 16 plus) to the self-completion survey (n=5,953 unweighted)

A more direct question asked respondents whether they 'would feel embarrassed to be on a bicycle for a journey like this'. Figure 4.8 identifies that one in five of the respondents in group 1 agreed with this statement. This was higher than the other population groups and indicated that many of this group had a negative image of cycling. It should also be acknowledged that people who said they would feel embarrassed cycling may have been affected by a lack of experience and confidence with cycling rather than a negative image of cycling. Past experience of cycling is reported in the following section.

4.3.4 Past Experience

A fundamental factor likely to influence respondents' cycling behaviour and intentions was their ability to ride a bicycle. Twenty-two percent of group 1 non-cyclists who said they did not intend to start cycling did not know how to ride a bicycle (Figure 4.9). All respondents in each of the other groups knew how to ride a bicycle.

Figure 4.9: Experience of Cycling



Base: Adult respondents (aged 16 plus) to the self-completion survey (n=5,953 unweighted)

That almost a quarter of group 1 respondents did not know how to ride a bike was a possible consequence of:

- 80% not receiving cycle training as a child (groups 2 to 4 had between 43% and 57% who had participated in cycle training as child);
- 20% not cycling as a child (groups 2 to 4 had between 1% and 6%); and to a lesser extent
- Only 7% being aware of adult cycle training opportunities within their CCT.

Respondents in group 1 from the lower socioeconomic groups were the least likely to have received cycle training as a child; only 14% in group DE had received training compared with 27% in group AB.

The level of basic cycling ability was compounded by a very low level of bicycle availability among group 1 respondents with 94% of this group not having access to a bicycle.

Within group 2, approximately one quarter of respondents had a bicycle available to them, and three quarters did not. Of the former group, a quarter did not consider their bicycle road worthy. Nine out of ten group 2 respondents had cycled as a child and just under half had received cycle training as a child. The availability of bicycles and the ability to maintain them

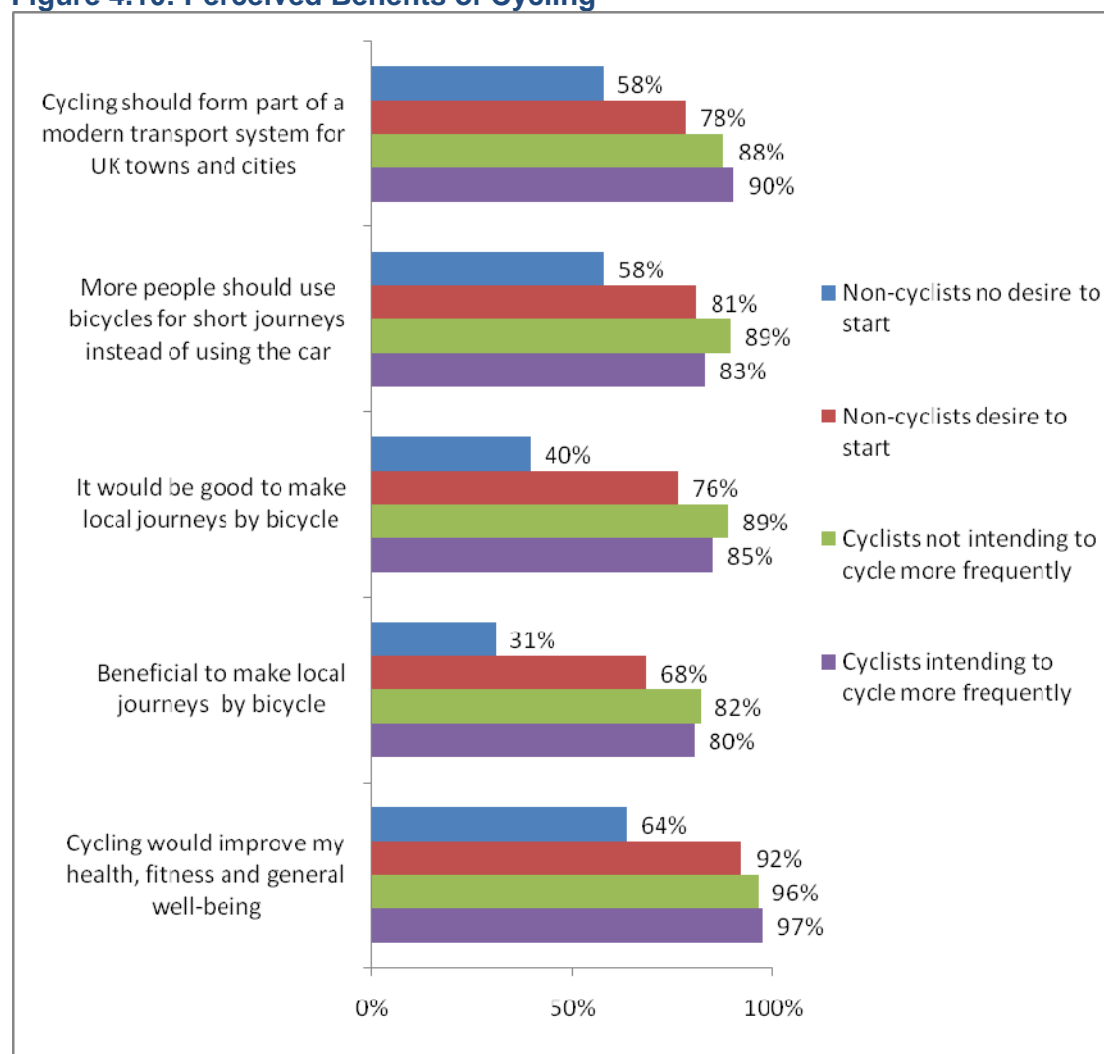
in working order are evident barriers to the stated intention to start cycling among population group 2.

Figure 4.9 also highlights a link between those respondents who did not cycle as a child and those who do not know how to as adults. Out of the 22% of respondents in Group 1 who did not know how to ride a bicycle, 66% said they had never ridden a bicycle as a child.

4.3.5 Perceived Benefits of Cycling

When asked about the potential benefits of cycling, the majority of respondents in groups 2 to 4 recognised the positive contribution cycling can make for individuals and the wider community. Respondents in group 1 presented mixed attitudes towards cycling (Figure 4.10). Overall, they were less positive towards cycling compared with each of the other population groups.

Figure 4.10: Perceived Benefits of Cycling



Base: Adult respondents (aged 16 plus) to the self-completion survey (n=5,953 unweighted)

The majority of respondents in each group agreed that 'cycling should form part of a modern transport system', with group 1 giving a marginally lower response than the others. Over 81% of respondents in groups 2 to 4 agreed 'that more people should cycle for short journeys instead of using the car'. However, there was a lower level of support within group 1 at 58%.

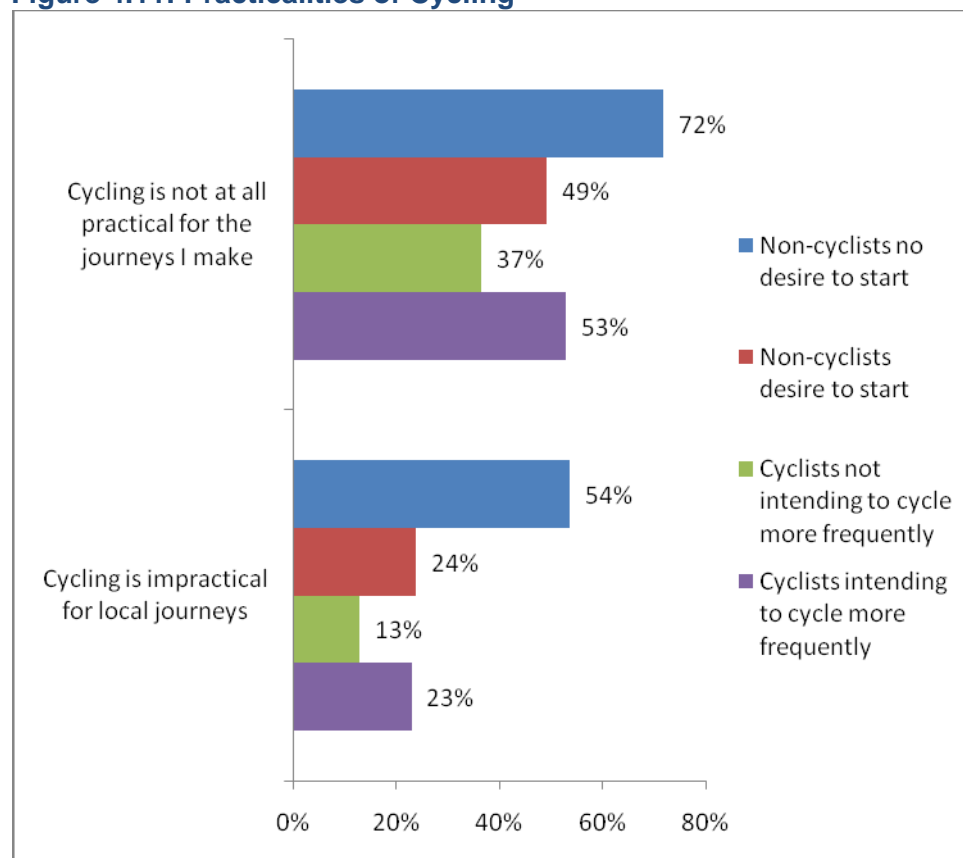
A similar pattern could be observed in relation to respondent's attitudes to the health benefits of cycling, with over 90% of group 2 to 4 respondents agreeing that cycling a short distance would be good for their health. Although the majority of group 1 respondents recognised the health and fitness benefits of cycling, the 64% agreement level was significantly lower than other groups.

A difference was also identified between group 1 and 2 respondents, potentially reflecting the different motivators and barriers preventing them from being active cyclists. Two-thirds of group 2 respondents recognised the benefits for them of cycling a short distance, compared to just one third of group 1 respondents. Group 2 respondents generally held positive attitudes towards the benefits for the community if people cycled, with 58% considering it would be more pleasant if more people cycled. Seventy percent also felt that it would be enjoyable to cycle in their neighbourhood and 79% felt that cycling would be quicker than driving at some times in the day.

4.3.6 Practicalities of Cycling

Despite the widespread appreciation of the benefits of cycling, some respondents felt it was not practical for them to cycle. Figure 4.11 shows that a third of group 3 respondents felt that cycling was not practical for the types of journey they make.

Figure 4.11: Practicalities of Cycling



Base: Adult respondents (aged 16 plus) to the self-completion survey (n=5,953 unweighted)

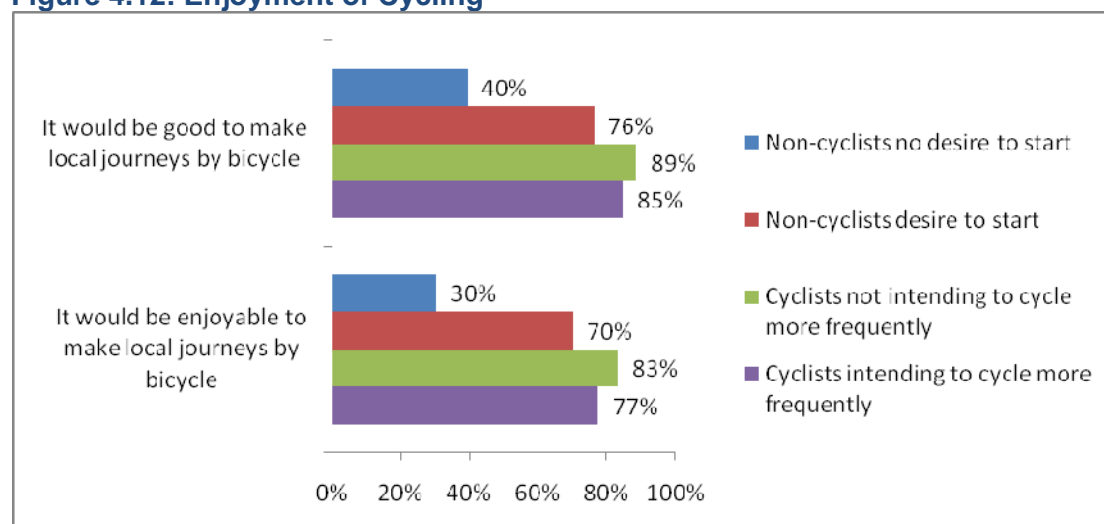
Approximately half of group 2 and 4 respondents considered cycling not to be practical, compared to 72% of group 1 respondents. This pattern was largely repeated for the practicalities of cycling a short distance within local neighbourhoods. Respondents in group 1 were again the least likely to consider cycling a practical option (54%), compared to over three quarters of respondents in the other groups.

The trips made by respondents who completed the 7-day travel diary who felt cycling was impractical were examined to establish the proportion of car trips they were making which were under 3 miles and which therefore could potentially be made by bicycle. Nearly a third of all commuter trips made by Group 1 respondents who felt cycling was impractical for local journeys were car journeys under 3 miles (30%). Over half (58%) of the commuter trips made by Group 2 respondents who felt cycling was impractical for local journeys were also car trips under 3 miles (compared with 37% for Group 3 and 22% for Group 4). This implied that it would be worthwhile to find out why Group 2 respondents with short commuter trips consider cycling to be impractical and to seek to address these barriers.

4.3.7 Enjoyment of Cycling

A minority of group 1 respondents, and notably fewer than in the other groups, felt that cycling for two miles in their local neighbourhood would be good (40%) or that they would find cycling enjoyable (30%) (Figure 4.12). Over 70% of respondents in groups 2 to 4 agreed that cycling would be both enjoyable and good to undertake, reflecting their more positive attitude to cycling.

