

# **CHANGING THE MINDSET A SMARTER APPROACH TO SCOTTISH TRANSPORT**

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## **ABSTRACT**

Transport improvements have often been viewed narrowly in terms of infrastructure or services. This paper reviews the scope and opportunity for transport delivery to grow beyond traditional boundaries to lead a change in transport culture within seven communities in Scotland.

To understand the current culture, and views of alternatives, more than 12,000 household surveys, 400 telephone surveys, 14 focus groups and 70 in-depth interviews have been undertaken across seven Scottish communities. These surveys have found that a more sustainable approach to transport is potentially achievable if investment is targeted effectively. The towns receiving Scottish Government money are all planning some changes that will help to meet the aspirations of residents, but more needs to be done in each community to deliver sustainable transport.

The research highlights pitfalls that must be avoided and emphasises the need for flexibility in delivery. People can be fickle, so marketing and promotion techniques need to be appropriately targeted. By encouraging smarter travel choices the sustainable towns can become smarter places.

The people who might benefit most from some interventions can be the least likely to pay attention to new information or initiatives. Whilst there is potential to tap into current behaviour change and encourage more sustainable patterns of behaviour, it may also be the case that investment needs to be purposefully targeted at harder to reach groups.

Overall, people are keen to build stronger, healthier and cleaner communities. Although, residents of the towns consider they live in good neighbourhoods, they have concerns for the future.

The investment programme is only sustainable if what it leaves behind can be sustained beyond the initial investment phase. This relies on local people significantly changing their current perceptions of travel needs, opportunities and behaviour from that observed in this research.

## 1. INTRODUCTION

The Scottish Government's *Smarter Choices Smarter Places* (SCSP) programme is investing in seven towns across Scotland, with the aim of encouraging more people to make sustainable travel choices (for example, to choose to make more of their day-to-day trips on foot, by bike, or by public transport and to use local facilities rather than distant ones). The aim of the SCSP programme is to help individuals within the seven communities to change their travel behaviour to improve their health, save money, improve the local environment and promote stronger communities. To understand whether these outcomes are being delivered in practice, the Scottish Government has commissioned research to monitor the impacts of the SCSP investment programme. This report provides the first stage of the research and:

- provides a profile of travel behaviour in each of the seven communities (Barrhead, Dumfries, Dundee, Glasgow East End, Kirkintilloch/Lenzie, Kirkwall and Larbert/Stenhousemuir);
- describes public attitudes towards, and perceptions of, sustainable travel within each town;
- identifies the scope for the investment to deliver the desired outcomes; and
- provides feedback to local authorities delivering the SCSP initiatives to assist them with the effectiveness of delivery.

## 2. RESEARCH APPROACH

The research comprised five main work streams to make best use of existing data and supplement this with primary research. It used:

- **Local data** from each town such as: traffic, cycle and pedestrian counts, bus patronage data, parking surveys, customer surveys
- **Published national data** including: neighbourhood statistics, population estimates, Scottish Household Survey, Scottish Health Survey, and National Travel Survey
- **Qualitative research** which explores the views of 217 people across the seven areas. The purpose of the research was to: understand through focus groups and in-depth interviews attitudes and behaviour in each town; assist in the design of the quantitative research; help understand the mechanisms by which SCSP interventions might make an impact; and develop hypotheses for testing in the analysis. The research was undertaken in January and February 2009.

- **Telephone surveys** which monitored perceptions of the communities and the SCSP initiatives in each location. In the baseline survey, 3,731 people (across seven target areas and three control communities) were interviewed, using a structured questionnaire covering: use of transport, views of local neighbourhood, awareness of SCSP type initiatives, personal and household information
- **Door-to-door surveys**, using a structured questionnaire, were undertaken with 12,411 households of which 9,400 were in the target communities and 3,011 in the three control locations. The surveys contained questions to obtain: a detailed one-day travel diary for the previous day, information on use of transport, perceptions of travel and transport, views of local neighbourhood, information about personal health and physical activity levels, personal and household information.

