

“Targeting the Environmentally Aware”

UNITED KINGDOM

DEFINITION OF THE PROBLEM

Facts & perceptions

Hertfordshire has traffic flows which are 35%¹ higher than the national average. This is the result of a number of factors including the following:

- a high population (the sixth largest of any highway authority in the county at 1,025,000)
- the lack of one dominant urban centre (instead there are a dozen medium sized towns with more than 25,000 population)
- large commuting flows into London
- key national transport routes traversing the county
- poor levels of passenger transport service on east-west movements
- one of the highest car ownership levels in the country (0.522 cars per head with 28% of households having 2 or more cars).

These factors result in a complex pattern of travel movements and a high level of car dependence for all types of journeys.

The County Council already runs a number of campaigns aimed at raising awareness of travel issues and travel choice. TravelWise, for example, was established in Hertfordshire in 1993 and has achieved considerable success in its awareness raising role.

The Walk to School initiative has been running since 1994 and works with primary schools to encourage parents and pupils to walk to school rather than use the car. The council also encourages the adoption of Green Transport Plans in businesses and School Travel Plans, both of which are aimed at encouraging changes in travel behaviour and reducing use of the car.

The current campaigns are broad based and not targeted amongst any particular group. Although they appear to have been successful in raising awareness there is little documented evidence that they have led to a change in behaviour.

METHOD CHOSEN TO ADDRESS THE PROBLEM

Process & reason for choice

The TAPESTRY initiative is a three year EU sponsored project aiming to increase the knowledge and understanding of how effective communication programmes or campaigns can be developed to support and encourage sustainable travel behaviour.

Hertfordshire is one of the case studies within the TAPESTRY project. The County Council is using the TAPESTRY work to explore how it can better use resources for travel and environmental campaigns to target those groups in the community who are more likely to change their travel behaviour for particular types of trips and to determine whether this is measurable.

Hertfordshire differs from the other case studies in that the initial work (stage 1 of the four stages of the case study outlined below) used data from pre-existing surveys to help define the target group and then this was tested using before and after surveys. With the other Tapestry case studies the target groups are to be determined as a result of the before and after studies.

The four stages of the Hertfordshire study have been defined as follows:

1. Identification and determination of key criteria (definition of potential target group, potential triggers for engagement and potential messages from analysis of pre-existing survey data and the use of focus group surveys).
2. Test of campaign (before and after survey based around messages to target group).
3. Analysis of results.
4. Provision of framework for TAPESTRY and County Council campaigns.

The second stage was based around the evaluation of the pre-existing 'Walk to School Week' campaign as this was determined to be the best way of reaching the pre defined target group. This process is discussed further in Section 2.4.

Objectives

The objectives of the Hertfordshire work are to determine whether a broad based travel awareness campaign can be targeted at a specific section of the community to improve its effectiveness and impact.

Leaders & Partners

The 'Walk to School Week' campaign and associated before and after surveys were run by Hertfordshire County Council in partnership with a number of primary schools in the North Herts and Stevenage districts along with their parents and pupils. The project planning, questionnaire design and delivery, data collection and analysis were undertaken by Hertfordshire County Council Environment Department. The questionnaire was designed using the agreed Tapestry Common Assessment Framework (CAF) and the University of

Westminster provided additional help with the content / wording of the questionnaires. Copies of the questionnaire are included as Appendix C.

The first stage of the study, conducted in 2001 was based on the analysis of pre-existing travel questionnaires conducted by TTR (County Transport Study) and Mori (Hertfordshire Citizens Panel Survey) along with the Hertfordshire Environmental Pledge Survey (conducted by the County Council). The aim of this was to identify a target group who was more likely to respond to a travel awareness campaign. The findings from this analysis were tested in focus group interviews undertaken by Mori.

In terms of Council processes, the TAPESTRY work has the engagement of county council members through the Transport and Strategy Panel and the TravelWise Scrutiny Panel is aware of the work being undertaken. Feedback on the main work stages is also fed into the work programme of the Environment Department's Strategy Group. It is the intention that the findings of the study and the experience gained throughout the TAPESTRY project is used to enhance and focus the broad range of campaigning work undertaken within the Environment Department of the County Council.

Details

Definition of Target Group

The first stage of the project involved the analysis of pre-existing survey data from the County Travel Survey and the Hertfordshire Citizens Panel Survey to identify whether a group of respondents could be identified who may be more open to travel campaign messages and who may also have the ability to change their behaviour.

This group was termed 'Environmentally Aware Car Users' and was selected as being frequent car users (or those describing themselves as 'dedicated car users') who also rated environmental problems highly. This subgroup was analysed in both surveys to check whether their personal characteristics and attitudes differed from the survey population as a whole.

There was general agreement from both surveys that 'Environmentally Aware Car Users' were significantly more likely than other car users or the population in general to have the following characteristics;

- to be of working age (i.e. 25-59)
- to be in employment (full and part time) and not be retired

Although the County Travel Survey found that females were significantly more likely to be in this group this was not borne out by the citizens panel survey. The citizens panel survey had more data on personal characteristics and attitudes towards health and transport. From this survey, the Environmentally Aware Car User group also tended to be:

- Owner occupiers in higher social classes (ABC1's)
- Have young children (under 12)

It was also apparent that this group were more likely than other car users to use passenger transport and taxis on an occasional basis than other car users and were more likely than other groups to consider that the provision of travel information might affect their behaviour particularly in terms of bus use, indicating that they should be more likely to change their behaviour following an information campaign.

More detail on the data analysis leading to the initial definition of the target group is given in Position Paper 1 which is included as Annex 1.

The third source of information was the Hertfordshire Environmental Pledge Survey. The initial survey asked people to sign up to a number of environmental promises and collected their names and addresses but no other personal information. It was decided to go back to this group of people to measure their take-up of the promises and to cross check whether their socio-economic characteristics were similar to the 'Environmentally Aware' group already identified from the other surveys. The pledge re-survey was also an opportunity to start to explore where this group currently obtain travel information and how they would prefer to obtain it.

It was assumed that all pledge respondents were 'Environmentally Aware' by virtue of their response to the survey. Those who described themselves as 'dedicated car users' were identified and their socio-economic characteristics were analysed. This confirmed that this sub group was more likely to be:

- female
- within the 25-39 age group
- working
- owner occupiers
- were more likely to have children under 16 compared with the other pledge respondents.

Further information on this process is contained in Position Paper 2, which is included as Annex 2.

This information was used to start to identify how a travel awareness campaign could be best targeted towards specific groups in the community. Focus group discussions were then conducted by MORI to gain a better understanding of the 'Environmentally Aware Car User' target group, their motivations and what factors may make them alter their travel behaviour. This information then formed the basis for a targeted travel awareness campaign with before and after monitoring.

Six focus groups were held in mid November 2001. These consisted of Hertfordshire residents with the broad characteristics of the 'Environmentally Aware Car User Group' defined so far; i.e. they were all car users, owner-occupiers, in employment and within the 25-59 age group. The focus group makeup was then subtly altered to test the influence of other potential factors such as gender, social class and the presence of children in the household. One of the groups was recruited directly from the pledge re-survey respondents.

The focus groups indicated that although many people were aware of the problems associated with heavy car use and some of the benefits of using alternative modes (e.g. in terms of health

benefits) and the need to reduce car use they said it would be difficult to personally reduce their car use and admitted to a strong emotional attachment to driving.

When challenged, however, respondents identified some journeys where they thought it might be possible to switch to alternatives at least occasionally. These included the school run, some work journeys and some local shopping trips.

The most motivated group tended to be younger (typically 25-40) and female and this was the group considered to be most receptive to a targeted campaign. This was particularly linked to the presence of younger children in the household and concerns about their health.

The report on the focus group discussions is included as Annex 3.

Given the characteristics of this group, two potential ways of reaching them were identified, either through a business / employment related survey or through a school based survey.

It was subsequently decided that the campaign and its evaluation should be based around the existing 'Walk to School' travel campaign. This had the following advantages:

- Ability to use a well established pre-existing campaign which has been proven to reach a high audience therefore reducing the resources needed
- Campaign information could be given out through a trusted source (focus group research indicated that this was more likely to be successful)
- Allowed a move away from a self selecting audience (a problem with self completion postal questionnaires, focus groups & panel surveys)
- Good opportunities for tightly controlled before and after monitoring using same respondents.

Region Covered

The original definition of the 'Environmentally Aware Car User' group was based on countywide surveys. At the focus group discussion phase, two districts within the county East Herts and North Herts were chosen for further surveys.

The 'Walk to School' campaign is countywide. However, in order to help with the monitoring of external factors, the TAPESTRY work concentrated on its evaluation in urban schools in North Herts to link with the focus group surveys (in the towns of Hitchin and Letchworth where there was potentially some travel choice) and Stevenage borough which was chosen as a well defined urban area where there was plenty of choice to complete journeys by non car modes (extensive bus, cycle and pedestrian networks).

It was decided that it wasn't worth evaluating the impact of the campaign in rural areas given the lack of transport choice.

Survey Size

Eleven primary schools within North Herts district and Stevenage Borough indicated that they would be interested in taking part in an evaluation of the Walk to School Week campaign

along with two control schools (who did not take part in the campaign). A total of 3661 before and after questionnaires were sent out to all pupils of these schools.

External Factors

Following Walk to School Week and the before and after study, a questionnaire was sent to head teachers asking them if there were any external factors beyond the “Walk to School” campaign which may have affected the way pupils travelled to school during the week of 20th – 24th May 2002. Factors investigated included whether there was any additional promotion of the campaign within the school, whether the whole school took part and if the weather was thought to have affected the number of children who walked.

The weather during the week was generally unsettled with sunshine and showers apart from on the final day (Friday) which was wet. The temperatures were on the cool side ranging from 15 to 17 degrees centigrade.

