

# **MOVING IN THE RIGHT DIRECTION? BUILDING THE INFORMATION BASE AND EVALUATING THE IMPACT OF LOCAL AND REGIONAL TRANSPORT POLICIES AND PROGRAMMES ON ACTIVE/SUSTAINABLE TRAVEL IN THE GLASGOW AND CLYDE VALLEY AREA**

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## **1. SUMMARY**

Improving physical activity and developing sustainable transport are high on political and public health agendas. This multi-method research programme presents qualitative and quantitative data that confirms the ongoing dominance of car use as a mode of travel. Influential qualitative factors include perceptions of convenience, safety, time-efficiency and cost. Policy appraisal indicates a clear strategic vision for active, sustainable travel. Despite these aspirations and local initiatives, central funding for infrastructure and support for active travel at a local authority level is sparse, and levels of walking, cycling and public transport use are falling while car use is increasing. These findings highlight the need for national and local leadership and reprioritisation of resources, as well as cultural and behaviour change, if a significant increase in active sustainable travel is to occur.

## **2. INTRODUCTION**

Increasing levels of physical activity in the population and developing sustainable transport are high on political and public health agendas, globally, nationally and locally but there is little evidence that trends are moving in the right direction. New car registrations and numbers of vehicles on the road continue to increase. In 2007, the total number of vehicles on the road reached 2.65 million and the volume of traffic was at the highest level ever recorded. Despite a call from the Scottish Climate Change Programme to drive down emissions from the transport sector, total vehicle kilometres are still increasing and active travel is in relative decline. Numbers of school pupils walking to school continue to fall. Walking as a proportion of trips amongst adults also continues to fall while trips made by car whether as a driver or as a passenger are increasing.

The Sustainable Development Commission, in a review of Scottish Government progress on sustainable development, concluded that although there had been significant action on some aspects, greater co-ordination of work and a faster pace of change were needed. In addition, the review commented that the current indicator set identified by the Scottish Government to monitor progress contained gaps and recommended that two additional indicators in relation to travel be included: greenhouse gas emissions from the transport sector; and walking and cycling as a percentage of total miles travelled per person.

Although Scotland's transport strategies and policies contain a clear vision of a future transport environment that promotes active, sustainable travel, other important influences need to be taken into account. Audit Scotland, in its overview of the performance of transport in Scotland, suggested that there was a tension between minimising congestion and environmental damage while maximising the benefits of transport's contribution to economic growth and social inclusion.

In recognition of the importance of active travel and sustainable transport to public health, the Glasgow Centre for Population Health (GCPH) established a programme of work in 2008 to help build up a better information base, develop knowledge and understanding and evaluate the impact of transport policies and programmes on active, sustainable travel in the Glasgow and Clyde Valley area.

This multi-method research programme explored popular attitudes and perceptions regarding urban travel; examined relevant national, regional and local policies and action plans; and analysed travel-related data to ascertain trends and patterns in different modes of travel in the West of Scotland.

### **3. METHODS**

#### **3.1. Qualitative research using interviews and focus groups to explore cultural norms around urban travel.**

The purpose of the research was to answer the following questions:

1. What are the attitudes and norms regarding travel to various locations in and around the Glasgow conurbation?
2. What are the barriers to the use of specific travel modes amongst those travelling in and around the Glasgow conurbation?
3. How easy or difficult is it for people to adopt active travel modes in light of attitudinal and infrastructural barriers to change, or support for existing choices?

Two different methodological approaches were taken. Firstly, members of the public at four separate locations were invited to participate in brief (approximately two minute) 'vox pop' video interviews outlining how they travelled to the location at which they were interviewed, their views on their chosen mode(s) and alternatives available for that particular journey. This method obtained a range of views, as well as highlighting attitudes and behaviours on travel issues surrounding various modes of travel to differing locations in Glasgow. (Findings were summarised through the production of a short DVD.)

Secondly, members of the public (at the same four locations) were recruited to participate in shared focus groups. Travellers who used different modes of travel were invited to discuss their travel methods firstly among users of the same mode, and

afterwards with users of a different mode. This approach aimed to explore assumptions about using different modes and it was intended that participants would learn from each other's experiences.

The four study sites chosen were Braehead Shopping Centre (an out of town shopping centre with motorway access); Glasgow City Centre; the Southern General Hospital; and the Glasgow Fort (an out of town shopping centre with motorway access but also adjacent to the Easterhouse peripheral estate).