### 3. CHANGING THE MINDSET

The new approaches to transport being tested are taking a broader view of transport delivery. These include new types of transport delivery as follows:

- **Joining things up** – ‘Joining up’ interventions are a key element in all seven target locations (e.g. Dundee Health Central). These include techniques for supporting organisations outside the transport sector in thinking about their travel, and making more efficient choices. The process of site based travel planning is often used to define the aims. Some travel plans are mainly about promoting active travel, others about improving access, and some relate to modal shift away from car travel. By identifying shared aims between businesses, public agencies, transport authorities and others the agenda for joint delivery can be specified.
- **Information and marketing** – There is scope to significantly improve the marketing of all transport. The motor industry has a strong track record and the SCSP initiative seeks to prompt new techniques. This includes new partnerships for commercial marketing of public transport, and social marketing of non-commercial transport benefits.
- **Administering delivery in new ways** – New approaches include ways of increasing opportunities for people to share scarce resources, new ways of booking and using cars, buses, and taxis including trip sharing, carclubs, and new flexible and low cost bus travel options with customised preferences.

Although many of the techniques are not current practice the current debate is about how best to deliver the improvements, rather than whether the changes are a good idea. The research is seeking to identify how joint working can be

made efficient and effective, in what circumstances marketing increases bus patronage and how good management can be fostered.

The cost of smarter approaches are potentially less than with traditional transport investment and it is important for the size and nature of these broad types of expenditure to complement each other. Delivery of smarter SCSP type pilots require a sharing of innovation risk and an understanding that:

- Public investment is needed to ensure equitable delivery to all sections of the population.
- Commercial transport interests do not make money from walking or active travel.
- Transport should have a very active role in place making as part of regeneration and development programmes.
- Partnership approaches can only secure cross sector benefits and multiple objectives in the longer term if sufficient management time is invested in the short term to link up complementary health, transport, community development and other programs and their benefits.

#### **4. TRAVEL PATTERNS AND BEHAVIOUR**

Travel behaviour varies between the communities, but they also have many similarities:

- Walking is the dominant mode. In all of the communities over 70% of people walk at least once a week. The highest walking frequencies are in Dundee (80%), Kirkwall (79%) and Glasgow (79%).
- Car is the second most popular mode in all of the communities, except Glasgow East End and Dundee. 23% of respondents in Glasgow East End use the car as a driver once a week compared with 63% in Larbert/Stenhousemuir and Kirkwall.
- In most communities where car use is high, bus use is low and vice versa. However, in Barrhead and Kirkintilloch/Lenzie the frequency of car use and bus travel is comparable.

30% of people report that their use of individual travel modes has changed over the past 12 months. The SCSP programme includes investment to support bus, train, cycle and walking. 11% of respondents across the seven communities claim to have increased their use of these modes over the last year. Other characteristics of travel behaviour are summarised in Table 1.

More detailed analysis of the trip purposes made and the distance travelled suggests that:

- Respondents to the surveys travelled about 10 miles per day on average, but this ranges from under 3 miles in Kirkwall to over 15 miles for Dumfries.
- Although walking is the dominant mode in terms of trip numbers, in terms of distance travelled, car dominates for most people in all of the communities.
- The average time survey respondents spent travelling per day is 68 minutes but this varies between communities. In Larbert/Stenhousemuir respondents only spend 55 minutes travelling compared to 87 minutes in Dumfries.
- Work travel accounts for the longest distances travelled but shopping accounts for the largest number of trips.
- Cycling in the communities is either largely for leisure (Barrhead, Kirkintilloch/Lenzie), or for travel to work and for shopping (Glasgow). Only Kirkwall, and to a lesser extent Dumfries, appear to have cycle cultures that embrace a range of trip purposes.
- Over 80% of short trips (less than 400 metres) are made by walking but 14% of these short trips are made by car. More than half of the short trips by car are for shopping.