There were no national news stories which might have affected participation (e.g. stories about missing children / road accidents which may have dissuaded parents from letting their children walk to school). The Herts Mercury newspaper did however include an article on dangerous roads in the county (which included the A602 Stevenage to Ware) in its 17th May edition. None of the head teachers however, mentioned this as a factor. The other factors mentioned by individual school are summarised in Table 2.1.

Timescales

The initial stages of the study (analysis of previous questionnaires and focus group discussions) took place in 2001. The target group, campaigning methodology and form of the before and after survey were defined in early 2002. The Walk to School Week campaign was from the 20th – 24th May 2002. The before questionnaires were distributed at the beginning of May and the after surveys were distributed in mid June 2002. Data entry and initial analysis was undertaken in the latter part of summer / autumn. Further detailed analysis of the before and after responses has taken place in the early part of 2003. Figure 2.1 summarises the overall project timescale.

Table 2.1 - External Factors Affecting Walk to School Week 20th-24th May 2002

School name & Location	Participation of whole school?	Publicity raising events	Impact of weather	High profile news stories	Other factors
Highover, Hitchin (<i>control school</i>)	Yes	None	None	None mentioned	None
Ickleford Primary, Hitchin	Yes	Discussion in class	Not sure	None mentioned	None
Leys Primary, Stevenage	Yes	None	None	None mentioned	None
Lodge Farm, Stevenage	Yes	None	None	None mentioned	None
Longmeadow Infant & Nursery, Stevenage	Yes	None	None	None mentioned	None
Martins Wood, Stevenage	Yes	None	None	None mentioned	Not promoted much due to imminent Ofsted inspection
Mary Exton, Hitchin	Yes	School has Travel Plan & Year 5 pupils used speed cameras	None	None mentioned	None
Samuel Lucas School, Hitchin	Yes	Photograph of children to help publicise event	None	None mentioned	None
Shephall Green Infants, Stevenage (<i>control school</i>)	Yes	None	More parking outside school noted on wet days (rather than parking further away)	None mentioned	None
Stonehill, Letchworth	Yes	Mentioned in school newsletter	Fewer walked on Friday (wet)	None mentioned	Year 6 away all week
Wilbury Junior, Letchworth	Yes	Promotion in school through assemblies & class led discussions	None	None mentioned	None
Woolenwick Infants & Nursery, Stevenage	Yes	Promotion in assembly & newsletter	Impact of rain	None mentioned	Sickness affected some
Woolenwick Junior, Stevenage	No response received				

Figure 2.1 Hertfordshire Tapestry Case Study Timetable

Study Task	2001												2002												2003											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	
Stage 1																																				
Definition of target groups		■	■	■	■																															
Pledge resurvey						■	■																													
Analysis of pledge resurvey							■	■	■	■																										
Focus group discussions											■																									
Definition of target group											■	■																								
Stage 2																																				
Design of campaign & surveys														■	■	■																				
Before survey																																				
Campaign																																				
After Survey																																				
Data, entry & coding																																				
Stage 3 –																																				
Data analysis																																				
Stage 4 –																																				
Preparation of case study report																																				
Detailed analysis																																				
Dissemination of Results																																				

Funding

The costs to Hertfordshire County Council of the walk to school week campaign are relatively small, as it is a national campaign to which Hertfordshire contributes a share of the cost of materials development according to how much it uses. Thus many partners across the whole of the UK share the large costs associated with campaign materials development. The main element of cost is in the distribution of material to the schools that actually take part.

The actual costs associated with running walk to school week in Hertfordshire were £14,800 and this enabled us to reach approximately 60,000 school children and their parents. These figures do not relate to numbers involved in or costs associated with the campaign evaluation exercise. A more detailed breakdown of campaign costs is contained in section 3.3 of this report.

Explanation of campaign message

Walk to School Week is a one-week campaign to raise awareness of the problems caused by the school run. It is a national initiative co-ordinated jointly by the National TravelWise Association and the Pedestrian's Association (living streets).

The campaign aims to encourage parents to walk to school with their children as much as possible during the week and beyond. If the journey is too far to walk the message is to drive partway and walk the rest of the way keeping the school gates traffic free.

The campaign promotes the benefits of walking (e.g. in terms of health / fitness, sociability, environmental benefits, road safety etc).

Explanation of campaign tools

The national Walk to School campaign receives widespread media coverage and is supported by schools across the country.

Hertfordshire County Council (HCC) Environment Department co-ordinates the campaign in the county. All primary schools are asked whether they would like to take part and those signing up are sent publicity material by HCC. This includes the following:

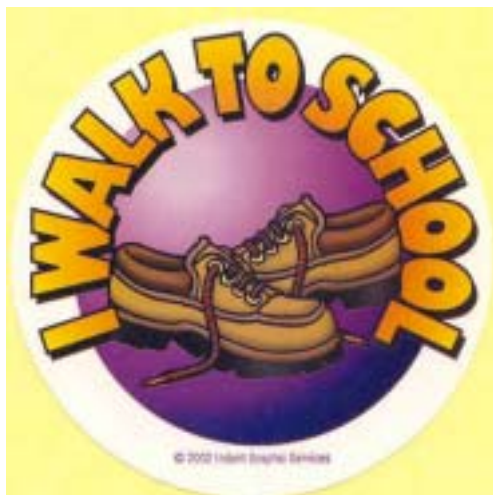
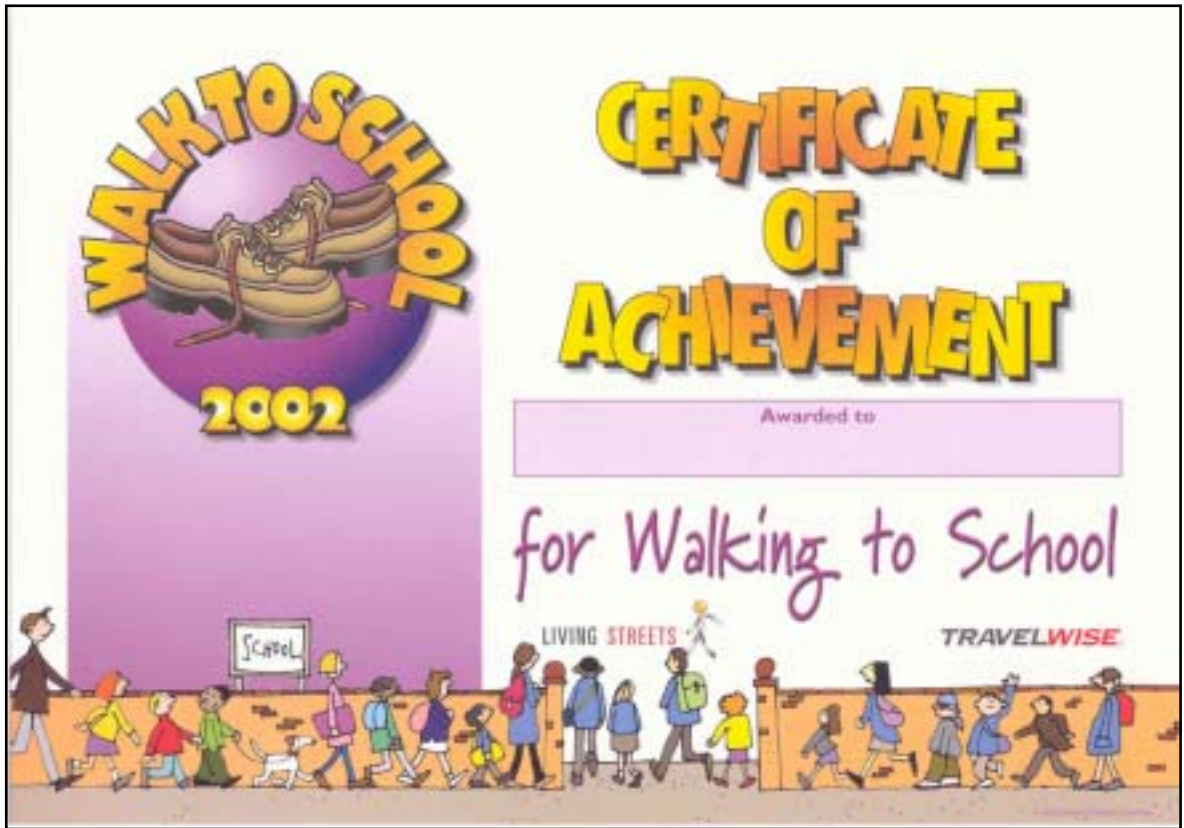
Leaflets on the benefits of walking (distributed to all pupils to take home)



Posters & banners (to be displayed around the school)



Walk to School Week logo Stickers (to be distributed to all pupils) and certificates for those taking part.



Education packs linked to the national curriculum are also provided. These include teachers notes and suggestions for activities (such as discussions around posters showing good / bad environments). In addition classroom planners are provided to assist with monitoring overall activity from the class throughout walk to school week.