One hundred and five members of the public completed a vox pop video interview. Participants representing a range of ages, gender and locations were recruited to the study. Forty-four percent were male and 56% were female; 50% were in full time employment, 26% were retired, and the remainder were a mix of students, unemployed, and homemakers. On the day of the interview 40% of the interviewees had travelled by car as driver, 12% by car as passenger, 26% by bus, 14% had walked, and 10% had taken a train. A total of 44 residents of the Greater Glasgow area participated in the shared focus groups. More women participated than men (61% of participants were female), 30% of the participants were retired and 18% were unemployed.

The majority of participants of the focus groups already had a good understanding of a variety of travel modes, and used different modes to travel around the Glasgow area, therefore ensuring a range of experiences were brought to each group.

### **3.2. Appraisal of national/regional and local transport-related strategies, policies and plans to assess the translation of aspiration into reality on the ground.**

The methods comprised:

- Review and critique of:
  - The translation of vision statements in transport related strategy, policy and plans into reality with regard to activity and investment in pedestrian/cycling infrastructure
  - Prioritised/specified actions and resource allocation to improve and promote active travel
  - The scope and scale of other initiatives that promote active travel and reduced car use (either directly or indirectly)
- Examination of single outcome agreements (SOAs) for local authorities (LAs) within the Glasgow and Clyde Valley region to ascertain to what extent SOAs contain targets and outcome measures that specifically related to the promotion of walking, cycling, sustainable transport and reduced car use
- Review of specific strategies, policies or initiatives that interacted with or impacted on transport/travel related behaviour and outcomes
- Discussion of the likely impact of strategies in the short, medium and long-term in light of evidence regarding trends in travel patterns

Documents were reviewed using a standardised approach. Two peer reviewers checked the documentary review to enhance reliability and consistency of findings. A hierarchy of relevant documents was identified and reviewed flowing from national to regional to local level. Documents reviewed included: Scottish Government strategies and related documents; as well as national, regional and local transport policy and strategy. The SOAs (2008/09 and 2009/10) of the eight LAs in the Glasgow and Clyde Valley region were also scrutinised to identify specific indicators and targets that relate to active or sustainable travel.

### 3.3. Analysis of secondary data to elicit patterns and trends in school travel, pedestrian road casualties and travel to work.

The overall aim of this strand of the research was to provide baseline data on active travel in the Glasgow and Clyde Valley region that could be updated and monitored over time. The aim has been to present trends and illustrate patterns of travel at a local authority level and, where data allow, at a more local level.

This study has been based mainly on secondary analysis of a range of Scottish and UK data sources, including surveys, administrative data and published reports. Survey sampling methodologies and data recording processes for the majority of these data are widely reported and can be accessed at relevant web sites. Table 1 outlines the sources used, and web sites or publications from which more information can be sought.

**Table 1** List of data sources

<b>Data Source</b>	<b>Links to publications</b>
Scottish Household Survey	<a href="http://www.scotland.gov.uk/Topics/Statistics/16002">http://www.scotland.gov.uk/Topics/Statistics/16002</a>
Scottish Household Survey Travel Diary	<a href="http://scotland.gov.uk/Publications/2008/04/16110121/0">http://scotland.gov.uk/Publications/2008/04/16110121/0</a>
2001 Census	<a href="http://www.gro-scotland.gov.uk/census/censushm/index.html">http://www.gro-scotland.gov.uk/census/censushm/index.html</a>
Labour Force Survey	<a href="http://www.statistics.gov.uk/statbase/Source.asp?vlnk=358">http://www.statistics.gov.uk/statbase/Source.asp?vlnk=358</a>
Scottish Transport Statistics	<a href="http://www.scotland.gov.uk/News/Releases/2009/12/21103917">http://www.scotland.gov.uk/News/Releases/2009/12/21103917</a>
Sustrans Hands Up Survey	<a href="http://www.sustrans.org.uk/about-sustrans/media/news-releases/Hands-Up-Survey">http://www.sustrans.org.uk/about-sustrans/media/news-releases/Hands-Up-Survey</a>
Injury Road Accidents (Stats 19 police data)	<a href="http://www.scotland.gov.uk/Publications/2009/11/23103624/0">http://www.scotland.gov.uk/Publications/2009/11/23103624/0</a>
Hospital admissions for accidents (SMR1)	<a href="http://www.isdscotland.org/isd/4430.html">http://www.isdscotland.org/isd/4430.html</a>
<b>Local Sources:</b>	
Glasgow City Cycle and Pedestrian Cordon Count Surveys (2007-2010)	No web link - data accessed from Land and Environment Services, Glasgow City Council

