

# It's my choice

Safer mobility for an ageing population

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## FOREWORD

The ageing population is a phenomenon often referred to in the media and even in everyday conversation. We talk about its effects on public finances, on housing and on employment.

Within transport, we hear stories of older drivers causing crashes or getting lost on the motorway. The context of an ageing population should be applied to the whole of the transport sector. To take it further, we can begin to consider what the ageing population will do to transport and what the transport sector can do for the ageing population.

This report begins to consider the social role of transport, where getting safely from A to B is only part of the story. Transport can alleviate or aggravate inequalities. It can make a significant difference to quality of life and well-being. It has a part to play in creating active citizens who continue to contribute to society.

Transport's responsibility becomes even more significant in the context of an ageing population. Older people can see and fear barriers in transport which prevent them getting around. A better understanding of these barriers and who faces them will ensure that more members of our ageing population continue to be independent and active citizens.

As Parliamentarians, we recognise our role in getting these issues debated and discussed. PACTS has produced a timely and helpful report to encourage this national debate. This publication contributes to the European Year for Active Ageing as well as the UN Decade of Action for Road Safety. We look forward to taking its recommendations forward with Government and with our fellow MPs and Peers.



PETER BOTTOMLEY MP



JIM FITZPATRICK MP



JOHN LEECH MP

1	<b>EXECUTIVE SUMMARY AND RECOMMENDATIONS</b>
6	<b>1. INTRODUCTION</b>
8	<b>2. THE AGEING POPULATION</b>
9	<b>What is an ageing population?</b>
10	<b>How the ageing population occurs</b>
12	<b>What to expect in the future</b>
13	<b>The older population and transport</b>
16	<b>3. SAFETY</b>
17	<b>How safe are older people – are they at risk or a risk?</b>
18	At risk
21	A risk
23	<b>How can older people be safer?</b>
24	Making infrastructure manageable for older people
24	Active transport infrastructure
25	Motoring infrastructure
25	Public transport infrastructure
26	Improving vehicle design and safety
28	Encouraging self-assessment for drivers
31	<b>4. MOBILITY</b>
32	<b>Why is mobility important?</b>
33	<b>Maintaining independence</b>
35	<b>A mix of modes</b>
37	<b>Perceptions of safety and mobility</b>
41	<b>Improving perceptions and maximising mobility choices</b>
44	<b>5. THE BALANCING ACT - BRINGING SAFETY AND MOBILITY TOGETHER IN POLICY MAKING</b>
45	<b>National policy</b>
45	Driver licensing, assessment and training
47	Encouraging and enabling local provision of transport
48	Monitoring safe mobility
49	Planning for the ageing population
50	<b>Local policy</b>
54	<b>Support networks</b>
54	Health care providers and family
54	Third and private sectors
56	Other road users
56	<b>Summary of policy recommendations to improve safe mobility</b>
59	<b>6. LOOKING TO THE FUTURE - WHICH FACTORS COULD AFFECT MOBILITY?</b>
60	<b>Health</b>
61	<b>Wealth</b>
62	<b>Lifestyles</b>
63	<b>Planning</b>
65	<b>Providing independent safe mobility in the future</b>
66	<b>7. CONCLUSIONS</b>

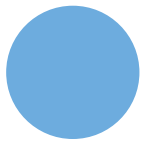
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It should be stressed that the conclusions reached in this report are those of the author and of PACTS.

PACTS is grateful to the Guild of Experienced Motorists for their financial contribution to this project.



# EXECUTIVE SUMMARY AND RECOMMENDATIONS

- i This report arose from the acknowledgement of the age-inequality of road risk, and the recognition of two gaps in current discussions. The first is in transport safety, where there is much research on the safety of older drivers but a gap in bringing together a comprehensive view of safety on all modes. The second is in the general debate surrounding an ageing population, which covers social care, health, pensions, and retirement age, but rarely focuses on transport, which is fundamental to all these issues.
- ii The report explores the demographic changes in the UK before going on to discuss safety and mobility, and bringing the two together in policy. The final chapter speculates on factors which may influence the safe mobility of older people in the future, given that long term population forecasts predict a growing number of older people. These circumstances are not unique to this country; therefore the report presents research and case studies from abroad as well as from the UK. It is informative to observe how other countries are working to improve the lives of their ageing populations. The theoretical discussions providing the foundation for the case studies are drawn from: a literature review including articles sourced from academic, professional, and government publications; interviews with field experts in various domains; and consultations with PACTS working parties in the areas of rail safety, road vehicle design, the road environment and road user behaviour. Additionally, PACTS benefited from contact with charities in the ageing sector, ensuring that research findings were in tune with the voices of older people.
- iii The title 'It's my choice' reflects the main theme of the report: helping older people to help themselves, so that they can make better, safer, well-informed choices. The conclusions and policy recommendations reached in the report do not seek to restrict or impose strict regulation, but rather to encourage and support older people. In the safe systems approach the aim is to design a system where inevitable errors of judgement do not result in death or serious injury. Responsibility for keeping users safe even when they make mistakes is shared amongst the designers, builders and providers of the system. Therefore, in order for older people to be safer, the public realm, infrastructure for motoring and public transport, and vehicles should all be designed to pose as low a risk as reasonably practicable on older users. Older people themselves should also be supported and encouraged to keep themselves as safe as possible, by raising awareness and providing clear, evidence-based information.
- iv With a safe and forgiving network older people can enjoy mobility in later life. All forms of transport should be, and should be perceived as safe, convenient and integrated. People do not have a true choice if they put self-imposed restrictions on their options because of negative perceptions of personal security or safety. The ideal which PACTS envisages is one where the transport system, and older people's perceptions of the system, does not place any unnecessary restrictions on their mobility or impact on their quality of life. Mobility is necessary for everyday tasks usually encompassed under the heading of accessibility (shopping, visiting friends, etc) and also in order to feel independent and enjoy the journey itself. If these mobility needs are unfulfilled, quality of life is impaired. Therefore mobility is considered alongside safety in this report, with the basic belief that having the widest range possible of transport options is the best way of ensuring a high level of mobility. Furthermore journeys are often multi-modal, and therefore it is vital that older people feel confident at each stage of the journey. Train journeys may be very safe statistically, but if an individual feels they are in danger on the walk to the station, or waiting on the platform, then they will avoid the whole journey.

- v Two thirds of the people who have reached 65 are still alive today<sup>1</sup>
- vi The ageing population was not an unforeseen or new phenomenon, nor is it a short term one. The basic drivers of a lower birth rate and a reduction in mortality are creating a long lasting situation where there is a greater proportion of older people in the population than younger people. Currently in the UK around one in six of the population is aged 65 or over, and it is predicted that by 2050 one in four will be.<sup>2</sup> This is a global trend, with Japan and a number of European countries in the lead. This sustained trend requires planning and action. Where older people live, how they will travel and where to, are all questions which need consideration. They will be influenced by the health, wealth and lifestyles of the future older population as well as external factors such as planning. For example, older people are now more likely to live by themselves, and an increasing proportion of them have no children. Additionally, while life expectancy has continued to rise in recent years, the extent of health and wealth inequalities has been recognised. These issues will all have an impact on safe mobility and deserve to be explored further.
- vii **Despite the technological evolution of transport, the best selling means of travel in the 21st century remains shoes.**<sup>3</sup>
- viii The aim of this report is to widen the discussion on transport safety and the ageing population, in the hope that future conversations on the topic will extend beyond older drivers. Driving should be made as safe as possible for as long as possible, through increased awareness and self-assessment and a national standard course available to all older drivers. Further research is needed on the extent and effectiveness of self-regulation before it is relied upon to keep the growing number of older drivers safe. However, although driving has an important role to play in allowing independent mobility, it should not be the only option. Walking, cycling, taking public transport, demand responsive transport or community transport should all be part of the modal mix. Encouraging and enabling safe mobility will allow the public to continue being active citizens as they age. They should be able to enjoy the longevity that has been achieved, and society as a whole should be able to benefit from it.

1 HSBC, 2010. Unlocking the World's Potential campaign.

2 Cracknell, R., 2010. The ageing population. In: House of Commons Library Research, 2010. Key Issues for the New Parliament 2010. Available at:

[http://www.parliament.uk/documents/commons/lib/research/key\\_issues/Key%20Issues%20The%20ageing%20population2007.pdf](http://www.parliament.uk/documents/commons/lib/research/key_issues/Key%20Issues%20The%20ageing%20population2007.pdf)

3 [http://www.aeneas-project.eu/docs/AENEAS\\_StudyTourCatalogue.pdf](http://www.aeneas-project.eu/docs/AENEAS_StudyTourCatalogue.pdf) Page 9.

**NATIONAL GOVERNMENT** has a responsibility to ensure that the older citizens of the UK can continue being active citizens, by ensuring that they have the widest possible range of options for keeping mobile.

#### SAFETY

- PACTS recommends that an information pack is developed raising awareness and giving advice on the issues facing older drivers such as renewing the driving licence, self-regulation, and vehicle adaptation. To this end, more research is required into the effectiveness of self-regulation, and how to advise helpful self-regulation.
- The government should also develop a course accreditation system or standard course for older drivers, which could be available throughout the country. An in-depth study of older drivers' safety should be a foundation on which to develop the course. As a first step, the Department for Transport should create an index of the range of education and retraining courses aimed at older drivers currently offered around the country.
- The government has a responsibility to monitor casualty data, and to seek to improve the safety of older people on all modes of transport. The continuation of road accidents in-depth studies would contribute to this.
- With vehicle design being of vital importance to safety, the government should oversee and monitor the continued improvement of this through engagement with European regulations and involvement in European projects. New vehicle technologies should also be monitored and evaluated systematically and independently.

#### MOBILITY

- The government should consider extending the concessionary bus scheme to include other modes of transport, benefiting people in areas where local bus services are not viable.
- Public transport and community transport should be supported and facilitated. A feasibility study could be commissioned to gather information on the possibility of setting up a UK version of the American Independent Transport Network.
- The 'perceptions of road safety' indicator referred to in the Strategic Framework for Road Safety should be developed as soon as possible, and consideration given to how to interpret and act on findings.
- Mobility centres could further develop and widen their role in supporting older people, in giving advice on vehicle adaptations and new technologies, and assessing drivers.
- Finally, the government should appoint a minister for older people, publish a national strategy for the ageing population, and request that the Behavioural Insights Team include mobility for the ageing population in their research.



**LOCAL POLICY MAKERS** have an important role in providing local transport and engaging with local older citizens.

#### LOCAL TRANSPORT

- Maintenance of good quality pavements, footpaths and cycle paths is imperative, along with the provision of facilities such as public conveniences and benches.
- Local authorities can assist community transport groups with practical matters such as fuel, procurement and maintenance, and support them by helping to amalgamate smaller groups to promote efficiency.
- Local authorities can also contribute by encouraging their local citizens to try other modes of transport before they give up driving. Information on public and community transport, as well as taxis and active transport routes should be accessible and tailored for the older age group. Campaigns to encourage specific forms of transport should be accompanied by visible improvements to infrastructure.

#### ENGAGEMENT

- Local authorities should monitor perceptions and attitudes and take them into account when making decisions. Each decision should be 'health checked' for older people, with mobility considered as well as accessibility: the needs to travel for enjoyment, to socialise and to remain independent.
- Local stakeholder groups such as an older persons' council should be regularly assessed to ensure they are fully effective and representative of all older people in the area.

**HEALTH CARE PROVIDERS** should be better supported so that they can become more effective in giving advice on both physical and mental fitness to drive. The professionals, as well as family members, should be made aware of the psychological effects of giving up driving. Eyesight tests should be encouraged on a regular basis and opticians as well as pharmacists should be alert to fitness-to-drive issues.

**THIRD AND PRIVATE SECTORS** can support community transport by finding new and innovative ways of enabling people to move around safely, as the Independent Transport Network in America did.

- Benefits would be plentiful if technology and internet use were encouraged amongst those who currently use it least. In particular, platforms for informal information sharing could improve mobility.
- Car manufacturers should continue to develop designs to produce vehicles which are as safe as possible for older users.
- Insurers can monitor safety with blackbox technology, and there is a possibility they could take on a role of concerned advisor if a customer has a number of successive claims.

**ALL TRANSPORT USERS** should be aware and understanding of the difficulties older users may face, and their good behaviour enforced.

# 1 INTRODUCTION

The UK's ageing population is thanks to boosts in fertility rates during the 20<sup>th</sup> century, and reductions in mortality rates. These two elements are cause for celebration, though the phenomenon is often given a negative view by media stories focusing on the difficulties that a growing number of older people could cause.

[Why an ageing population is the greatest threat to society<sup>4</sup>](#)

[Britain faces bleak financial future because of ageing population<sup>5</sup>](#)

[Britain's age timebomb: Cost of 1.4m extra pensioners 'means NHS cannot stay free'<sup>6</sup>](#)

The changing demographics are not a surprise; they have been well publicised for decades. In transport, most research on keeping older people safer focuses on the older driver. This report seeks to place safety of older people in the wider context of safe mobility, and the related effects on well-being and quality of life. In order to fully understand this topic, PACTS will consider issues that may be thought to fall outside the traditional remit of 'transport safety', such as health, or perceptions of personal security.

Research for this report was carried out through a literature review including articles sourced from academic, professional, and government publications. Interviews were held with field experts in various domains, as well as consultations with PACTS working parties in the areas of rail safety, vehicle design, the road environment and road user behaviour. PACTS met representatives of Age UK and the International Longevity Centre (ILC) and compared findings in the transport sector with those in the ageing sector. Finally, case studies were selected from the UK and abroad, in order to demonstrate the application of the theoretical discussions to real life scenarios.

At this point it is useful to think about definitions. This report will refer to 'older people', defined as people aged 60 and over by the United Nations. This simple phrase hides the complexity of grouping such a large number of people, and cannot express the diversity within the group. Everyone ages differently: some people may consider themselves 'older' at the age of 55, and others at the age of 85. Where people live, their health and fitness, and their family situation could all influence how people feel and what their capabilities are, as could any number of factors. To this end, the phrase suggested by Age UK 'people in later life' is a perhaps a better description, though slightly wordier. Therefore the phrase 'older people' will be used for ease of reading, though the author would like to recognise the heterogeneity of this group at the outset.

4 <http://www.independent.co.uk/news/uk/home-news/why-an-ageing-population-is-the-greatest-threat-to-society-656997.html>

5 <http://www.mirror.co.uk/news/politics/2011/06/29/britain-faces-bleak-financial-future-because-of-ageing-population-115875-23233985/>

6 <http://www.dailymail.co.uk/news/article-2009269/Cost-1-4m-extra-pensioners-means-NHS-stay-free.html>

## 2 THE AGEING POPULATION

## 2.1 WHAT IS AN AGEING POPULATION?

In almost every country in the world, the number of people aged over 60 is growing proportionally faster than any other age group.<sup>7</sup> The starting point of each country is different, but the process is similar worldwide, with Japan and some European countries the furthest along the line towards an aged population.<sup>8</sup>

The following images show the worldwide distribution of people over 65 years old. The first map is a normal land area map. The second is a cartogram, where land masses are stretched so that the area is proportional to the percentage of the population aged over 65. Countries are re-sized according to the agedness of their population. Those which appear larger, such as the UK and Japan, have a high proportion of people aged over 65 in their population.