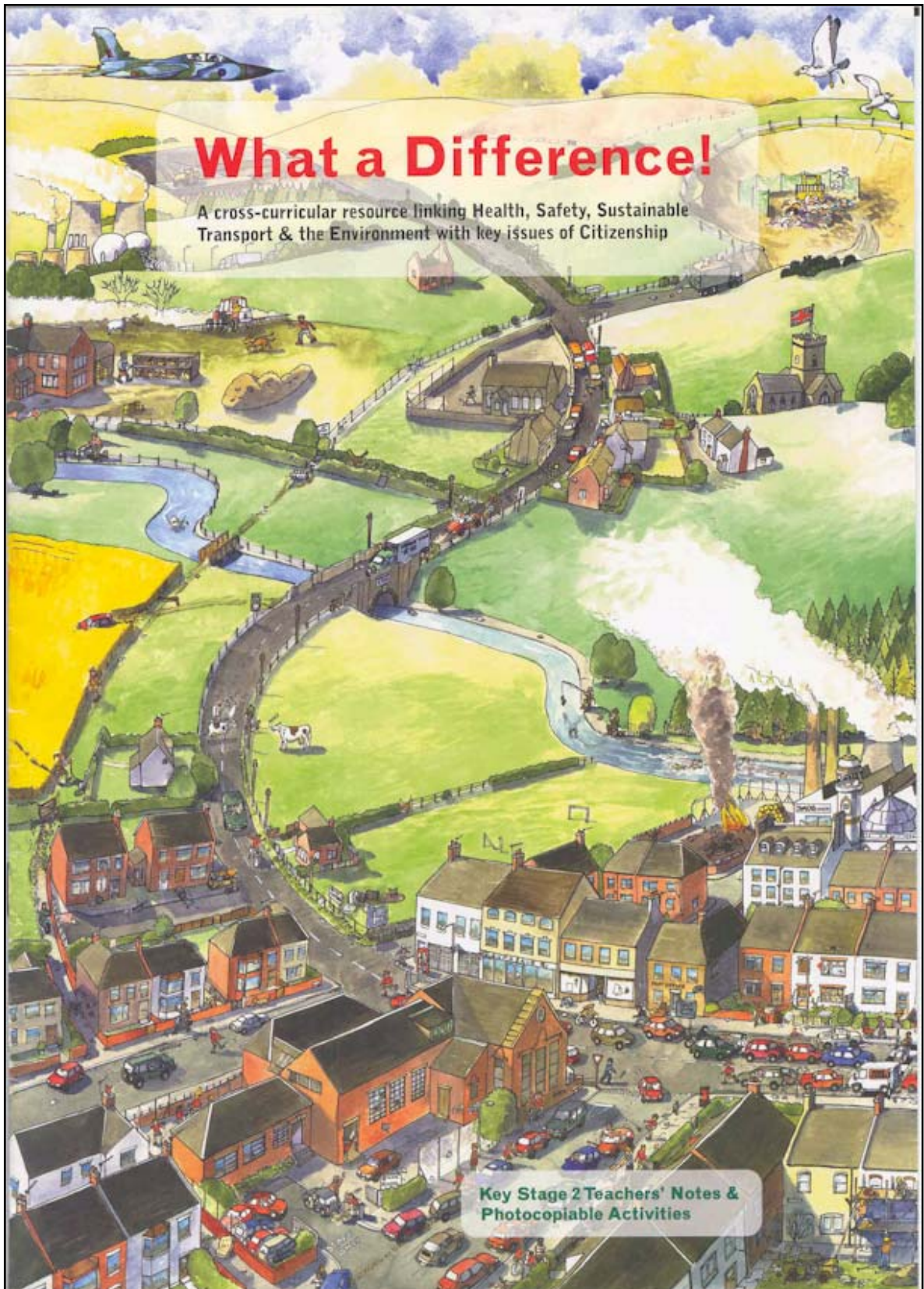
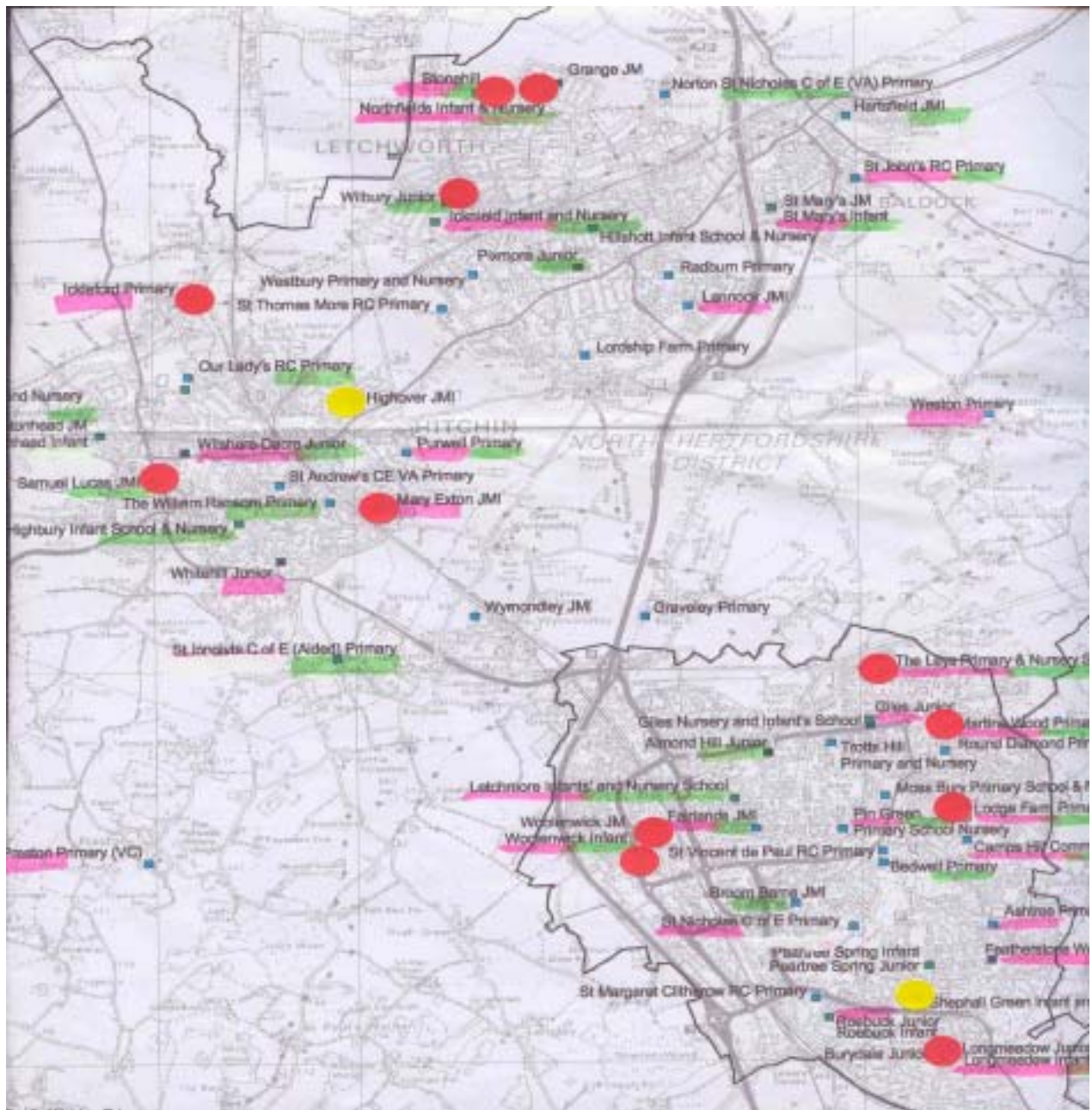


Figure 2.2 Location of schools involved in Monitoring Walk to School Week.



- Participating schools
- Control schools

IMPLEMENTATION OF CAMPAIGN

Responsibilities

Although the Walk to School week campaign is a national initiative it was promoted and administered within Hertfordshire by the Environment Department (Transport Planning & Policy Unit) of the County Council (HCC).

Process

HCC wrote to the head teachers all LEA controlled primary and nursery schools in the county (total of 443 schools) in March 2002 informing them of the 2002 Walk to School Weeks and offering them free materials to help promote the week. A registration form was also sent asking them if they would take part, their contact details and the total number of pupils in the school. Schools in North Hertfordshire and Stevenage were also asked whether they would be prepared to take part in evaluation of the initiative.

Details of the initiative were also posted on postbag, an electronic bulletin sent to all schools from HCC inviting registration by email.

Once head teachers had signed up they were sent a 'What a difference pack' to help with the planning of related classroom activities. Then in early April 2002 a pack of Walk to School Week publicity materials was sent out (leaflets, stickers, posters & travel survey sheets).

In early May a chase up letter was also sent to schools who had not yet registered to take part along with an application form and samples of the poster and leaflet.

Once the publicity material was distributed to HCC it was left up to schools to make use of it in the appropriate manner.

Subsequent questioning of the evaluation schools in North Herts and Stevenage indicated that as well as giving out the leaflets and stickers around half of the schools also publicised the walk to school initiative in other ways. These included discussions in assemblies and classrooms, photographs and articles in the school newsletter.

Input & output analysis & management issues /context / external factors / costs

A breakdown of the costs associated with running the walk to school week campaign in Hertfordshire is given in Table 3.1, it should be noted that these costs only relate to the running of the actual campaign and do not reflect the additional costs of running the evaluation exercise. The overall costs of running the campaign came to £14,800 and the campaign was delivered into 147 separate schools reaching almost 60,000 schoolchildren and their parents. A detailed breakdown of the main campaign outputs is given in table 3.2.

Table 3.1 - Costs of Running Walk to School Week in Hertfordshire

Medium		Design costs	Production costs	Distribution costs
Newspaper – national	✓	N/A	*£366.20	*£175.32
Newspaper – local	✓			
Magazine – national	✓			
Radio – national	✓			
Radio – local	✓			
Poster	✓	**£776.23	**£5293.50	£5598.86
Leaflet	✓			
Postcard				
info pack	✓			
Letter	✓			
ad other product	✓	N/A	£1287.85	£400.00
Website	✓	£350.64	£555.12	
Total		£1126.87	£7502.67	£6174.18

* These figures represent the Hertfordshire input to national press activity during walk to school week.

** These figures represent the Hertfordshire contribution to the costs for the design and production of the national walk to school campaign as design and production costs are minimised through collaborative working between all authorities taking part in walk to school week.