Figure 4.12: Enjoyment of Cycling

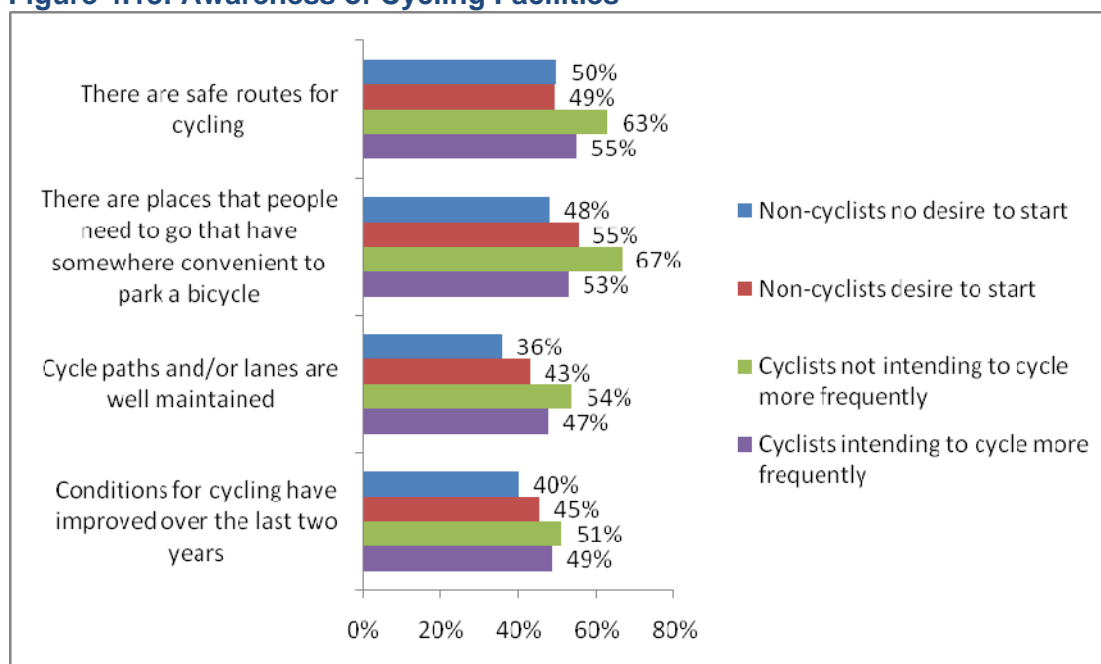


Base: Adult respondents (aged 16 plus) to the self-completion survey (n=5,953 unweighted)

4.3.8 Awareness of Cycling Provision

The reported awareness of existing cycling facilities (including routes, paths and parking) was relatively consistent across the four population groups, although group 1 respondents were generally less positive about cycling conditions (Figure 4.13).

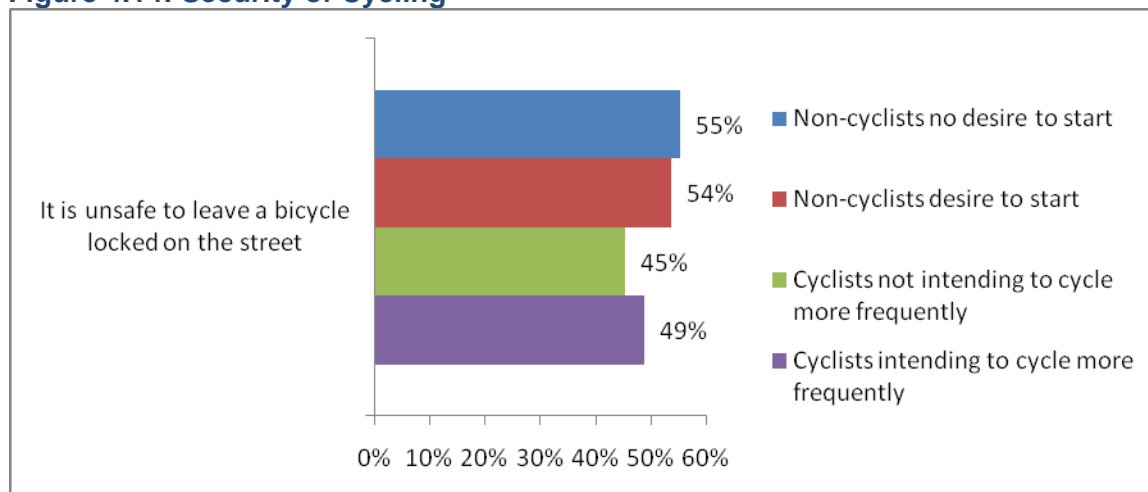
Just under a half of respondents in groups 1, 2 and 4 felt that the provision for cyclists had improved in their area, and only 55% of group 4 respondents felt that there were safe routes for cyclists. These results imply that more improvements to cycling provision, alongside the promotion of existing and new facilities, would be required to encourage greater cycling activity amongst these groups. Although there were higher awareness levels within group 3, these respondents were already cycling frequently and therefore there was a lower potential to change their behaviour.

Figure 4.13: Awareness of Cycling Facilities

Base: Adult respondents (aged 16 plus) to the self-completion survey (n=5,953 unweighted)

4.3.9 Security of Cycling

The final potential barrier to cycling considered was the perceived safety of parking bicycles on the streets of local neighbourhoods. Figure 4.14 shows that just over half of non-cyclists (groups 1 and 2) considered it unsafe to leave a bicycle locked on the street, and only slightly lower proportions of cyclists considered it unsafe. There has been a substantial level of investment in cycle parking within the CCT programme which should help to address some of these concerns.

Figure 4.14: Security of Cycling

Base: Adult respondents (aged 16 plus) to the self-completion survey (n=5,953 unweighted)

4.4 Overcoming Barriers to Cycling

Consideration has been given to some of the physical and perceptual barriers to cycling. A main barrier among non-cyclists was the level of perceived safety which is in part linked to an individual's basic cycling ability and confidence.

Respondents who expressed an intention to start cycling or to increase their level of cycling held positive perceptions on the benefits. Over 90% agreed that cycling would be good for their health and general well being. However, an identified constraint was the perceived practicality of cycling, with approximately half of group 2 and 4 respondents citing this as a reason for not cycling.

Approximately half of respondents in groups 2 and 4 also stated that they would feel unsafe cycling on roads with other traffic. As safety was a key concern for respondents there was strong support for separate cycle routes, whilst some respondents also supported the re-allocation of road space to cyclists. These results supported the provision of parallel cycling facilities along some key routes, thereby accommodating experienced and inexperienced cyclists. The Addenbrook Access Road in Cambridge is an example of this type of provision. However, on its own this is unlikely to encourage all non-cyclists to take up cycling given their other concerns.

Activities to promote cycling in off-road and safe environments assisted in overcoming initial personal safety concerns. This also, more importantly, provided a space for adults to learn basic cycling skills in an environment where they did not feel embarrassed or uncomfortable riding a bicycle. Family based events, such as the Shewsbury BikeFest which aimed to encourage adults to accompany children and try cycling, could be an effective mechanism to overcome such concerns.

Group 1 respondents made a high proportion of local journeys of less than 3 miles by car. This indicates that a combination of concerns about safety and other barriers such as the lack of ability to cycle need to be addressed. Training had an important role to play in giving non-cyclists and inexperienced cyclists more confidence to cycle but improvements in the cycling environment were needed before individuals are willing to engage in training.

The levels of awareness of facilities for cyclists were relatively low, even among existing cyclists. Many of the CCTs have been undertaking campaigns to promote new cycle routes and other provision such as secure cycle parking to local communities as an approach to overcoming this barrier.

It is important that all respondents who indicated an intention to start cycling or to increase their cycling activity knew how to cycle. However, a key constraint for group 2 respondents becoming cyclists was bicycle availability. This was addressed in CCTs in a number of ways:

- Bicycle recycling schemes: providing inexpensive but roadworthy bicycles. Schemes have been adopted in many CCTs, including Blackpool and Woking;
- Bicycle loan schemes, to provide individuals with an opportunity to try cycling for a period without the need for expensive initial outlays on equipment. The Leighton-Linslade station and workplace scheme and Bristol workplace scheme are examples of this approach; and to a lesser extent
- Bicycle hire schemes.

5 Summary of Investment in the CCTs

5.1 Introduction

This section provides an overview of the investment made in the Cycling Cities and Towns, considering the types of projects implemented, the level of spend and the rate of delivery. Unless stated otherwise costs quoted are those invested through the CCT programme, excluding match funding by the authorities. The human resource inputs required to deliver a Cycling City or Town strategy are also considered.

5.2 Investment to Promote Cycling

Investing in a Cycling City/Town

Cycling England invested over £43m in the 12 Cycling City and Towns (CCTs), with local authorities required to at least match this funding. The level of investment from Cycling England (excluding matched funding) ranged from £11.9m for Greater Bristol to £1.6m for Leighton-Linslade. However, it is noteworthy that the use of this funding varied between the CCTs. The individual strategic objectives of the CCTs influenced the allocation of spend to specific target groups and investment themes, such as schools, workplaces and deprived groups.

Capital and Revenue Investment

Encouraging people to start cycling or to cycle more frequently required a mix of capital and revenue interventions, to address the range of barriers people experience. An important strategic decision in establishing the CCTs was the balance struck between capital and revenue expenditure, for example between cycle routes and marketing/promotional activities. A central objective of the ongoing evaluation is the identification of the appropriate balance and combination of investment to address the different barriers to cycling.

Two thirds (£29.2m) of the Cycling England investment was expended on capital projects, with a further £14.6m spent on revenue interventions; this does not include elements of the CCT personnel costs which were embedded within wider Authority expenditure.

A Balanced Investment Approach

Capital investment has included:

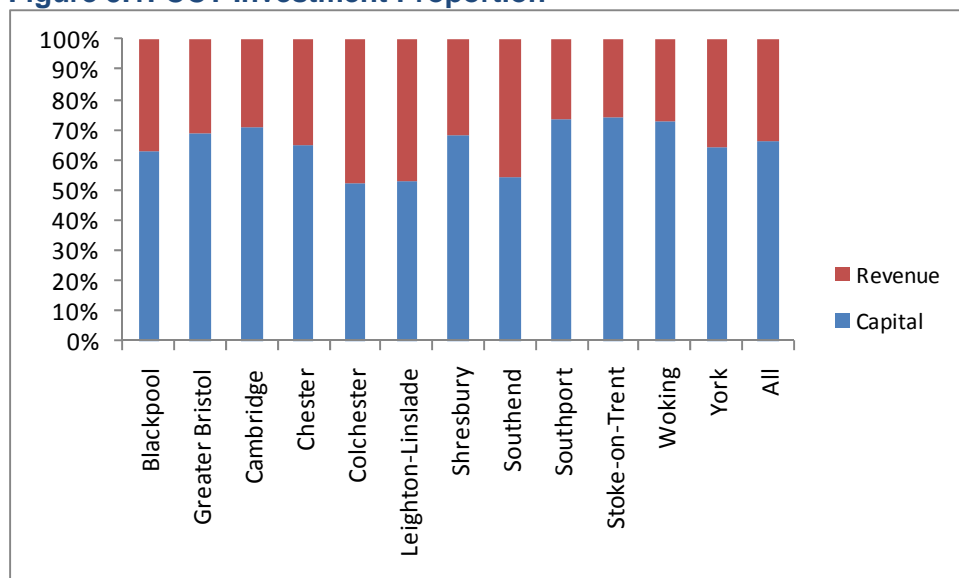
- On and off road cycle lanes and routes.
- Improved signing, including destination times and distances.
- A range of cycle parking facilities, including at schools, workplaces and stations.
- Enhanced cycle crossing facilities at key junctions.

Revenue investment has included:

- Roadshows and promotional activities at workplaces.
- Cycle training for children and adults.
- Marketing and information campaigns.
- Event sponsorship, including the Tour Series and Bike Week.
- Bike maintenance and recycling.

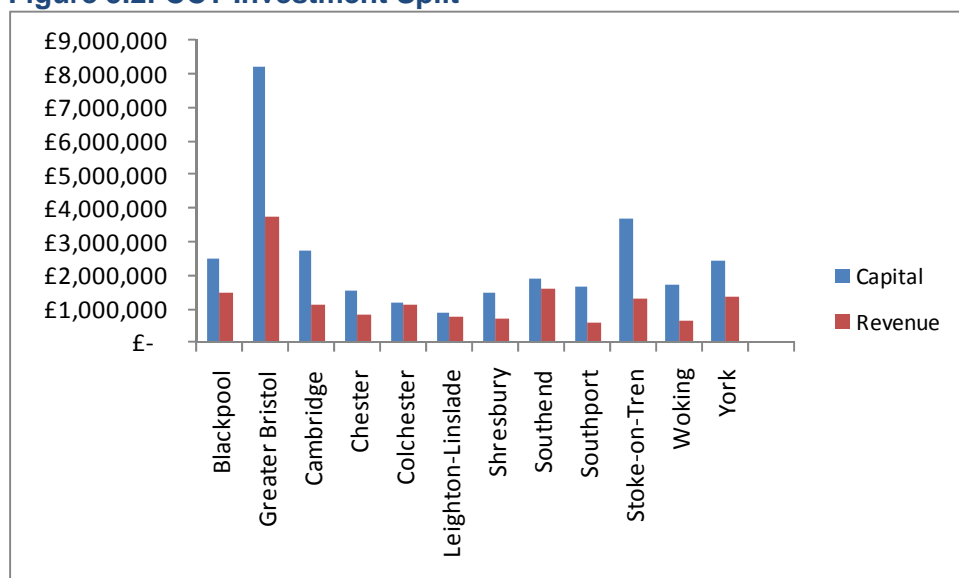
A broadly similar allocation of Cycling England investment has been adopted by each Cycling City and Town (Figure 5.1). Colchester (48%) and Southend (46%) had the highest proportion of expenditure on revenue activities, whilst Stoke-on-Trent spent most as a proportion on capital projects (74%). The level of investment in Colchester reflected the use of interventions such as Personalised Travel Planning and associated marketing activities in specific neighbourhoods.