**Table 1 - Travel Patterns and Behaviour**

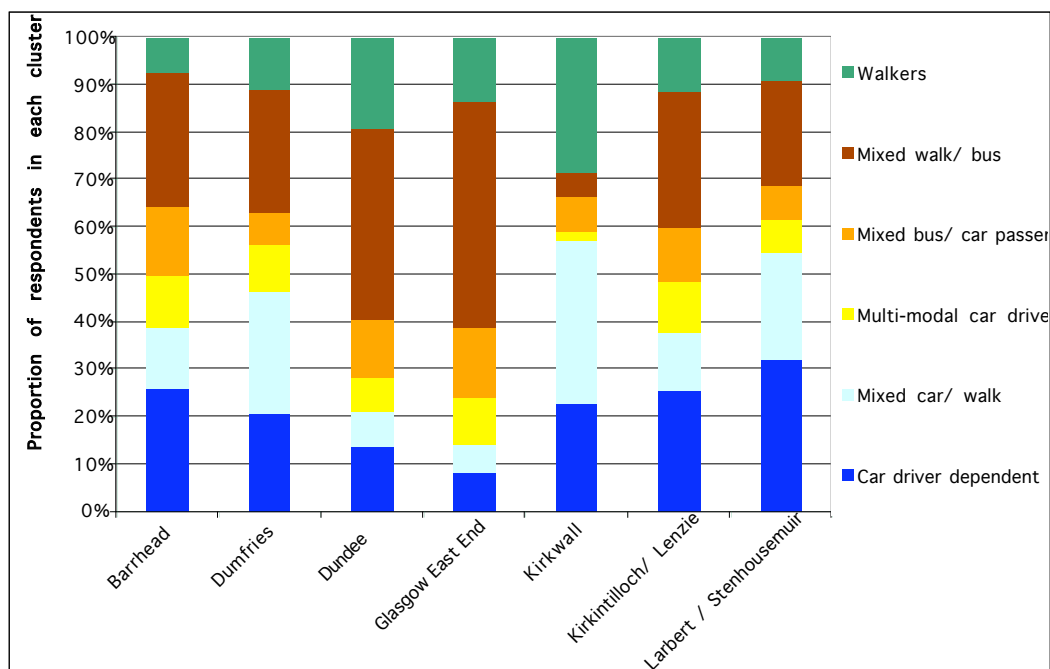
<b>Table 1 - Travel Patterns and Behaviour</b>	
Walking	<ul style="list-style-type: none"> <li>• Despite the relative popularity of walking, a consistent proportion says they 'never' walk ranging from 15% in Dumfries, Kirkwall and Larbert/Stenhousemuir to 21% in Barrhead.</li> <li>• There is a strong relationship between work status and walking frequency in Dundee, Kirkwall and Barrhead (where employed people walk more frequently), but no relationship in other locations.</li> <li>• There is a strong relationship between walking frequency and the presence of children in Kirkwall, Kirkintilloch/Lenzie and Glasgow East End (where walking increases with children), but not elsewhere.</li> <li>• Men and women are equally likely to walk, apart from in Glasgow East End and Larbert/ Stenhousemuir, where men appear to walk more frequently than women.</li> <li>• There has been a self-reported net increase in walking in all areas over the past twelve months, the greatest in Kirkwall (15%), Dumfries (13%) and Dundee (11%)</li> </ul>
Driving	<ul style="list-style-type: none"> <li>• Households with a car are disproportionately more likely to be larger and be comprised of wealthier, healthier, employed and more highly educated adults. Even after accounting for income effects, car ownership still varies considerably between the SCSP target areas suggesting that other factors contribute to this variation such as local culture.</li> <li>• There has been a self reported net reduction in car driving in Kirkwall and Kirkintilloch/Lenzie and a small net increase in Glasgow East End and Dundee.</li> </ul>