Table 3.2 - Outputs from Walk to School Week 2002

Medium	✓ tick those which apply	Pre-tested (✓ if yes)	Personalised (✓ if yes)	Where*	Total exposures (estimated)	Target group exposures (estimated)	Duration (e.g. hours or days)
newspaper – national	✓				*Unknown	*Unknown	N/A
newspaper – local	✓						
magazine – national	✓						
radio – national	✓						
radio – local	✓						
poster	✓			3	**147	N/A	N/A
leaflet	✓	✓	✓	1	60000	36000	N/A
postcard							
info pack	✓	✓	✓	1	60000	36000	N/A
letter	✓		✓	1	60000	36000	N/A
ad other product	✓			3	**147	N/A	N/A
website	✓				Unknown	Unknown	Unknown

'where' coding list 1) households (personalised) 2) households (general drop) 3) school / college

* Press coverage was only undertaken once the campaign had started and was not critical to its delivery or indeed its effects. For this reason only limited monitoring of press coverage was undertaken.

** In total 147 schools took part in walk to school week in Hertfordshire with an average school size of around 400 the materials placed in schools could have reached up to 60,000+ pupils. In all 65,000 leaflets were distributed to parents through schools, as these were not the prime audience any activity undertaken in the school was to support the children taking part in walk to school and so helping to reinforce the messages with parents.

External factors occurring during the week of the campaign were monitored through two mechanisms. Firstly all local newspapers were scrutinised to determine if there was any news articles that might affect parent / child behaviour in and around the week of walk to school. Secondly a questionnaire was sent to all head teachers of the schools involved in the evaluation exercise asking them for their feedback on anything that might have affected activities occurring during the week of the campaign. The results of this feedback have already been summarised in table 2.1.

All aspects of the campaign were managed from within the Environment Department of Hertfordshire County Council. This task was undertaken jointly by team leaders from the Forward Planning and Transport Policy and Planning Units

CAMPAIGN ASSESSMENT

Methodology

The campaign and its assessment was run entirely by Hertfordshire County Council (HCC) Environment Department staff in conjunction with the schools and their staff, pupils and parents. The survey methodology was designed to reduce the administrative burden on schools as far as possible whilst ensuring well-controlled survey management.

The head teacher of each school interested in taking part in the evaluation was visited by members of staff from HCC to explain the details and mechanics of the survey. As an incentive, schools agreeing to take part were offered an individual survey report (see appendix d for example of school survey report) which could be of future use in work such as preparing a school travel plan.

Once the head teacher had agreed to take part in the evaluation, they supplied class lists of all the children in the school. The before questionnaires and a covering letter to parents were put into named envelopes and bundles of the questionnaires for each class were hand delivered back to the schools by HCC staff at the beginning of May 2002, a couple of weeks prior to the Walk to School campaign.

The class teachers were responsible for the distribution of the questionnaires to individual children. The covering letter written on behalf of the school encouraged response by the parents within a week. Children brought the completed questionnaires back to their class teachers and then they were passed to the school office. £200 was made available as an incentive to each school. It was suggested that this money go to the class that returned the highest percentage of questionnaire returns. The final decision on the spending of this money was left to the individual schools.

HCC staff collected the completed questionnaires from the school at a pre-arranged time. There were a few late returns so we asked the school office to send them to us in the internal schools post. A very small amount (less than 10) were sent by parents direct to HCC and had to be redirected internally to the appropriate team.

The Walk to School campaign took place during the week 20th – 24th May 2002. The ‘after’ survey was distributed to schools in mid June. As with the before survey the questionnaire was in a named envelope and distributed by class. Again there was a covering letter (this time from HCC) asking parents to fill the survey in within a week. As with the before survey the questionnaires were collated by class and then collected by HCC staff.

The questionnaires contained a code which was matched with named pupils and allowed us to match the before and after questionnaires to track changes in an individuals behaviour and attitudes (whilst the individual remained anonymous).

The questionnaire responses were coded in the SPSS programme. The reference numbers used on each questionnaire enabled the before and after questionnaires to be matched and merged.

Target groups / sample size

In total 3186 questionnaires were sent out to the eleven schools taking part in the campaign with an additional 475 sent out to the two control schools. With the before survey there was an overall response rate of 60% which dropped to 38% for the after survey. In total almost a third (31%) of the before and after questionnaires sent out could be directly matched. The response rates are summarised in Table 4.1.

Table 4.1 Sample Sizes

	before survey questionnaires		after survey questionnaires		matched questionnaires	
	sent out	returned back (a)	sent out	returned back (b)	completely matched(c)	additional independent a+b-2c
Campaign schools (11)	3186	1846	3186	1168	939	1136
Control schools (2)	475	347	475	235	203	176
Total	3661	2193	3661	1403	1142	1312

Comparison of before & after results

Analysis of Seven Stages of Change - Introduction

The Tapestry Common Assessment Framework (CAF) identifies that there is a scale along which individuals move towards changing their travel behaviour. Seven stages are identified; each of which can be influenced by the campaign as well as other external factors. These are as follows:

1. Awareness of the problem
2. Accepting responsibility
3. Perception of options
4. Evaluation of options
5. Making a choice (to change behaviour)
6. (Change in) experimental behaviour
7. (Change in) habitual behaviour

This before and after analysis looks at the questionnaire responses in relation to each of these stages to identify how far along the scale the campaign appears to have had an influence.

Top level analysis has been undertaken by the University of Westminster as part of their European Cross-Site Assessment of the CAF questions used by all of the case studies.

Initial results have been provided by the University for this study comparing the before and after results of the target group in general (i.e. respondents in schools subjected to the Walk to School Week campaign) with those from the control schools. The samples analysed include both matched questionnaires (where the same respondent returned both a before and after

questionnaire) plus additional ‘independent’ questionnaires returned during each survey. This gives a total of 2064 respondents in the target group and a further 380 in the control group.

A second level of analysis has also been undertaken by HCC comparing only those respondents who filled in both a before and after questionnaire. There were a total of 939 directly matched respondents in the campaign schools and a further 203 respondents in the control schools. Changes in campaign schools have been compared with those in the control schools to assess the overall effectiveness of the campaign amongst directly matched respondents.

The analysis follows the protocol suggested in Part B of the guidelines for “Analysis of the data collected in your Tapestry Surveys” (University of Westminster) comparing before and after percentages of respondents in each category with additional tests to determine whether the changes are statistically significant (using the Wilcoxon Signed Ranks test).

These results have been compared with those from the University of Westminster analysis as a consistency check.

A third level of analysis has also been undertaken comparing the changes in before and after responses of those belonging to the pre-defined target group with other respondents in the campaign schools in order to check whether this group was more susceptible to change. The initial stages of the study had already defined the target group as females aged 25-44, who are employed (either full time / part time or self employed) and who are able to drive and have a car available following the results from the focus group and the previous surveys.

This level of analysis was also undertaken in the control schools for comparative purposes.

A further level of ‘data mining’ has also taken place, investigating in more detail the influence of age, sex, employment status, car use, the presence of additional (non primary school age) children and testing the impact of additional campaigning in the Walk to School Week schools. The purpose of this was to test whether the pre-defined characteristics of the target group appeared to be correct. Only statistically significant results are mentioned in this respect.

The responses (at each level of analysis) related to each stage of change are now analysed in detail. A full set of tables is contained in Appendix A Summary tables from the data mining exercise are contained in Appendix B, where tables are referred to in the text with either an A or B prefix these can be found in the appropriate appendix.

Stage 1 - Awareness of Problem

The aim of this analysis is to identify whether the campaign led to any increased awareness of general traffic problems and whether the target group or other types of respondent were more likely to have increased their awareness.

The University of Westminster analysis compared the before and after rating responses to Q12a “Something needs to be done to reduce the number of cars on the road around my child’s school” and found no statistically significant changes in respondents in either the target (campaign) schools or control schools.

This was also the case with the directly matched sample in the HCC analysis. This lack of significant change may however, be due to the high levels of agreement with this statement in the first place with 79% of respondents in campaign schools and 88% in the control schools strongly agreeing / agreeing with this statement with little change in these proportions between the before and after surveys (see Table A1).

Within the campaign schools, the proportion of respondents in the predefined target group agreeing with the statement actually reduced from 78% in the before survey to 75% in the after survey, whereas there was little change with other respondents. Neither of these changes were statistically significant. A similar pattern was observed in the control schools (Tables A2 & A3).

The data mining exercise revealed no meaningful statistically significant results.

The University of Westminster analysis was based on only one question 12a. It is however also possible to analyse the other questions to assess changes in awareness.

Question 12b asked respondents about their agreement with the statement “Air pollution from traffic emissions is contributing to ill health in my community”

In terms of the matched sample, overall agreement was lower (58% in campaign schools and 71% in the control schools in the before survey) with a higher proportion being unsure (neither agreeing nor disagreeing). Less than 5% however, disagreed with the statement. There was a slight increase in the proportion of those agreeing in the after survey in the campaign schools (up to 59%) and a slight reduction in the control schools (down to 69%) but these changes were not statistically significant (see Table A4).

Within the campaign schools there was a small increase (not statistically significant) in the percentage of target group respondents agreeing with the statement (from 57% to 59%) compared with no change in other respondents. In contrast in the control schools there was a reduction in agreement in both types of respondents but this change was not statistically significant and a higher proportion of respondents still agreed with the statement (see tables A5 & A6).

No statistically significant results were found in the data mining exercise.

Question 10, asked respondents to rate how serious a problem they thought traffic congestion was around their child’s school. As with Q12a, there was already a high level of awareness of the problem with 72% of respondents considering traffic congestion to be a fairly serious / extremely serious problem in the before survey in the campaign schools. This increased to 76% in the after survey indicating an increase in the awareness of the problem, however this difference was not found to be statistically significant, again this is likely to be because of the high existing levels of awareness.

In the control schools over $\frac{3}{4}$ of respondents indicated that traffic congestion was a serious problem in the before survey. This remained the same in the after survey although the percentage of respondents rating it as extremely serious dropped from 43% to 32%. These changes were not however, statistically significant (see Table A7).