Figure 5.1: CCT Investment Proportion



Seven of the Cycling Cities and Towns invested over £1m on revenue activities, and ten did so on capital projects (Figure 5.2). The level of capital investment also reflected the higher costs associated with infrastructure schemes.

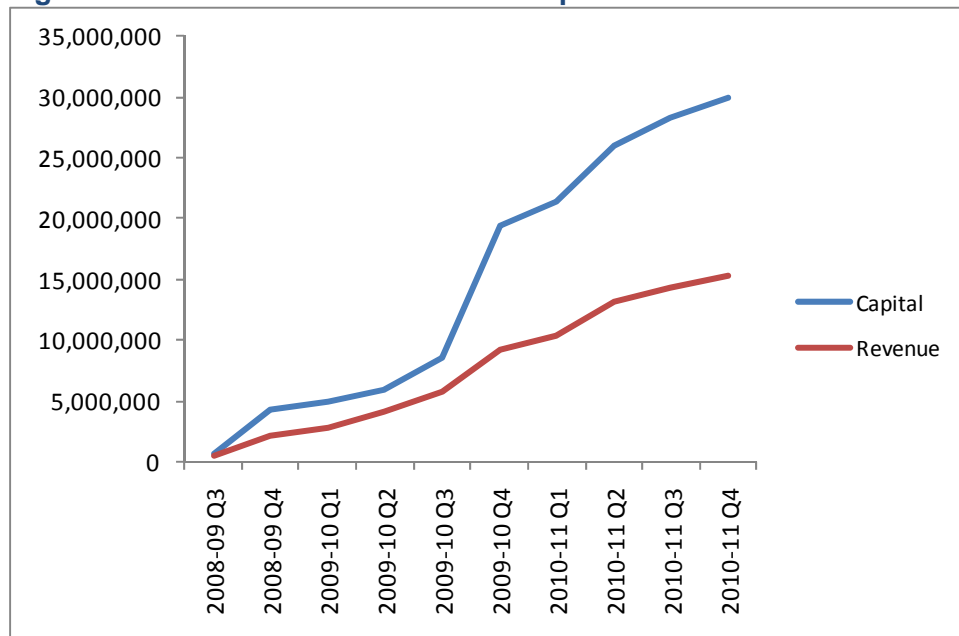
Figure 5.2: CCT Investment Split



The profile of expenditure for all of the 12 Cycling City and Towns across the three year programme is shown in Figure 5.3. The rate of investment on revenue interventions, including marketing, promotion at workplaces and schools programmes was relatively consistent (£5-6m per year). This represented a steady programme of measures,

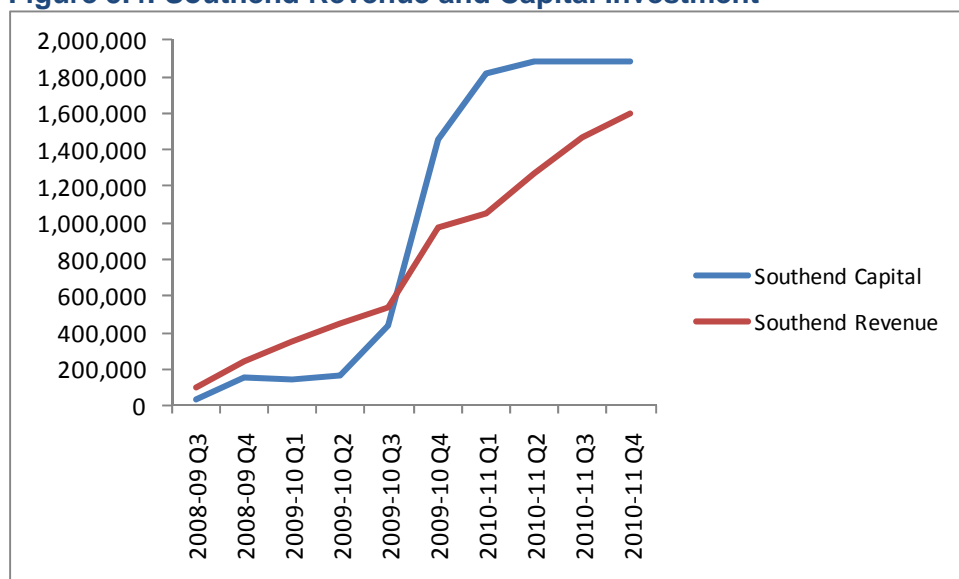
underpinned by ongoing training and annual staff costs. The continuous nature of many revenue based investments, such as marketing and communications, also resulted in there being no discernable peaks in spend during the programme.

Figure 5.3: Cumulative Revenue and Capital Investment



More variation occurred in the level of capital investment. Some CCTs (including Blackpool, Chester and Southend) had low 2008/09 capital investment due to delays in strategy approvals (Figure 5.4). This resulted in the first half of the 2009/10 financial year being used to complete outline design, statutory consultation and detailed design activities, before implementation could proceed. Consequently, there was an increase in capital expenditure during the fourth quarter of 2009/10, with cumulative spend increasing from £8.6m to £19.4m.

Figure 5.4: Southend Revenue and Capital Investment



5.3 People and Teams

One of the perceived central advantages of having increased levels of investment in cycling within the Cycling City and Towns has been the opportunity to focus resources and develop a team of staff to work together to deliver cycling measures. Developing and implementing an effective and coordinated cycling strategy required a wide combination of skills – both within a central delivery team and also drawn from other parts of the local authority, specialist contractors and local organisations.

The following section summarises the range of skills the Programme Managers and other members of the delivery teams drew on when designing and delivering their cycling programme; how delivery teams were established; and approaches to ensuring the team had a broad coverage of skills. The second part of this section considers the role of wider stakeholders and draws on the experiences of the Programme Managers when building partnerships across the local authority; securing support at a senior political and executive level and from local organisations; and learning from the experiences of other authorities and Cycling England.

Summary of Emerging Findings

- Being a Cycling City or Town provided an exceptional opportunity to develop a team with the broad range of skills required to deliver measures to encourage cycling.
- The pivotal role was that of the Programme Manager but they had to utilise effectively the skills across the central delivery team and also secure support and engagement from a range of key stakeholders.
- Establishing and maintaining the right combination of skills within the team was a key challenge for some CCTs and they had to draw on a number of approaches to overcome skills shortages.
- Having senior political or executive support to champion the programme was seen as valuable in raising the profile and engendering broader support.
- Developing and delivering initiatives collaboratively with local organisations was reported to help to target the perceived barriers to cycling.
- Learning from the experiences of others was beneficial in developing approaches to encourage cycling.

5.3.1 Building the Delivery Team

Skills Needed to Deliver the Cycling Programme

The experiences of the first six Cycling Demonstration Towns have shown that developing and maintaining a skilled and motivated delivery team was critical to the success of the programme²³. Having a central team of this kind, with relatively senior officer involvement, is rare in local authorities in which no dedicated funding like the kind provided by the CCT programme, has been available. Similarly, in the CCTs, a core role for the delivery of investment in cycling has been the Programme Manager to oversee activities, lead strategies and liaise with other parts of the local authority. The Programme Managers considered that the key skills required in their role were strategic thinking and programme management. However, in addition to this, Programme Managers also needed sufficient understanding of a number of other areas to enable them to effectively commission and coordinate work:

²³ Cycling England 'Making a Cycling Town' 2010 http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2010/05/making_a_cycling_town_qualitative_report1.pdf

- Cycling planning and delivery (e.g. understanding of cycling route infrastructure and the transport planning process and the ability to draw in local authorities or external engineering expertise);
- Understanding of the Council's policies, political aims and procedures (to encourage senior political support);
- Leadership and staff management;
- Understanding of marketing (e.g. the role of marketing and either the ability to work with marketing or drawing in internal or external expertise when needed); and
- A passion for cycling.

Key to successful delivery was felt to be the capacity to mobilise an effective team, which brought together a combination of complementary skills and understanding of the following:

- Marketing;
- Behaviour change;
- Stakeholder engagement;
- Procurement and contract management;
- Collaborative working (the ability to deliver projects and activities by working with other teams and partners);
- Infrastructure and planning skills with a particular focus on cycling; and
- The ability to work with children and young people, liaising with schools.

Effective communication was seen as important in managing the team and holding regular meetings with the team members was considered to be a useful mechanism for this. Additionally, the Programme Manager had a key leadership role in clearly delineating the roles and responsibilities of the other team members.

Approaches to Building Teams

The development and maintenance of delivery teams was a core activity for Programme Managers and senior authority representatives. Decisions about the structure and location of the central delivery team varied considerably between city and towns reflecting the available revenue budgets and investment priorities. The size of the central delivery teams ranged from around 3 members to more than 20. However, these teams also drew on the skills from other specialists, the number of which ranged from around 5 to up to 27 full time equivalents. The overall size of team generally reflected the size of overall investment (which also reflected the size of target population). There was however some variation between authorities which chose to put together one central, dedicated team, or to establish a more 'networked' team, utilising some of the time of staff from other related teams (road safety, sustainable travel etc).

However, most teams included at least some staff who were taking on the role in addition to other duties and had part of their time allocated to work on the cycling programme (this ranged from 10% - 50% of their time). In some cases this led to the post holder experiencing difficulties in balancing the two roles and one solution taken by a few of the teams was to bring these posts into the team full time.

Programme Managers also felt having all members of the team located within one building helped to create a strong working relationship. Locating the teams alongside departments with complementary policies (transport planners, road safety teams and transport engineers) was also considered to be valuable as this also enabled collaborative working.

Approaches to Overcoming Skill Shortages

It was rare that the range of skills required to deliver the programme already existed/were readily available within the Local Authorities before the programme commenced. Most Programme Managers noted that areas of expertise which had to be developed within the programme areas were marketing and communications, cycling training certification and partnership working. Approaches to overcoming these challenges evident in the Cycling City and Towns are outlined below.

Secondment

Some Programme Managers were seconded from other areas within the local authority. This had the benefit of minimising the impact of any vacancies on the delivery timeframe. Post holders also already had a good understanding of the local area and established contacts (e.g. with key stakeholders or with colleagues from other departments within the authority). The skills and expertise developed during the programme would also remain within the authority with the potential to raise the profile of cycling initiatives across the authority in future years. However, this approach was highly dependent on the availability and suitable expertise/skill set of staff already within an authority.

Recruiting and Maintaining Staff

Many of the delivery teams had to establish and recruit for the new posts required as a result of the investment in cycling. For some of the delivery teams this was a cause of some delay and some had difficulty in finding people for these positions with the right combination of skills and experience. Some of the delivery staff were employed on temporary contracts lasting for the duration of the programme. Again this was considered to pose the risk that the expertise developed during delivery would not remain within the local authority following the end of the programme investment period. Some delivery teams experienced staff turnover during the programme period (including Programme Managers) which resulted in delays to the delivery of the programme.

Contracting Local Suppliers

All the delivery teams commissioned local suppliers to deliver elements of their programmes, most often relating to infrastructure design and construction work. This was the most common approach undertaken to access skills or build capacity not readily available within the local authority. However, one disadvantage to this approach was the risk of skills and learning created throughout the programme being lost once the work was delivered.

5.3.2 Working with Stakeholders

Identifying and engaging with stakeholders, both within the authority and across local organisations, was a key process when developing and delivering the programme. For example, the Programme Managers recognised the role of strong stakeholder networks in successfully achieving support for infrastructure schemes from communities and councillors.

Securing Senior Political and Executive Support

The experience from the first six Cycling Demonstration Towns highlighted the importance of gaining senior political and executive commitment to the programme. Many of the CCT Programme Managers similarly reported working with a senior transport portfolio holder to 'champion' and raise the political profile of their activities. Programme Managers who established close links with council executives felt this helped secure the necessary internal support in their local authority for cycling measures.

Working Collaboratively within the Local Authority

The CCT Programme Managers recognised the importance of establishing strong relationships with colleagues across their local authority. This was not only valuable to the delivery of the programme but also helped ensuring the sustainability of the investment in cycling in the longer term. It provided an opportunity to share knowledge about the needs of

cyclists when developing the transport infrastructure. For example, several delivery teams took colleagues from engineering and planning teams on cycle rides to gain firsthand experience of the infrastructure. Several towns also reported that the awareness of cycling across the local authority had started to increase as a result of the CCT work. One town reported working with a local cycling organisation in reviewing the sustainability of planning applications from a cyclist's viewpoint. Several authorities were working with their central communications team in relation to developing branding and marketing materials. Actions of this kind were seen as providing a basis from which the needs of cyclists could be embedded into actions undertaken across the local authority. For example, one Programme Manager described their strategy of scaling down support over time, to encourage other agencies to take ownership of the activities initiated by the cycle team.

When designing and delivering the programme (particularly cycling infrastructure), the delivery teams worked in close liaison with engineering colleagues and local planning teams. Colleagues from leisure or parks departments were also involved where infrastructure developments or events were taking place in local leisure centres or green spaces. How these other departments have changed their approach as a result of their engagement with the CCT team will be explored within the remaining planned evaluation work, which will consider sustainability beyond the investment programme.

Building Support with Local Stakeholders

The CCT delivery teams worked in partnership with a range of local stakeholders. In particular, the Programme Managers noted the importance of working with the following stakeholders:

- **Local Police Services:** this has helped to ensure that perceived barriers to cycling such as concerns around cycle safety and security were overcome.
- **Local Health Services:** this was important when seeking to promote cycling as a way of increasing physical activity. This was approached at both a strategic and a delivery level, given that health services are also key destinations as employers and as service providers. However, a number of Programme Managers experienced difficulties in establishing good relations with the health sector, often attributed to finding/maintaining an appropriate contact. Some reported being more successful in liaising directly with individual health professionals, such as GPs, because there wasn't any additional "organisational layer" to go through. For instance, some CCTs secured agreement with GPs to put in cycle racks in front of surgeries and distributed leaflets with information about cycling in the reception area.
- **Local Cycling Groups:** provided a valuable network of contacts and helped to build local support for the programme activities. However, some Programme Managers had to balance the interests and needs of these groups with their wider strategy, especially if the focus for investment was to attract new and returning cyclists, rather than on measures that benefited existing and committed cyclists.