FIGURE 1: LAND AREA MAP<sup>9</sup>

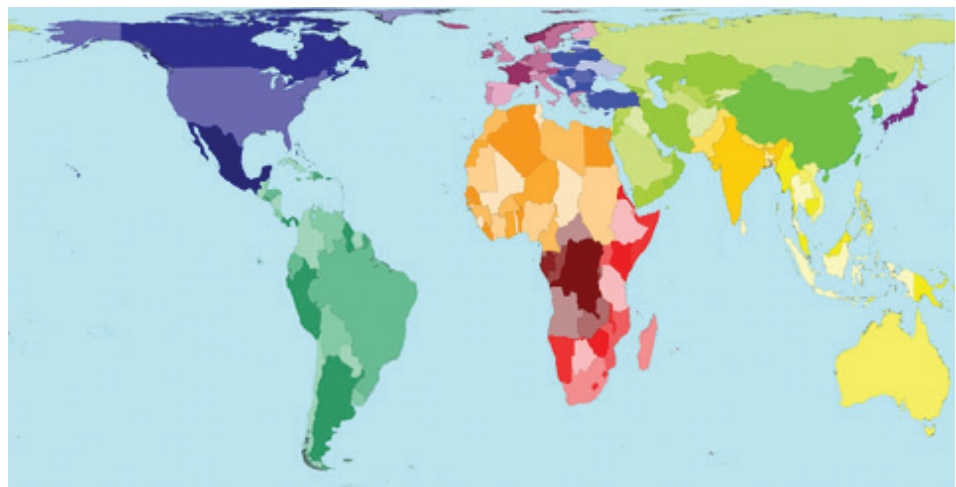
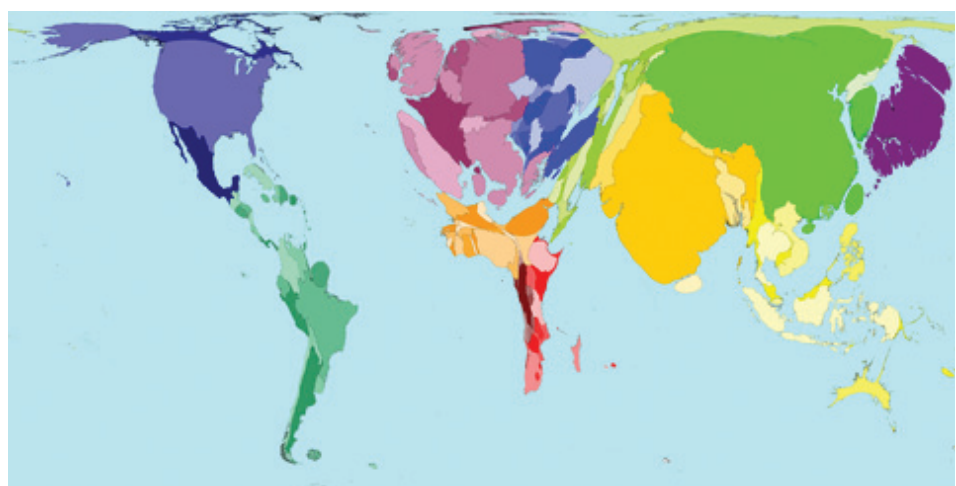


FIGURE 2: COUNTRY SIZES ADJUSTED FOR PERCENTAGE OF POPULATION AGED OVER 65<sup>10</sup>



7 <http://www.who.int/topics/ageing/en/>

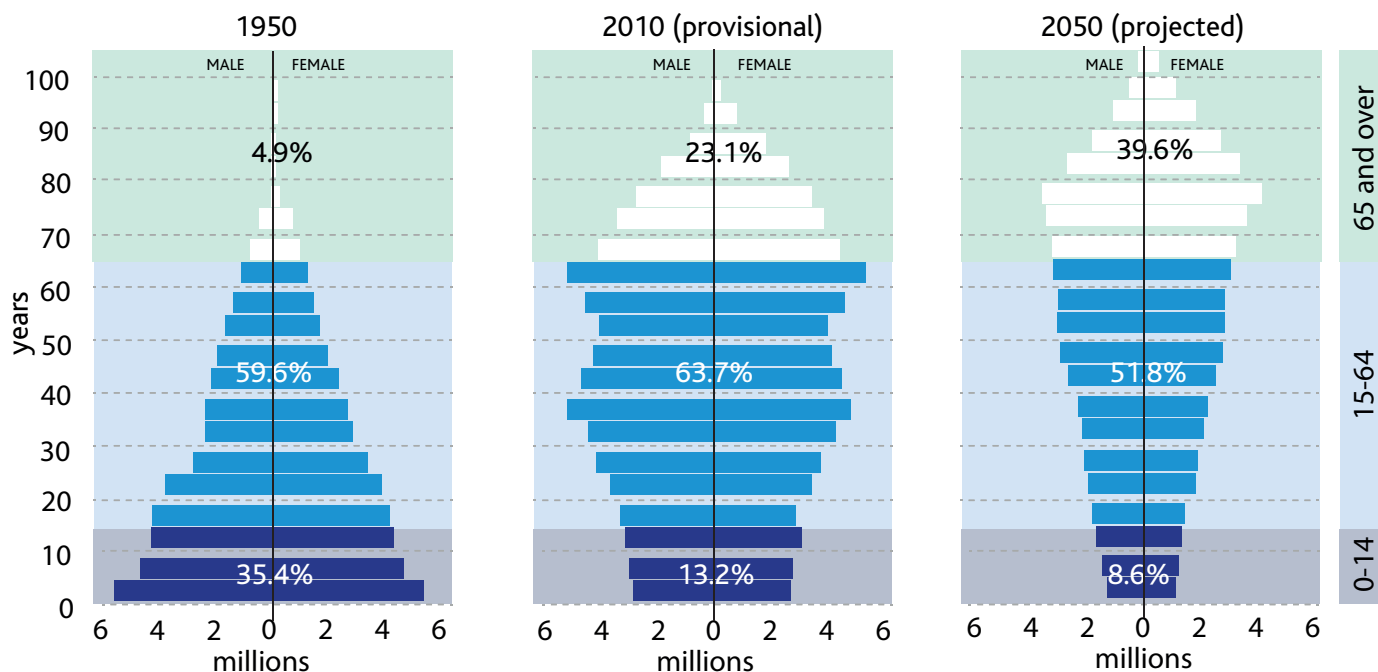
8 OECD, 2005. Ageing Populations : High time for action.  
Available at: <http://www.oecd.org/dataoecd/61/50/34600619.pdf>

9 <http://www.worldmapper.org/display.php?selected=1>

10 <http://www.worldmapper.org/display.php?selected=6>

An ageing population occurs when the structure of age distribution within a population shifts towards older ages. Currently in the UK around one in six of the population is aged 65 or over, and by 2050 one in four will be.<sup>11</sup> Japan has the highest percentage of older people in their population. The changes in Japan spanning a 100 year period, looking back to 1950 and forward to 2050, are illustrated in the following diagram.

FIGURE 3: CHANGES IN THE POPULATION PYRAMID, JAPAN<sup>12</sup>



It is the speed at which Japan's demographics are changing which is most impressive. The proportion of people aged over 65 doubled (from 7% to 14% of the population) in the 24 years between 1970 and 1994<sup>13</sup>. In comparison, the same increase took 61 years in Italy, 85 years in Sweden, and 115 years in France. The causes of an ageing population are particularly pronounced in Japan: birth rates are at an all time low and the Japanese enjoy the highest life expectancy in the world.

## 2.2 HOW THE AGEING POPULATION OCCURS

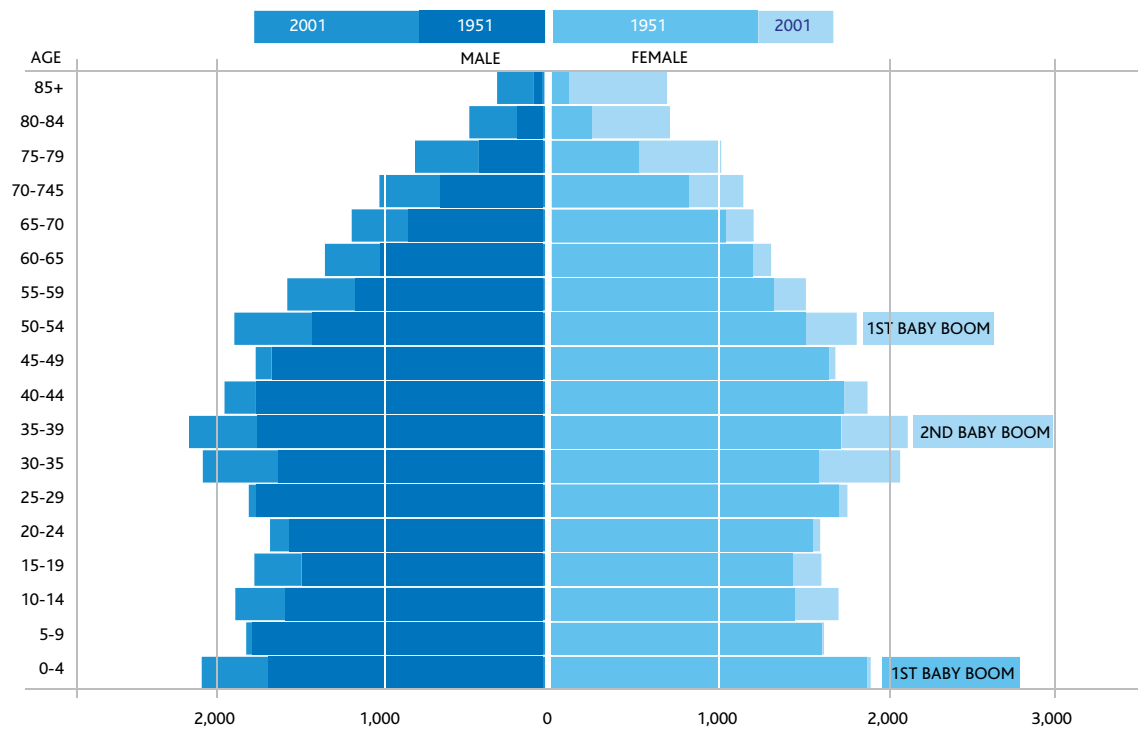
The UK's ageing population is driven by the recent fall in the birth rate, the generations of 'baby boomers', and the reduction in mortality – simply put, the UK has fewer younger people and a greater number of older people living for longer. The birth rate is critical, as it affects how many people are entering the base of the age pyramid, and how many people therefore will grow up in each generation. The birth rate has a far greater influence on the relative sizes of age groups than reduced mortality, which is the capacity to survive to an older age. This has been illustrated by the baby booms of post World War II and the 1960s, the effects of which can be clearly seen on a population pyramid.

11 Cracknell, R., 2010. The ageing population. In: House of Commons Library Research, 2010. Key Issues for the New Parliament 2010. Available at: [http://www.parliament.uk/documents/commons/lib/research/key\\_issues/Key%20Issues%20The%20ageing%20population2007.pdf](http://www.parliament.uk/documents/commons/lib/research/key_issues/Key%20Issues%20The%20ageing%20population2007.pdf)

12 <http://www.stat.go.jp/english/data/handbook/c02cont.htm> Figure 2.3.

13 <http://www.stat.go.jp/english/data/handbook/c02cont.htm>

FIGURE 4: UK POPULATION 2001 (LIGHT) AND 1951 (DARK)<sup>14</sup>

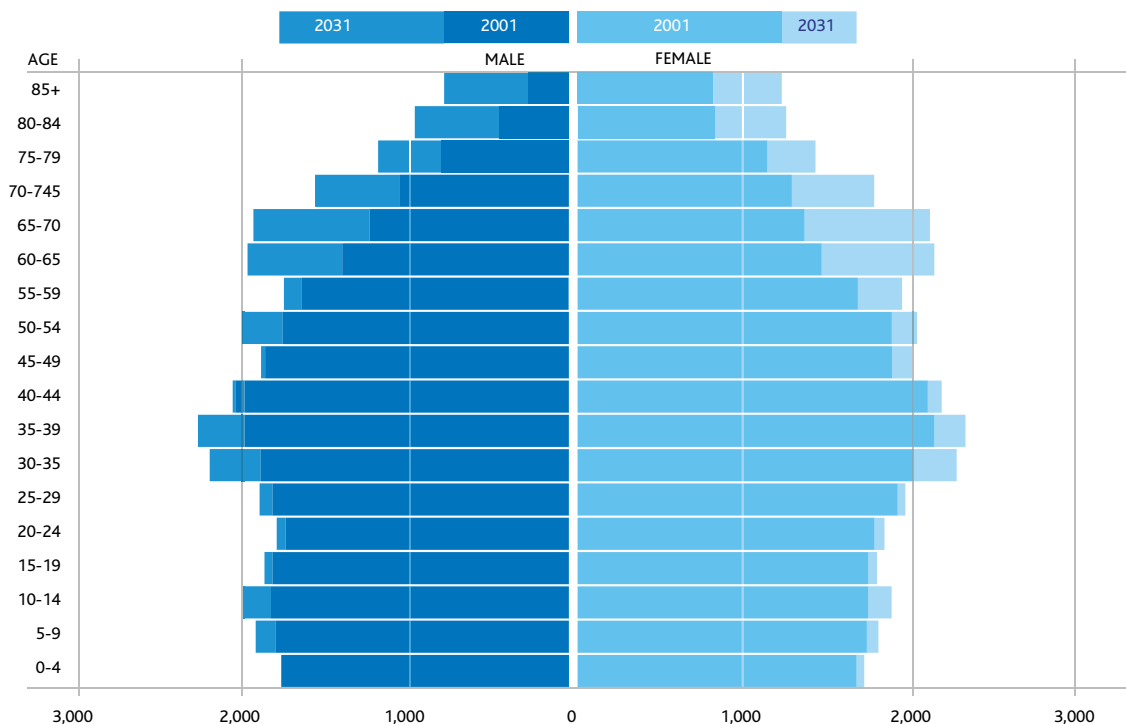


The first baby boom explains the larger number of 50 – 54 year olds in 2001 and the second baby boom is responsible for the large number of 35 – 39 year olds.

As well as the boost in numbers of these particular age groups, there is the effect of reduced mortality at older ages. Figures published by the House of Commons library in 2007<sup>15</sup> show that there are currently three million people aged more than 80 years and this is projected to almost double by 2030 and reach eight million by 2050. A boy born in 1981 had a cohort life expectancy at birth of 84, and a girl of 89. For babies born in 2010, the figure was 89 years old for boys and 92 for girls. By 2030, it is projected to be 91 for boys and 95 for girls. The fact that older people can now expect to live for longer is depicted in the following figure by a widening of the rows at the very top point of the pyramid.

14 Falkingham, J., 2011. Presentation Population Change in the UK: 'The challenging demography' at PACTS conference Older, Wiser, Safer: the challenge of an ageing population. London, UK 13th October 2011. Available at: <http://pacts.org.uk/docs/events/Falkingham%2013-10-20111.pdf> Slide 16.  
 15 Cracknell, R., 2010. op. cit.

FIGURE 5 UK POPULATION 2001 (DARK) AND 2031 (LIGHT)<sup>16</sup>



### 2.3 WHAT TO EXPECT IN THE FUTURE

The post-war baby boomers are currently aged 61-66 and already make up part of the older population. As they grow older they will be joined by the 1960s baby boomers. The growing number of people in the older age groups will evidently have an impact on policy. However it does not necessarily follow that this impact is negative, and the ageing population should not be thought of as a burden. Improved living standards and health should be cause for celebration, and it is important that quality of life does not fall behind. All citizens should be able to enjoy the longevity that has been achieved.

Demographic, social and economic changes will influence how and where the older population live. For example, there has been a rise in the number of people living by themselves. Around 60% of women and nearly 30% of men over the age of 75 live alone today<sup>17</sup>. Depending on divorce rates, this trend may continue. Other probabilities, such as people working longer, and different patterns of family structure, will mean that the older population of the future will be different from their counterparts today, and their needs could be more difficult to predict.

Finally, a discussion of demographics would not be complete without highlighting inequality and the difference in life expectancies between areas. The Office for National Statistics<sup>18</sup> reports that the highest life expectancy in the UK can be found in the most affluent borough of the capital: in Kensington and Chelsea, men can expect to live to 85.1 years and women to 89.8. However in Glasgow city the average life expectancy for a man is 71.6 years and 78.0 years for a woman. That gives a difference of 13.5 years for men and 11.8 for women. The impact these inequalities may have on both mobility and safety is a topic worthy of research in its own right. There are opportunities for the health, transport and other sectors to work together to ensure that these inequalities do not become more pronounced as the older population grows.

<sup>16</sup> Falkingham, J., 2011. op.cit. Slide 17.

<sup>17</sup> Falkingham, J., 2011. op.cit. Slide 30.