Within the campaign schools, 74% of those in the defined target group rated traffic congestion as serious in the before survey with little change in the after survey. In contrast 70% of other respondents rated it as a serious problem in the before survey rising to 78% in the after survey, a change which is statistically significant at the 95% level (see Table A8).

Although this indicates that there may be some mis-definition of the target group the data mining exercise did not reveal any statistically significant changes among other sub groups of respondents.

In the control schools, those respondents who fell within the target group but who were not exposed to the campaign showed a statistically significant reduction in the rating of traffic congestion as a serious problem despite initial high levels of awareness (see Table A9).

Stage 2 – Accepting Responsibility

This involves the analysis of those statements in question 12 which relate to the recognition of personal responsibility of traffic related problems. Again the analysis has been undertaken to assess whether the campaign has led to an increased acceptance of responsibility and if so whether this is more prevalent among the target group of respondents or among others.

Question 12c asks respondents to agree with the statement “I am contributing to air pollution if my child is taken to school by car”. At the highest level of analysis the University of Westminster found no statistically significant differences between the before and after responses in either the target (campaign) schools or the control group (although this was borderline $P = .05$).

With the sample of directly matched respondents, in general over $\frac{3}{4}$ of respondents agreed with the statement with a small percentage (less than 10% disagreeing). The level of agreement does however seem to have reduced between the before and after surveys from 76% to 74% in those schools exposed to the campaign and from 81% to 79% in the control schools (with a particularly marked decrease in the proportion strongly agreeing and a corresponding increase in those disagreeing with the statement). The changes however, were not statistically significant (see Table A9). This may indicate some confusion over the air pollution message.

This decrease was also evident among the target group (but not other respondents) within the campaign schools with a higher proportion of respondents giving a neutral answer rather than disagreeing in the after survey (see Table A9). In the control schools however, the reduction in the target group proportion agreeing was mirrored by an increase in the proportion disagreeing (see Table A10). These changes were however not statistically significant.

No statistically significant changes in responses were found in the data mining exercise.

Question 12d asked respondents about their agreement with the statement “I feel I should cut down on my car use to help reduce the problem of air pollution”. In general just over half of respondents agreed with this statement and around 10% disagreed. In both the campaign and control schools the percentage of respondents agreeing decreased slightly between the before and after surveys with the difference being made up of an increase in the number of neutral

respondents rather than those disagreeing. The changes are not however, statistically significant (see Table A11).

Within the campaign schools there was a slight increase in the percentage of target group respondents agreeing with the statement or being neutral within the target group whereas there was a minor decrease in agreement amongst other respondent. These changes were however, not statistically significant (see Table A12).

In the control schools there were non-statistically significant decreases in the percentage of respondents across the board who agreed with the statement (see Table A13).

The data mining exercise found encouraging statistically significant results among the sub group of regular car users (those using cars for the school journey at least 2 days a week). The proportion of this group agreeing or strongly agreeing with statement 12d increased by 4%. This increased to over 5% among female regular car users (see Appendix B).

Question 12e asked respondents whether they agreed with the statement “I would cycle more with my child if there were cycle facilities at the school”. In general this statement was the least popular in this set of questions with less than a third of respondents in campaign schools agreeing with it and a much higher proportion disagreeing with it compared to the other statements.

In the campaign schools there was a slight reduction in the percentage of respondents agreeing with the statement (from 32% to 31%) and also a slight decrease in the percentage disagreeing with the statement (with a corresponding increase in the number of neutral responses). A similar pattern was also evident in the control schools. None of the changes are however, statistically significant (see Table A14).

This pattern is also mirrored in the target group of respondents and others within the campaign schools (see Table A14). In control schools however there was an increase in the proportion of respondents (both target group and others) giving a neutral answer to the question rather than disagreeing in the after survey (see Table A16).

No statistically significant results were found in relation to this question from the data mining exercise.

Stage 3 – Perception of Options

This analysis relates to whether the walk to school campaign has led to any changes in the perception of walking and car use as measured by the change in agreement in question 11 (measuring the perception of car and walking) between the before and after analysis.

The University of Westminster analysis compared the before and after responses to two elements of the perception of car and walking, their reliability and image (question 11 statements 3 & 9). The only statistically significant difference was in the agreement with the statement that the car is reliable among respondents in the target (campaign) schools where a higher number of respondents strongly agreed that the car is reliable.

The HCC analysis of the directly matched sample in the campaign schools also found a statistically significant difference between the before and after surveys for the statements relating to car reliability. This appears to be largely the result of a small increase in the proportion strongly disagreeing with the statement. In the control schools in contrast, there was an increase in the number of neutral responses compared with those agreeing or disagreeing.

Question 11 contains 11 statements relating to positive perceptions of car use and walking covering issues such as image, reliability, convenience, safety and the environment. A full set of tables showing before and after responses in relation to each statement are contained in Appendix A.

Table 4.2 summarises the percentage of respondents in different groups agreeing or strongly agreeing with the statements in relation to walking. The first thing to note is the high levels of agreement with over $\frac{3}{4}$ of respondents agreeing that walking helps the environment, doesn't cost very much, is reliable and is an enjoyable way to travel and most of the other statements had the majority of respondents agreeing. The main exception to this was the statement 'Walking offers good personal security' (with only around 30% respondents agreeing with this).

There was little difference in the percentages of respondents agreeing between the campaign schools and control schools in the before survey. The exceptions to this were the statement 'Walking allows me to get my child to school when I want' which had 74% agreement in control schools compared with 66% in the campaign schools and 'walking gets my child to school quickly' which had 63% of respondents agreeing in the control schools compared with 49% in the campaign schools. These differences could be due to the locational characteristics of the different types of schools (e.g. the control schools may have a more localised catchment area).

With the Walk to School Week campaign it would be hoped that the perception of walking would further improve and that there would be a further increase in agreement with the statements among those respondents directly exposed to the campaign.

Table 4.2 shows the before and after %'s. A comparison of the 2nd and 3rd columns shows that an increase in agreement was evident in the campaign schools in relation to all but one of the statements. In the majority of cases this was not evident in the control schools (where there tended to be a decrease in agreement or a smaller increase).

The scale of the change was however, relatively low with only one statistically significant difference with 'Walking is comfortable' where there was a 7% increase in the percentage agreeing (with most of the shift in the proportion 'strongly agreeing'). The lack of statistical significance is likely to be the result of existing high levels of agreement in the before survey.

In the majority of cases these increases were not evident in the control schools although three of the statements 'walking is an enjoyable way to travel', 'walking is convenient door to door' and 'walking offers good personal security' showed a larger increase in agreement in the control schools compared to the campaign schools.

Within the campaign schools the only statement where the pre defined target group showed a greater increase in agreement compared with other respondents was ‘walking is comfortable’ (a 11% increase between the before and after surveys which was statistically significant). In contrast three of the statements ‘walking helps the environment’, ‘walking is convenient door to door’ and ‘walking offers good personal security’ had a decrease in agreement compared with both other respondents in the campaign schools and also respondents (both target and non target group) in the control schools. This suggests either that the campaigning had a mixed result in altering the perceptions of the pre defined target group or that this group has been mis-defined.

Table 4.2 Stage 3 – Perception of Walking

STATEMENT	% strongly agreeing / agreeing with statement							
	Campaign schools (all)		Control schools (all)		Target group in campaign schools		Target group in control schools	
	Before	After	Before	After	Before	After	Before	After
Walking helps the environment	91%	92%	89%	93%	92%	92%	90%	92%
Walking doesn't cost very much	89%	90%	90%	89%	91%	92%	90%	90%
Walking is reliable	82%	84%	83%	84%	83%	83%	88%	88%
Walking is an enjoyable way to travel	74%	77%	74%	78%	75%	76%	73%	77%
Walking is convenient door to door	71%	72%	72%	77%	69%	68%	74%	78%
Walking allows me to get my child to school when I want	66%	68%	74%	73%	65%	66%	73%	75%
Walking has a good image	55%	55%	52%	50%	54%	53%	52%	56%
Walking is comfortable	51%	58%	48%	55%	47%	58%	51%	57%
Walking gets my child to school quickly	49%	51%	63%	59%	45%	45%	67%	63%
Walking is safe in traffic	45%	47%	48%	48%	43%	45%	49%	45%
Walking offers good personal security	29%	31%	31%	36%	28%	25%	27%	38%

Numbers in bold represent statistically significant difference

The changes in the response of different subgroups of respondents were analysed to check whether this was the case. Summary results of this process are contained in Appendix B. Again “Walking is comfortable” was the statement that elicited the greatest increase in agreement in the after survey with statistically significant differences found amongst full time employees (particularly female ones), part time and self employed respondents and the 25-34 age group (again particularly females). Interestingly respondents in the Walk to School Week schools with no additional campaigning showed an increase tending to shift from a neutral response to agreeing with the statement whereas those in the schools which had additional campaigning showed more of an increase in strong opinions (i.e. either strongly agreeing / disagreeing) but a decrease in other responses.

Statement 11-5 (walking allows me to get my child to school when I want) showed statistically significant changes on the basis of a respondents employment status with female full time employees being more likely to express an opinion in the after survey with increases in strong agreement with the statement along with a slight increase in those disagreeing with it and a decrease in neutral responses. Conversely there was a decrease in agreement with the statement amongst part time / self-employed respondents with a corresponding increase in neutral responses and those strongly disagreeing. This was slightly more marked among females within this group.

The only other walking statement where statistically significant changes were found was 'Walking is safe in traffic'. With this there was a 9% increase in the number of respondents agreeing with the statement and a corresponding decrease in those disagreeing with it among full time employees with the pattern being even more marked among the females of this group.

It should be noted that no statistically significant changes in agreement were found with data mining for the three statements that showed increases in disagreement among the target group.