Health and Well-being of S1-S4  
Pupils in New Learning Community  
Schools in Glasgow City

<http://www.phru.net/rande/Schools%20Survey%20%20School%20Reports/Forms/Shared%20Documents%20Custom%20View.aspx>

In addition, in order to carry out more detailed analysis of travel to school, we linked the Hands Up survey data (2008) at a school level within Glasgow and Clyde Valley to information from the annual schools census (August 2008). The data added through this linkage enabled analysis of the impact on active travel of deprivation, distance to school, ethnic profile of school and type of school (denominational/non-denominational).

#### **4. FINDINGS**

Given the range of our research programme, the results presented in this paper are summarised and partial. More detailed briefing papers on each area of work are available on the GPCH website:

<http://www.gcph.co.uk/healthysustainabletransport>

##### **4.1. Qualitative research using interviews and focus groups to explore cultural norms around urban travel.**

The main findings of the study are summarised below.

##### **The centrality of convenience in decision making**

In furthering understanding of the norms and values around current travel preferences, this research underlines the importance of convenience and time efficiency in shaping choice of travel mode. Health benefits of non-car based travel are well recognised and have a place in the normative backdrop around travel (car travel is 'lazy') but it appears that these benefits alone will not provide a significant push toward active modes unless they also begin to make sense against the convenience related criteria. The fact that many travellers in the study recognised alternatives to the car were available (particularly buses) suggests it is not a shortage of information that is the major barrier.

##### **Travel mode, culture and identity**

In addition to convenience, the perceived meaning of a mode of transport and its 'fit' with a user's identity are important influences. The contribution cars make toward wellbeing, through representing a source of esteem, has been well established. The evidence in this report also points to the way cars can support individualised lifestyles allowing complex trips with multiple destinations to be made. Independence and freedom from a reliance on existing routes and timetables is a key attraction to car use, but is neither sustainable nor health promoting. For shorter journeys, walking also generates this independence and sense of control. But for a behaviour such as walking to become a habit, it must also fit with the user's sense of who they are and be available as a travel choice for journeys. For those who need to make longer journeys, walking is not seen as an available choice.

Cyclists, though a small group, have overcome or reframed perceptions of both danger and inconvenience and have often successfully integrated cycling as a key component of their identity. They often benefit from an increased

sense of control and independence when compared with public transport users. Cyclists can therefore be identified as 'positive deviants' by representing, in their actions, a successful value and behavioural shift. Those with a positive frame towards the pace of bus travel also fall into this category. Investigating their motivations can contribute to understanding how more active travel modes can be promoted more broadly.

### **Infrastructure**

It is clear that when infrastructure is designed to facilitate car travel, this mode becomes the most convenient, and consequently the mode most likely to be adopted. Fears about danger from other road traffic can compound reasons not to make the shift from car based travel to modes vulnerable to traffic, such as walking or cycling.

Respondents identified congestion in the city centre as a factor which would motivate them to leave the car at home, but this also worked against bus travel, as buses are also susceptible to traffic flows. Deregulation of services has created a plethora of bus operating companies each with their own services and timetables that make bus travel harder to navigate for those who might otherwise make the shift. However, there is a clear indication that when interventions are put in place to make car travel less convenient or more expensive, active travel modes do begin to make more sense.

As safety is a continuing issue for both walkers and cyclists, there appears to be a significant way still to go to shift the balance on our streets from prioritising car based movement to prioritising active travel modes. Fear of anti-social behaviour is another barrier and one that may seem beyond the scope of transport planners as it reflects a wider societal problem around trust and fragmentation. However, active travel modes have the potential to see people using public spaces in greater numbers, which in turn can enhance feelings of safety.

## **4.2. Appraisal of national/regional and local transport-related strategies, policies and plans to assess the translation of aspiration into reality on the ground.**

The main findings summarised here relate to Scotland Performs and Single Outcome Agreement outcomes and indicators

### **The national performance framework**

The Scottish Government has a clearly stated vision for Scotland which is "*to focus government and public services on creating a more successful country with opportunities for all of Scotland to flourish through increasing sustainable economic growth.*" It aims to deliver its purpose through five strategic objectives - *wealthier and fairer, smarter, healthier, safer and stronger, and greener.* One of the actions outlined as part of its 'greener' strategic objective is to invest in public transport and to support local authorities to create sustainable places by reducing car dependency and increasing the proportion of people walking and cycling. A national performance framework has been

established to provide a more coherent and streamlined approach to assessing progress towards the Scottish Government's vision.