"We had British Transport Police along with us on a couple of occasions [to promote cycling] and they were doing bike marking and we were giving tags away."

Cycle Town Project Officer

One town has reported that they had success in working with the Primary Care Trust from the proposal stage, and at a very high level in the organisation, which secured: co-funding; promotion of cycling among staff; and support for working with GP referrals to cycling.

"The local cycle forum has been superb... they've been excellent, they really have, definitely a partner."

Cycle Town Programme Manager

Sharing Best Practice across Authorities

The Programme Managers have highlighted the importance of sharing experiences with the other towns and city participating in the programme. They considered the benefits to be sharing/testing innovative ideas, drawing on specific sources of expertise and learning from the experiences of others. Meeting at regular intervals (at 'cluster meetings' organised by Cycling England) was considered to be valuable for this as well as maintaining networks informally. The role of Cycling England was another major source of external support to the CCTs. The Programme Managers drew on and appreciated the technical expertise and help with the design of specific projects as well as support in developing their programme strategies, particularly in translating their strategy into specific interventions, deciding how to balance investment in capital or revenue measures and specific advice on marketing and campaign activities.

6 What Have the CCTs Delivered

6.1 Introduction

Investment in the Cycling City and Towns has been guided by the identification of the people who might/do cycle, the places they need to get to, and their purposes for travelling. CCTs have combined and tailored activities and schemes to target specific groups and to reflect local circumstances. In particular, the following key areas of investment have been prominent:

- Working with employers to influence commuter trips;
- Investing in measures targeting schools and young people in general;
- Improving key infrastructure;
- Investing in and around stations;
- Working with further and higher education establishments; and
- Working with local communities.

The following sections explore the interventions which the Cycling City and Towns have delivered in these areas.

6.2 Workplaces

Investment to promote and encourage cycling to workplaces forms a central strand across most of the 12 CCTs. Investment has sought to influence employees' travel choices for their daily commute and, where possible, associated work-based travel. Involving employers to champion and financially support cycling is emerging as a cost effective approach, likely to generate tangible benefits for the individual, organisation and wider community.

Summary of Emerging Findings

- There was considerable potential at the baseline for more employees in the Cycling City and Towns to cycle to work. Although almost half of employees had a bicycle, fewer than one in ten commuted by bicycle, and almost a third of commuting trips of less than 1 mile were undertaken by car.
- As well as the broad benefits in terms of health, carbon emissions and congestion identified above which are likely to result from increased cycling, it can be noted that increasing cycling specifically amongst employees could result in additional benefits for employers (in terms of reduced sickness absence), as well as specific congestion benefits at peak times/in areas of high job density.
- The 12 CCTs have, up to October 2010, engaged with over 300 organisations. In excess of 180,000 employees have been reached through CCT workplace interventions, with targeted workplaces ranging in size from 20 to over 18,000 employees.
- Identifying a champion or facilitator within workplaces was considered by CCT Programme Managers as essential to deliver investment.
- The CCTs also noted that a flexible and adaptive approach was required to ensure that the activities and promotional approach taken reflected the size and type of workplace. The resource intensity required to engage with employers also should not be underestimated.

6.2.1 Why target investment towards workplaces?

It is evident from the baseline survey that there was considerable potential for increasing cycling as a mode of travel to work²⁴.

Only 9% of employees travelled to work by bicycle, compared to 62% who went by car or van. However, almost half of employees had a bicycle available, and a quarter were already cycling at least once a week (predominantly for shopping and leisure purposes). Specifically, 31% of commuting trips of less than 1 mile recorded in the travel diary were undertaken by car (as driver or passenger). This rises to 44% of commuting trips of 1 to 2 miles. The proportion of commuting trips under 5 miles varied by CCT, from around a third of trips in Woking and Leighton to around two thirds of trips in Shrewsbury, Southend, Stoke-on-Trent and York.

As well as the broad benefits in terms of health, carbon emissions and congestion identified above, which are likely to result from increased cycling, it can be noted that increasing cycling specifically amongst employees could result in additional benefits for employers (in

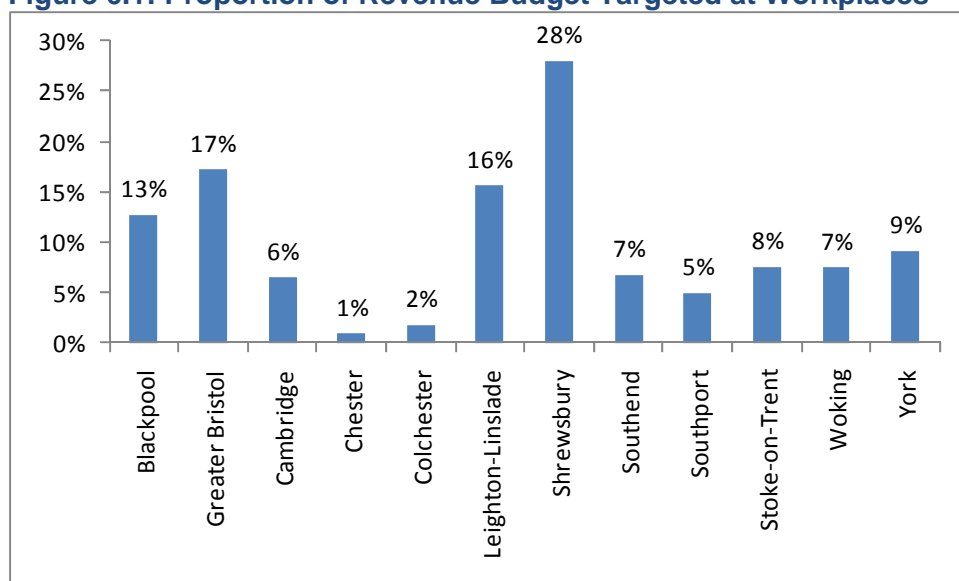
²⁴ (Source: adult baseline household survey [unweighted base: 12,869 employees] and travel diary [unweighted base: 25,300 commuting trips]. "Employees" are adult survey respondents who were in part time or full time employment and who had a journey to work i.e. they did not work at home.)

terms of reduced sickness absence), as well as specific congestion benefits at peak times/in areas of high job density, if specific barriers to cycling to work can be addressed²⁵.

The Cycling City and Towns have identified that working with employers to target behaviour change among employees may be an effective approach; as they can encourage and facilitate pro-cycling behaviours of their employees. Prevailing planning legislation, the Cycle2Work scheme offered through HM Revenue and Customs, and the promotion of travel plans provided a sound basis for additional targeted investment in workplaces as part of the CCT programme.

Over £1.5m has been invested in interventions targeting workplaces across the 12 CCTs by March 2011. Investment in selected infrastructure measures has also been evident, linking key employment sites with transport hubs, residential areas and town centres. The financial programmes reflect an average spend of £135k per CCT, or £45k per year, on workplace interventions. Due to its size, Greater Bristol had the highest workplace-based spend at approximately £650k across the three year programme (Figure 6.1), equivalent to 17% of their revenue investment. Shrewsbury (one of the CCTs with the highest proportion of commuting trips under 5 miles) invested the highest proportion of revenue into workplaces, accounting for 28% of their £680k revenue budget.

Figure 6.1: Proportion of Revenue Budget Targeted at Workplaces



6.2.2 What were the Cycling City and Towns' strategies for overcoming barriers to cycling to work?

The main interventions delivered at workplaces across the 12 CCTs are listed below. It is evident that many of the barriers which could potentially be addressed by the interventions in place were also those highlighted by the baseline survey.

²⁵ The baseline survey does not enable specific analysis of the barriers to cycling to work, as opposed to the barriers to cycling in general.

Intervention	Potential barriers addressed or potential motivating factors
Personalised Travel Planning/Route planning	Lack of familiarity with cycle routes, and belief that routes are not direct
Cycle parking	Safety concerns about leaving bicycles locked on the street
Lockers/showers	Could address some practicality concerns, for example by providing storage space for cycling helmets and a change of clothes for employees who are required to follow a dress code.
Roadshows	Promote the benefits of cycling
Cycle maintenance training (e.g. 'Dr Bike')	Lack of confidence or skills to maintain bikes
Cycling taster sessions	Lack of confidence among people who have not cycled for some time
Bike Breakfasts	Incentive to cycle to work
Support groups (e.g. Bicycle User Group (BUG) support)	Offers forum for practical concerns to be addressed
Workplace Challenge (annual campaign to encourage cycling)	Motivated employees to cycle through competition with similarly sized offices

The 12 CCTs have, up to October 2010, engaged with over 300 organisations. In excess of 180,000 employees have been reached through CCT interventions, with workplaces ranging in size from 20 to over 18,000 employees – the latter being Bristol City Council, which is organised across multiple sites and offices.

Different approaches have been adopted to engage with and deliver investment at workplaces. Larger employers have been targeted by some CCTs (such as Shrewsbury and Cambridge), as they were believed by Programme Managers to offer high potential returns for investment. The larger workforces were also believed to provide good opportunities for knock-on effects of increased cycling, including increased awareness and changes in behaviour/attitudes among family and peer groups.

Grants for parking were identified by CCT teams as a crucial early investment, to overcome a core barrier: bicycle security at workplaces. The provision of facilities such as showers and lockers was more challenging to deliver as it was dependent on the available space/infrastructure within each organisation.

The use of promotional and marketing activities was widely supported by CCTs and has been prevalent within the investment programmes. An example of this is the Greater Bristol Cycling City's 'Gear Up' leaflet and associated roadshows. The Workplace Challenge (run by 8 of the 12 CCTs) has also been a core component of programmes, and was widely felt to contribute to maintaining momentum and engagement levels.

6.2.3 Lessons learnt

- Identifying a **champion and facilitator** within each workplace was reported by Programme Managers to be essential in establishing an effective communication channel through which to promote investment. CCT officers indicated the importance of taking the time to identify these people at the start and to ensure they are the right person.

- CCT officers have highlighted the **resource intensity** required to engage with workplaces. The time required to deliver measures, particularly ensuring that resources are available to liaise with each workplace to deliver bespoke and acceptable solutions, should not be underestimated. Establishing and maintaining momentum was critical to delivering cost effective interventions. CCTs reported that they had learnt that resources need to be focused on those organisations that are considered likely to change, whilst continuing to provide information to other workplaces to promote cycling more broadly.
- The use of **roadshows and engagement activities** in workplaces was believed to be effective in raising the profile of cycling and to demonstrate commitment.
- The use of a **toolkit** ²⁶ to promote interventions across a number of workplaces has been commonly used, but **support** is required for employers to ensure that delivered activities are appropriate.
- To encourage participation, employers need to be made aware of the **potential benefits to their organisation** which might include contributions to corporate social responsibilities, environmental policies and policies focused on improving the health of employees.
- **The ideal size of organisation to engage with was considered by CCT officers to be between 100-300 employees**, although a single office location was not considered to be a requirement. Such a scale of organisation was found by the Cycling City and Towns to provide an effective balance between the number of employees engaged and the anticipated level of bureaucracy encountered. Small to medium-sized independent businesses were also considered by CCT teams to be easier to engage with than multinationals, as the latter can require extensive senior management involvement/approval for investment.
- Selecting the **geographical coverage and location** of workplace investment within a town was found to require careful designing. Town/city centre sites and concentrated business parks have been prominent within CCT strategies because they commonly share accessibility constraints and experience peak period congestion. CCT officers noted that a wider geographical distribution of investment, for example a town/city-wide marketing and promotion approach, can dilute impacts and the momentum generated, spread resources, and result in lower engagement levels.
- **A flexible and adaptive approach** was found by the Cycling City and Towns to be necessary, providing bespoke solutions to individual workplaces through engagement, design and consultation. They also found it helpful to build on the foundation of existing travel planning groups, forums and investment programmes.

²⁶ Typically such a Toolkit would include leaflets and other materials providing a background to each intervention / initiative and how individuals can participate

6.3 Schools and Young People

Investing in schools and young people is a core element of CCT strategies, and recognises the nature of schools as a particular hub for cycling activity: connecting 'people' with a specific 'place' and a known journey 'purpose'.

Summary of emerging findings

- There is significant potential for more children who live within 2 miles of school to cycle to school. The vast majority of children have access to a bicycle.
- Increasing cycling mode share for the school journey could impact on children's health, congestion and air quality around the school, and carbon emissions, and help to build lifelong habits.
- CCTs have consequently identified investment in schools and young people as a core element of their strategies, with a total of £5.1m having been invested over three years (mainly in the form of revenue funding).
- Barriers to cycling to school include low bicycle availability in some areas; low levels of cycle training; and parental concerns about safety, lack of cycling experience, and lack of familiarity with cycle routes.
- Targeting children via the schools they attend was believed to provide a means of accessing the wider family group and thus influencing household travel choices.
- Achieving increases in cycling to school was believed by Programme Managers to require a combination of different initiatives packaged to address the needs and characteristics of each school and its particular local circumstances.
- Bikeability training has received the highest level of funding (£1.8m), reflecting its central position in each strategy, and helping to tackle the barriers noted above about lack of training, and potential lack of confidence amongst parents and carers about their child cycling to school.
- Bike It has proved popular with schools and is believed to have been an effective means of encouraging cycling, but findings are more mixed about Go Ride and Bike Club. Nevertheless, Programme Managers believed that out-of-school activities such as these would help to embed cycle use into everyday behaviour, increasing the likelihood of cycling being sustained in later years.
- An estimated £1m has been spent on infrastructure including cycle parking at schools, and there have also been improvements to key routes to school.
- Supporting pupils to continue with their cycling as they move from primary to secondary schools was believed to be critical to establishing sustainable travel behaviours.