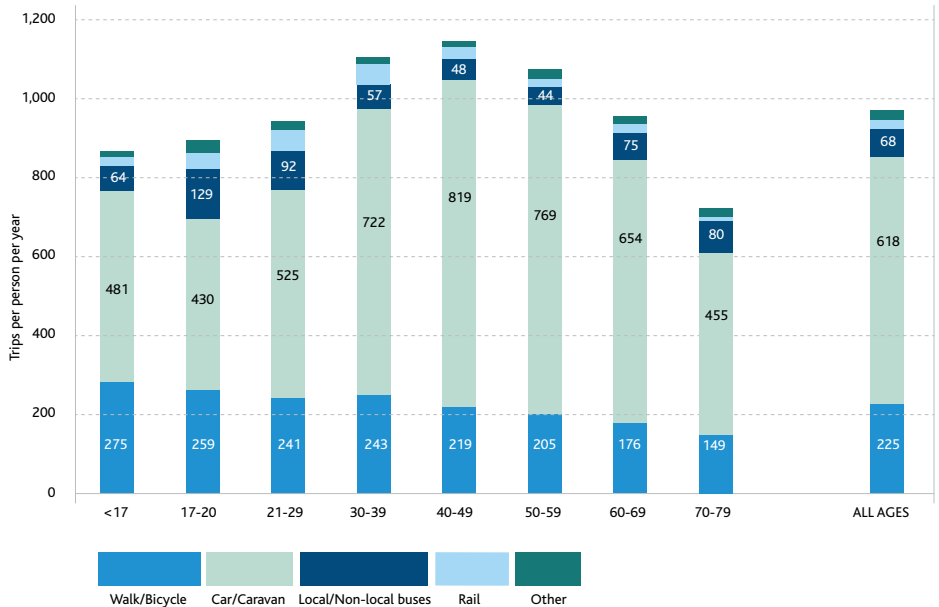
<sup>18</sup> Office for National Statistics, 2011. Life expectancy at birth and at age 65 by local areas the United Kingdom, 2004 – 06 to 2008 – 10. Available at: [http://www.ons.gov.uk/ons/dcp171778\\_238743.pdf](http://www.ons.gov.uk/ons/dcp171778_238743.pdf)



2.4 THE OLDER POPULATION AND TRANSPORT

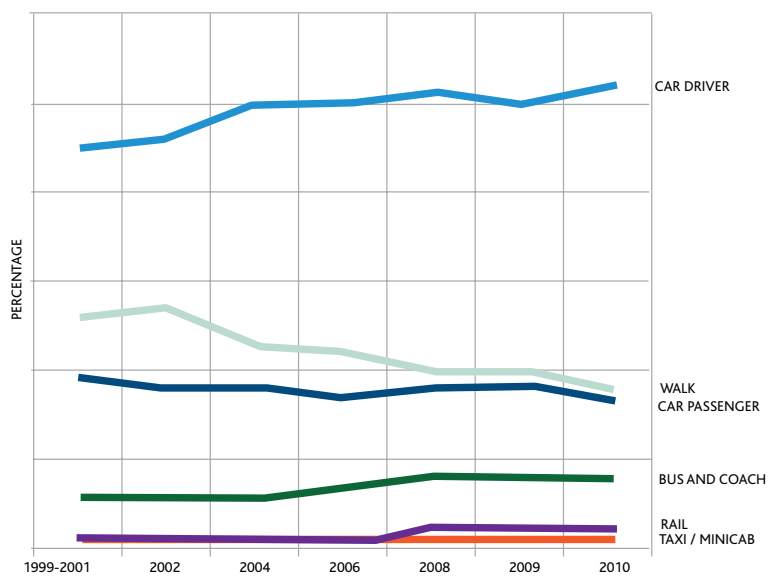
The transport needs of the older population develop and change as people grow older, retire from work and travel for different reasons. Older people make fewer trips than their younger counterparts for commuting and business, but more trips for shopping and other personal business.<sup>19</sup> Generally they tend to make fewer journeys by foot or car, and use the bus more often.

FIGURE 6: AVERAGE NUMBER OF TRIPS BY AGE AND MAIN MODE: GREAT BRITAIN, 2010 (NTS WEB TABLE NTS0601)<sup>20</sup>



The following graphs show how mode choice has changed over the past decade, which has been mostly characterised by a steady increase in driving and a corresponding decrease in walking.

FIGURE 7: AVERAGE NUMBER OF TRIPS BY MAIN MODE, 1999 - 2010: 60 - 69 YEAR OLDS.<sup>21</sup>

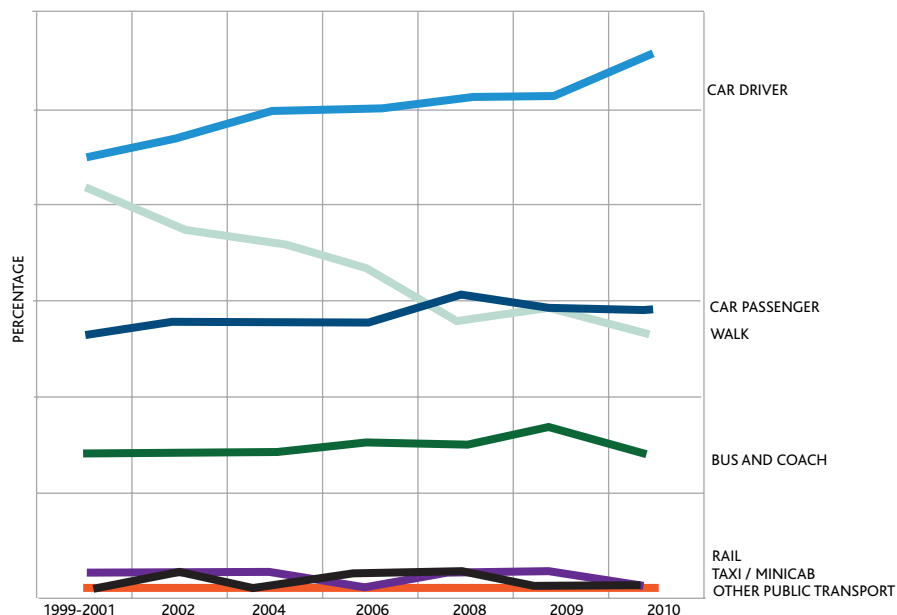


19 Department for Transport (DfT), 2011a. National Travel Survey 2010. DfT, London. Table NTS0611 Average number of trips (trip rates) by age gender and purpose: Great Britain. Available at: <http://www.dft.gov.uk/statistics/tables/nts0611>

20 Department for Transport (DfT), 2011a. National Travel Survey 2010. DfT, London. Travel by age and gender. Available at: <http://assets.dft.gov.uk/statistics/releases/national-travel-survey-2010/nts2010-06.pdf> Page 1.

21 Department for Transport (DfT), 2011a. National Travel Survey 2010. DfT, London. Table NTS0611 Average number of trips (trip rates) by age gender and purpose: Great Britain. Available at: <http://www.dft.gov.uk/statistics/tables/nts0611>

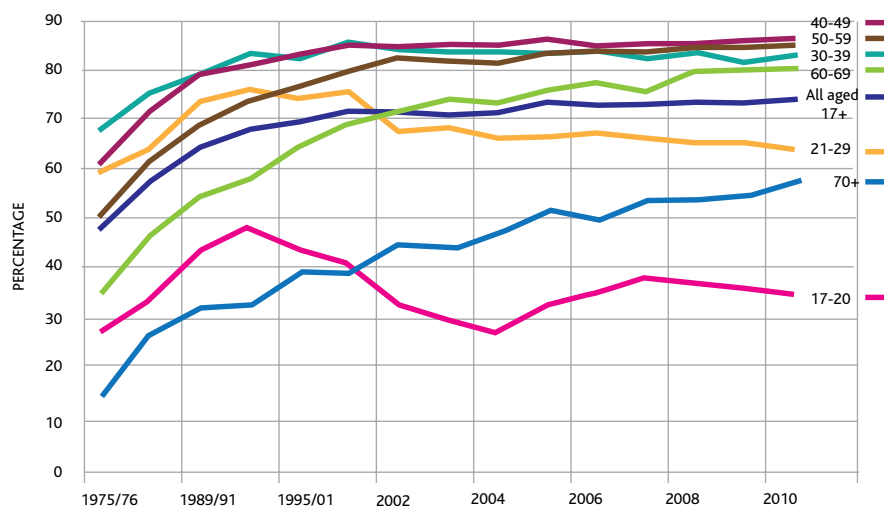
FIGURE 8: AVERAGE NUMBER OF TRIPS BY MAIN MODE, 1999 – 2010: 70 + YEAR OLDS.<sup>22</sup>



These changes in mode choice could be explained by a range of factors, of which the most prominent is the trend in licence holding. The lines representing 60 – 69 year olds and 70 + year olds in the following graph illustrate the rapid increases in licence holding amongst the older population. This trend is particularly marked in older women.

'Thirty years ago, only one in three men and one in 20 women aged over 70 held a driving licence; today, three in four men and one in three women are licensed to drive.'<sup>23</sup>

FIGURE 9: FULL CAR DRIVING LICENCE HOLDERS BY AGE: GREAT BRITAIN, 1975/76 TO 2010<sup>24</sup>



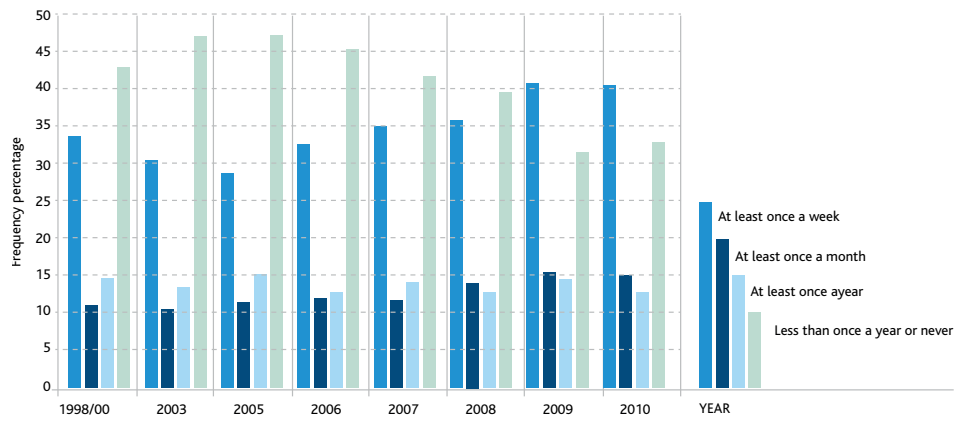
<sup>22</sup> Ibid.

<sup>23</sup> Institute of Advanced Motorists, 2010. Older drivers – safe or unsafe? Available at: <http://www.bacs-iam.org/Downloads/Older.pdf> Page 3.

<sup>24</sup> Department for Transport (DfT), 2011a. National Travel Survey 2010. DfT, London. Table NTS0201 Full car driving licence holders by age and gender: Great Britain, since 1975/76. Available at: <http://www.dft.gov.uk/statistics/tables/nts0201>

Another factor to take into account is the introduction of concessionary bus travel schemes around Great Britain. This may help to explain the following increase in travel by bus.

FIGURE 10: FREQUENCY OF BUS USE FOR THOSE AGED 60 YEARS AND OVER: GREAT BRITAIN, 1998/00 TO 2010 <sup>25</sup>



<sup>25</sup> Department for Transport (DfT), 2011a. National Travel Survey 2010. DfT, London.  
 Table NTS0621 Frequency of bus use for those aged 60 years and over: Great Britain - since 1998/00.  
 Available at: <http://www.dft.gov.uk/statistics/tables/nts0621>

3 SAFETY

### 3.1 HOW SAFE ARE OLDER PEOPLE - ARE THEY AT RISK OR A RISK?

It is generally known that both younger people and older people are overrepresented in casualty statistics. The following discussion will attempt to determine how safe older people are, and if they should be considered more at risk, or a risk. For the purposes of this discussion, 'at risk' will be defined as the group sustaining a comparatively large number of casualties, and being 'a risk' as causing a comparatively large number of crashes. The following analysis will be limited, given that the report has many other issues to address. **PACTS recommends that an in-depth analysis of older people's safety on all modes of transport should be carried out at a national level, and these safety levels carefully monitored.** Northern Ireland has already identified the need to focus on road safety for this age group and has stated its intention to aim to understand the causes of collisions involving older people and consider how best to reach this group.<sup>26</sup> The following European project has similar aims, and once it has been completed and evaluated it could be used nationally. It could be useful to look at levels of deprivation within this study as well as noting any geographical disparities.

#### SAFER MOBILITY FOR ELDERLY ROAD USERS PROJECTS (SAMERU) EU. <sup>27</sup>

The European Commission funded project SaMERU is taking place in four local authorities across Europe - two of which are in the UK: Southend-on-Sea Borough Council and Lancashire County Council – and supported by two research institutions. The project, which runs until March 2013, will examine all aspects of road safety facing elderly road users and make recommendations that highway authorities may adopt to reduce older road user casualties.

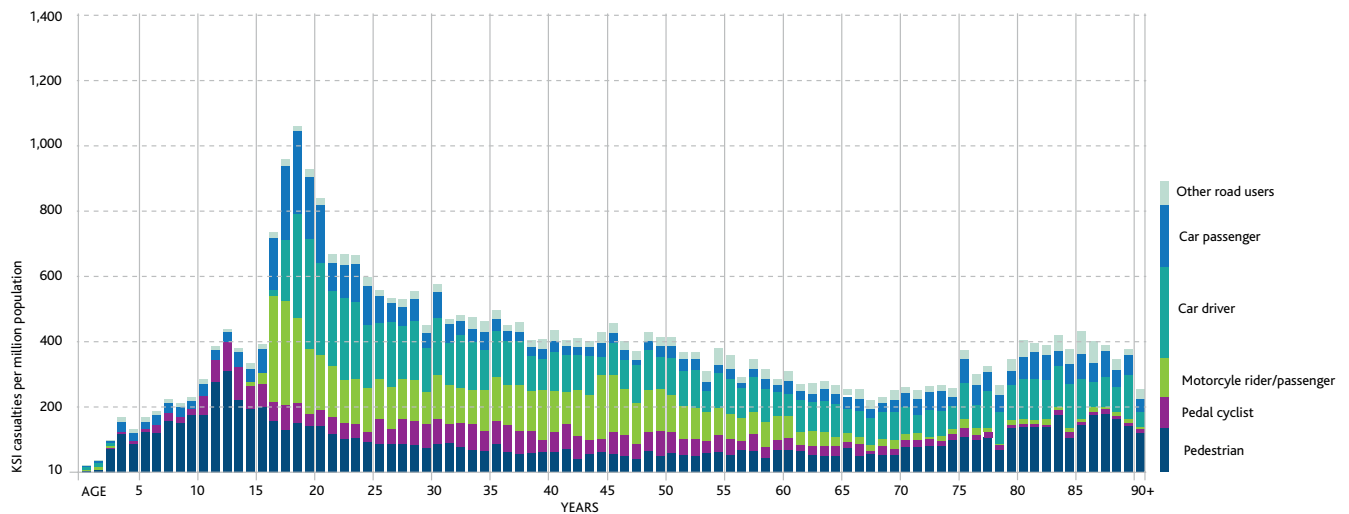
'It will include elderly car drivers, motorcyclists, cyclists and investigate to what extent they are more susceptible to injury in a collision and whether they drive or ride differently from other groups. The difficulties facing elderly pedestrians will be investigated including risk factors, road crossing behaviours, self-awareness, compensatory behaviour and the highway environment. A medical, psychological and sociological research review will be undertaken including changes in sensory, motor and cognitive function as well as possibilities of compensation. It will investigate the balance between experience and losses due to diminution of abilities.'<sup>28</sup>

26 Charman, S., Smith, L. and North, R., 2011. Published Project Report PPR 447: Road Safety Priorities for High Risk Groups in Northern Ireland. Available at: [http://www.trl.co.uk/online\\_store/reports\\_publications/trl\\_reports/cat\\_road\\_user\\_safety/report\\_road\\_safety\\_priorities\\_for\\_high\\_risk\\_groups\\_in\\_northern\\_ireland.htm](http://www.trl.co.uk/online_store/reports_publications/trl_reports/cat_road_user_safety/report_road_safety_priorities_for_high_risk_groups_in_northern_ireland.htm)

27 <http://www.southend.gov.uk/SaMERU/>

28 <http://www.sameru.eu/info/2/project>

## 3.1.1 AT RISK

FIGURE 11: KILLED AND SERIOUSLY INJURED CASUALTIES PER MILLION POPULATION RATES, BY ROAD USER TYPE AND AGE: GB, 2010<sup>29</sup>

The graph shows that **older pedestrians and car passengers** are more likely to be injured on the roads than their middle-aged counterparts. Over the last decade, there has been a reduction in older pedestrian and passenger casualties mostly in line with the general targets of 40% set out in 'Tomorrow's Roads: safer for everyone'. However, the oldest old have not seen such an improvement, with car passengers aged 80+ seeing only a 16% reduction in the numbers killed or seriously injured (KSI) from 2001-2010.

PERCENTAGE REDUCTION IN THE NUMBERS KILLED OR SERIOUSLY INJURED (KSI), 2001 - 2010<sup>30</sup>

<b>Pedestrians</b>	All ages	38%	<b>Car passengers</b>	All ages	53%
	60 - 69 years old	37%		60 - 69 years old	44%
	70 - 79 years old	40%		70 - 79 years old	43%
	80 + years old	33%		80 + years old	16%

This slower rate of reduction may be explained in part by the rapid growth of this age group, and the increase in the percentage of trips taken by older car passengers<sup>31</sup>. Frailty is another factor that could slow reductions. Older people are more vulnerable and may suffer a more serious injury than a younger person in a similar crash. The Department for Transport (DfT) reports that older people are between two and five times more likely to be killed or suffer a serious injury as a result of any road accident than a younger person.<sup>32</sup> The following disparity illustrates this: older people represent 14% of all pedestrian casualties, but 38% of all pedestrian fatalities.<sup>33</sup>

<sup>29</sup> Department for Transport (DfT), 2011b. Reported Road Casualties in Great Britain: annual report 2010. DfT, London. Overview and trends in reported road casualties. Available at: <http://assets.dft.gov.uk/statistics/releases/road-accidents-and-safety-annual-report-2010/rrcgb2010-01.pdf> Chart 6.