Particular components of the framework can be directly related to transport and travel. The framework contains:

- Five strategic objectives: wealthier and fairer, smarter, healthier, safer and stronger; and greener
- Seven indicators with accompanying 'purpose targets' one of which is a sustainability target which aims 'to reduce emissions by 80 percent by 2050'
- Fifteen national outcomes, three of which are:
  - *'We live in well-designed, sustainable places where we are able to access the amenities and services we need'*
  - *'We reduce our local and global environmental impact of our consumption and production'*
  - *'We value and enjoy our built and natural environment and protect it and enhance it for future generations'*
- Forty five national indicators and targets, to measure progress against outcomes, three of which state:
  - *Reduce the proportion of driver journeys delayed due to traffic congestion*
  - *Increase the proportion of journeys to work made by public or active transport*
  - *Reduce overall ecological footprint*

Progress regarding these three stated indicators (displayed on the Scotland Performs website) is shown below.

### **Reduce the proportion of driver journeys delayed due to traffic congestion**

#### **Performance**

In 2003, eight of the 44 trunk road routes monitored in Scotland experienced serious or severe congestion for more than one hour per day. In 2007, 14.3% of driver journeys were delayed due to congestion - this figure dropped slightly in 2008 to 13.1% but the overall trend appears to be upward.

### **Increase the proportion of journeys to work made by public or active transport**

#### **Performance**

The Scotland Performs website displays trend data from the Scottish Household Survey on the percentage of adults travelling to work by car or van over the last decade. The graph below shows that the proportion of adults travelling by car/van has remained fairly static during the last decade with a one percent increase between 2008 and 2009. Further analysis of Scottish Census data by GCPH has found that levels of car commuting have increased markedly over the last four decades while levels of bus and pedestrian commuting have fallen.

In addition, transport accounted for 25.9% of total Scottish emissions in 2007, a rise of nearly 10% since 1990 and transport's share of total Scottish emissions increased by a greater amount in 2007 than in all previous years.

## **Reduce overall ecological footprint**

### **Performance**

In 2006 Scotland's ecological footprint was estimated at 4.8 global hectares per capita. The trend data shown below indicate that it is rising. The Scotland Performs website points out that if all the people in the world consumed at similar levels to people in Scotland, in order to meet that demand we would need resources and carbon sinks that equated to more than double the resources of the Earth.

## **Single Outcome Agreements**

Single Outcome Agreements (SOAs) have been developed by all 32 Scottish local authorities (LAs) in order to focus on what each will provide for its residents that reflects their needs and circumstances.

SOAs for 2007/08 and 2008/11, of eight local authorities in the Glasgow and Clyde Valley region, were scrutinised to identify specific indicators and targets that related to active or sustainable travel and to assess their utility, scale of ambition and appropriateness of the data sources utilised for measurement of targets. The main findings from this assessment are as follows:

- Indicators identified by LAs included modal share in relation to travel to work or school, proximity of services (including transport), traffic growth rates, and congestion
- The most common data sources cited for monitoring these indicators were the Scottish Household Survey and the Hands Up Survey (now administered nationally by Sustrans)
- Targets and timescales varied markedly between LAs and most lacked ambition.
- Some LAs had not set any targets, committing only to an increase or decrease in the indicator (depending on what this was)

### **4.3. Analysis of secondary data to elicit patterns and trends in school travel, pedestrian road casualties and travel to work.**

#### **4.3.1. Key findings: travel to school and child road casualties**

National surveys show that while the level of walking to school remains high, there has been a trend toward greater car use and less walking over the last twenty years.

Younger pupils are more likely to walk but also more likely to be driven than their older counterparts, while older pupils are more likely to take the bus than younger pupils.

There are marked local variations in levels of active travel (principally, walking and cycling to school) although levels of active travel vary only slightly



between local authorities, variations between schools within most authorities are much greater.

There are examples of schools that have relatively high levels of active travel despite pupils travelling a longer than average distance to school. The levels of affluence and deprivation within school catchment areas also have an influence on active travel levels, but the relationship is not straightforward or linear.

There is no evidence from Glasgow that schools with travel plans have higher levels of active travel than schools without such plans, although further research on the impact of travel plans is needed.