6.3.1 Why target investment towards schools and young people?

The baseline survey shows that there was significant potential for more children to cycle to school, and that increasing cycling mode share for the school journey could impact on children's health, congestion and air quality around the school, and carbon emissions:

- Four in 10 children who had a daily journey to school lived within 1 mile of the school, with a further 3 in 10 living between 1 and 2 miles from the school (with primary school age children more likely to live close to their school than secondary school-age children). **The majority of children therefore lived within a reasonable cycling distance of their school.**
- Although walking was the predominant mode of travel for children with a short journey to school, **nearly one in 10 children with a journey of less than 1 mile went by car**, as did nearly 3 in 10 of those with a journey of 1 to 2 miles. It is likely that this could cause

congestion around the school, with a resultant negative impact on air quality. Indeed, as noted below, Programme Managers confirmed that many schools had been inspired to become involved in the CCT programme due to a desire to reduce traffic around the school gates following residents' complaints.

- Although there were low bike ownership levels within some towns, **the vast majority (85%) of children who travel to school had a bike available**, but only 31% of those with a bike had cycled to school in the past 12 months.
- **Half of children typically participated in less than one hour of organised sport and exercise per week.** On average, children in the survey participated in just over one hour of organised sport and exercise per week, compared to more than 3.5 hours of sedentary activity. Increasing cycling levels in particular through modal shift from car use could therefore make an important contribution towards their physical activity levels.

The potential implications of using the car for short school runs in terms of children's health and physical activity, congestion around the school and carbon emissions are clear. However, the survey also identified potential barriers to increasing cycling among schoolchildren:

- **Levels of cycle training were relatively low**, with two thirds of children who had cycled at least once in the past 12 months not having received any cycle training.
- Just over a quarter of parents and carers reported **never allowing their children out on their own**, with a further quarter only allowing this sometimes.
- As noted in Section Three, many adults did not cycle themselves and had concerns about the safety of cycling on the roads, as well as a lack of familiarity with cycle routes. Parents and carers may therefore lack the confidence, skills or knowledge to cycle with their children, and may be fearful of allowing their children to cycle alone.
- A poor image of cycling, particularly among teenage girls, has also been qualitatively identified by some Programme Managers.

Targeting children via the schools they attend was also believed by those developing the strategies in the Cycling City and Towns to provide a means of accessing the wider family group and thus influencing household travel choices. As noted in Section Three, adults with children were more likely to cycle.

6.3.2 What were the Cycling City and Towns' strategies for overcoming barriers to cycling to school?

Achieving increases in cycling to school was believed by Programme Managers to require a combination of different initiatives packaged to address the needs and characteristics of each school and its particular local circumstances. A total of approximately £5.1m, excluding match funding has been expended on schools, with the majority (£4m) being spent on revenue activities. The highest proportion of CCT budget expended on schools was in Leighton-Linslade (22%) where interventions were delivered in all local schools, with the average being 12% across all CCTs. Interventions covered a broad spectrum of ages, but with a primary focus in most CCTs on children up to the age of 12; including the transition from primary to secondary school.

Increasing skills

Bikeability training has received the highest level of funding (£1.8m), reflecting its central position in each strategy, and helping to tackle the barriers noted above about lack of training, and potential lack of confidence amongst parents and carers about their child cycling to school. All twelve of the CCTs provided Bikeability Level 1 and Level 2 training,

with four CCTs also continuing with other historic forms of training. Training was offered to all schools to enhance the skills and confidence of pupils.

Delivering Bikeability

Since its launch in September 2006, nearly 24,000 pupils in the CCTs have been trained to Level 1 of which 13,500 continued to pass Level 2. The majority of the Cycling City and Towns have offered both levels as a combined course, with all Level 2 activities incorporating some refresher elements of basic bike handling.

Bikeability training has been targeted at different year groups across the programme area, reflecting different attitudes towards influencing child travel behaviour:

- Two CCTs have delivered Level 1 training to Year 4 pupils (8-9 year olds);
- A further three CCTs have targeted Year 5s (9-10 year olds) for Level 1;
- In contrast, seven CCTs have targeted Year 6 pupils (10-11 year olds) for both Level 1 and 2; and
- Four CCTs also targeted Year 5 for Level 2 training.

The variation in approach reflects different perceptions of the appropriate age for training children in cycling skills. Some trainers and CCT officers believed that Year 4 and 5 pupils were too young for training, particularly for courses run in the autumn terms. The counter argument offered by others centred on the potential for engendering longer term behaviour change by providing training for younger pupils, allowing pupils to cycle for up to two years to gain confidence before they enter secondary school.

Level 3 training was offered in half of the CCTs with varied levels of take-up: 619 pupils have been trained at this level overall, mainly in Cambridge and Greater Bristol. York trained 27% (453) of Year 7 pupils at Level 3 in the 2009-10 academic year. The reported explanations for the relative lack of Level 3 training varied from place to place but included:

- The difficulties in fitting training into the school curriculum. Physical education lessons have been used, but anecdotal evidence from officers indicated that pupils did not support this approach;
- The low take-up from pupils; and
- The lack of central government funding in the early stages of the programme.

An area of divergence in approach has been noted with regards to the charging for Bikeability training. Officers in Woking and York supported the use of charges to participants, to ensure a high attendance rate at courses. This approach was not felt to be appropriate for Blackpool, where the difficult economic conditions could prevent many pupils attending such courses. Blackpool still generated a very high attendance rate for free courses, through high levels of liaison and engagement.

Creating a cycling culture

Other revenue-funded interventions delivered in the Cycling City and Towns to embed a cycling culture in schools included:

- Bike It, with officers working with children, parents, teachers and local authorities to bring together cycle training, parking and promotion and influence the planning of new cycle routes. Bike It officers help schools to make the case for cycling in their school travel plans; equip children with the confidence and skills needed to cycle, whilst reassuring parents on safety issues. Over 160 schools have been actively involved with

Bike It, funded through the Cycling City and Towns programme. Nearly 90% of these have been primary schools. Programme Managers reported that Bike It officers have established strong links with local businesses to sponsor events and provide prizes to pupils. Their enthusiasm, creativity and time commitment was felt to be of great value in supporting schools to increase levels of cycling.

- Go Ride, which aimed to provide high quality coaching activities, delivered in a traffic-free environment. The sessions taught the skills necessary to make riders more competent and safer, and were designed to introduce young people to a range of cycling disciplines that included: BMX; Cycle Speedway; Cyclo-Cross; Mountain Biking; and Road and Track Riding. However, the focus of Go Ride on the promotion of cycling as a sporting activity, emphasising competition in particular, has not melded satisfactorily with other work in some CCTs, which have typically promoted cycling as an inclusive activity. As a result, the approach to Go Ride delivery (and the need for specific bikes) was felt by some programme officers to undermine the wider strategy objectives.
- Bike Club, which complemented existing cycling initiatives such as Bikeability, Bike It and Go Ride. It was offered to children and young people between the ages of 10 and 20 outside the school curriculum and utilised youth clubs and extended services outside schools. Ten CCTs have operated Bike Clubs through the CTC managed programme and funded directly by central government through Cycling England's School Champions and Active Recreation (START) initiative. Bike Club representatives have been shared between CCTs, which has generated some constraints in their availability and delays to delivery.

Programme Managers believed that out-of-school activities such as these would help to embed cycle use into everyday behaviour, increasing the likelihood of cycling being sustained in later years.

Infrastructure and navigation

Maps showing off-road or backstreet routes to schools, rather than the busier main roads, are reported to have proved beneficial, enabling parents and carers to see more clearly the alternative cycle routes. Some schools have opened alternative staffed access gates to facilitate cycling to school. An estimated £1m has been spent on infrastructure including cycle parking, which has been noted as a particular barrier to cycling to school and there have also been improvements to key routes to school.

Delivering Cycle Parking

Different approaches have been adopted for the targeting and installation of school cycle parking. In some CCTs an ad hoc and reactive, demand led approach was taken to the provision of cycle spaces. Conversely, in some of the smaller towns such as Leighton, an audit was undertaken of cycle parking provision and pupil numbers prior to investment, leading to a targeted approach. Known gaps in provision identified through ongoing School Travel Planning activities have also been used by all CCTs to help target investment.

Over 5,000 new cycle parking spaces have been provided at primary schools, an increase of 78% on the March 2008 levels. The comparable figures for secondary schools are 4,600 additional spaces, a 31% increase. This enhanced provision equates to parking for 8% of primary school and 5% of secondary school pupils. Despite this increase, some schools had to provide a cycling rota as cycle parking was insufficient to cope with the daily demand. Cycle parking requests from schools have increased following the delivery of Bikeability and Bike It initiatives. An audit of delivery of schools investment (Cycling City and Towns Audit Summary Report, December 2010 found that requiring schools to manage the procurement of facilities resulted in slow and poor quality delivery. Competition amongst external contractors to supply the services required can help to drive down costs.

6.3.3 Lessons learnt

- CCT officers identified the key challenge as **ensuring that pupils continue to cycle as they move from primary to secondary school**. This recognised the importance of establishing a cycling behaviour in the first year of secondary school and promoting cycling among peer groups within the new school environment. The wider catchment areas for secondary schools tend to generate longer and potentially more challenging journeys. The provision of accompanied rides to prospective secondary schools, delivered as part of Bikeability Level 2 training, was one innovative approach adopted in Shrewsbury.
- Central to the efficient and effective delivery of Bike It activities was securing support within schools. Programme Managers and local authority schools officers identified the importance of establishing a key champion within each school, following initial communications with head teachers.
- Successful approaches to engaging with schools have included using School Travel Plan contacts, and working with School Sport Partnership to embed cycling alongside other initiatives.
- As was also observed for workplaces, determining the willingness of schools to participate in the programme at the outset is particularly important, to help target resources to best effect.

6.4 Infrastructure

The rationale for investing in infrastructure centres on improving the provision and quality of facilities for cyclists. A central element of CCT strategy development was the extent, location and type of infrastructure provided, based on who they were targeting, where and for which trip purposes.

Summary of Emerging Findings

- Nearly £25m has been invested in infrastructure to provide safer routes for experienced and inexperienced cyclists, thereby addressing a key barrier to cycling.
- Over £17m has been invested in improved cycle routes, lanes and greenways, including the provision of parallel cycle facilities along key arterial roads.
- An integrated approach has been adopted by CCTs, to combine the benefits of new infrastructure with marketing and promotion activities.

6.4.1 Why invest in infrastructure?

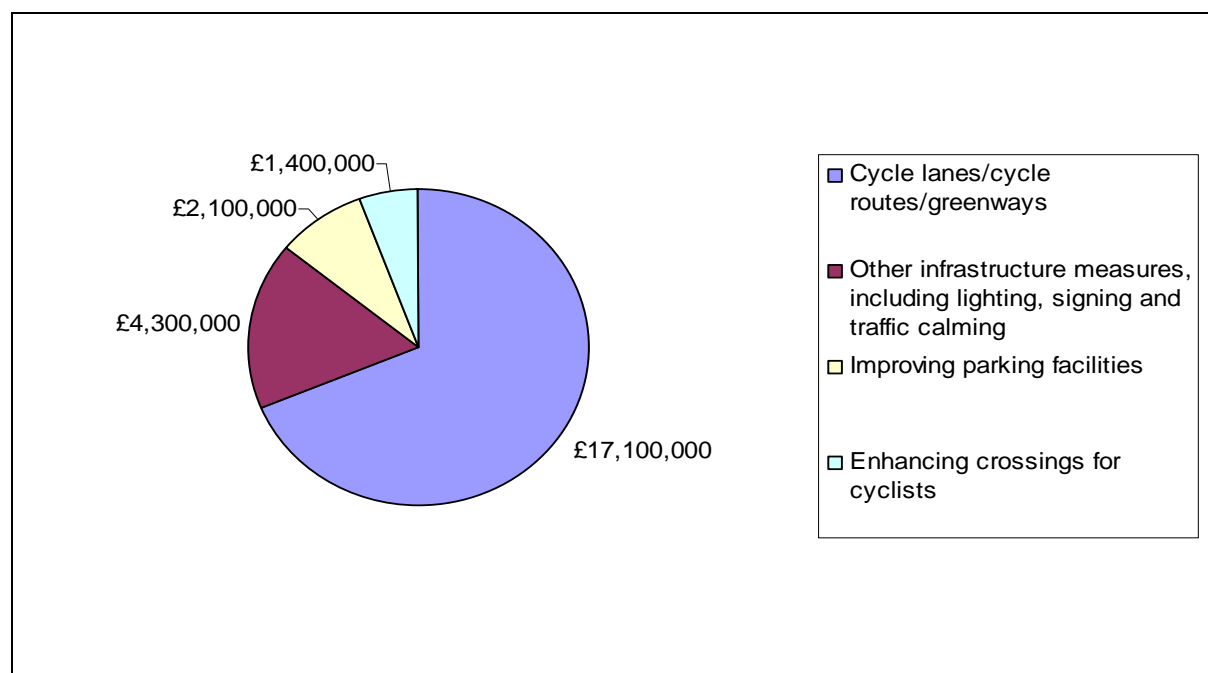
As the baseline survey revealed cycling infrastructure (or lack thereof) was potentially a key barrier to increasing cycling. Non-cyclists who expressed an interest in starting to cycle and existing occasional cyclists were particularly in favour of cycle routes which were separate from traffic, and also reported concerns about the safety of parking a bicycle on the street. Interventions to improve cycling infrastructure (including routes and parking) may well therefore be critical to enabling more people from these groups to start cycling.