<sup>30</sup> Department for Transport (DfT), 2011b. Reported Road Casualties in Great Britain: annual report 2010. DfT, London. Reported casualties by age band, road user type and severity: Great Britain, 2010. Available at: <http://www.dft.gov.uk/statistics/tables/ras30024>

<sup>31</sup> Department for Transport (DfT), 2011a. National Travel Survey 2010. DfT, London. Average number of trips (trip rates) by age-gender and main mode: Great Britain, 2010. Available at: <http://www.dft.gov.uk/statistics/tables/nts0601>

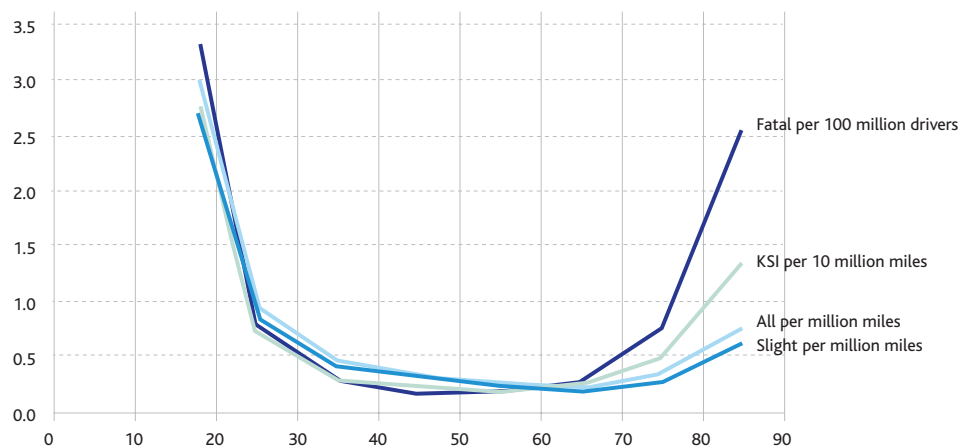
<sup>32</sup> Holland, C.A., Handley, S. & Feetham, C., 2003. Older drivers, illness and medication. Road Safety Research Report No. 39. DfT, London.

<sup>33</sup> Department for Transport (DfT), 2011b. Reported Road Casualties in Great Britain: annual report 2010. DfT, London. Reported casualties by age band, road user type and severity: Great Britain, 2010. Available at: <http://www.dft.gov.uk/statistics/tables/ras30024>

**Pedestrian casualties** reported by the police system STATS19, and therefore included in DfT Reported Road Casualties data, do not show all casualties. In this data set only pedestrians who were injured in a collision involving a vehicle are recorded. To compare, in 2010 there were 3602 pedestrian casualties over the age of 65 recorded in Reported Road Casualties, while Hospital Episode Statistics (HES) recorded 16,055 people aged over 65 who were admitted to hospital following a fall on the street or highway.<sup>34</sup> It has been estimated that 'up to ten times as many people attend Accident and Emergency departments of hospitals with injuries sustained in falls on the footpaths and other transport areas as are injured in road traffic accidents'<sup>35</sup>. These unreported falls on the street should not be forgotten, as the journeys on which they occurred are important to mobility.

The number of **older car drivers** killed or seriously injured is comparable to the middle age groups, though this situation could worsen as an increasing number of older people hold driving licences. The following graph shows car driver casualties per mile travelled, which illustrates that older drivers are at a higher risk of injury per mile driven than middle-aged drivers.

FIGURE 12: CAR DRIVER CASUALTY RATES PER MILE TRAVELLED: GB, 2008<sup>36</sup>



Considering casualties per mile travelled can be misleading, due to the potential of a 'low-mileage bias'<sup>37</sup> applying to older drivers who tend to have a lower yearly mileage. The bias refers to the likelihood that risk per mile is higher at lower yearly driving distances for all ages. There is a similar bias when looking at casualty data per trip. Plotting casualties per licence holder also poses problems, as until the age of 70 licence holding statistics are not an accurate measure of who uses their licence. Driver licences have to be renewed at the age of 70 and every three years thereafter. Non-drivers are not likely to take the trouble to renew their licence, giving a more accurate representation of active drivers in this age group, unlike younger and middle-aged drivers, who may hold a licence but not drive. Therefore drivers aged 70+ will appear to have more crashes per licence holder, as there will be fewer licence holding non-drivers than in other age groups.

34 Department for Transport (DfT), 2011b. Reported Road Casualties in Great Britain: annual report 2010. DfT, London. Hospital admissions data on road casualties.

Available at: <http://assets.dft.gov.uk/statistics/releases/road-accidents-and-safety-annual-report-2010/rrcgb2010-06.pdf>

35 Department of Trade and Industry, 1990. Home and Leisure Accident Research, Twelfth Annual Report: 1988 Data cited in: Ward, H., Cave, B. L., Morrison, A., Allsop, R. and Evans, A. (1994) Pedestrian Activity and Accident Risk. AA Foundation for Road Safety Research, Basingstoke. Page 105.

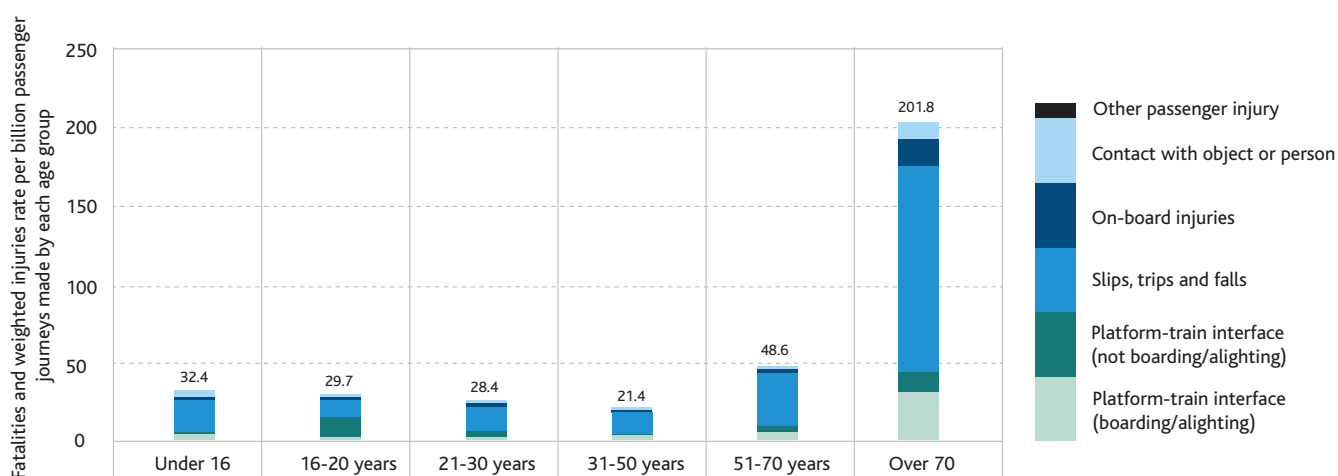
36 Box, E., Gandolfi, J., and Mitchell, K., 2010. Maintaining safe mobility for the ageing population: The role of the private car. RAC Foundation, London. Page 56.

37 Hakamies-Blomqvist, L., 2003. Ageing Europe: The challenges and opportunities for transport safety. Available at: <http://www.etsc.eu/documents/5th%20European%20Transport%20Safety%20Lecture.pdf>

To conclude the discussion on older drivers, there are limitations to how much the data can show however it is cut, but it is generally accepted that younger drivers and to a lesser extent older drivers are higher risk groups. A more thorough presentation of the data on older driver safety including where and when crashes happen has been published by the Institute of Advanced Motorists<sup>38</sup>.

**Bus and train passenger and driver casualties** do not appear in figure 11. There were no train movement accidents resulting in passenger or workforce fatalities during 2010/2011<sup>39</sup>. In the same year eight passengers died as a result of a personal accident, such as a slip, trip or a fall. Older people are more likely to sustain injuries than other passengers, most of which occur as a result of slips, trips and falls. The following graph shows train passenger harm by age group, depicting a large proportion of incidents involving over 70 year olds.

FIGURE 13: TRAIN PASSENGER HARM BY AGE GROUP 2001/02 TO 2010/11: GB.<sup>40</sup>



This is likely to be in part due to reporting issues; it is thought that older, leisure passengers are more likely to report a slip or fall than a rushed commuter. Aside from reporting, older people are also more likely to have restricted mobility which may make boarding and alighting difficult, and mean they are more likely to have slips, trips and falls in the first place. Though this may be a cause for concern, it is encouraging that the railway industry monitors these types of 'personal accidents' and tries to address them. For example, there was recently a report published on 'Passenger risk at the platform-train interface'<sup>41</sup>, and another update on 'Safer surfaces to walk on – reducing the risk of slipping'.<sup>42</sup>

The graph below shows that older people are likewise overrepresented in bus casualty figures. This is thought to be partly due to higher passenger numbers, and also illustrative of their fragility.

<sup>38</sup> Institute of Advanced Motorists, 2010. op. cit.

<sup>39</sup> Rail Safety and Standards Board (RSSB), 2011a. Annual Safety Performance Report 2010/11. RSSB, London.

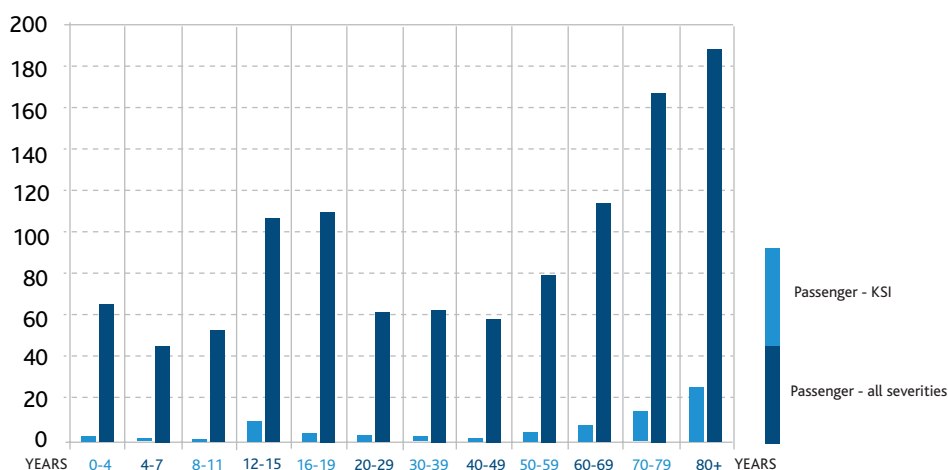
<sup>40</sup> Ibid. Chart 75.

<sup>41</sup> Rail Safety and Standards Board (RSSB), 2011b. Passenger risk at the platform-train interface. RSSB, London.

<sup>42</sup> Carpenter, J., Lazarus, C. and Perkins, C., 2006. Safer surfaces to walk on - reducing the risk of slipping. CIRIA, London.



FIGURE 14:  
BUS AND COACH PASSENGER CASUALTIES, RATE PER MILLION POPULATION: GB, 2010.<sup>43</sup>



North East Regional Road Safety Resource examined bus casualty data and found that older age groups are generally more susceptible to suffer an injury when standing up than other ages, and that the proportion of casualties suffered when boarding and alighting by passengers aged over 80 is very high compared to the casualties of seated passengers in this age group.<sup>44</sup>

The safety of older people in **other road user groups**, such as HGV drivers, motorcyclists and pedal cyclists, is harder to analyse as the numbers are relatively small. However, this does not diminish their importance and indeed as people work for longer and cycling becomes more popular again their safety will become even more significant.

### 3.1.2 A RISK

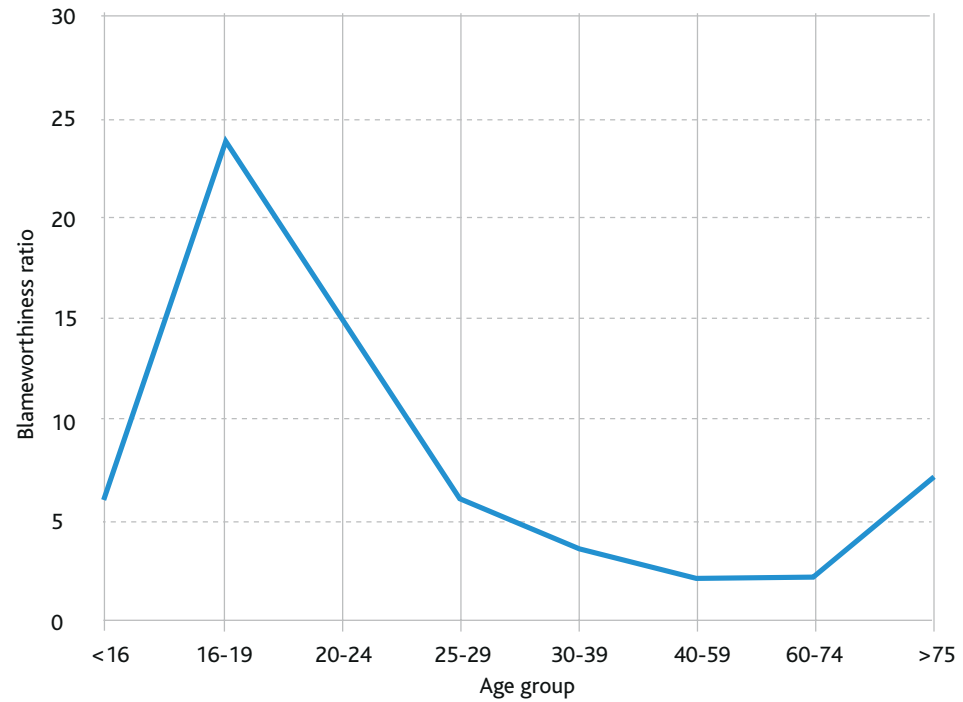
Any discussion about the possibility of older people being a risk to other transport users is bound to refer primarily to older drivers, as they have the greatest potential to do harm to others. Older drivers are overrepresented in multi-vehicle crashes, suggesting that they have difficulty interacting with other road users. These collisions typically occur at intersections, particularly where the older driver is turning against oncoming traffic that has right-of-way on a main road.<sup>45</sup> The type of crash involving an older driver is more likely to involve a complex environment and situations under time pressure<sup>46</sup>, causing them to make observational or misjudgement errors. In comparison, collisions involving younger drivers show factors such as speeding, deliberate recklessness, and loss of control. The following graph illustrates the distribution of the age of the driver at fault for fatal accidents.

<sup>43</sup> Department for Transport (DfT), 2011b. Reported Road Casualties in Great Britain: annual report 2010. DfT, London Reported casualty rates by age band, road user type and severity, Great Britain, 2010. Available at: <http://www.dft.gov.uk/statistics/tables/ras30025>

<sup>44</sup> Slater, P. and Shield, C., 2011. Analysis of Bus and Coach Passenger Casualties: North East England 2006 – 2010, Available at: <http://www.neroadsafety.org.uk/documents/32.%20Analysis%20of%20Bus%20and%20Coach%20Passenger%20Casualties%20in%20North%20East%20England,%202006%20-%202010.pdf>

<sup>45</sup> Clarke, D., Ward, P., Truman, W., and Bartle, C., 2009. Collisions involving older drivers: An in-depth study. DfT Research Report 109. Department for Transport, London.

<sup>46</sup> SWOV (Institute for Road Safety Research, Netherlands), 2010. SWOV fact sheet: The Elderly in Traffic. Available at: [http://www.swov.nl/rapport/Factsheets/UK/FS\\_Elderly.pdf](http://www.swov.nl/rapport/Factsheets/UK/FS_Elderly.pdf)

FIGURE 15. PATTERN OF BLAMEWORTHINESS RATIOS BY DRIVER AGE GROUP<sup>47</sup>

The graph depicts that drivers aged 16 to 19 years are over 20 times more likely to have caused a fatal accident than to have been innocently involved in one. This likelihood diminishes for 20+ year olds, increasing again over the age of 60. Therefore older drivers are more likely to be at fault than their middle-aged counterparts. It is worth noting that younger drivers tend to have single-vehicle crashes, where there is no question of blame. Older drivers are more likely to have multiple-vehicle crashes, where it is more complicated to state causation. In these cases there is a small possibility that prejudices against older drivers affect the attribution of blame.

Though this discussion on posing a risk to others has focused on vehicle drivers, it is also possible that older cyclists, pedestrians, motorcyclists, or even members of the public on level crossings or trespassing on railways could put others at risk of injury. However, in these cases older people are more likely to cause harm to themselves than to inflict it on others.

On the basis of the relative number and types of collisions that are caused by older people, and the number and severity of injuries that older people suffer, the conclusion must be that older people should be thought of more as 'at risk' than 'a risk', which is in contrast to the impression often given by the media. However, the risk imposed on others by older drivers should be looked at in greater detail. **PACTS recommends research to be carried out in the UK along the lines of the Australian study 'Older drivers: What risk do they pose to other road users?'<sup>48</sup> and the American report, 'Risks older drivers pose to themselves and to other road users'<sup>49</sup>.** Both reports investigate the extent to which older driver pose a risk to themselves and to other road users, relative to drivers of other ages. The American report found that:

47 Clarke, D., Ward, P., Truman, W., and Bartle, C., 2007. Fatal vehicle-occupant collisions: An in-depth study. DfT Research Report 75. Department for Transport, London. Figure 3.2.