While levels of cycling to school are low - just over 2% nationally - there is evidence from Glasgow that ten times as many secondary pupils would like to cycle as do cycle currently.

Although there have been reductions in overall child road casualty rates, rates remain consistently higher in Glasgow than in other authorities.

Child road casualty rates in the most deprived areas of Glasgow and Clyde Valley remain stubbornly high in comparison to the most affluent areas. Child pedestrian casualties have reduced across the board but rates in the most deprived areas remain more than four times those in the most affluent areas.

#### **4.3.2. Key findings: adult travel and adult road casualties**

Adult commuting patterns have changed significantly over the last 40 years. Commuting by car has increased dramatically, while bus use and pedestrian commuting have dropped. Only a small proportion of commuters (approximately 1%) cycle to work.

The increase in commuting by car is not only a result of less people walking, but also due to the growth of single person car use, reflecting higher levels of car ownership and the fact that fewer people are choosing to take lifts and more are choosing to drive.

In most local authorities there is a two to three-fold (or greater) variation in levels of active travel to work across neighbourhoods. The local authorities and neighbourhoods with the highest levels of affluence and car ownership also tend to have the lowest levels of active travel. In part, this also reflects longer commuting distances from suburban areas.

Those living in the most deprived neighbourhoods are more likely to walk or take the bus to work, and less likely to drive than those living in more affluent areas.

People from wealthier households (earning over £40,000 p.a.) are four times less likely to walk and two and a half times more likely to drive than those from the poorest households (earning less than £10,000 p.a.).

Evidence from Glasgow's cordon count survey data suggests that cycling infrastructure and population composition are both important determinants of commuter cycling.

Our analysis of travel diary responses provided by Glasgow and Clyde Valley residents in the period 2001 - 2006 suggests a number of concerning trends:

- Levels of walking have dropped for all types of journey and car use has risen except for trips to hospital;
- For all types of journey, distances travelled on foot, by bus or as a car passenger have reduced while distances travelled as a driver have increased;
- Overall distances travelled by walking have reduced and fewer people are walking for all types of journey. Conversely, those who are walking, appear to be walking further.

### *Road traffic injuries*

Road accidents and road casualty rates in the Glasgow and Clyde Valley region, and in Scotland, have fallen considerably over the last 20 years, despite a 20% increase in traffic volume over the period 1993 to 2008.

Despite adult road casualty rates in the region falling in nearly all deprivation deciles from 1996 to 2007, casualties remain higher in the more deprived locations.

There is no sign of an overall reduction in adult pedestrian casualties admitted to hospital in Glasgow and Clyde Valley. Rates remain three times higher in the most deprived areas compared to the least deprived areas.

## **5. CONCLUSIONS**

Scottish national, regional and local strategy and policy could not be clearer about the importance of active, sustainable travel for individual and public health. There are a number of local initiatives testing out different approaches to promote walking, cycling and the use of public transport. Despite these aspirations and local initiatives, central funding for infrastructure and support for active travel at a local authority level is sparse and levels of walking, cycling and public transport use are falling while car use is increasing.

The Scottish Government 2010/11 budget appeared to effectively freeze active travel spending whilst increasing spend on motorways and trunk roads by £1.5 billion from 2008/09 levels. It is therefore unsurprising that targets for active travel in local authority plans are cautious and lack ambition. These targets arguably reflect what local authorities consider is achievable within the current climate.

The Scottish Parliamentary Inquiry into active travel which reported in April 2010, called for significant increases in central funding for sustainable transport and active travel. Inquiry Committee members also expressed concern that active travel was not being given a sufficiently high priority by local authorities and that there appeared to be widespread variations in

spending. The Committee recommended that the Scottish Government consider how this issue might be addressed.

The Transform Scotland briefing published in late 2009 also highlighted the importance of political leadership and integrity in making transport related decisions, commenting

*'Scotland has an opportunity to be at the forefront of progressive transport policies which contribute to a prosperous and equitable society, and demonstrate our willingness to contribute to the global climate change challenge. Traffic reduction must be at the heart of Scotland's national transport strategy.'*

More recently, the Sustainable Development Commission has stated that a radical rethink of transport priorities and funding is necessary if the carbon emissions are to be successfully reduced and wider sustainable development goals realised.

The overall conclusion from our policy review and evidence from the wider programme of work, and elsewhere, is that clearer and stronger political leadership and commitment is needed in terms of strategic resource allocation and fiscal measures that positively discriminate in favour of walking, cycling and use of public transport over that of the car.

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