6.4.2 What approaches to investment in infrastructure have been adopted by the Cycling City and Towns?

An audit of investment commissioned by Cycling England and conducted in 2009/10 provides detailed information on the design and delivery of infrastructure measures in the Cycling City and Towns. A summary of the audit is available here: [Cycling City and Towns Audit - Summary Report](#) The evaluation complements the audit by Ove Arup and Partners. In this section, we focus on the role of infrastructure investment within the strategies adopted by the CCTs at the start of the programme.

Of the £29.9m capital investment, defined by the CCTs Annex C financial return forms and inclusive of Cycling England money only, approximately £24.9m has been invested on infrastructure. Figure 6.2 breaks this down into key areas of spend.

Figure 6.2: Summary of Infrastructure Investment



A key aim of investment in infrastructure has been to reallocate road space to cyclists, for example in the York Clifton Bridge Scheme which required the removal of a traffic lane in order to provide an advanced stop line approach lane. In some cases where road space has been reallocated away from cars, Programme Managers have anecdotally reported some increases in localised traffic queuing, but this was felt to be necessary in order to provide greater permeability and continuity for cyclists on key routes. Innovative designs have also been observed, for example the provision of parallel cycling facilities, which offer direct on-road facilities for experienced cyclists and adjacent, and sometimes less direct, off-road

Examples of infrastructure delivered in the Cycling City and Towns

On-road facilities:

- Feeder lanes.
- Contraflow lanes.
- Advisory and mandatory cycle lanes.
- Advanced stop lines.

Off-road facilities:

- Fully segregated cycle routes and greenways.
- Mixed facilities e.g. shared use routes for pedestrians and cyclists.

Supporting infrastructure:

- Enhanced signage, often with average cycle times rather than miles to destination.
- Branded routes.
- Square sign poles to prevent rotation.
- Lighting to make cycling safer after dark.
- Small signs to prevent “clutter”.
- Improvements to access point and gateways on cycle routes (such as flush paving/kerbs for a smooth ride).

Supporting traffic management and calming techniques.

facilities for those who are less comfortable on the road.

Where infrastructure schemes had been designed with the principles of ‘people, place, purpose’ in mind (connecting residential and commercial districts with key transport hubs and destinations), this was evident in the targeted approach observed. For example, the Highwoods Route in Colchester was developed to enhance access for cyclists from the Highwoods residential area to the town centre, sports stadium and rail station. The scheme also offers an example of how infrastructure measures can be supported by revenue investment: CCT officers across the city and towns noted the added benefits generated through coordinated promotion and information campaigns.

I think actually undertaking some of the infrastructure works first created a talking point. It gives a point to start a conversation off so they don't just say “do you cycle?” but also “are you aware that there's a new route?” Cycle Town Programme Manager

Colchester Highwoods Cycle Route

The route, part of the National Cycle Network, links the Western Homes Community Stadium with Colchester North station, through the Highwoods residential area. It provides access for over 10,000 residents and 7,000 employees of local businesses. The scheme included the following measures:

- Off-road link;
- Widened shared use path;
- Dropped kerbs at crossing points; and
- Enhanced signing and information.

The opening of the route coincided with smarter measures to promote cycling, including Dr Bike sessions, information to promote physical activity and healthier living (Health In Mind initiative), a virtual ride on-line and a week of family and community activities.

6.4.3 Lessons learnt

The Cycling City and Towns Audit - Summary Report presents overarching common issues and lessons to be learnt from all CCT programmes of relevance for any future infrastructure investment programmes focused on increasing cycling.

6.5 Stations

Of the Cycling City and Towns, eight (Greater Bristol, Colchester, Leighton, Shrewsbury, Southend, Stoke-on-Trent, Woking and York) have chosen to target investment towards rail stations, spending over £3.5m in total on interventions in and around stations. Colchester accounts for over 30% of the investment, a consequence of £1.1m having been spent on improving cycle routes from three stations to areas such as the town centre.

Summary of Emerging Findings

- Over £3.5m in total has been invested in interventions in and around stations, driven by the potential for the investment to influence short, medium and long distance travel, and by concerns about congestion around stations.
- Cycling to stations at baseline was very low, with only 3% of trips to access rail services made by bicycle. However, with many journeys being undertaken which involve a rail trip, there is evidence of potential to increase the use of bicycles to access train stations, with anticipated benefits particularly focusing on reducing congestion around the station.
- Barriers to cycling to the station have been reported by Programme Managers to include perceived levels of bicycle theft, poor or inadequate parking facilities, and a lack of space on trains for cycle carriage.
- A holistic approach has been adopted in the Cycling City and Towns with regards to the integration of cycling and other transport modes to promote sustainable travel choices. Investment to promote cycling to and from stations has centred on: addressing a lack of secure parking; improving access on the station forecourt and in terms of wider infrastructure routes; facilitating onward journeys; and promoting the benefits of cycling.
- The Cycling City and Towns have found that working with stations can be a complex and resource intensive process.
- Secure parking within station boundaries can be constrained by space availability, but is preferred by cyclists to parking elsewhere.

6.5.1 Why target investment towards stations?

Unlike other investment themes, stations are not themselves an origin or destination, but rather a hub which facilitates short, medium and long distance travel to and from the area. Enhancing access by bicycle can therefore influence a wide range of trips. Central and suburban stations are therefore being linked with sections of the National Cycle Network, town/city centres and residential areas.

Across the programme, cycling to train stations was very low at baseline. However, with many journeys being undertaken which involve a rail trip, there is evidence of potential to increase the use of bicycles to access train stations, with anticipated benefits particularly focusing on reducing congestion around the station:

- During the seven-day travel diary period for the baseline survey 8750 adults made a total of 2,147 multiple-leg trips which included a rail journey. Of those, 11% began with a rail journey and 89% involved first accessing a station using one or more other modes of transport; and
- However, bicycle usage appeared to be low when it came to accessing stations: for example, only 3% of journeys to the station were completed by bicycle.

Barriers to cycling to stations reported by Programme Managers included:

- Perceived levels of bicycle theft;
- Poor or inadequate parking facilities; and
- A lack of space on trains for cycle carriage.

It is likely that these barriers are closely related, in that theft could be exacerbated by inadequate parking facilities, and in that lack of space on trains could boost demand for parking.

6.5.2 What were the Cycling City and Towns' strategies for overcoming barriers to cycling to stations?

The eight CCTs that have invested in stations have a combined footfall at mainline stations of over 15 million people per annum. Within this, some CCTs have identified (in some cases through market research) a range of target population sub-groups, including:

- Young professionals;
- Students travelling to non-local universities; and
- Rail commuters who are dropped off by car.

These groups were considered by Programme Managers to be useful targets for influencing their travel behaviour. A holistic approach has been adopted in the Cycling City and Towns with regards to the integration of cycling and other access modes to promote sustainable travel choices. Investment to promote cycling to and from stations has centred on:

- **Addressing a lack of secure parking.** Colchester, Leighton, Stoke-on-Trent and Woking have all approximately doubled the number of spaces available, an increase of over 500 spaces since March 2008. Five of the Cycling City and Towns have provided parking facilities adjacent to stations but outside of ticket control barriers. These have generally been covered racks of Sheffield bicycle stands, with increased security through the use of CCTV as well as electronic key access (in Colchester and Leighton). Together with bike tagging provided in association with the British Transport Police, this is reported to have assisted with reducing cycle theft. Spaces have also been provided within existing or new car parks. However, CCT officers noted that such spaces are not heavily used as they are perceived by cyclists as less safe than dedicated cycle parking sites, due to increased exposure to car traffic. Installing cycle parking within car parks has often required the permission of leasing parking companies in addition to train operators and Network Rail, increasing the time required to achieve necessary agreements.
- **Improving access.** Investment in cycle routes to mainline and suburban stations has been evident, particularly in Colchester and Bristol (Parkway station). Combined with station forecourt and access improvements (e.g. wheel channels in staircases), this has sought to enhance the permeability of cycling to stations. Links with wider town investment has also been a factor in Woking's programme, where poor subway and town centre routes were barriers to accessing the station by bicycle.

- Improved access for cyclists to Colchester North station through improved cycle routes, particularly continuation of routes at main roads;
- Renovated the station forecourt and enhanced traffic management arrangements to reduce vehicle conflicts, providing safer access for pedestrians and cyclists;
- Increased the provision of secure bicycle parking including improving the signing to the parking and separating the parking area from motorcycle parking, to provide a safer parking environment; and
- Improved route access from residential areas to Colchester North; the University of Essex to Hythe station; and all stations to the town centre.

- [illegible]

- **Promoting the benefits of cycling.** Promotional and marketing activities have also been part of station investment programmes, including the use of notice boards, leaflets, Bike Breakfasts (offering refreshments to those who cycle at stations) and Commuter Challenges encouraging people to leave their cars at home and use an alternative

mode. This has provided an effective link with workplace and town-wide promotional events, reinforcing overall messages regarding the benefits of cycling.

Changes to station areas have commonly been closely linked with wider urban regeneration and development activities. Examples included the construction of new ramped access at the station in York to accommodate pedestrians and cyclists, Colchester North's forecourt improvements and the Woking station/town centre links. The integration of station investment with other town level programmes in this way has been observed in all of the Cycling Cities and Towns, increasing the overall effectiveness of the strategy and is considered by CCT officers as necessary to provide comprehensive improvements for commuters.

Leighton adopted a resource intensive approach, with CCT officers being present at the station at regular intervals through the programme. This has proven effective at building momentum, and pulling together the wider package of activities. However, this was considered less feasible for larger towns where station footfalls are higher and the ability to interact with people is more limited.

Cycle hubs

A central element of some Cycling City and Town strategies at stations was the development of cycle hubs, offering a range of facilities for cyclists including secure covered parking, cycle hire, information, retail and repair facilities, utilising the function of stations as focal points for travel. Cycle hubs have been delivered through the Cycling City and Town programme in Leighton and York, but the proposed scheme in Woking has been delayed by wider funding constraints. Stoke-on-Trent has also seen a cycle hub open as part of the 'Finding New Solutions' investment stream.

It is evident that a sustainable but comprehensive range of facilities needs to be established at hubs, with a key decision being whether sites should be staffed. Although this increases the costs it provides a more rounded service, offering advice, information and staffed parking areas. Cycle hubs may also be used to "market" cycling through face-to-face communication with potential or existing cyclists.

6.5.3 Lessons learnt

- The provision of secure parking within station boundaries can be constrained by space availability. However, Programme Managers felt that cyclists perceived them to be the most secure locations, and the presence of CCTV cameras was a contributing factor in this.
- The resource and time commitments required to promote cycling to stations should not be underestimated. Working in and around stations involved a range of stakeholders to work through complex processes, and can include lengthy land acquisition and lease arrangements which can delay design, consultation and delivery stages. Establishing a clear steering group of Train Operating Companies, Network Rail, car park operators, bus operators, taxi companies and Local Authority planners and engineers was considered by CCT officers to be a critical initial step. The Association of Train Operating Companies 'Station Travel Plan' initiative has assisted in establishing such groups to aid delivery. These forums also facilitated the collection, collation and use of multiple data sources to aid design and review procedures. This structure also had to be supported by a clear and agreed vision for the station.
- Programme Managers noted that solutions should be realistic and not over optimistic in terms of their ability to address perceived barriers. The provision of multi-modal maps

promoting sustainable access to stations was identified by one Programme Manager as an example where costs were considered higher than potential benefits.

- Colchester found that the inclusion of suburban stations as well as mainline stations within cycling strategies generated a network of stations which were accessible by bicycle for short and mid-length rail journeys.

6.6 Universities and Colleges

Higher and further educational establishments provided a range of opportunities for cycling investment given their dual roles as large employers and educational providers. Strategies for increasing cycling to these types of destinations were often aligned with existing development, regeneration or relocation programmes.

Summary of Emerging Findings

- Over £120,000 has been invested in interventions at further and higher education establishments, seeking to influence the short and long term travel behaviour of staff and students.
- Students were less likely than other adults to hold a driving licence (39% compared to 69%), but the majority owned a bicycle.
- It is important to build facilities and infrastructure for cycling into planning (and travel planning) activities, to ensure that future campus or site footprints provide for and encourage cycling.
- Investment in cycling interventions has focused on addressing the issue of bicycle theft, through secure parking provision, and the offer of training courses.
- Higher take-up rates for guided rides have been achieved for staff than students.

6.6.1 Why target investment at universities and colleges?

Cycling City and Town investment in universities and colleges is based on an assumption that travel behaviour change can be encouraged by targeting individuals going through life changes, such as changing jobs or entering a new phase of education. There are two potential target groups within universities and colleges: students and staff.

Although students are the larger group, staff numbers are also high: for example there are approximately 1,600 employees at the University of Staffordshire (Stoke-on-Trent) and 1,800 at the University of Essex (Colchester). For staff living in or around the CCT, the benefits of investment could influence their wider travel behaviours, as well as their commuting behaviours during term time.