Bus	<ul style="list-style-type: none"> <li>• Among those with a car in the household, only 5% use the bus five days a week or more compared to 23% of those without a car</li> <li>• Bus use increases with age in Barrhead and Dumfries, but generally decreases with age elsewhere especially in Glasgow East End. Likewise, bus use decreases with the presence of children in the household everywhere apart from Glasgow East End</li> <li>• There has been a self reported net increase in bus use in the last 12 months in Dumfries and Barrhead and net reductions in Dundee, Larbert/Stenhousemuir and Glasgow East End</li> </ul>
Cycling	<ul style="list-style-type: none"> <li>• The areas with the highest car ownership and use also have the highest bicycle ownership and use. Overall, the majority of bicycle owning households also own a car and the majority of non car-owning households do not own a bicycle.</li> <li>• In Glasgow East End, both men and women are equally as likely to cycle, but elsewhere there is a strong tendency for men to cycle more than women.</li> <li>• Cycling has experienced a relatively static pattern, with a small net self reported increase overall with the largest net gain in Dumfries (2.9%) and the largest reduction in Kirkwall (-0.9%).</li> </ul>

The majority of people can be classed as ‘multi-modal’ with only 4.5% claiming to undertake 100% of their trips by car. The car is much more likely to be mixed with walking in Kirkwall, Dumfries and Larbert/Stenhousemuir, but with the bus in Glasgow and Dundee.

People can be classified according to their travel behaviour and the analysis of modal choice revealed six behavioural segments as shown in Figure 1. Cycling does not register as a dominant mode for any one segment.