The statements also related to the perception of car use. Table 4.3 shows that in general agreement with the statements is lower for car than with walking. The highest rated statement was 'car is comfortable' with two thirds of respondents strongly agreeing or agreeing in the before survey (dropping to 60% in the control schools). The other statements eliciting over 50% agreement related to its convenience, travel time and its security aspects. In contrast very few respondents agreed that the car had a good image or helped the environment.

It is interesting to note that the car statements had a lower level of agreement in the control schools than the campaign schools in the before survey particularly in relation to convenience, reliability and cost.

Although the 'Walk to School Week' campaign was not 'anti car' it would be hoped that there would be a decrease in the percentage of respondents agreeing with the positive statements in relation to car use within those schools exposed to the campaign (i.e. a worsening of perception).

Table 4.3 shows the before and after %'s in relation to the perception of the car. A comparison of the 2nd and 3rd columns shows that there was a decrease in agreement between the before and after surveys in the campaign schools in relation to all but one of the statements. In the majority of cases this was not evident in the control schools.

Again the changes are generally minor. Two of the changes in the campaign schools 'car is reliable' and 'car doesn't cost very much' are statistically significant.

With three of the statements 'Car allows me to get my child to school when I want', 'Car is an enjoyable way to travel' and 'Car has a good image' there was a minor increase in the percentage of respondents agreeing with the statement. These however, were lower than the equivalent increases in the control schools.

Within the campaign schools there were only two statements where the pre defined target group showed a greater decrease in agreement than others in the school ('Car gets my child to school quickly' and 'Car helps the environment') although there was also a statistically significant decrease in agreement in relation to 'Car doesn't cost very much'. In contrast the target group within the control schools showed an increase in the percentage agreeing with all but two of the statements.

In contrast, the data mining exercise found no statistically significant changes amongst the sub groups of respondents in relation to either 'Car gets my child to school quickly' or 'Car helps the environment'.

However, changes that were positive in relation to campaigning were found with a number of subgroups of respondents with the statement relating to the cost of the car. The general pattern was of a decrease in the proportion of respondents agreeing with the statement and an increase in the proportion disagreeing with it. This indicates following the campaign respondents seemed to be taking into account more of the true costs of the car. This change was most pronounced amongst full time employees and regular car users.

Statistically significant changes were also found amongst the 35-44 age group, part time / self-employed respondents, those with additional (non primary school age) children and those linked to schools which had additional campaigning. Interestingly those in schools where no additional campaigning was done showed a more mixed response. Although there was a decrease in those agreeing with the statement there was also a decrease in those disagreeing with it and a larger increase in neutral responses.

Although there were statistically significant changes with the statement 'car is reliable' among those schools with no additional campaigning the pattern was difficult to interpret with a decrease in the proportion strongly agreeing, disagreeing and giving no response

Table 4.3 - Stage 3 – Perception of Car use

STATEMENT	% strongly agreeing / agreeing with statement							
	Campaign schools (all)		Control schools (all)		Target group in campaign schools		Target group in control schools	
	Before	After	Before	After	Before	After	Before	After
Car is comfortable	66%	65%	60%	64%	71%	72%	61%	66%
Car offers good personal security	60%	59%	51%	53%	64%	64%	55%	58%
Car gets my child to school quickly	56%	55%	50%	55%	63%	61%	48%	62%
Car allows me to get my child to school when I want	55%	57%	46%	54%	63%	64%	44%	61%
Car is convenient door to door	55%	54%	39%	48%	61%	61%	40%	48%
Car is reliable	49%	49%	36%	35%	55%	56%	40%	41%
Car is safe in traffic	36%	35%	32%	31%	40%	40%	35%	31%
Car is an enjoyable way to travel	33%	34%	27%	33%	36%	37%	29%	33%
Car doesn't cost very much	21%	16%	3%	14%	22%	18%	10%	14%
Car has a good image	7%	8%	6%	8%	6%	7%	5%	9%
Car helps the environment	4%	3%	4%	3%	5%	2%	3%	1%

Numbers in bold represent statistically significant differences

The only other statistically significant changes related to convenience and comfort of the car but unfortunately neither of them are positive in terms of campaign outcome.

Stage 4 – Evaluation of Options

This involves the analysis of influences on walking investigated in question 5 along with the importance of different factors in mode choice (question 13). This is in order to identify whether the evaluation of different modes (particularly walking) appears to have changed as a result of the campaign and if this was the case was the target group more susceptible to this than other respondents.

Question 5 asked respondents to tick all the factors that influenced how often their child walks to school. These can be divided into factors which encourage walking (either positive such as healthiness / cheapness of walking) or negative (such as lack of alternative modes) and factors which discourage walking (such as lack of time, need to combine trips, distance etc).

‘Decided walking was healthier’ was the most popular factor encouraging walking cited by over 40% of respondents overall, followed by ‘decided walking is cheaper’. The lack of alternative modes in contrast was a relatively unimportant factor.

‘Needing to combine school with another journey’ was the most frequent factor cited that was likely to discourage walking followed by time constraints and distance problems.

The main difference between the before and after surveys in the schools exposed to the Walk to School Week campaign was an increase in the percentage of respondents citing the ‘encouraging influences’ particularly those related to cost and pollution; changes which were either of a lower magnitude or not evident in the control schools.

In terms of the factors discouraging walking, there was an increase in the percentage of respondents saying they needed to combine the school trip with another journey and those citing time constraints in campaign schools which was not mirrored in the control schools. The other discouraging factors however, showed either little change or minor decreases between the before and after surveys.

In general there was little difference in the pattern of changes between the target group and other respondents in either the campaign schools or control schools with an increase in the percentage citing influences encouraging walking such as ‘walking is cheaper / car too expensive / polluting / stressful’.

Statistically significant increases in the number of respondents citing that ‘driving is too stressful’ were found amongst the 35-44 age group and within schools with additional campaigning.

Data mining also revealed that many different subsets of respondents had significant increases in numbers citing that ‘decided walking is cheaper’, ‘Decided the car was too expensive’ and ‘Decided car is too polluting’. The Stage 4 summary table in Appendix B lists the groups concerned.

‘Decided the car was too expensive’ had a statistically significant increase amongst both age groups investigated, the part time / self employed, those with additional children and those in schools where there was additional campaigning. A similar pattern was found for ‘decided car is too polluting’ with in addition to the groups mentioned above, regular car users, and schools without additional campaigning also showed statistically significant differences.

Interestingly, the health benefits of walking (a message directly promoted in the Walk to School Week campaign) only showed a significant increase among female full time employees.

In terms of the factors discouraging walking, almost half of the target group said they needed to combine the school trip with another journey compared with a quarter of other respondents, probably reflecting the ‘employed’ status of the target group. Both groups however, showed an increase in the percentage citing this reason in the after survey along with an increase in ‘not enough time for walking’. The other factors, however, generally showed decreases in the after survey.

The data mining exercise revealed statistically significant decreases in the numbers citing that ‘walking is not safe’ among full time employees and those linked to schools which had no additional campaigning (see Appendix B).

The consideration of other factors which potentially limit the ability to walk such as needing to combine journeys and not having enough time for walking however, showed increases in the number of respondents citing them, particularly amongst already regular car users.

Question 13 asked respondents to rate how important various factors were when deciding how their child should travel to / from school. The mode of transport used was left unspecified. Appendix A contains tables showing the before and after percentage of respondents rating each factor.

The top-level University of Westminster analysis has so far evaluated the answers to two of these factors (reliability and image). This analysis found no statistically significant difference between the before and after ratings of importance in the campaign (target) schools. In the control schools however, there was however a statistically significant difference for the factor relating to reliability with a higher number of respondents in the after survey considering reliability to be very important. These findings have been confirmed by the HCC analysis of matched respondents.

Table 4.4 -Stage 4 – Evaluation of Options (question 13)

IMPORTANCE OF CHOOSING A MODE THAT: (IN RANK ORDER)	% rating important / very important							
	Campaign schools (all)		Control schools (all)		Target group in campaign schools		Target group in control schools	
	Before	After	Before	After	Before	After	Before	After
is reliable	90%	91%	88%	91%	91%	92%	89%	94%
is safe in traffic	90%	89%	89%	90%	90%	90%	96%	94%
Offers good personal security	84%	83%	84%	82%	85%	84%	87%	86%
Allows me to get my child to school when I want	77%	81%	83%	84%	76%	80%	85%	88%
helps the environment	76%	77%	80%	80%	75%	75%	80%	81%
is convenient door to door	74%	76%	77%	81%	72%	74%	82%	86%
gets my child to school quickly	66%	70%	78%	75%	62%	68%	82%	78%
is an enjoyable way to travel	59%	60%	62%	64%	57%	55%	62%	73%
is comfortable	57%	59%	63%	65%	56%	58%	65%	70%
does not cost very much	54%	56%	59%	61%	49%	50%	58%	63%
has a good image	23%	23%	27%	27%	18%	17%	26%	27%

Numbers in bold represent statistically significant changes

In terms of the other factors, Table 4.4 summarises the percentage of respondents rating the factor as important or very important. This shows that the most important issues when choosing a mode are considered to be reliability and safety in traffic (rated as important by 90% of respondents). Factors related to convenience and travel time were also rated highly as was a mode that 'helps the environment' (rated as important by over $\frac{3}{4}$ of respondents). In contrast, the least important factor was image that was rated as important by less than a quarter of respondents.

The main difference between campaign schools and control schools was that in the latter, a mode that 'gets my child to school quickly' was rated as important by a much higher percentage of respondents (78% compared with 66%).

An analysis of the difference in before and after survey ratings of importance has been undertaken to assess whether the Walk to School Week campaign appears to have had any impact on the evaluation of the chosen mode. In the campaign schools, there were statistically significant increases in the percentage of respondents rating the following factors as being important; choosing a mode that 'allows me to get my child to school when I want', 'gets my child to school quickly' and 'is comfortable' which were not found in the control schools. There were also statistically significant decreases in the percentage of respondents rating safety and personal security as important. The one factor directly relating to the campaign 'choosing a mode that helps the environment' showed a minor increase in its importance rating but this was not statistically significant.