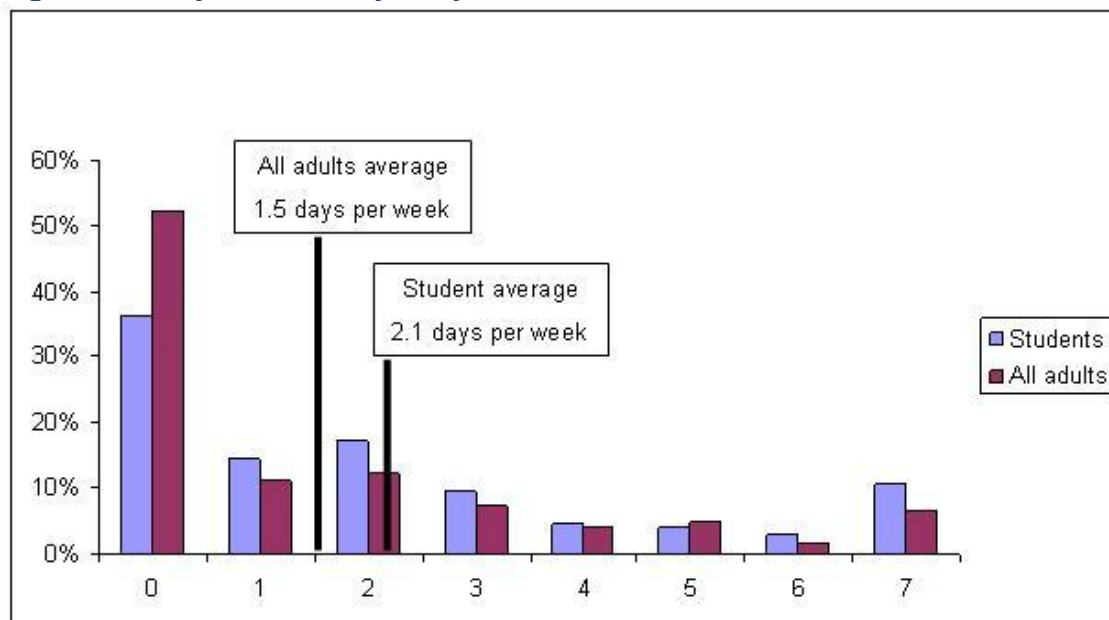
With higher education students, substantial influx and outflux at term start and end and on graduation means that the target population fluctuates and interventions have to adapt to cope with this in order to maximise the benefits of investment for the local area. Many students who would have been encouraged to cycle during their period at university are likely to leave the area upon graduation. Nevertheless, the large in-migration each year provides a good opportunity to influence and shape travel choices for the duration of their higher education, and instil cycling as a viable travel option for life.

Although many of the same opportunities existed at further education establishments, different challenges were experienced. The students were likely to be still living at home, so constraining the extent of life changes which could prompt travel behaviour change. They may also be familiar with the local transport networks. The Programme Managers indicated that they felt that further education students were more likely to travel by car to college than higher education students.

Because the baseline survey period fell between July and November the analysis is based on respondents who were resident in the CCTs during this period and reported their working status to be "student". This does not necessarily mean that they were all studying in the CCT areas. Care should therefore be taken when interpreting these findings as they cannot be used to make generalisations about the student populations in each of the CCTs, but they may provide some useful insights into the behaviours, barriers and motivators experienced by some students.

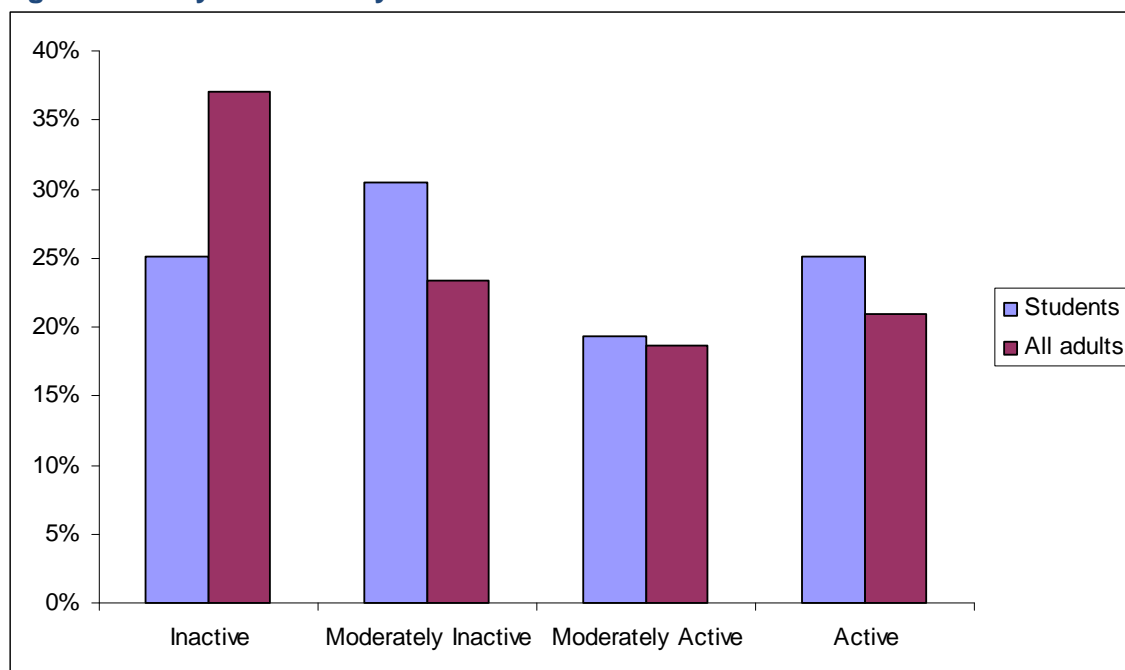
As Figures 6.3 and 6.4 show, student respondents to the survey²⁷ had slightly higher levels of physical activity than when compared with all adults generally. Still, a minority of these respondents were physically inactive (with a quarter classed as inactive on the EPIC categorisation, and more than a third reported that they did not partake in physical activity totalling 30 minutes or more on any of the previous seven days). There is still therefore a health incentive to increasing cycling amongst student respondents.

Figure 6.3: Physical Activity– Days Active



Source: adult household survey. Unweighted base: 24,493 respondents.

Figure 6.4: Physical Activity Levels

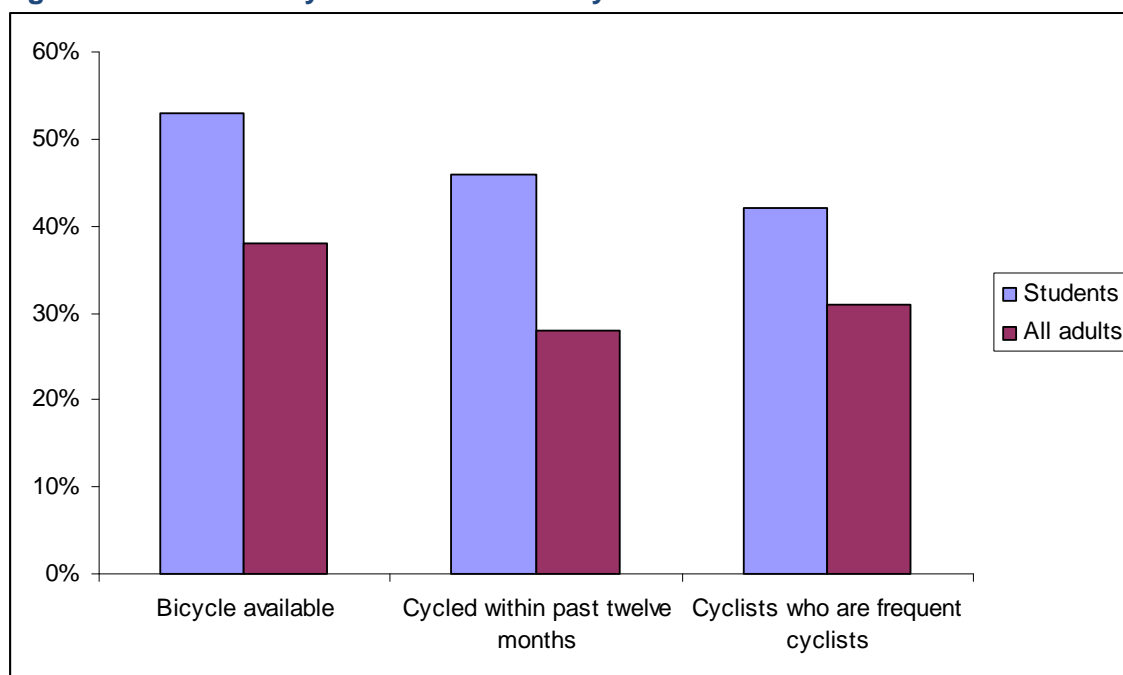


Source: adult household survey. Unweighted base: 26,332 respondents and 1,345 respondents who were students.

²⁷ Just over half of this group were aged 16 to 19, and just over a third aged 20 to 24.

Student respondents were also more likely to have a bicycle available compared to all adults generally, and more likely to have cycled it within the past 12 months. Student cyclists on average were more likely to cycle frequently than adult cyclists (Figure 6.5). Twenty-six percent of all student respondents surveyed, and 61% of those who had cycled in the preceding 12 months, reported that cycling to school/college/university was a journey type they typically undertook, although this might not have been within a CCT programme area²⁸.

Figure 6.5: Availability and Use Made of Cycle



Source: adult household survey. Base varies by question.

This analysis suggests that barriers to cycling among student respondents may be different to those experienced by the adult population of the CCTs as a whole. Fairly high numbers of these respondents already owned a bike, were cycling in general and were already cycling to school/college/university. Conversely, a lower proportion of student respondents held driving licences (39% versus 69% of all adults) or had access to a car (55% versus 88% of all adults). It was generally believed by Programme Managers that peer pressures leading up to and after young people learn to drive can make cycling a less attractive option.

As is noted below, most interventions with universities and colleges were targeted more at staff than students, and thus there are similarities with the Workplaces investment theme. However, it is unfortunately not possible to explore the specific behaviours and attitudes of staff who work at universities and colleges using the survey data.

6.6.2 What were the Cycling City and Towns' strategies for increasing cycling to universities and colleges?

There has been a relatively low level of investment at higher education sites, with £124k of revenue expenditure across three CCTs: Bristol, Colchester and Stoke-on-Trent. The average spend per year at each institution was between £10-15k, which was approximately in line with spend levels for workplaces (although when student numbers are considered,

²⁸ The possible influence of Cambridge, as a town famous for its student cyclists, on the programme average should be noted.

this is much lower spend proportionate to the target group). An additional £625k has been invested in four cycle network sections, linking the University of the West of England (Greater Bristol CCT) to surrounding residential areas and transport hubs.

The CCTs have predominantly focused investment towards staff. Little evidence has therefore been identified regarding how to encourage students to cycle.

As noted above, integration of the cycling strategies with other development and relocation programmes enabled cycling facilities to be built into future plans for campuses and educational sites. Wider travel policies adopted by educational establishments have also in some cases placed constraints on other modes of transport to the benefit of cycling, such as limitations on the parking of cars at many halls of residence (this was believed by CCT officers to have particularly influenced students in their first year). The main interventions delivered at universities included:

- Secure cycle parking, including PIN controlled access to storage areas;
- Dr Bike and free maintenance linked with training sessions;
- Bike loans to encourage new students to try cycling in the local area;
- Bike club and BUG support, using student peers to disseminate information; and
- Guided rides for first year students, organised by university cycle clubs.

University of Essex – Colchester Campus

The focus of activities has been on the provision of training to staff and students, with £12k allocated per annum. An initial programme of 45-minute session, to encourage participation in longer subsequent training, resulted in a high drop-out rate and feedback from participants identified that the duration was too short. Incentives (bicycle lights) to attend training were offered too quickly in 'taster sessions', which reduced attendance at subsequent sessions.

A revised two-hour training offer was adopted, covering the equivalent of Bikeability Level 2. This resulted in over 50 staff and students taking up the training.

Training was offered as part of a broader package including cycle maintenance training and free hi-visibility ankle bands. Students were also able to purchase inexpensive refurbished bikes. A bike tagging system was also supported by Cycling Colchester, to help reduce cycle theft on the campus.

University of Staffordshire – Stoke-on-Trent Campus

Investment has been targeted at the Stoke campus which is the largest of the three sites. A coordinated package of measures has been provided, including:

- Cycle route maps;
- Advice on travel planning;
- Free bike maintenance sessions;
- Free training; and
- Secure parking.

In February 2010 activities were offered in a six week 'Bike to Basics' programme, timed to coincide with the provision of new parking facilities. Six pool bikes were purchased to allow staff and students to participate in training before purchasing their own bike (for staff, this could be through the Cycle2Work scheme). However, the take-up of training and supported rides was low. CCT officers have linked this to the timing of delivery coinciding with shorter daylight hours and colder weather; training continued during the spring and summer terms.

The provision of information to new students has been achieved in a number of ways.

- Conflicting evidence emerged regarding the use and benefit of freshers' week, with concerns identified by staff and CCTs officers over the amount of information new students receive in their first weeks. However, the opportunity to reach newly arrived students before travel patterns become ingrained was considered to be important by all CCT higher education initiatives.
- Halls of residence have also been used in Stoke-on-Trent to promote cycling activities, clubs and opportunities, through posters and mail shots.

6.6.3 Lessons Learnt

- As with workplaces, a need has been identified for a champion through which to channel investment, whether this be a member of staff or a student-facing bike club.
- On a similar note, CCT officers identified the importance of gaining buy-in from educational establishments, thereby making delivery a shared responsibility.

6.7 Neighbourhoods and Population Groups

In addition to the targeting of cycling investment for specific journeys and destinations, several of the Cycling City and Towns (including Blackpool, Greater Bristol, Chester, Stoke-on-Trent, Colchester and Woking) also focused part of their investment on defined local populations. This included specific geographical neighbourhoods and specific population groups of the whole town population (e.g. those on low incomes or at most risk of poor health). Often, these overlapped, for example in the case of Lakeview, a residential area in Woking with high levels of low income families.

The following section explores the reasons why the Cycling City and Towns decided to invest in particular areas and groups; what barriers to cycling were identified; and what strategies were implemented to tackle those barriers

Summary of Emerging Findings

- Most of the Cycling Cities and Towns chose to focus investment on specific neighbourhoods or specific groups of the population. This has included lower socioeconomic groups and deprived neighbourhoods, but also some more affluent neighbourhoods.
- The former offered the potential for wider impacts on health, accessibility and employment if cycling levels could be increased.
- However, encouraging cycling amongst lower socioeconomic groups and within deprived neighbourhoods also posed challenges in terms of the number and prevalence of barriers faced by residents. These included low bicycle availability, low levels of cycle training and poor health.
- The Cycling City and Towns have addressed these barriers through an integrated and intensive approach, which has sought to build partnerships with key stakeholders such as the NHS.
- Lessons learnt include the importance of local knowledge and consultation with local residents.