**Figure 1 - Distribution of modal groupings by town**

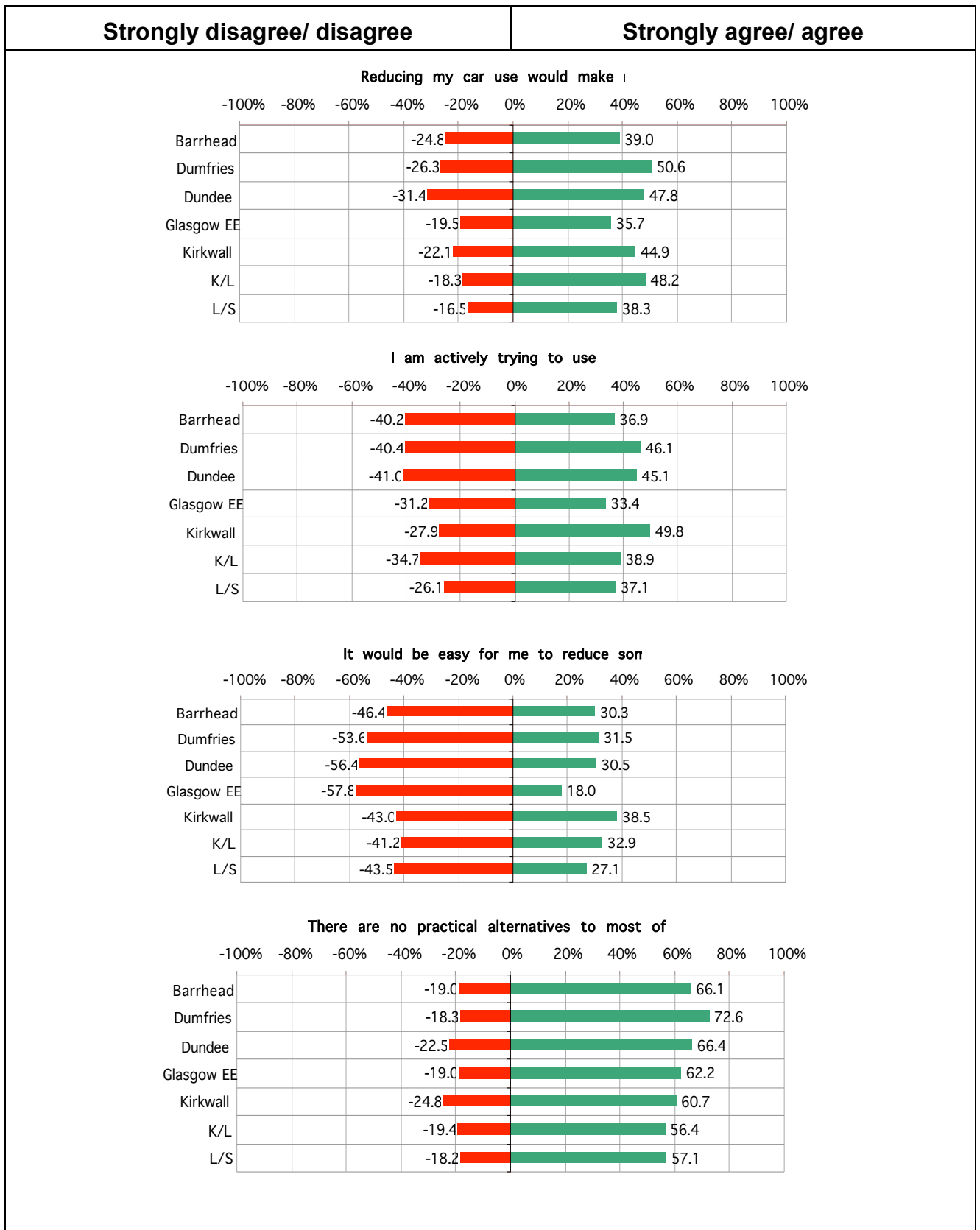


## 5. ATTITUDES

The SCSP programme starts from a situation where a substantial proportion of the population see no need to change their behaviour. In particular, the proposition that there should be less car travel is not currently accepted by the majority. The greatest proportion of people who would like to travel more by car are in Barrhead, Dundee, Glasgow East End and Kirkintilloch/Lenzie.

- **People like travelling by car** - The majority of people do not find car travel stressful. Even in Dumfries where people drive most, a fifth of the population would like to drive more. In Glasgow East End, where people drive least, almost half the population would like to drive more.
- **Nearly 4 in 10 people are willing to reduce their car use** - 19% of the sample indicate that they are 'willing and able' to reduce their car use and a further 20% are willing but do not believe that it would be easy for them to change their driving patterns ('willing but not able'). Figure 2 summarises attitudes towards reducing car use.
- **Bus users like travelling by bus** - Those that travel on the bus most days are three times more likely to say they like travelling by bus than those that travel by bus very rarely or never. The contrast between the attitudes of bus users and non users is greatest in Barrhead. People in Dundee, Kirkintilloch/Lenzie and Glasgow are most likely to like travelling by bus and are the places with the highest level of bus use.
- **The wealthiest have the greatest concerns about the cost of bus journeys** - Those on the lowest incomes are much more likely to believe that bus fares are about right, than those on higher incomes.
- **Cycling is more likely to be perceived as being safe and healthy than not** - Cyclists believe that cycling is healthy but non cyclists are more sceptical about the health benefits. There is no statistically significant gender difference with respect to perceptions of cycling safety, and only in Kirkwall do more men than women consider that cycling is safe.
- **A majority of people would like to walk more to keep fit** - However in Glasgow, Barrhead and Dundee respondents consider that improvements are needed so that pedestrians can make safe trips.
- **Environmental factors are important to people in all areas** - Concern for the environment is more likely to be amongst more highly educated, older, female, in employment, and healthier people. Being environmentally friendly is most important for people in Dumfries, Kirkintilloch/Lenzie and Kirkwall and the least important in Glasgow East End and Barrhead.