Within the campaign schools the only noticeable difference between the target group and other respondents was a decrease in the percentage of respondents rating 'choosing a mode of transport that is an enjoyable way to travel' compared with an increase in the percentage of other respondents. Neither of these changes is however statistically significant.

The data mining exercise has shown that the three statements showing statistically significant changes in the campaign schools also had statistically significant increases in those rating the factor as being very important or fairly important amongst a number of the subgroups investigated (see Appendix B).

Additional findings were that those respondents linked to schools where there had been additional campaigning had a statistically significant increase in the number rating 'choosing a mode which is convenient door to door' as very important. There was also a statistically significant decrease in the proportion of 35-44 year old females rating 'choosing a mode that is safe in traffic' as very important rather than important.

Finally, 'choosing a mode which offers good security' had statistically significant decreases in the number of respondents rating it as very important amongst female's aged 35-44, full time employees, those with additional children and those in schools with additional campaigning.

Stage 5 – Making a choice

This stage relates to the intention to use the target mode (i.e. walk) and is measured by question 7 which asks respondents to rate their level of agreement with the statement “I intend for my child to walk to school for his/ her next journey to school”. The frequency tables relating to this question are contained in Appendix A.

The University of Westminster analysis found that there was a statistically significant difference between the before and after ratings within the campaign (target schools) with the mean ranks indicating that respondents were more likely to agree with this statement in the after survey. A similar pattern was also found with the sample in the control schools. These results were replicated by the HCC analysis.

Overall in the before survey around 64% of respondents either agreed or strongly agreed that they intend for their child to walk to school for the next journey. There was little difference in response between the campaign and control schools although a higher proportion in the former (9%) strongly disagreed with the statement.

In the after survey the level of agreement rose to 66% in the campaign schools and 70% in the control schools with the majority of the increase being in the ‘strongly agree’ category. The presence of a significant difference in both types of school, however, indicates that this increase is not solely due to the impact of the campaign.

Within the campaign schools the predefined target group, showed an increase in the percentage of respondents strongly agreeing with the statement from 43% to 47%. The equivalent increase for other respondents was from 70% to 73% a change that was highly significant.

To complicate matters statistically significant increases in agreement were also evident within the target group within the control schools.

The data mining exercise found statistically significant increases in the proportion of respondents strongly agreeing with the statement amongst the following subgroups; females aged 25-34, full time employees and those linked with schools which had no additional campaigning. In all cases this was counterbalanced by a small decrease in the numbers ‘agreeing’ with the statement. There were however reductions in the proportion strongly disagreeing with the statement (see Appendix B).

Question 8 of the questionnaire asked respondents their agreement with the statement “Do you think that most parents would have their child walk to/ from school more often if other parents did the same?”

Overall around 35% of respondents in campaign schools and 40% of respondents in control schools said they would either definitely or probably walk more in the before survey, compared with less than a quarter who said they would not. It should however be noted that this question also elicited a high number of ‘not sure’ responses.

In the campaign schools there was a statistically significant increase in the percentage saying they would walk more in the after survey (up to 42%). The percentage in control schools also

increased (up to 44%) but this was not statistically significant and there were also minor increases in the percentage of ‘not sures’.

Within the pre defined target group within the campaign schools there was a statistically significant increase in those saying they would walk more (from 36% to 41%). It should be noted that the bulk of this increase was in the ‘probably walk more’ category with less than 8% saying they would definitely walk more. Although there were also increases with other respondents and within the groups in the control schools these were not statistically significant.

The data mining exercise revealed statistically significant increases in the proportion of respondents saying that they would probably walk more amongst a number of different subgroups (35-44 year olds, part time/ self employed, regular car users, those with additional children and those linked with schools which had additional campaigning). This increase was counterbalanced by decreases in the proportion of were either not sure or said that they would probably not, whereas generally there was little change in the proportion of definite responses.

Stage 6 – Changing experimental behaviour

Stage 6 relates to whether intentions translate into actual measured changes in behaviour. As there was less than a month between the Walk to School Week campaign taking place and the after survey it was too early to use the questionnaire to investigate changes in habitual behaviour. Instead before and after analysis of question 3 which investigates frequency by mode has been undertaken to assess whether there have been any immediate post campaign changes in behaviour.

Table 4.5 summarises the level of regular use of the three main modes. Full frequency tables are contained in Appendix A. What is immediately apparent is the currently high levels of walking to school with over half of respondents in both the campaign and control schools saying they walked to school 5 days a week in the before survey and over three quarters saying they walked on a regular basis (i.e. at least once a week). Around a quarter of respondents said they used the car 5 days a week rising to half using it at least once a week. Cycle use was however low, (around 5% of regular users) and use of passenger transport was negligible.

In terms of the change in mode use between the before and after surveys, in the campaign schools although the overall level of regular walking remained unchanged there was a slight shift from once a week frequency to higher frequencies something that was also replicated in the control schools. None of these changes were however statistically significant.

Table 4.5 –Frequency of Mode Use

Mode of travel	% using mode at least once a week					
	Campaign schools		Control schools		Target group within campaign schools	
	Before	After	Before	After	Before	After
Walk	75%	76%	78%	77%	65%	70%
Car	51%	52%	46%	46%	62%	61%
Cycle	4%	5%	5%	7%	3%	4%

Numbers in bold represent statistically significant changes

In terms of car use there was a statistically significant change in frequency within the campaign schools with a decrease in 5 day a week car use and a corresponding increase in less regular frequency. Although this was replicated in the control schools, this was not statistically significant.

Within the campaign schools, initially there appeared to be more scope for changing behaviour within the pre-defined target group as they had the lowest levels of regular walking and the highest levels of car use. There was however little evidence of change in either the frequency of walking or car use in this group, whereas the regular car use of other respondents actually increased (from 32% to 44%) a change which was statistically significant.

Data mining however, has revealed that car use rather than availability may be an important determinant of changes in experimental behaviour. Statistically significant reductions in the frequency of car use after the campaign occurred within the subgroup of regular car users (those using their cars at least 2 days a week for the school run in the before survey). This was even more marked among Female regular car users with a 10% reduction in regular car use in the after survey (most of which was taken up by a shift to once a week frequency). Regular car users also showed minor (although statistically significant) increases in the frequency of cycling. No statistically significant changes in walking were however observed among this group.

Stage 7 – Changing habitual behaviour

Because of the short timescale between before and after studies it is difficult to identify changes in habitual behaviour from this case study. One possible proxy is the analysis of question 4 which asks respondents ‘how often their child walks to school compared with this time last year’.

In the before survey around 15% of respondents in the campaign schools said they walked more often compared with around 10% in the control schools. This may be the result of previous exposure to the walk to school campaign that ran in 2001 / 2000 in all of the campaign schools whereas the control schools had no previous exposure.

In the campaign schools there was a minor increase in the percentage saying they walked more / about the same in the after survey but this was mainly made up from a reduction in the number of non-responses. This was however; also mirrored in the control schools and none of the changes were statistically significant.

Among the pre-defined target group within campaign schools, there was an increase from 13% to 16% in the number of respondents saying that they walked more often compared with a minor decrease among other respondents. This pattern was however, also evident within the target group in control schools indicating that it was not just the result of the campaign.

There were no statistically significant changes amongst the sub groups tested in the data mining exercise.

Campaign message analysis

Both the before and after questionnaires asked respondents whether they recalled hearing about a campaign about travel to school and if so what the messages were. A comparison of the before and after responses to these questions has been undertaken firstly between campaign schools and control schools to assess general awareness of the Walk to School Week campaign and then between the target group and other respondents in each type of school to assess whether the messages were any better understood among the specific target group.

All eleven-campaign schools had previously had a walk to school campaign in either 2001 or 2000. In contrast the two control schools had had no campaign within at least the previous 3 years. This is reflected in the response to question 9a reflecting campaign recall with over 60% of respondents in the campaign schools saying they recalled hearing about a travel to school campaign in the before survey (compared with 37% of respondents in control schools).

Within the campaign schools themselves a higher proportion of target group respondents (67%) recalled a campaign compared with other respondents in general. In the control schools there was little difference between the target group and other respondents in terms of recall.

Following Walk to School Week it would be expected that more respondents in the campaign schools would recall the campaign in the after survey. This is borne out by the questionnaire results with 62% of respondents in campaign schools recalling the campaign within the last two months (up from 35% in the before survey) with a corresponding decrease in the proportion who either did not recall a campaign, weren't sure or recalled it over a longer timescale. These changes were highly statistically significant.

Unexpectedly there were also statistically significant increases in recall within the control schools. Recall remained however, at a much lower level (less than a quarter of respondents remembered a campaign in the previous 2 months).

Within the campaign schools levels of recall in the after survey were higher among the target group of respondents (64% compared with 60%).

The second part of question 9 asked respondents to identify the main messages from the campaign. The walk to school leaflet that was distributed in the campaign schools is pictured earlier in this report. Much of its emphasis was in terms of the health benefits of children walking to school. Information in the questionnaire also alluded to the congestion, air pollution, safety and money saving benefits of walking to school rather than driving.

The campaign message appears to have been relatively well understood. Even in the before questionnaire almost 60% of respondents in the campaign schools remembered that the campaign included the message that "Getting children to walk more often was healthy for them", the congestion message was the second most popular one (cited by 35% of respondents), followed by the message that "Taking children to school by car was causing too much pollution" (21% of respondents). In contrast health benefits for parents, air quality benefits and cost savings were cited by few respondents.

Respondents in control schools exhibited the same order of understanding the campaign message, albeit at lower levels of recall (32% of respondents recalled that “getting children to walk more often was healthy for them”).