48 Langford, J., 2008. Older drivers: What risk do they pose to other road users? Available at: [http://s3.amazonaws.com/zanran\\_storage/www.austroads.com.au/ContentPages/621166009.pdf](http://s3.amazonaws.com/zanran_storage/www.austroads.com.au/ContentPages/621166009.pdf)

49 Tefft, B., 2008. Risks Older Drivers Pose to Themselves and to Other Road Users. Available at: <http://www.aaafoundation.org/pdf/OlderDriverRisk.pdf>

'Older drivers pose more risk to their passengers, occupants of other vehicles, and non-motorists than the lowest-risk drivers do. The degree to which older drivers' risk to these categories of road users is elevated depends upon whether risk is measured on a per-driver, per-trip, or per-mile basis.'<sup>50</sup>

The Australian findings were similar:

'Older drivers have been shown not to pose a substantial threat to other road users. Once involved in a crash, older drivers are likely to be the ones either killed or injured. The next largest group consists of older drivers' passengers, themselves likely to be elderly. There is some (but not consistent) evidence that older drivers pose some excess threat to other road users especially when death and casualty outcomes are calculated on the basis of driver miles: even here however, the excess deaths and injuries to others typically account for only a minute proportion of the total road crash casualties, given older drivers' low driving distances.'<sup>51</sup>

These reports highlight the risk older drivers pose to themselves and older passengers, bringing the discussion back to the topic of frailty. Many older people are admitted to hospital as an indirect result of frailty, due to the seemingly disproportionate consequences of a fall in the home or a trip on a pavement. It may be impossible to make older people completely safe while getting about, but to what extent should frailty be accepted as an unpreventable factor in casualties?

### 3.2 HOW CAN OLDER PEOPLE BE SAFER?

If it is accepted that frailty is a major contributor to increased severity of injury, and that it is unavoidable to some extent, then older people can be safer by reducing the likelihood of the crash happening, or reducing the consequences of the event.

This line of argument mirrors the safe systems approach, where the system designer has responsibility to minimise the impact of errant behaviour. When designing systems, safety should be embedded rather than bolted on afterwards. This outlook is at the core of Sweden's Vision Zero (the concept that no fatalities or serious injuries should occur on the roads) and the Netherlands' Sustainable Safety. It recognises that collisions happen due to a combination of factors, and therefore responsibility for safety should be shared. The road and the vehicle should be tuned to a person's capabilities, and must provide protection.

A version of Vision Zero in this country should be akin to the safety culture of GB's rail industry, where risk should be as low as reasonably practicable. Rather than seeking to blame and punish, an analysis should follow any collision to determine what went wrong, and how it could be avoided in the future.

<sup>50</sup> Ibid. Page 9.

<sup>51</sup> Langford, J., 2008. op. cit. Page 7.

### 3.2.1 MAKING INFRASTRUCTURE MANAGEABLE FOR OLDER PEOPLE

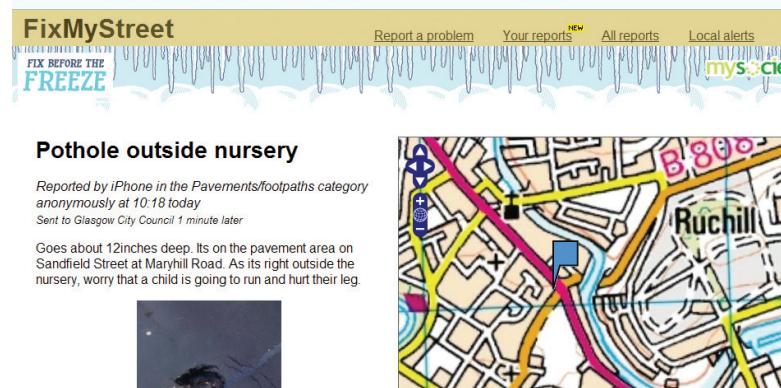
#### 3.2.1.1 ACTIVE TRANSPORT INFRASTRUCTURE

One of the single most important elements of a safe system is the provision of well-maintained (ice-free in winter), well-lit, uncluttered and even pavements. The research consortium I'DGO has found significant links between the provision of good paths and the time spent walking for transport.<sup>52</sup> A study from the University of Manchester found the poor condition of pavements to be one of the biggest problems for older pedestrians.<sup>53</sup>

A quarter of pavements in England are in need of repair and maintenance<sup>54</sup>, and it has been reported that 2,300 older people fall on broken pavements every day.<sup>55</sup> This is an example of low-tech, low-cost maintenance that can make an important difference for older people.

#### FIXMYSTREET. UK<sup>56</sup>

Launched in February 2007, FixMyStreet is a website that enables people to report, view, or discuss local problems with their local council. Built by MySociety, a not-for-profit company, in conjunction with the Young Foundation, the site allows citizens to report things which need fixing, cleaning or clearing, by posting a photo, giving details and pinpointing the problem on a map. The details then get automatically sent to the council with responsibility for the area.



Pedestrian refuges are another example of low-tech interventions which can make crossing the road easier for all pedestrians, and particularly benefit older pedestrians who may find it harder to turn their heads to view oncoming vehicles from both directions. An island allows pedestrians to cross the road in phases, giving them a safe refuge from which to observe the second row(s) of traffic and wait until it is safe to cross. Older people may also find it more difficult to judge the speed of oncoming traffic, a hypothesis which is being researched by Royal Holloway University of London, following their finding that primary school children cannot accurately judge the speed of vehicles travelling faster than 20 mph.<sup>57</sup>

52 Ward Thompson, C., 2011. Presentation Outdoor Environments for Older Citizens – what helps or hinders getting out and about? at PACTS conference Older, Wiser, Safer: the challenge of an ageing population. London, UK 13th October 2011.

53 Beatty, S., and Parker, D., 2007. Older People as Pedestrians: A survey of their opinions about road safety. Available at <http://www.nrsi.org.uk/nrsi/userimages/mcr%20report%20with%20front%20cover.pdf>

54 Help the Aged, 2008a. Spotlight Report 2008: Spotlight on older people in the UK. Available at:

[http://www.ageuk.org.uk/documents/en-gb/for-professionals/research/spotlight%20report%202008\\_pro.pdf?dtrk=true](http://www.ageuk.org.uk/documents/en-gb/for-professionals/research/spotlight%20report%202008_pro.pdf?dtrk=true)

55 <http://www.telegraph.co.uk/news/uknews/2180267/The-16.3-million-compensation-set-aside-for-pavement-falls.html>

56 <http://www.fixmystreet.com/report/214545>

57 <http://www.rhul.ac.uk/aboutus/newsandevents/news/newsarticles/speedchildren.aspx>

The system for active travel needs to be pleasant to encourage more walking and cycling, as well as safer for all users. Infrastructure such as traffic-free routes and lower speed limits deliver both these objectives. Older people show the highest level of satisfaction with the 20mph scheme in Portsmouth, where almost all residential roads have a 20mph speed limit.<sup>58</sup> It is thought that this may be because they see the wider benefits of the scheme.

#### SAFER ROUTES IN COMMUNITIES. WALES. <sup>59</sup>

A new walking and cycling path connecting a rural village to a market town has been built in Wales. Previously, cyclists and pedestrians were forced to walk or cycle along the busy main road. Powys County Council managed the project, funded by the Welsh Assembly, to build a traffic-free path linking the village of Llanyre to the town of Llandrindod Wells in Powys, two and a half miles away. Local citizens use the path to access their school, their workplace or for leisure. The path also links up to the National Cycle Network, linking the town to communities and attractions further afield.

### 3.2.1.2 MOTORING INFRASTRUCTURE

Similarly simple measures such as clear, well-lit, large font road signs and contrasting markings are effective and cost-efficient. Keeping junctions clear of overgrown hedges or anything that could obstruct views is also important. The infrastructure should take into account the functional limitations that older people experience and make tasks and judgements as uncomplicated as possible, particularly those which are known to be difficult such as turning right and crossing the line of oncoming traffic. Diminished complexity will help older road users to make fewer errors. Though it has been proposed that a less complex road environment would benefit all ages of road users, it should be noted that the resulting potential increased speeds or inattentiveness on the part of younger and middle-aged drivers may make the environment more dangerous for older drivers as well as for pedestrians and other vulnerable road users. Therefore finding the correct balance is important, so that older drivers do not find the task too complex, but younger and middle-aged drivers are kept alert and maintain reasonable speeds.

### 3.2.1.3 PUBLIC TRANSPORT INFRASTRUCTURE

There has been a great deal of work on public transport infrastructure improvement under the guidance of the Disabled Persons Transport Advisory Committee. Much of this work now forms part of the official specification that new buses must meet and all buses must meet by 2020. Around 60% of buses already comply with this specification.<sup>60</sup> Ongoing work to improve access to public transport for the disabled will improve the system for older people, though it should be considered whether people with limited mobility benefit from the same improvements as disabled people. For example, ramps in train stations may be necessary for wheelchair users but should not completely replace stairs, as ramps can be difficult for some people with reduced mobility. Non-physical measures can also make the public transport system safer, such as good quality assistance on train journeys or appropriate bus driver training.

<sup>58</sup> Department for Transport (DfT), 2010. Interim Evaluation of the Implementation of 20 mph Speed Limits in Portsmouth. DfT, London. Available at: <http://assets.dft.gov.uk/publications/speed-limits-portsmouth/speed-limits-portsmouth.pdf>

<sup>59</sup> Sustrans, 2011. Making sustainable transport easier for rural communities. Available at: <http://www.sustrans.org.uk/assets/files/Wales%20Policy%20Docs/Rural%20Transport%20Report.pdf>

<sup>60</sup> Hansard, 2011. Parliamentary Question 'Bus Services: Disability' asked by Brandon Lewis MP answered by Norman Baker MP on 21st Oct 2011. Available at: <http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm111021/text/111021w0002.htm#11102147000123>

**ACCESSIBLE BUS STATIONS DESIGN GUIDANCE. LONDON, UK. <sup>61</sup>**

Transport for London's Bus Priority Team published an updated technical advice note in 2006, to assist highway authorities with improving accessibility at bus stops.

'Bus stop design and location is recognised as a crucial element in the drive to improve the quality of bus services. The concept of 'Total Journey Quality' recognises that bus passengers are also pedestrians at each end of the bus trip and requires that all aspects of the journey are considered. The convenience and comfort of bus stops must not be overlooked.'

The guidance encourages highway authorities to consider factors including convenience for passengers, connectivity with footways, and the relationship between the bus and the kerb.

**3.2.2 IMPROVING VEHICLE DESIGN AND SAFETY**

There is a potential link between casualties amongst older drivers (and passengers, as older passengers are likely to be driven by an older driver) and the age of their car. Data provided by the insurance industry shows that on average the oldest age groups (75 years +) have a lower proportion of newer cars aged 3 -7 years, and a comparatively large share of cars older than 9 years.<sup>62</sup> Given the advances in vehicle design and safety in recent years, older people would be safer in newer cars. Therefore the development of a means-tested scrappage scheme for over 70 year olds could have a positive impact on safety levels. A full study into the impact of the scrappage scheme carried out in 2009/10 on ownership and casualty rates would be useful.

There are many new technologies which potentially could help make the driving task easier and safer for older people. It is vital to ensure that any such new technology does not add to the complexity of driving, as it is often the processing of much information from many sources in a short space of time which proves difficult for older drivers. Technologies that assist the driver with the driving process could help compensate for the kinds of cognitive limitations that older people can face and facilitate the driving tasks which older people find difficult. A study at Newcastle University concluded that:

'IVSs (in vehicle systems) providing feedback and support to elderly drivers have the potential to help them recognize their weakness and vulnerability as road users and improve their driving performance through the use of advice, alerts, warnings or active interventions. Driver feedback offers information on elderly drivers' driving performance and helps them be aware of the misjudgements or driving errors being made. Driver support provides elderly drivers with timely and constructive advice, alerts, warnings or even active interventions which take over the activity from the driver to avoid accidents or reduce the seriousness of the accidents. Driver feedback and support can be delivered either in-vehicle using head-up displays or off-vehicle using a home computer or other personal mobile devices.'<sup>63</sup>

61 Transport for London, 2006. Accessible bus stop design guidance. Available at: [http://www.tfl.gov.uk/assets/downloads/businessandpartners/accessible\\_bus\\_stop\\_design\\_guidance.pdf](http://www.tfl.gov.uk/assets/downloads/businessandpartners/accessible_bus_stop_design_guidance.pdf)

62 Correspondence with the insurance industry

63 Guo, A.W., Brake, J.F., Edwards, S., Blythe, P.T. and Fairchild, R.G., 2010. The application of in-vehicle systems for elderly drivers. Available at: [http://eprint.ncl.ac.uk/file\\_store/production/161893/OC0CF554-0564-4904-91C2-F3558133BEDE.pdf](http://eprint.ncl.ac.uk/file_store/production/161893/OC0CF554-0564-4904-91C2-F3558133BEDE.pdf). Page 172.

These technologies could be beneficial to the older population in the future, though it remains for products to be systematically and independently evaluated before they become standard and mainstream in new cars. **As well as being actively involved in Euro NCAP and UNECE, the UK government should encourage the European Commission to include further safety assist categories in Euro NCAP ratings.**

'The introduction of Safety Assist allows Euro NCAP to consider driver assistance systems and active safety technologies. These technologies play an increasingly important role in accident avoidance and injury mitigation. Euro NCAP rewards manufacturers for the fitment of electronic stability control, in addition to points given for the presence of a speed limitation device and intelligent seat belt reminders.'<sup>64</sup>

**Euro NCAP could also include older occupants as a test category, along with child occupant, adult occupant, pedestrian protection and safety assist.** This would ensure that manufacturers recognise older people as a vulnerable group, and consider secondary safety accordingly. Secondary safety improvements available for older occupants include load limiters on seat belts and side airbags. A key part of protecting road users with secondary safety is knowing what kind of injuries happen in a collision. This is why the 'On The Spot' accident data collection carried out by Loughborough University and the Transport Research Laboratory (TRL) was so important and should be continued, and why TRL has been working on developing 'age' crash test dummies, to imitate a 6 year old, a 12 year old and a 50 year old. It would also be useful to develop older test dummies, and analyse injury criteria for older people to identify the acceptable limits of acceleration or other forces on the dummy. The challenge with acknowledging that people of different ages and road user groups have different crashes and injuries is choosing for whom to optimise safety.

Advances in vehicle engineering have already made driving both easier and safer for older people: these include power steering, automatic gears, and adjustments of the level of power needed to press foot pedals. It is possible to have vehicles further adapted for ease of use, for example by installing a seat that swivels making entering and exiting the car easier. Mobility centres, of which there are 17 in the UK, offer professional advice to impaired drivers on vehicle adaptation, and assessment to drivers who self-refer or are referred by their General Practitioner (GP) or the Driver and Vehicle Licensing Agency (DVLA). They could further develop this role to include giving advice and training on new technologies entering the market.

### THIRD AGE SUIT. LOUGHBOROUGH UNIVERSITY, UK.<sup>65</sup>

Loughborough University designed the Third Age Suit, which simulates the mobility restrictions of old age. Ford then used the suit to help their designers understand what it feels like to be older, so they could create a vehicle that is comfortable and convenient. The suit recreates aspects of old age including: the restriction of key joints in the body; restricted movement in the neck; impaired vision and a reduction in the dexterity of the hands and sensitivity of the fingertips.

The salient point to draw from the case study above is the benefit of focusing on the needs of the potential customer as the product is being designed, rather than adding on extras as an afterthought.

64 <http://www.euroncap.com/Content-Web-Page/7b5a942e-a578-4108-8c55-2e2dc1d1bceb/safety-assist.aspx>

65 <http://www.lboro.ac.uk/research/theview/archive/ss10/articles/restricted-mobility/page2.html>

### 3.2.3 ENCOURAGING SELF-ASSESSMENT FOR DRIVERS

It is easier for older people to accept changes to their transport choices if they make the decision themselves. A study of older people and the reason they gave up driving found that those who chose to give up themselves were more accepting, planned their alternative transport meticulously and generally were pleased with the outcome. In contrast, those who were forced to give up by medical professionals or family members were bitter and angry, did not gather information on alternative transport and had a worse quality of life.<sup>66</sup> Therefore older people should be given the information necessary for choosing how to make themselves safer.

#### USEFUL INFORMATION FOR MAKING OLDER PEOPLE SAFER INCLUDES:

- The potential difficulties older people may face, and how to overcome them, including increased vulnerability;
- How vehicles can be made safer by technology or adaptations;
- How to renew the driving licence, how to self-declare, the importance of self-declaration;
- The alternative transport options; and
- Advice on vision and fitness to drive, particularly for those on medication or suffering from dementia.