**Figure 2 - Agreement/ disagreement with attitude statements on car use reduction**



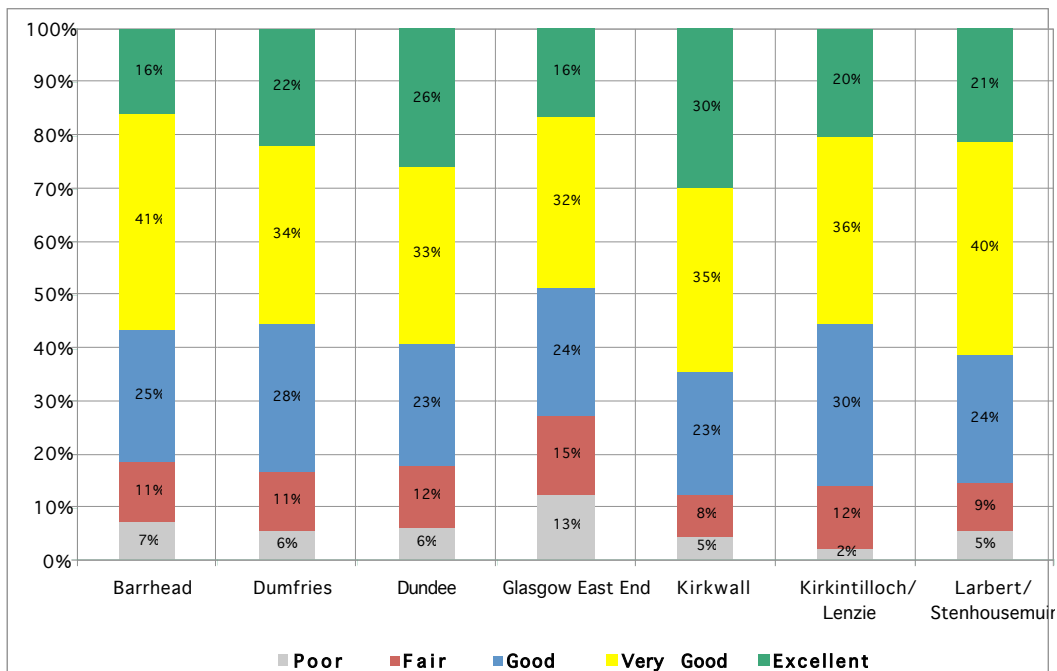
- **High car ownership does not appear to buy high satisfaction** – Car owners are less appreciative of the public spaces in their towns, and lower car ownership is associated with higher satisfaction with accessibility to the shops.
- **Concern about road congestion is greatest amongst those who might be expected to be least affected** – Frequent car drivers are the least likely to think congestion is a problem and cyclists are the most likely out of all mode users to believe congestion is an issue, particularly in Dundee, Kirkintilloch/Lenzie and Larbert/Stenhousemuir.

## 6. HEALTH, ENVIRONMENT AND ACTIVE TRAVEL

Those on higher incomes, in employment and with the highest educational qualifications are more physically active, and believe themselves to be healthier than those who are on lower incomes, out of work or with fewer qualifications.

- **People generally think they are healthy** - The vast majority of respondents in all seven areas rated their own general health as either good or above, with slightly lower levels of general health reported amongst Glasgow East End (see Figure 3).
- **Car ownership is more strongly related to good health than high income** - Those with a car are more likely to exercise most days, and to report themselves as healthier. This includes those on lower incomes but with a car who also report themselves to be healthier than those without a car in the same income bracket. However, lower incomes are still linked to lower perceived health overall. Those who own a bike and/or a car are most likely to report themselves as healthier, and are more likely to exercise every day.
- **Only a minority of the population gets the nationally recommended level of exercise** - 38% of adults appear to be meeting the national activity target of least 30 minutes of exercise most days of the week, varying from location to location with between 30% (Glasgow East End) and 44% (Kirkintilloch/Lenzie and Dumfries). Around 1 in 4 adults across all seven areas undertake no physical exercise. Those who claim to exercise almost every day are more than twice as likely to report good/excellent health as those who do not exercise at all.
- **A majority of people feel that they should walk more in order to keep fit** - Around two thirds want to walk more in all the areas. The more a person walks already, the more they seem to think they should do more of it. Similarly, the more healthy a person believes themselves to be, the more likely they are to agree they should walk more.