Respondents within the target group had generally higher levels of campaign message recall than other respondents in the campaign schools.

Following the Walk to School Week campaign there were highly significant increases in campaign message recall within campaign schools. The proportion citing the health message rose to 65%, those recognising that taking children to school by car was causing too much congestion rose from 35% to 46% and large increases were also recorded for the pollution, air quality and parent health aspects of the campaign message. Although there was a significant increase in the proportion of respondents citing “taking children to school by car was expensive for parents” only 4% of respondents recognised this as a message.

Within the campaign schools the after campaign message recall was higher amongst those respondents in the target group compared with others in the school.

In control schools there were also significant increases in campaign message recall. However less than 40% of respondents remembered the health message and in most cases recall was less than a third in the after survey.

The after questionnaire also asked a series of questions at the end specifically related to the “walk to school campaign”. Respondents were asked firstly if they remembered seeing the leaflets, then what their opinions of the material were and finally what changes they would like to see to the leaflet for future years.

In terms of recall of the leaflet over 70% of respondents in campaign schools recalled seeing it within the last two months (compared with 18% in control schools). Less than 2% said that they had definitely not seen the leaflet with a further 13% being unsure. These high levels of recall at least indicate that children were passing on the leaflets to their parents / guardians.

In terms of opinions of the material, over half the respondents in the campaign schools agreed with what was said in the leaflet and around 40% found it interesting. Over a quarter of the target group (27%) said that it made them think about their use of the car compared with 20% of other respondents and around a fifth said that it was well designed.

Only around 7% of the target group said that the leaflet was directly relevant, a lower proportion than other respondents, possibly reflecting the fact that they were regular car users. Only 10% however considered that the leaflet was completely irrelevant indicating that at least some of the messages were found to be useful.

In terms of the suggested changes to the leaflet, the most popular choices (each cited by over 60% of respondents) were more information about road safety and congestion outside the school gates.

Respondents were also asked to write in other ideas for changes to the leaflet and the need for more emphasis on road safety and personal safety issues was raised by a number of respondents. Other useful suggestions included more of an emphasis on the potential cost

savings of reducing car use and the need for more practical examples of alternative ways of getting children to school safely.

CONCLUSIONS

General success of methodology

Pre definition of the target group enabled the design of the evaluation exercise and campaign to achieve substantial market penetration with almost 1,000 respondents filling in before and after questionnaires from schools subjected to the Walk to School Week campaign. It would have been very difficult to achieve this level of market penetration with a broader based travel campaign.

The use of an existing school based campaign offered a number of advantages, including resource savings, the use of a proven methodology, a move away from a self selecting audience and opportunities for a tightly controlled before & after evaluation using the same respondents.

Good management of a campaign and its evaluation are essential. HCC staff were responsible for the administration and control of the surveys. This ensured tight control and reduced the administrative burden on schools as much as possible.

Additional time spent meeting head teachers to explain the campaign evaluation process and offering incentives (e.g. an individual school travel report which would be useful in relation to future school travel plans, links of campaign materials with the national curriculum and cash prize for the most questionnaire returns) appears to have been worthwhile given the high response rates (60% for the before survey) achieved.

Success of determining target group and measuring their response

The ability to analyse previous HCC environmental based surveys enabled the pre-definition of a target group, which was then, tested using focus group research. This allowed the campaign and its analysis to specifically test whether this target group had changed their opinions and behaviour more than others had.

The target group can be defined in two ways. At the top level of analysis it is those parents / guardians of pupils in the primary schools subject to the Walk to School Week campaign and its evaluation. The majority of these (88%) fell within the target group age group and 82% were also female.

A further level of definition of the target group also took place, selecting respondents who were in employment and who had access to a car and had a driving licence. This group was also tested to assess whether it was worth specifying the target group in more detail.

As a check, data mining was also undertaken to test whether splitting the age groups, splitting employment type, using car use rather than car availability, whether respondents had additional non primary school age children and whether they were linked to schools which had additional publicity about the campaign had any influence on the results. This has helped identify whether the characteristics of the target group need to be re-specified.

Did the target group react more positively to the campaign than others?

From the before and after analysis of the seven stages of change there appears to have been little significant change in the first couple of levels relating to awareness of the problem and accepting responsibility. There are however high pre existing levels of awareness, particularly in relation to traffic levels / congestion issues.

More detailed analysis has however, shown that there is some recognition of personal responsibility among those with the most car use with regular car users (especially female ones) being more likely to agree that they should cut down on their car use in the after survey.

Some shift with campaigning is evident with Stage 3 (perception of options) with those in campaign schools being more likely to have improved their perception of walking and worsened their perception of car use (although some of these changes are marginal).

Rather than the pre defined specific target group showing the greatest shift, employment status seems to make the most difference with full time employees (particularly female ones) being the group most likely to have improved their perception of walking after the campaign. This group was also more likely to recognise the costs of using the car more in the after survey.

Some shift is also evident with Stage 4 (evaluation of options) with those in campaign schools being more likely to consider the positive influences of walking following the campaign. There were also some changes in the rating of factors influencing the preferred mode choice, although none of the factors directly corresponded to the walk to school message.

The pre-defined target group had few significant differences compared with the rest of the respondents. Data mining revealed that the health benefits of walking (which were directly promoted in the Walk to School Week leaflet) were only really picked up by female full time employees. This group was also less likely than others to consider safety a problem with walking in the after survey were.

There was an across the board increase in the intention to walk for the next school journey (stage 5) with increases in both campaign and control schools and within the target group / other respondents indicating that other external factors may be influencing the choice making at this stage.

The target group within the campaign schools were however more likely than others to say that they think most parents would have their child walk to / from school more often if other parents did the same (stage 5 – de personalised).

Existing level of walking are high, however, there is some evidence of short term (experimental) behaviour changes with an increase in the frequency of walking and a decrease in the frequency of car use rather than a wholesale mode shift (which was statistically significant in the campaign schools).

Despite lower pre-existing levels of walking among the pre-defined target group (and therefore greater scope for change) there was little evidence in shift in mode use amongst this group.

Data mining however, showed that regular car users had statistically significant reductions in the frequency of post campaign car use and small (but significant) increases in cycling frequency (but not walking).

Overall the analysis showed a positive outcome in terms of stages 3-6 (perceiving & evaluating options, making a choice and translating this into behavioural change) in terms of comparing the target group at the top level of analysis (i.e. campaign versus non campaign schools). As the majority of the respondents fall within the pre specified age and gender criteria this shows that the campaign has been effective at reaching the target group at the broadest level.

Specifying the target group in more detail (e.g. in terms of employment status and car availability) did not lead to any improvement in campaign effectiveness. There is some evidence, however, that considering car use (rather than car availability) and separating full time employees from part timers / self-employed yields more meaningful results.

What were the main campaign triggers / most successful materials?

In terms of the campaign message analysis, as expected campaign recall increased markedly in the campaign schools after the Walk to School Week with the target group of respondents having higher levels of recall than others.

The campaign message appears to have been relatively well understood with the majority of respondents remembering the health angle as the most important message. Statistically significant increases in message recall were found in the campaign schools in the after surveys again with higher levels amongst the target group of respondents.

Over 85% of respondents in campaign schools recalled seeing the walk to school leaflet with most recalling it within the correct time frame (in the last 2 months). This indicates that the school is an efficient medium for passing on material to parents.

Within the campaign schools almost half of respondents said that they agreed with what was being said in the leaflets and found the material interesting. Respondents in the target group tended to be slightly more complimentary than others but found the leaflet less directly relevant (possibly reflecting the fact that they were already regular car users whereas the leaflet emphasises walking).

Suggested changes to the leaflet in future years included the need for more information on road safety and congestion outside the school gates.

In addition there may be a need for a change in emphasis (e.g. towards driver behaviour / dis-benefits of car use) if the leaflet is to be specifically targeted towards parents / guardians who drive their children to school.

There may also be the potential to sell a broader environmental message to the target group as many issues were raised. Existing campaigns may be too narrow in their remit.

Is targeted campaigning a worthwhile approach?

Targeted campaigning is likely to be initially more time consuming & expensive to set up than a broad based campaign. In this case study it has however been shown to be effective in terms of encouraging marginal shifts in evaluation and behaviour.

The impact of a targeted campaign is easier to evaluate than a broad based one, particularly where it is possible to track before and after changes in specific individuals.

The broad target group appeared to be females within the 25 – 44 age group within those schools subjected to the walk to school campaign. Being more specific than this yielded little additional information.

Suggestions / methodology / framework for future campaigning

The Tapestry work has helped identify a survey blueprint, which could be applied to other campaigns. Key recommendations include the following:

1. Check pre existing survey information to assess whether any broad target group can be pre defined and then assess the best means of reaching this target group (ideally through a trusted source e.g. employer, school).
2. Use of the CAF framework for evaluation questionnaire development to ensure consistency
3. Evaluation of before & after effects is more meaningful if specific individuals can be tracked. Using a third party (e.g. employer / school) allows questionnaire coding to enable the matching of before & after questionnaires.
4. Tight administrative control of the evaluation process is essential.
5. Response rates can be maximised by fully explaining the purpose of the evaluation with any third party being used and offering additional incentives for questionnaire response (e.g. cash prize, personalised reports etc).

FURTHER WORK

There is potential for use of the Tapestry campaign methodology in relation to other HCC run campaigns such as Road Safety, Safe Routes to School and Waste Awareness. As these are all environmentally based campaigns it is possible that the target group for campaigning would be the same.

It may be possible to create a campaign which builds on the results from the before & after survey. For example many of the comments about the campaign message related to the need for more safety based information and practical examples related to specific school locations. This could obviously dovetail directly with the safe routes to schoolwork.

It is suggested that the findings from this study are disseminated internally (within HCC environment department) and externally (e.g. to the national TravelWise group) as well as to the other Tapestry Case Study members.

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