Once older people are aware of the safety issues and have information on how to make themselves safer, they should be given the opportunity to self-assess. The self-assessment should be designed with the possibility in mind that the under-confident may be more capable than the over-confident. As it is desirable to keep drivers active for as long as it is safe to do so, self-assessment should not discourage those who may continue to drive safely for some time. The Institute for Road Safety Research in the Netherlands states that the '**greatest challenge is to reach people who themselves have great doubts about their driving skills, and those who overestimate their driving skills**'.<sup>67</sup>

Currently the only obligatory assessment of older drivers in the UK consists of the self-declaration section of the licence renewal form, which must be completed at the age of 70 and every 3 years thereafter. Referrals can be made to mobility centres by a GP or the DVLA, where capability is tested. Assessment sessions with a driving instructor are being offered by local authorities, though inevitably there is a self-selecting audience for these schemes. It is not certain that those who could most benefit from these sessions are being reached, and there is the added deterrent of having to pay. Self-assessment could come simply in the form of a workbook, which has been found to increase knowledge and self-awareness.<sup>68</sup> The workbooks can also prove to be a useful trigger for discussions with family members.

66 Musselwhite, C., 2011a. Presentation We need to talk: the role of family, friends and social networks in helping older people give up driving at PACTS conference Older, Wiser, Safer: the challenge of an ageing population. London, UK 13th October 2011.

67 SWOV (Institute for Road Safety Research, Netherlands), 2010 op. cit

68 Husband, P., 2010. A literature review of older driver training interventions: implications for the delivery programmes by Devon County Council and Devon Road Casualty Reduction Partnership. Available at: <http://www.devon.gov.uk/fullreport.pdf>



ROYAL AUTOMOBILE CLUB OF QUEENSLAND (RACQ). QUEENSLAND, AUSTRALIA. <sup>69</sup>

The RACQ provides an older driver self assessment questionnaire on their website which is available to all. Questions such as 'Do you ever get surprised by pedestrians or other vehicles coming from your left or right while you are focussing straight ahead?' may encourage people to think more about their eyesight, while 'Do you ever have have trouble deciding who to give way to at an intersection?' is intended to encourage thinking about driver behaviour.

Following any assessment, among the options for further action are self-regulation and training. Fifty-eight percent of older people reported having modified their driving behaviour with age <sup>70</sup>, with this holding especially true for rural locations, women and the older old (over 80s). They may avoid driving on the motorway, driving at night, or making right hand turns. Avoiding such activities may be the result of changing lifestyles or an awareness of changing ability. <sup>71</sup> Participants in a study in Denmark interpreted their own self-regulation as a response to the external risk factors (such as infrastructure or others' behaviour), rather than as a reflection of their ability. **More research is needed on the extent to which older drivers do self regulate, which activities they avoid and how they decide this.** There is some evidence to suggest that those who have visual and attentional impairments avoid challenging driving situations, whereas those with impaired mental status do not. <sup>72</sup> For example, self-regulation is not a realistic intervention for those with dementia. <sup>73</sup>

Research is also needed on whether self-regulation is effective, and what the extent of any unintended consequences may be. There is a possibility that risk is simply transferred to other areas, such as motorway-avoidance leading to more driving on riskier rural roads. **The effectiveness of self-regulation should be the subject of a study, assessing the link between self-regulation and crash risk.** Self-regulation should not be relied upon as a method to ensure older drivers are safer until there is sufficient research that will allow the provision of evidence-led guidance and information.

If during the assessment stage ability is found to be deficient, it could be improved through training, both in class and on the road. Research conducted by the Devon County Council's Knowledge Transfer Partnership project with the University of Plymouth shows that a combination of in-class education and on-road training produces the highest increase in driver knowledge, awareness and safe skills specific to driving. <sup>74</sup> More evaluation needs to be done in order to maximise the training's effectiveness, though this is complicated in reality. The best definition of effectiveness would be a direct reduction in casualties, but it would be impossible to say whether any reductions had been achieved specifically through older driver training. Knowledge of safe driving could be tested before and after the intervention, though there is a question mark over the time frame of knowledge retention, and whether the knowledge will lead to an adaptation of behaviour.

69 [http://www.racq.com.au/motoring/roads/road\\_safety/older\\_road\\_users/older\\_driver\\_self\\_assessment](http://www.racq.com.au/motoring/roads/road_safety/older_road_users/older_driver_self_assessment)

70 Help the Aged, 2008b. Keeping on the move: Old age – not the end of the road. Help the Aged, London.

71 Siren, A. and Kjaer, M.R., 2011. How is the older road users' perception of risk constructed? Transportation Research Part F: Traffic Psychology and Behaviour. Vol. 14, No. 3, 222-228.

72 Ball, K., Owsley, C., Stalvey, B., et al, 1998. Driving avoidance and functional impairment in older drivers. Accident Analysis and Prevention. Vol. 30, No. 3, 313 – 322.

73 Ball, K., and Rebok, G., 1994. Evaluating the driving ability of older adults. Available at: [https://docs.google.com/viewer?a=v&q=cache:XnA5PVL4aCEJ:138.26.36.150/VAI/PDF%2520Pubs/Evaluating%2520the%2520Driving%2520Ability%2520of%2520Older%2520Adults.pdf+Ball,+K.,+and+Rebok,+G.,+1994.+Evaluating+the+driving+ability+of+older+adults&hl=en&gl=uk&pid=bl&srcid=ADGEEShsP7qXHoaYum7qWCQhcHII7avUHct5jgHb8rIBuMkVnJluxoSHGeGo6M6n3eAtLabpF3Gz1u1byR2u\\_3Ad7GvtaiEfgK9nkhe-wsDav2Ckl\\_gj-P9tEwk96mccxoNaPWwdgR&sig=AHIEtbR02kaBX2O\\_Hp1Q9v2-4D1qeYjZzQ](https://docs.google.com/viewer?a=v&q=cache:XnA5PVL4aCEJ:138.26.36.150/VAI/PDF%2520Pubs/Evaluating%2520the%2520Driving%2520Ability%2520of%2520Older%2520Adults.pdf+Ball,+K.,+and+Rebok,+G.,+1994.+Evaluating+the+driving+ability+of+older+adults&hl=en&gl=uk&pid=bl&srcid=ADGEEShsP7qXHoaYum7qWCQhcHII7avUHct5jgHb8rIBuMkVnJluxoSHGeGo6M6n3eAtLabpF3Gz1u1byR2u_3Ad7GvtaiEfgK9nkhe-wsDav2Ckl_gj-P9tEwk96mccxoNaPWwdgR&sig=AHIEtbR02kaBX2O_Hp1Q9v2-4D1qeYjZzQ)

74 Husband, P., 2010. op. cit.

Many local authorities presently offer training courses alongside their assessment, though the same issues arise regarding the participants and the cost. Devon County Council's research stated that training interventions should be tailored to different needs, after noting that women tended to need information on driving skills and encouragement to prevent premature driving cessation. Meanwhile men, who usually find driving cessation harder to accept, needed more information on health and age-related declines.<sup>75</sup>

#### SAFER DRIVING WITH AGE (SAGE). GLOUCESTERSHIRE COUNTY COUNCIL, UK. <sup>76</sup>

SAGE is a programme offering support, guidance and coaching for older drivers, encouraging them to continue driving for as long as it is safe to do so. The programme consists of a health and medication review, verification that a vision test has been done in the past year, and a driving assessment. The assessment is not a driving test, and drivers are given a written report at the end of the drive. It currently costs £30 and the assessment lasts one hour.

SAGE was developed as a collaboration between the Gloucestershire County Council Road Safety Unit and the local NHS, and was developed in 1993 and piloted in the spring of 1994. The original three pilots were evaluated by the NHS and the scheme was launched to all GP practices in the county.

Clients can self-refer or be referred by family members to SAGE, or they can be referred by their GP or consultant, or a practitioner from the Primary Health Care Team. Confidential reports are prepared following the assessment for the referring practitioner as well as the client, and SAGE aims to reassess clients at three yearly intervals to coincide with the DVLA reissue of licences after 70 [although this timescale can be adjusted to meet the needs of the individual client] and thereafter until the client retires from driving. SAGE's youngest client is 34 and the oldest is 99. SAGE is now used by over 150 GP Surgeries in Gloucestershire.

<sup>75</sup> Husband, P., 2010. op. cit.

<sup>76</sup> <http://roadsafety-gloucestershire.org.uk/wp-content/uploads/2011/04/SAGE-fact-sheet.pdf>

## 4

## MOBILITY

All daily life involves mobility, whether it is putting rubbish out for collection, fetching a pint of milk at the nearest shop, or travelling to the next town to meet a friend.

Enabling older people to maintain high levels of mobility sustains their quality of life and well-being, by keeping both their mental and physical health in good condition. Having mobile older citizens is also advantageous to society, as they can volunteer or continue working, contribute by caring for the older old, and are less likely to need state support themselves. Therefore this chapter looks at how we can make possible and encourage safe mobility, by removing any barriers that may impair mobility choices.

#### 4.1 WHY IS MOBILITY IMPORTANT?

Without mobility, quality of life can be seriously diminished. If getting out becomes more difficult, the knock on effects of reduced social interaction and activities could lead to social exclusion. A reduced ability to access services means relying more on others, which impacts on the sense of control and independence that mobility gives. The needs associated with mobility were formally categorised by Musselwhite and Haddad<sup>77</sup> into utilitarian, affective, and aesthetic.

Utilitarian needs cover the most basic: the need to go from A to B in order to access shops and services, to visit friends and go to social events. Affective needs are to establish a status in society and a role in the community through transport. They are the need for independence and control, to continue to live life as previously and take part in 'normal' everyday activities. Aesthetic needs are the desire to travel for travel's sake, in order to connect to the outdoors, to view nature and explore. Often journeys undertaken for aesthetic needs are not traditionally seen as essential by planners.

These categories emphasise the importance of considering both mobility and accessibility.

'Mobility, defined as the amount of travel undertaken, is different to accessibility, defined as the amount of opportunities reached.'<sup>78</sup>

More mobility is now needed for the same level of accessibility, causing difficulties particularly for those who have impaired personal mobility. A national survey showed that just under half of those aged over 55 in Britain cannot walk to their nearest GP surgery, while 58% cannot walk to their nearest bank.<sup>79</sup>

Restricted mobility, particularly for walking and cycling, could result in or exacerbate existing health issues. Avoiding active transport has an obvious impact on physical health: physical inactivity is rated as one of leading causes of death in developed countries<sup>80</sup>. Physical activity keeps individuals fit, and improves balance, strength, and flexibility, which all help to prevent falls. While being active all through life has more widespread benefits such as preventing diseases, even physical activity only started up later in life can help relieve the disability and pain associated with common diseases among older people, such as arthritis.<sup>81</sup>

As well as the inverse relationship between physical activity and cardiovascular disease, and the association of physical activity with the reduction in the overall risk of cancer, physical inactivity is a major contributor to obesity. With nearly one in four adults in the UK obese<sup>82</sup>, daily exercise such as walking is vitally important. People are more likely to be overweight or obese if they live in areas where they do not have safe, secure, traffic-free, pleasant walking routes.<sup>83</sup> Areas can feel unsafe due to crime or

<sup>77</sup> Musselwhite, C., and Haddad, H., 2010.

Mobility, accessibility and quality of later life. In *Quality in Ageing and Older Adults*. Page 4.

<sup>78</sup> Ibid. Page 1.

<sup>79</sup> <http://www.livingstreets.org.uk/index.php?cid=598>

<sup>80</sup> Davis, A., Cavill, N., Wardlaw M., and Mindell, J., 2011. Chapter 2. Physical Activity, Trends in Walking and Cycling and the Obesity Epidemic in Mindell JS, Watkins SJ, Cohen JM (eds). *Health on the Move 2*. Transport & Health Study Group, Stockport. Page 2-5.

<sup>81</sup> World Health Organisation (WHO), 2003. *Health and Development Through Physical Activity and Sport*. WHO, Geneva. Available at: [http://whqlibdoc.who.int/hq/2003/WHO\\_NMH\\_NPH\\_PAH\\_03.2.pdf](http://whqlibdoc.who.int/hq/2003/WHO_NMH_NPH_PAH_03.2.pdf). Page 6

<sup>82</sup> Davis, A., Cavill, N., Wardlaw M., and Mindell, J., 2011. op. cit. Page 2-1.

<sup>83</sup> Ibid. Page 2-4.

busy roads with inadequate crossings, and this may push people towards transport in vehicles rather than walking. The Transport and Health Study Group state that each additional kilometre walked per day is associated with a 4.8% reduction in the likelihood of obesity, whereas each additional hour spent in a car per day is associated with a 6% increase in the likelihood of obesity.<sup>84</sup>

Avoiding active transport also has a significant impact on mental health. Ironically, avoidance may stem from under-confidence but physical activity actually improves self-confidence as an active individual is more self-sufficient, and less likely to suffer from depression, tension, fatigue and aggression.<sup>85</sup> Physical activity can help reduce memory loss, and improve cognitive function, which is particularly important for dementia sufferers.<sup>86</sup> Those who are physically active can also benefit from social interaction, companionship and enjoying their physical surroundings.

These potential negative health impacts represent a cost for the government, in terms of both health treatment and need of public support. The potential health issues can be intensified by driver cessation, which has been shown to cause increased levels of depression, and reduced amount of time spent out of the house and in social activities, leaving affective and aesthetic needs unfulfilled. Driving is seen as being vital to being 'normal' and feeling part of society.<sup>87</sup> If an older person no longer drives, they may feel they have lost part of their identity, and certainly that they have lost their independence. This emphasises the significance of the progression from driver to non-driver, the importance of support during this time and the promotion and facilitation of alternative transport options.

#### 4.2 MAINTAINING INDEPENDENCE

Driving is usually accepted as being the easiest way to maximise mobility. Being able to drive and having a car gives individuals freedom to go where they please, when they like, with whom they choose. Driving is convenient and allows independence. It has many benefits, not least for those who may find it difficult to walk longer distances, or carry shopping. As the main means of independent mobility, driving should be made as safe as possible for older people for as long as possible.

The car's status and role in modern day life can make it particularly difficult to give up driving. This will be even harder for the younger old who are more likely to have driven all their lives. In addition, as a result of urban planning, it is more common for them to drive to the out of town supermarket than walk to the high street. Changing these habits would mean a shift in culture, perceptions and stigma. For example at present, given that they are not as popular as travelling by car, walking and cycling are sometimes seen as being 'abnormal.'<sup>88</sup>

82 Davis, A., Cavill, N., Wardlaw M., and Mindell, J., 2011. op. cit. Page 2-1.

83 Ibid. Page 2-4.

84 Ibid. Page 2-4.

85 Ibid. Page 2-6.

86 Ibid. Page 2-6.

87 Musselwhite, C., and Haddad, H., 2010. op. cit. Page 7.

88 Pooley, C. et al, 2011. Understanding walking and cycling. Available at: [http://www.leclanacsacuk/research/society\\_and\\_environment/cycling/Understanding\\_Walking\\_&\\_Cycling\\_Report\\_WEB.pdf](http://www.leclanacsacuk/research/society_and_environment/cycling/Understanding_Walking_&_Cycling_Report_WEB.pdf) Page 17.

However, although there are many advantages to owning a car, there are also disadvantages, and many people choose not to or simply cannot. Three quarters of single people over the age of 65 do not have a car.<sup>89</sup> There are practical reasons for not driving, including financial ones. Amongst the poorest fifth of households, those who do own cars spend nearly a quarter of their income on the cost of motoring.<sup>90</sup> This expense is particularly acute for older people who find the cost of insurance increases dramatically with their age. A study by the consumer group Which? found that an annual policy for a 75 year old woman living in north London and driving a Citroen would cost £702 with Saga. However, at the age of 85 it would cost £1,224 - a 74% increase.<sup>91</sup> Which? also uncovered that 60% of policies were not available to those aged 81 and above.

As increasing insurance costs reflect the increasing risk of a crash, it may be possible to develop a pay-as-you-drive scheme, such as ones which have been implemented for young drivers who also face high insurance costs. For example, as young drivers have more crashes during the night, they are offered off peak per mile insurance during the day, and a peak rate at night. Older people, who have lower yearly mileages, could benefit from paying per mile; however the safety benefits are not as evident as the financial. Such a scheme would incentivise the policy holder to drive less, which has advantages in lowering exposure but may raise risk by increasing the low-mileage bias (the likelihood that risk per mile is higher at lower yearly driving distances for all ages). Additionally the issues which were highlighted in the discussion about self-regulation would apply here, namely that evidence is needed on what would make older drivers safer. Research would be required to determine how at risk older drivers really are when making different journeys, and what they could avoid in order to be safer.

Potential financial constraints are illustrated by the following case. In rural Wales the problem is particularly acute, given the reliance on cars for transport and the finding that most rural households face living costs in the order of 10–20 per cent higher than their counterparts in urban areas.<sup>92</sup> Three organisations in this region, Sustrans Cymru, the Campaign for the Protection of Rural Wales and the Campaign for National Parks, are calling for an official definition for transport poverty, citing the example of fuel poverty which is defined as a household spending 10% or more of their income on fuel to keep their home warm.