6.7.1 Why target investment towards particular areas or groups?

Barriers to cycling were not evenly distributed amongst the populations of the Cycling City and Towns. In some neighbourhoods and amongst some population groups, multiple barriers to cycling were found to exist, over and above those being addressed by the town/city-wide interventions. Nevertheless, Programme Managers believed that the benefits of increasing cycling levels in those areas and groups were potentially high, in that cycling offers the possibility of improved health, better access to key services and better access to employment opportunities (see boxes below). Some residential areas were also targeted not because of issues to do with deprivation, but because focused investment within a defined geographical area was considered the most effective approach to overcoming barriers to cycling.

Barriers to cycling identified amongst lower socioeconomic groups

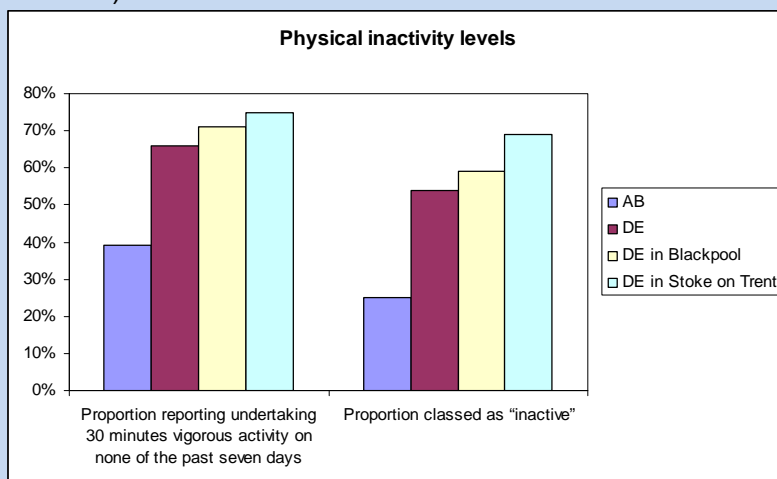
Poor health: adult respondents in socioeconomic group DE were much more likely to rate their own health as poor or very poor compared to group AB (13% compared to 4%). Poor health was even more prevalent amongst DEs in Stoke-on-Trent (reported by 16%). (Source: adult household survey).

Low levels of bicycle ownership: three quarters of adults in group DE had no access to a bicycle, compared to just under half of ABs. Bicycle availability was a particular issue for children in disadvantaged circumstances in Blackpool, affecting almost half of children in the DE group compared to an average across the children in the programme of just 15%. (Source: adult and child household survey).

Low levels of cycle training: children in the DE group had received lower levels of cycle training than children in group AB (72% compared to 63% had never received cycle training). Particularly low levels of training were reported amongst DE children in Stoke-on-Trent, where 84% had never received cycle training. Similarly, adults in the DE group were less likely to report having received cycle training as a child compared to adults in the AB group (25% compared to 42%). (Source: child household survey and adult self completion survey).

Potential benefits of increasing cycling in lower socioeconomic groups

Higher levels of physical activity leading to improved health: socioeconomic group DE demonstrated much lower levels of physical activity compared to group AB, with particularly low levels of activity evident in some towns (particularly Blackpool and Stoke-on-Trent).



Source : Adult household survey. Bases vary. "Inactive" refers to the EPIC classification system (inactive; moderately inactive; moderately active; active).

Improved accessibility: a fifth of adults in group DE did not have access to a car compared to just 5% of group AB, which could limit their access to key services as well as to **employment opportunities**. One in ten adults in group DE were unemployed compared to just 2% in group AB.

6.7.2 What were the Cycling City and Towns' strategies for overcoming the identified barriers?

Increasing levels of cycling where multiple barriers exist was acknowledged by Programme Managers to require intensive and integrated approaches, based on an understanding of local issues. Approaches taken by the Cycling City and Towns included:

- **Integrating infrastructure improvements with bespoke revenue investment** to ensure that all local barriers to cycling are addressed. For example, in Highwoods (Colchester) a number of major infrastructure improvements were identified to increase access to destinations both within the neighbourhood and across the town, including the town centre. This was supported by organised rides, family events and Personalised Travel Planning in the area. Over a six-week period in October/November 2009 cycling advisers visited the households, providing cycle maps of the area (including the new routes built with Cycling Town funding), advice and information regarding events and opportunities for cycle skills and maintenance training. The PTP exercise in Highwoods was seen as a success and has since been delivered in two more neighbourhoods, Garrison and Greenstead. Monitoring indicates that in Highwoods 11% of the people engaged now cycle more than they did prior to the PTP intervention. In Garrison this figure is 29%.
- **Developing partnerships.** For example, Stoke-on-Trent and Blackpool saw an opportunity to work collaboratively with the NHS and other health sector stakeholders, to address the shared goal of reducing the risk of health problems through physical activity. This allowed the CCTs to build on the work undertaken to raise awareness of the health benefits of physical activity, and to liaise with existing stakeholder and community groups.
- **The use of innovative social marketing techniques** (for example in Woking) through which to delivery initiatives specifically relevant to the needs and attitudes of local communities.

The scale of neighbourhood investment amongst the CCTs has been relatively broad. In several cases individual estates were targeted; in Cambridge a new development of around 400 households (Orchard Park) was engaged, while in Woking support was given to pre-existing investment at an estate of around 750 housing units (Lakeview). In contrast larger neighbourhood populations of over 10,000 people were targeted in both Greater Bristol (Horfield, Bishopston and Redland), and in Colchester (Highwoods) where this equated to around 4,200 households.

Integrated investment in Sheerwater (Woking)

The evidence emerging from the Sheerwater investment in Woking suggests that there are likely to be considerable benefits to partnership working with the health sector when targeting deprived neighbourhoods and communities. The Cycle Woking team have been able to integrate with existing health sector interventions such as the Big Lottery funded 'MEND' (Mind, Exercise, Nutrition, ..Do It) project based in Sheerwater's Park View Community Centre. NHS stakeholders were also able to provide the Cycle Woking team with contacts in the ethnic community which has led to the delivery of bespoke cycle training for women of ethnic origin.

The Cycle Woking team has also successfully delivered social marketing in Sheerwater with part-funding from the Department of Health's Change4Life campaign. Working with the University of Surrey the team identified '*families with at least one child under the age of 11*' as the most appropriate target group for increasing cycling and importantly increasing physical activity amongst children and those who are least active (women and the over 50s).

Aside from the extensive partnership working in Sheerwater, the Cycle Woking team has also made improvements to the local route infrastructure. The team aimed to first provide local people with the skills and confidence to cycle. People were then given the opportunity to obtain a recycled bicycle or receive help to make their own bicycles roadworthy. The team followed this up with promotion and facilitation of group rides on the new Basingstoke Canal towpath section between Monument Bridge and Sheerwater Bridge. This investment also provided cycle paths to Sheerwater recreation ground and Broadmere Community Primary Schools. Along with new BMX and mountain bike tracks this infrastructure directly supports the social marketing activities and the targeting of families.

6.7.3 Lessons learnt

- Programme Managers have emphasised the importance of having an integrated approach to delivery when targeting specific neighbourhoods. For example, there were believed to be benefits of timing Personalised Travel Planning interventions to coincide with the completion of new routes and availability of other supporting revenue interventions (such as bicycle maintenance courses).
- Programme Managers also noted that local knowledge of the target area or population is essential. For example, Blackpool commissioned research which identified 10-20 year olds as a key focus for both generating behaviour change and tackling the effects of health deprivation. Greater Bristol used MOSAIC to categorise the population and identify potential 'quick win' neighbourhoods such as the young and relatively affluent Redland.
- The benefits of taking time to undertake consultation with people at the neighbourhood level has also been emphasised by Programme Managers. For example, in Chester focus groups were set up in two deprived neighbourhoods (Lache and Blacon) and two more affluent neighbourhoods (Upton and Hoole). These focus groups have aided the Cycle Chester team to better understand the different needs of their population and the local level barriers to cycling.

7 Evaluating the Impacts of the CCT Programme

Summary of Emerging Findings

- The ongoing evaluation will seek to measure whether the investment in the CCT programme delivered the anticipated outcomes and assess whether it generated wider (intended and unintended) impacts e.g. in relation to reductions in car use, increasing other forms of sustainable travel (such as walking) and health benefits. These can only be assessed after the programme has been fully implemented.
- Behaviours can take time to change and the benefits generated by the investment may continue over a number of years. Measuring changes in attitudes towards cycling as well as behaviours is therefore important to indicate whether people are more likely to contemplate changing their behaviour in the future.
- It is important to demonstrate the extent to which the changes in observed behaviours and attitudes have been caused by the programme rather than other factors. The evaluation has been designed to enable comparisons to be made with non-programme areas and will monitor the effect of national and local contextual circumstances on the outcomes to help inform the transferability of the findings.
- It will not be possible to conclusively assess change through a single source of data and the evaluation is looking to draw on a range of evidence.

7.1 Introduction

Understanding the extent to which the CCT programme has changed behaviours, whose behaviours have changed and which aspects of the programme were particularly influential are key elements in demonstrating the effectiveness and efficiency of the investment. This will also provide valuable learning for targeting future investment in cycling.

The questions the evaluation is aiming to answer are:

- What are the affects of the CCT programme on:
 - cycling and travel behaviour?
 - physical activity?
 - attitudes and perceptions towards cycling?
- What are the wider (intended and unintended) impacts on congestion, health, accessibility and carbon?
- How cost-effective are measures to encourage cycling?
- How did the different implementation and delivery strategies undertaken by the CCTs affect the outcomes?
- What transferable lessons can be drawn to inform future investment in cycling?

To answer these questions a comprehensive evaluation and monitoring programme is underway (as summarised in Section 1). This section presents the ongoing stages of the evaluation and provides an overview of the sources of evidence it will draw on to assess whether the CCT programme has been successful.

7.2 Ongoing Evaluation Approach

To evaluate the outcomes and impacts of the CCT programme a number strands of work are being undertaken and will continue after the programme has been implemented:

1. Measuring changes in cycling levels, wider travel behaviours, physical activity levels, perceptions and attitudes of households in the CCT areas

Once the programme of investment in cycling has been implemented a follow-up household survey will be conducted. This will use the same methodology, be undertaken at the same time of the year, and, as far as possible, will include the same households who participated in the baseline survey (see Appendix A for details). The survey has been designed to enable comparisons to be made with the National Travel Survey in order to assess the extent to which the observed changes in cycling behaviours have been affected by the programme compared with what has happened in similar areas not receiving CCT funding.

Behaviour change can take time to occur. For example, some members of a target population may engage more readily than others and some habitual behaviours may be more open to change during transition points (e.g. when changing jobs or moving house). It is therefore unlikely that the full scale of the behaviour change will be measured in the short-term. The household survey therefore will not only measure how cycling behaviour has changed but also the extent to which the programme has encouraged potential cyclists to contemplate cycling in the future. It will also aim to find out whether observed changes in cycling behaviour have generated wider impacts, for example, whether increased cycling has made people more physically active.

2. Measuring changes in cycling activity

As well as changes in the cycling activity for individuals and households, more objective measures will provide evidence of trends in absolute levels of cycling. This is either continuously throughout the programme or at specific points in time. Sustrans is leading the co-ordination and analysis of monitoring cycling activity, which is being collected in collaboration with the CCTs. Each CCT has a tailored monitoring programme which includes a combination of automatic and manual cycle counts on cordons and screenlines, surveys of cycle users on selected routes, counts of parked bicycles and surveys of travel behaviours at key destinations (e.g. schools, stations and workplaces). The monitoring data will provide objective evidence of trends in levels of cycling over the period of the programme. This will be analysed alongside the household survey data to provide a robust assessment of the scale of the change in cycling behaviours.

3. Exploring whether investment and activities targeting specific populations or journeys have generated behaviour change amongst these groups

The CCTs have all developed their own strategies and delivery programmes for encouraging cycling to key destinations and for specific journey purposes. A key part of the evaluation is to understand how effective each approach has been and to compare the success of different implementation approaches. Section Six has provided an overview of the types of areas of investment the evaluation will examine. Building on the analyses undertaken to date, which have drawn heavily on the investment strategies and activities undertaken by the CCT delivery teams, the evaluation will continue to monitor the outcomes from a series of case studies across the CCTs.

4. Understanding how the programme encouraged behaviour change

It will be important to understand how the programme encouraged and enabled behaviours to change and specifically to identify and share examples of good practice to inform the design of future cycling initiatives. This strand of work has included developing hypotheses in each of the CCT areas about how investment and activities will influence cycling attitudes and behaviours. These *theories of change* will be tested and refined during the remainder of the evaluation to identify the barriers and enablers to successful delivery. Key sources of data to aid understanding are monitoring of expenditure and the delivery of interventions in

each of the CCTs, alongside a series of in-depth interviews with the delivery teams and partners.

In-depth interviews with a small number of local residents who participated in the household survey are also being undertaken to explore in more detail:

- the barriers to cycling identified in the survey;
- how cyclists view their experience of cycling in the local area; and
- how the programme has started to change these.

It will also enable the evaluation team to observe first hand, through a small number of accompanied cycle trips, how cyclists make use of the local transport infrastructure and how far it meets their needs.

5. Assessing the influence of changing contextual conditions

The evaluation will also monitor the role of wider national and local contextual factors which will influence travel behaviours. For example, initiatives promoting healthy lifestyles (such as Change4Life) and cycling (e.g. Cycle2Work) or wider economic factors. This will assess the added benefits derived from the programme investment over what might have happened anyway, and will enhance the identification of transferable lessons.