**Figure 3 - Rating of general health by area**



## 7. THE SCOPE FOR SMARTER CHOICES SMARTER PLACES

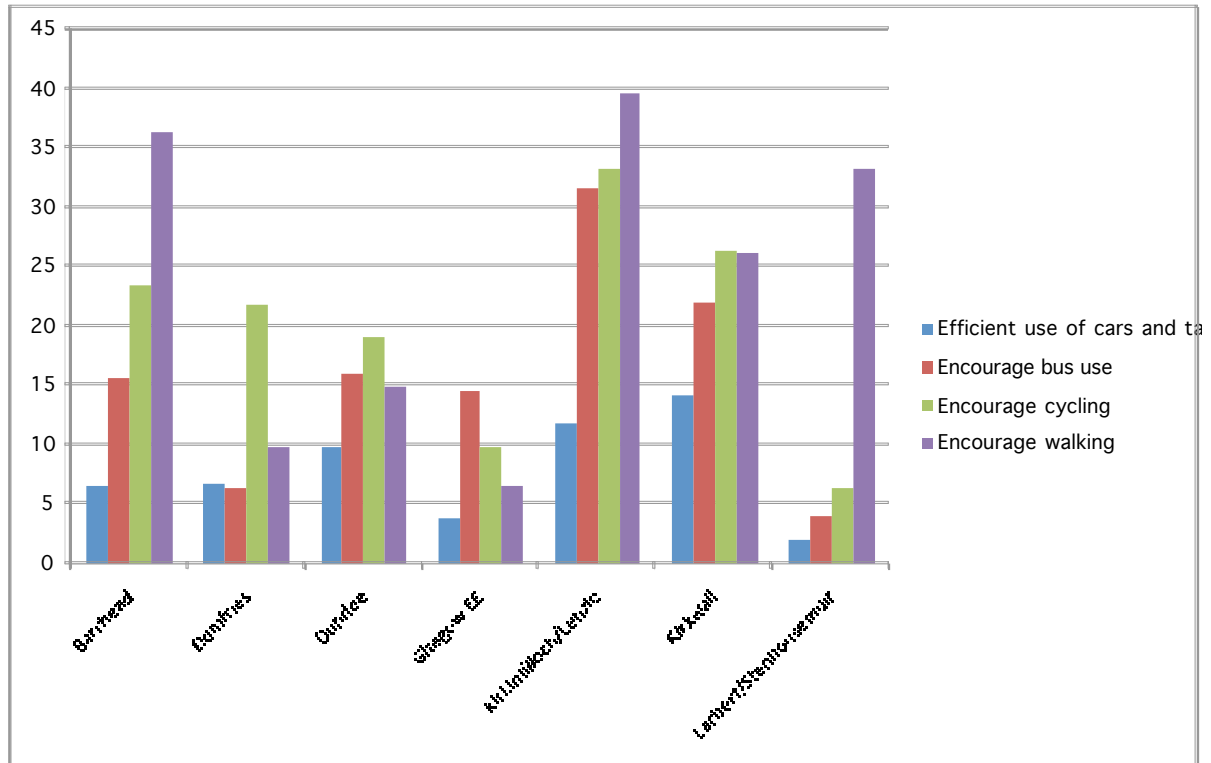
Most people know of something that is already being done in their area to improve transport but only have limited awareness of SCSP type activities. Figure 4 shows the awareness of past programmes to deliver SCSP types of investment. There is a good fit between the type of measures being implemented in each area, and community views of the type of initiatives needed. This offers a foundation to build from. However awareness is low in most areas, so there is substantial scope for this to grow as the SCSP programme implementation proceeds.