This issue is not confined to rural Wales or indeed to Britain. An American report found that for someone defined as a 'low-income senior', the cost of owning and driving a car is equivalent to half their income.<sup>93</sup>

A very significant proportion of older people rely on other forms of transport, having given up driving or having never driven. Gilhooly et al found that **'that those who drive, who own cars, who have ease of access to a car, and who report that they can easily get a lift if they do not themselves drive report higher quality of life than those who do not.'**<sup>94</sup> The remainder of this chapter will focus on how to maintain quality of life without relying on the car.

89 Department for Transport (DfT), 2005. Transport Survey. Cited in Help the Aged, 2007.

Mobility and Transport. Help the Aged Policy Statement 2007. Help the Aged, London. Page 6.

90 Social Exclusion Unit, 2003. Making the Connections: Final Report on Transport and Social Exclusion. Office of the Deputy Prime Minister, London. Page 29.

91 <http://www.which.co.uk/money/insurance/reviews-ns/car-insurance/car-insurance-for-older-drivers/>

92 Sustrans, 2011. op.cit. Page 3.

93 Transportation for America, 2011. Aging in Place, Stuck without Options: Fixing the Mobility Crisis Threatening the Baby Boom Generation. Available at: <http://t4america.org/docs/SeniorsMobilityCrisis.pdf>. Page 8.

94 Gilhooly, M., Hamilton, K., O'Neill, M., Gow, J., Webster, N. and Pike, F., 2003. Transport and ageing:

Extending quality of life via public and private transport. Available at:

<http://v-scheiner.brunel.ac.uk/bitstream/2438/1312/1/PDF%20ESRC%20Transport%20Final%20Report.pdf>. Page 12.

### 4.3 A MIX OF MODES

With giving up driving being linked to an increase in depression and loneliness<sup>95</sup> and given the importance of mobility to life satisfaction and quality of life, the process of driving cessation should be made as easy and painless as possible. In order to adapt to a life without driving alternatives should be integrated into the mode mix before driving is taken out of the mix. Having the largest possible choice of transport modes is the best way of keeping a high level of mobility. Other forms of transport are not just alternatives to the car, they are complementary.

A journey could be made of any (or a mix) of the following modes:

- Public transport - Shared, scheduled passenger transport, such as buses, trains and trams;
- Demand responsive transport - Transport which has flexible routing and scheduling, such as taxis or dial-a-ride. Demand responsive transport can be provided by community transport organisations;
- Community transport - Flexible transport often provided by volunteers for those who would otherwise have difficulties getting around;
- Active transport - Walking and cycling; and
- Mobility scooters.

#### INTERLOCH TRANSPORT. COWAL AND BUTE, UK.<sup>96</sup>

Interloch Transport was formed in 2007 to provide a Community Transport service for the community of rural Cowal and Bute. The service is universal with a focus on the elderly, the disabled, those facing deprivation and those affected by the lack of available public transport. Its aim is to prevent isolation, provide access to services and prevent inequalities often seen by more remote scattered communities.

Presently Interloch Transport provides a door to door service for 230 clients, with the majority in the 65 to 90 age range, and many have some form of mobility problem. 200 journeys are made a week and the turnover in 2010-2011 was £130,000, of which £12,000 came from direct fares.

The former Government's Social Exclusion Unit first categorised barriers to reaching key services as: the availability and physical accessibility of transport; safety and security while travelling; the cost of transport; poor information and individuals' limited travel horizons: and the location of services.<sup>97</sup> These were then re-organised by pteg, which represents the six Passenger Transport Executives, into availability, accessibility, affordability and acceptability.<sup>98</sup>

Not all modes listed above will be **available** in all areas. Particularly pertinent for the ageing population is the continued trend of growing numbers of older people living in rural areas, where the choice of alternative modes of transport is likely to be limited, by the distances involved (for walking and cycling) and by the viability of providing regular public transport. This has been exacerbated recently with the cutting of the rural bus subsidy grant in the Local Government Finance Settlement for 2011/2012. In these areas options such as community transport are more practicable, and although they are growing in numbers they are not yet widely available.

95 Fonda, S., Wallace, R., and Herzog, A., 2001. Changes in Driving Patterns and Worsening Depressive Symptoms Among Older Adults. Available at: <http://staff.bath.ac.uk/pssiw/traffic/Fonda.pdf>

96 <http://www.interlochtransport.com/>

97 Social Exclusion Unit, 2003. op. cit

98 pteg, 2010. Transport & Social Inclusion: Have we made the connections in our cities?

Available at:

<http://www.pteg.net/NR/rdonlyres/570FF969-98D6-4C06-B9DB-9837A732E835/0/ptegTransportandSocialInclusionreportMay10.pdf>

The second consideration for alternative transport modes is **accessibility** in both its planning and use. Technology evidently already plays a major role in the planning of travel, whether it be booking a train online or mapping a safe route to cycle. With regard to the ageing population, it is important to note the spread of generations, the elder of which would probably prefer to speak to someone at the ticket office, whereas many of the baby boomers would be happy to make use of journey planning on a website.

#### **TRANSPORT FOR LONDON JOURNEY PLANNER. LONDON, UK. <sup>99</sup>**

Users of Transport for London's online journey planner can indicate certain impairments, such as not being able to use stairs or escalators. It is also possible to indicate the passenger's walking speeds and limitations.

#### **NATIONAL RAIL – STATION PLANS. UK. <sup>100</sup>**

Detailed railway station plans, including photographs, are available via the National Rail website. Information also includes staffing hours, whether there are accessible ticket booths, telephones and toilets, and whether platforms are reachable by step-free access.

#### **LEGIBLE LONDON. LONDON, UK. <sup>101</sup>**

Legible London is a pedestrian wayfinding system that aims to help people walk around London, tackling inconsistent signage and confusion about distances between areas. The system consists of on-street signage and integrated customer information in London Underground and London rail stations, on bus stations and via technology. Maps show areas and destinations within a realistic walking time, and are designed to be easy to use by reflecting the direction people are facing, and by highlighting key landmarks.

Electronic passenger information systems now found in bus stops are helpful, and would be even more so connected to people's homes<sup>102</sup>, so that they would not have to face the possibility of a long wait, possibly without shelter or seating. All information systems should be older people-friendly, with large screens and clear announcements. These are examples of improvements which would benefit many other groups of people as well as the target audience. All modes also need to be physically accessible, and while most issues relating to physical accessibility have been addressed in section 3.2., it should also be noted that a significant barrier to travel can be a lack of public toilets.

99 [http://journeyplanner.tfl.gov.uk/user/XSLT\\_TRIP\\_REQUEST2?language=en](http://journeyplanner.tfl.gov.uk/user/XSLT_TRIP_REQUEST2?language=en)

100 [http://www.nationalrail.co.uk/stations\\_destinations/](http://www.nationalrail.co.uk/stations_destinations/)

101 <http://www.tfl.gov.uk/microsites/legible-london/>

102 [http://www.acis.uk.com/files/VIX152%20ITS%20-%20VIX%20HOME\\_V1.pdf](http://www.acis.uk.com/files/VIX152%20ITS%20-%20VIX%20HOME_V1.pdf)



As well as being available and accessible, transport has to be **affordable**. When asked which services used by older people should be spared in the Spending Review, the concessionary bus pass received more support than the winter fuel payment, care for frail and disabled people and post offices.<sup>103</sup> However, concessionary fares are not much use if there is no bus available. Additionally the removal of the concessionary coach travel scheme will make it more difficult for older people to make longer journeys, visiting friends further afield or going on leisure trips; trips which are as important for quality of life as being able to access local services. Affordability is also the main complaint about taxis, not just the final total but not knowing until the end of the journey how much it will cost.

Following on from availability, affordability and accessibility, the final consideration, **acceptability**, is harder to measure but is vitally important. People do not have a true choice if they put self-imposed restrictions on their options because of negative perceptions such as levels of cleanliness, reliability, personal security and safety.

#### 4.4 PERCEPTIONS OF SAFETY AND MOBILITY

Older people need to find transport modes acceptable to keep all the available options open. They may avoid certain modes or journeys if they perceive them to be complicated or unsafe, with a consequential impact on their activities, social networks, and general quality of life. Older people's perceptions relate to both confidence in themselves and confidence in the system.

**Perceptions of safety** can cause older people to adapt their behaviour, though not necessarily to become safer, as 'human beings are never perfect in their danger aversion.'<sup>104</sup> Additionally, this overestimation of the risks can have an impact on confidence, potentially leading to a loss of mobility.

'... safety is not the only consideration: the danger-aversion behaviour may be stressful or may be restricting (e.g. keeping children indoors instead of allowing them to play).'<sup>105</sup>

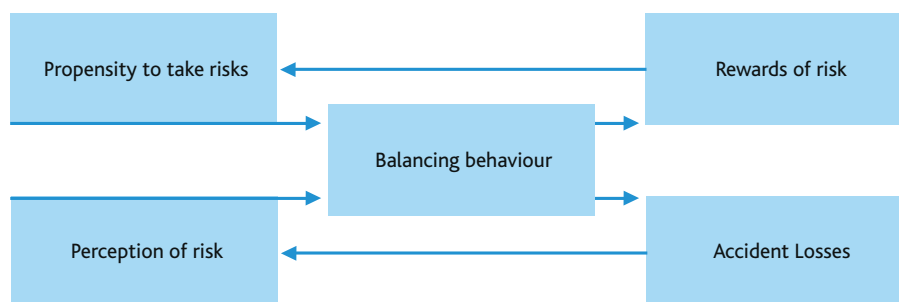
Traffic can be intimidating and threatening, and perceived as a danger. An analysis of pedestrians' intentions to cross the road in risky situations suggested that it is not older people's perception of risk which is different to younger people, but their perception of the value of taking a risk.<sup>106</sup> The following diagram shows the influence of perceived danger on behaviour. Older people may not value as highly the rewards of taking a risk, and therefore be less likely to take the risk. It is probable that both their perception of risk and their propensity to take risks are different from younger or middle-aged people. Models such as this can help to understand how and why people behave as they do.

103 House of Commons Transport Committee, 2011. *Bus Services After the Spending Review*. Eighth Report of Session 2010 – 12. The Stationery Office Ltd, London. Page 23.

104 Mindell, J. and Watkins, S., 2011. Chapter 5. Stress, Social Support and Community Severance. in Mindell JS, Watkins SJ, Cohen JM (eds). *Health on the Move 2*. Transport & Health Study Group, Stockport. Page 5-5.

105 Ibid. Page 5-5.

106 Holland, C. and Hill, R., 2007. The effect of age, gender and driver status on pedestrians' intentions to cross the road in risky situation. *Accident Analysis and Prevention*. Vol. 39, No. 2, 224–237.

FIGURE 16: DIAGRAMMATIC REPRESENTATION OF RISK ASSESSMENT.<sup>107</sup>

Feeling wary about **personal security** can also influence views on safety. An often-quoted activity which older people perceive to be unsafe is walking to, waiting for and using public transport, due to a fear of crime and anti-social behaviour. Studies have shown that the majority of over 70 year olds state that 'personal security in evening and at night' is a barrier to using public transport.<sup>108</sup> Twice as many over 60s report a 'great' fear of crime affecting their lives compared to 16 – 29 year olds<sup>109</sup>, although the younger age group are much more likely to be victims of assault. Two thirds of women and a third of men aged over 60 say their fear of crime prevents them from ever walking alone at night in their local area.<sup>110</sup> Fear of crime is particularly a problem in the most deprived areas, where people are five times more likely to say they are concerned about crime and safety at their bus stop than those in the least deprived.<sup>111</sup>

Older people can also feel restricted by their perceived **ease of using the system**. These are referred to in one report as 'hassle factors' and include journey planning, waiting, unreliability, inadequate facilities, and overcrowding.<sup>112</sup> The possibility of cancellations, having to wait, a lack of public toilets, public transport running late, and difficulties in getting information about the journey were all factors which were reported to be a barrier to public transport for a significant number of people.<sup>113</sup> Older people have reported needing informal information as well as formal published timetables, such as the ease of getting luggage onto a bus, the ease of getting a seat and the likelihood of the bus being late or early.<sup>114</sup>

107 Mindell, J. and Watkins, S., 2011. op. cit. Page 5-5.

108 Gilhooly, M., Hamilton, K., O'Neill, M., Gow, J., Webster, N. and Pike, F., 2003. op.cit. Page 18.

109 Help the Aged, 2007. Mobility and Transport. Help the Aged Policy Statement 2007. Help the Aged, London. Page 4.

110 Ibid. Page 4.

111 Social Exclusion Unit, 2003. op.cit.

112 Rail Safety and Standards Board (RSSB), 2008. Operations: The implications of an ageing population for the railway. RSSB, London.

113 Gilhooly, M., Hamilton, K., O'Neill, M., Gow, J., Webster, N. and Pike, F., 2003. op. cit.

114 Musselwhite, C., 2010. The role of education and training in helping older people to travel after the cessation of driving. International Journal of Education and Ageing. Vol. 1, No. 2, 197-212.

A general feeling that the system is designed for the able-bodied and that providers did not understand older people's needs was revealed by a study in Leeds.<sup>115</sup> An example of this is the length of time allowed by traffic lights for pedestrian crossings, which may be sufficient for the able-bodied but insufficient for those who walk at a slower pace.

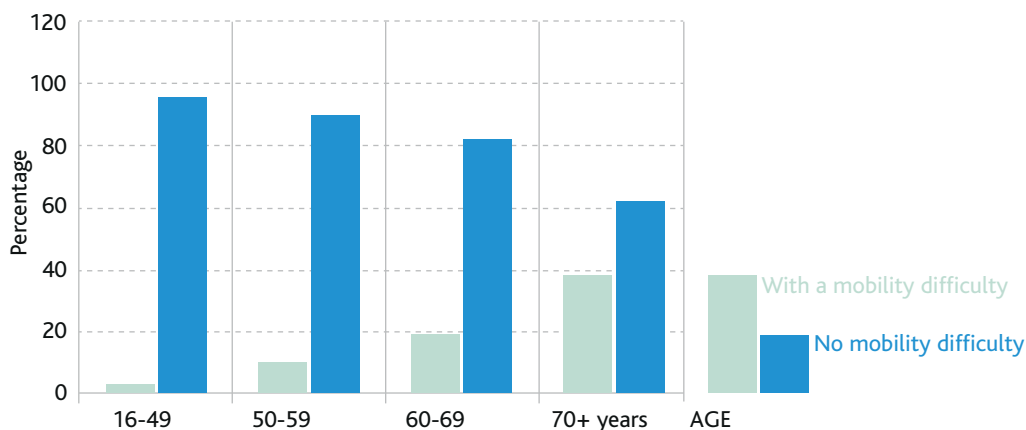
"I wish I didn't feel like this about walking. But it's certainly an issue in my life, not really feeling like I can get out and about. You do learn to accept it but it does affect my life."<sup>116</sup>

**Perceived ability** can influence older people's perceptions of risk. If an older person finds it harder to keep their balance, they are more likely to think that taking a bus is unsafe. Many older people at some stage begin to feel less able to:

- cross the road in the time allowed by a pedestrian crossing and judge the speed of traffic;
- move around a bus/train while it is in transit;
- carry shopping (66% of over 70 year olds in a survey recognised this as being a barrier to public transport);<sup>117</sup> or
- undertake a journey which may include steps.

In general, mobility becomes more difficult with age, as shown by the following graph.

FIGURE 17: MOBILITY DIFFICULTIES BY AGE: GREAT BRITAIN, 2010 <sup>118</sup>



115 Marsden, G., Cattan, M., Jopson, A. and Woodward, J., 2010. Do transport planning tools reflect the needs of the older traveller? *Quality in Ageing and Older Adults*. Vol. 11, No. 1, 16-24.