Four main motives for behaviour change have been identified:

- People would like to see regeneration and investment in the places they live and work.
- People want to build a stronger community spirit.
- Health messages are important in most towns and this is reflected in the branding of SCSP programmes (e.g. Travel Active Dundee, Healthy Habits in Kirkintilloch). However the least healthy tend to be the least motivated to change their travel behaviour.
- Environmental motives, particularly the local built environment, appear to be important motivators for change for many people. Positive reinforcement to **protect, save and maintain** the quality of the environment appears to be well received and likely to be successful in supporting travel behaviour change. However the crossover between

environmental aspirations and behaviour is not strong. The people with the greatest concerns about climate change tend to be those that drive most, so although they may feel guilty, this does not appear to motivate travel behaviour change.

**Figure 4 - Percentage of respondents aware of SCSP type initiatives by mode and area**



Currently people construe change as desirable if it will make the places that they live better. However, most have not yet translated these aims into practical changes to their own travel behaviour. Potentially the SCSP investment could provide people with the support to achieve this if the interventions can change the current perceptions of the need for “Smarter Places” into “Smarter Travel Choices for Smarter Places”.

The research suggests that the keys to success will be:

- Accelerating change where travel behaviour is already changing** - Almost a third of people claimed to have either increased or decreased the amount of car use, walking, cycling or public transport use over the last year alone. In everywhere apart from Dundee and Glasgow East End, more people claim to have reduced their driving frequency than increased it, and there has been a net reported increase in walking in all areas of up to 15%. There is potential for SCSP initiatives to aim to steadily increase the number of people who are switching to more sustainable travel each year, and gradually reduce the number of people switching to less sustainable travel each year.

- **Targeting people who are both willing and able to reduce car use** - Willingness and ability to adopt alternatives will vary between places and social groups, and the reasons why a person may or may not change will be different for different groups. The majority of the population can either be regarded as indifferent to the issues, or are open about their unwillingness to change behaviour.
- **Building support incrementally with sensitive and responsive delivery** - Alienating residents could undermine the success of the whole SCSP programme. There is public scepticism about some of the proposed initiatives, and ill timed interventions will damage the programme. Restraint on demand such as car park charges can be controversial and other interventions such as traffic calming, personal travel planning and marketing were all identified as potentially controversial. People were generally happy to support changes such as pedestrianisation, since the benefits to everyone were clear, even though this involved transferring road space from cars to pedestrians. In all areas programme management needs to maintain local support, work closely with local media and community groups and be flexible and responsive to local views.
- **Working with broader lifestyle changes** – People with children report a greater level of change in their recent travel patterns than for the total populations of the areas. Families with growing children face many lifestyle changes that impact on all aspects of their behaviour. Not only can these changes have a strong impact on travel, but they could potentially be nurtured by the SCSP programme to support smarter travel choices. For many other people, travel patterns become more embedded over time. The heaviest users of each mode appear to be travelling steadily more by that mode, and the lightest users by each mode are using that mode less. Likewise, the more a respondent walks already, the more they seem to think they should do more of it. Also, the more healthy a person believes themselves to be already, the more likely they are to agree they should walk more. These findings suggest that those people who might benefit the most from SCSP interventions, to encourage active travel in particular, may pay least attention to new information or initiatives about SCSP interventions. Therefore, whilst there is potential to tap into current behaviour change, and encourage more sustainable patterns of behaviour, it may also be the case that SCSP measures need to be purposefully targeted at harder to reach groups.
- **Influencing the local culture** – There will be a need to work with trusted local partners to create organic growth in the SCSP campaign in each area. People are often aware of SCSP type measures through schools, businesses and other organizations, already integrated into the community. The support of local organisations will therefore be a key part