116 Musselwhite, C., and Haddad, H., 2010. op. cit. Page 13.

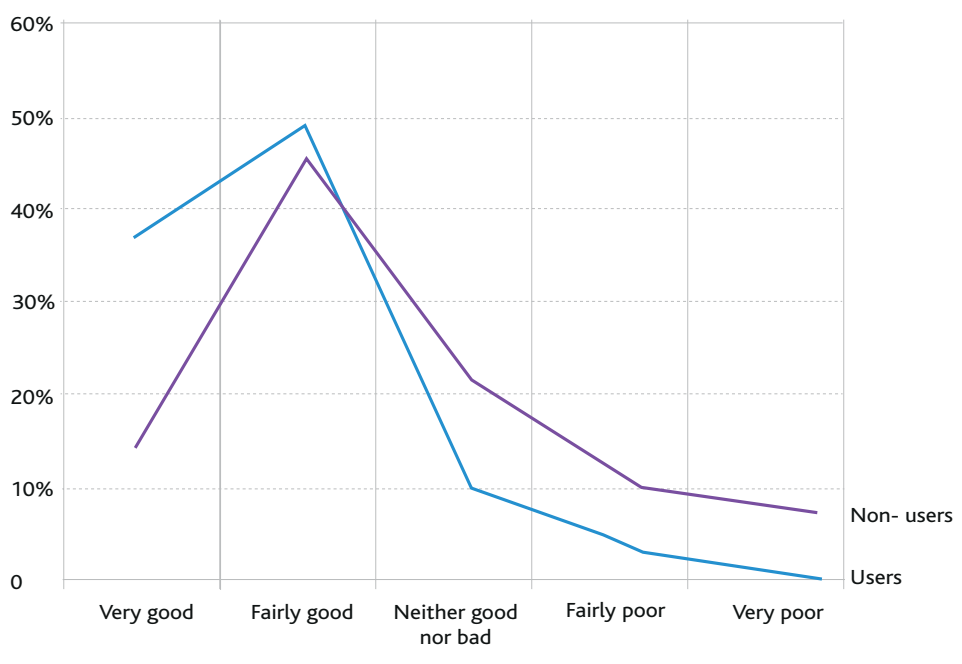
117 Gilhooly, M., Hamilton, K., O'Neill, M., Gow, J., Webster, N. and Pike, F., 2003. op. cit.

118 Department for Transport (DfT), 2011a. National Travel Survey 2010. DfT, London. Table NTS 0622 Mobility difficulties by age and gender: Great Britain. Available at: <http://www.dft.gov.uk/statistics/tables/nts0622>

Though perceptions of ability might bring about some self-regulating behaviour which could help reduce injuries, it may be that some perceptions could be overcome. For example, a passenger could ask the bus driver to wait until they were seated before driving off. It may also be the case that some perceptions are based on a bad experience or no experience at all, so that they are not true in reality. Some older people may think they would not be able to navigate or gain enough information about their journey, for example if changing buses. This may be because they have not tried the interchange, which could actually be well planned and signed.

There is some evidence that there is a fear of the unknown. This can be seen from statistics collected to show satisfaction of rail services. The graph below shows that older people who do not use rail are likely to have a worse impression of services than rail passengers.

FIGURE 18: RATING OF SHORT DISTANCE RAIL SERVICES: 60+ YEARS OLD. 119



One bad experience can be enough to discourage users. In the following statement the older person came across an inconsiderate driver when trying the bus, and states their intention never to use it again.

“I used the bus last week, and was appalled that the driver didn’t wait for me to sit down, even though I walk with crutches. I almost fell in the aisle. I rang the bell to get off, the sign lit up, but he passed my stop and I had to walk a long way back, which took me three-quarters of an hour – a dreadful experience which I shall not be repeating. I was exhausted and upset.”<sup>120</sup>

119 Department for Transport (DfT), 2009. Public experiences of and attitudes towards rail travel: 2006 and 2009. Available at: <http://assets.dft.gov.uk/statistics/series/rail/railtravel2009.pdf>  
Data further broken down, provided by DfT Rail Statisticians at author’s request.

120 Help the Aged, 2008b. op. cit. Page 19.

**Perceptions of norms** may also differ for people of different ages, and their attitudes towards driving or public transport differ accordingly.

"I worked hard all my life. My cars show how well I did. My father didn't have a car, so I suppose I was proud and still am of having a decent car." (Male, driver aged 85) <sup>121</sup>

Just as ageing and impairment develop at a different time and rate for individuals, older people's perceptions will be different. Gender, location, socioeconomic group, ethnicity and health levels will all influence someone's views. In order to address specific perceptions or target specific groups, a full understanding of who feels what is necessary. How to measure perceptions is explored in sections 5.1.3 and 5.2.

#### 4.5 IMPROVING PERCEPTIONS AND MAXIMISING MOBILITY CHOICES

In order to ensure older people do not place unnecessary restrictions on their options, the transport sector should address these perceptions that impact on choice. The factors which affect transport behaviour are summarised in the diagram below, which was published in a Department for Transport document 'Behavioural Insights Toolkit'. The report emphasises the importance of using both objective and attitudinal evidence when considering policy measures. This evidence can be used to '**understand the real-world barriers to particular choices, as well as the things which are likely to motivate them.**' <sup>122</sup>

FIGURE 19: FACTORS ON WHICH TRAVEL CHOICES ARE USUALLY DEPENDENT<sup>123</sup>

<p><b>Collective objective factors</b></p> <p>Hard facts which relate to things bigger than the individual person, e.g. journey distances, availability of transport infrastructure/services, the weather, traffic volumes/speed, vehicle prices. fuel prices, ticket prices.</p>	<p><b>Collective subjective factors</b></p> <p>Perceptions which are held at a group rather than an individual level, i.e. group cultures, social/cultural values, trust in organisations/services.</p>
<p><b>Individual objective factors</b></p> <p>Hard facts which relate to a specific individual, e.g. personal capabilities/skills, resource constraints/income, knowledge/understanding/awareness, habit.</p>	<p><b>Individual subjective factors</b></p> <p>Perceptions which relate to the individual person, e.g. personal norms, perceptions of identity and status, perceptions of costs, perceptions of safety/risk.</p>

The mix of objective and attitudinal factors shows the importance of collecting evidence for both. The 'hard facts' such as journey distances and availability of transport are tracked through the 'National Travel Survey'. The 'hard facts' relating to the individual build up a customer profile, whether it is a customer for rail travel or a 'customer' for pavements. A better understanding of the consumer, what matters most to them and why, allows a better service to be provided.

<sup>121</sup> Musselwhite, C., and Haddad, H., 2007. Prolonging the Safe Driving of Older People through Technology. Centre for Transport & Society, University of the West of England, Bristol.

<sup>122</sup> Department for Transport (DfT), 2011c. Behavioural Insights Toolkit. DfT, London. Available at: <http://assets.dft.gov.uk/publications/behavioural-insights-toolkit/toolkit.pdf>. Page 5.

<sup>123</sup> Ibid. Page 4.

Interventions which aim to improve mobility by addressing objective factors would include putting grab rails in train stations, providing a free bus pass or offering driver training. Interventions addressing subjective factors are less straightforward.

Perceptions held as a group and as an individual have to first be understood, and interventions planned to improve any perceptions found to be impairing mobility.

Interventions could be physical measures, such as the lighting on streets, and at bus and train stations which would help alleviate fears about crime. They could also be non-physical, such as establishing schemes and programmes that encourage more contact between older and younger people. These interventions aim to make people feel safer and allow citizens a free choice in their transport options.

#### **GENERATION XCHANGE. YORKSHIRE AND HUMBER, UK. <sup>124</sup>**

Generation Xchange in Wakefield, Yorkshire and Humber, brings young and older people together through intergenerational volunteering projects, including life skill exchanges, literacy projects, conservation, sports and physical activities, and innovation.

'Intergenerational practice aims to bring people together in purposeful, mutually beneficial activities which promote greater understanding and respect between generations and contributes to building more cohesive communities.'

The following case study describes an EU project where the interventions aimed to influence social and cultural norms, individual perceptions of safety, cost, risk, and also individual perceptions of ability. They also aimed to make mobility enjoyable.

#### **ATTAINING ENERGY-EFFICIENT MOBILITY IN AN AGEING SOCIETY (AENEAS). EUROPE. <sup>125</sup>**

AENEAS was an EU-funded project that ran in several European cities. Although energy efficiency was its main objective, its two aims of improving the attractiveness of sustainable transport and contributing to modal shifts towards lesser-used modes of transport among older people are synonymous with the aims of this chapter. The programme enabled and encouraged mobility through training, awareness raising and communication. Buddy schemes, information sessions and walking clubs were set up.

The AENEAS projects were generally successful, though the evaluation takes the form of 'future transport intentions'<sup>126</sup>, and the effect these projects have in the long term is not yet known. For many of the case studies in AENEAS, schemes were offered by public transport companies. This is particularly encouraging given the findings in the UK that transport operators do not view meeting the needs of older people as a high priority.

<sup>124</sup> <http://www.generationxchange.org.uk/>

<sup>125</sup> <http://www.aeneas-project.eu/?page=home>

<sup>126</sup> [http://www.aeneas-project.eu/docs/Good\\_Practice\\_Implementation\\_Report.pdf](http://www.aeneas-project.eu/docs/Good_Practice_Implementation_Report.pdf)

Gilhooly says 'Train and bus operators, on the other hand, were found to think of older and disabled people as a 'nuisance' and as potentially causing overcrowding because of demands for access.' 'Disability, and not ageing, was found to be of concern to public transport operators. Disability was conceived of largely in terms of wheelchair accessibility. Sensory impairments such as difficulties in seeing or in hearing announcements were rarely mentioned as a concern by the operators of public transport.'<sup>127</sup>

#### CASE STUDIES FROM THE AENEAS PROJECT<sup>128</sup>

##### **BAIM PLUS – MOBILITY THROUGH INFORMATION. FRANKFURT, GERMANY.**

The aim of BAIM plus is to support independent mobility by public transport, particularly for older people and people with reduced mobility. It does this by providing appropriate targeted information services for older people. The German public transport association Rhein-Main-Verkehrsverbund GmbH coordinates the project.

##### **VERTICAL TRANSPORT SYSTEMS. SAN SEBASTIAN, SPAIN**

In order to encourage walking in a city where half the residents live in hilly areas, the city recently introduced escalators and outdoor passenger conveyors. When planners were selecting neighbourhoods to site the new lifts, one criterion was the percentage of inhabitants over 65. The lifts are free of charge and make walking and cycling trips to the centre of the city easier and faster.

##### **PATENTICKET. COLOGNE, GERMANY.**

Working on the theory that people trust the opinion of a familiar person when trying something new, PatenTicket encourages frequent users of public transport to introduce and accompany friends or relatives who are non-users. The non-user is supplied with a three-month pass for the whole public transport network, to allow them to try out and establish routes. Evaluation of the scheme showed that 30% of the guided non-users purchased a season ticket right away and further 30% stated that they planned to use public transport more frequently.

##### **NEWRIDE. BERN, SWITZERLAND.**

NewRide aims to promote the use of electric bikes in urban areas. These bikes, which combine pedal power with motor assistance, are a good compromise for those who want to maintain their fitness but may find longer distances challenging. Cycling is a lower impact activity which may be easier for some people than walking. The programme works with businesses who sell the e-bikes, giving them advice relevant for older users. Public events are organised where e-bikes can be tested and questions answered by specifically trained advisors.

127 Gilhooly, M., Hamilton, K., O'Neill, M., Gow, J., Webster, N. and Pike, F., 2003. op. cit. Page 7.

128 [http://www.aeneas-project.eu/docs/AENEAS\\_StudyTourCatalogue.pdf](http://www.aeneas-project.eu/docs/AENEAS_StudyTourCatalogue.pdf)

5

## THE BALANCING ACT - BRINGING SAFETY AND MOBILITY TOGETHER IN POLICY MAKING

The previous chapters have explored how older people can be safer, and how they can be more mobile. The next challenge is to take forward these improvements in policy making. The following discussion explores the responsibilities of a variety of groups, in keeping with the shared responsibility line of the safe systems approach.



## 5.1 NATIONAL POLICY

Central government has the responsibility of leadership and administration. It should be considering the issue of safe mobility to enable older citizens to be healthy, active, and contribute positively to society.

### 5.1.1 DRIVER LICENSING, ASSESSMENT AND TRAINING

The UK has a liberal licensing procedure amongst an extremely varied collection in Europe, from Sweden having no older age-related restrictions, to Finland where regular medical check ups and licence renewals are compulsory. In America there is much diversity amongst the states: from Illinois where from the age of 75 licence renewals must be made in person with a vision test and on-road driving test required; to Tennessee where the usual five year renewal period is dropped once the driver reaches the age of 65.<sup>129</sup> In this country licences must be renewed at the age of 70 and every three years thereafter, with self-declaration of impairment. The government has occasionally revisited the idea of restrictive driver licensing but has never gone ahead with any changes.

Rather than seeking to become more restrictive, PACTS would prefer to see the government better supporting older drivers with more information and enabling them to be safer by providing good infrastructure, vehicle safety and education. For example, it is said anecdotally that older drivers feel confused by a sudden request for licence renewal at the age of 70. A simple measure such as a letter sent out to 69 year olds informing them of the licence renewal procedure would be an easy way to keep older people informed.

These pre-renewal letters could be developed into a pack informing older drivers about the changes to come. **PACTS recommends the development of a national information pack to inform and raise awareness amongst older drivers, promote mobility, and encourage conversations and reflections which may not have otherwise happened.** Producing this content nationally would ensure a research-based approach and consistency across local authorities, and would benefit from economies in scale. It would also help to fulfil the responsibility the Secretary of State for Transport has of acting through the DVLA to ensure that all licence holders are fit to drive.<sup>130</sup>

#### The following information could be covered:

- How to renew the driving licence and information on self-declaration;
- The potential difficulties older drivers may face and possible self-regulation;
- How vehicles can be made safer by adapting the vehicle or adding active safety devices;
- Awareness of the cost of owning and driving a car;
- Advice on vision and fitness to drive, particularly for those on medication or suffering from dementia;
- A self-assessment.

<sup>129</sup> American Medical Association (AMA), 2010. Physician's Guide to Assessing and Counseling Older Drivers. Ama, Chicago. Chapter 8: State Licensing and Reporting Laws. Available at: <http://www.ama-assn.org/ama1/pub/upload/mm/433/older-drivers-chapter8.pdf>

<sup>130</sup> Driver and Vehicle Licensing Agency (DVLA), 2011. At a glance guide to the current medical standards of fitness to drive. DVLA, Swansea.

Owing to the fear many people admit to of having the driving licence taken away, the DVLA might not be best placed to send out this information. The Department for Transport could produce or procure the basic national content, which could then be supplemented by local authorities with information on alternative transport such as buses, taxis and walking routes.

#### 'SAFER FOR OLDER DRIVERS' BROCHURE. SUSSEX SAFER ROADS PARTNERSHIP, UK. <sup>131</sup>

This brochure produced by the Sussex Safer Roads Partnership gives the older driver clear and concise information on eyesight, hearing, mobility, medication, and comfort in the vehicle. It also gently reminds the reader that everyone develops bad habits over time, and includes a booking form for an Experienced Driver Assessment. Other information includes what the law requires, suggesting alternatives to driving and how to approach different modes, and a prompt to calculate yearly motoring costs.

Following on from awareness-raising and information providing, the next stage would be formal assessment and training. **PACTS recommends the development of a national standard course for older drivers, in line with best practice and academic research.** Again, this would ensure consistency and an evidence-led approach. Currently a number of local authorities provide a range of assessment, information and training through a variety of means. Some have encountered difficulties with low take-up levels; it is thought this is due to the idea that these assessments are tests, and the driving licence may be taken away. It could also be due to overconfidence or unawareness. Developing a national standard with a recognised brand could help do away with any false impressions. This could be modelled on the National Driver Offender Retraining Scheme, whereby the course is national but can be administered by a local service provider. Alternatively a process of accreditation could be developed, and administered by an independent group. **As a first step, the Department for Transport should create an index of the range of education and retraining courses aimed at older drivers currently offered around the country.**

#### NATIONAL DRIVER OFFENDER RETRAINING SCHEME (NDORS). UK.

The National Driver Offender Retraining Scheme aims to improve driving standards and reduce risk by retraining those who have committed a driving or riding offence, as an alternative to prosecution. There are currently a number of schemes which are part of NDORS, including:

- National Driver Alertness Scheme (NDAS)
- National Speed Awareness Scheme (NSAS)
- Rider Intervention Developing Experience (RIDE)
- The schemes are administered by external service providers and funded by the fees charged to drivers.

Evidently a course aimed at older drivers would not be triggered by an offence, which is why it is vital that the course providers are seen as a non-threatening organisation. The course should be widely available and accessible to all, as is Gloucestershire County Council's SAGE programme where participants can self-refer as well as be referred by family members, their GP, or the police.

The course would provide an opportunity for information to be presented and awareness to be raised as well as giving a refresher course. It is important that the tone of any such intervention is positive and supportive, avoiding undermining confidence or giving a negative image of growing older. It should address the range of needs and perspectives within the target audience and the different issues they face. Participants could also be given advice and information on using other modes, encouraging them to think about the possibility of alternatives to the car.

### 5.1.2 ENCOURAGING AND ENABLING LOCAL PROVISION OF TRANSPORT

Though national government has no control over the exact provision of local transport, it does have important responsibilities in terms of funding, encouraging and monitoring. Government should encourage local authorities to use funds intended for transport to ensure the provision of safe transport for all its citizens, including public transport, local roads and spending on walking and cycling. Government has more of an influence over the provision of rail, and it should continue to ensure and improve the safety and accessibility of the rail sector for older people.

Government can also contribute to the provision of local transport by ensuring that appropriate legislation is in place. For example, certain measures already make volunteering for community schemes easier, such as volunteer drivers not having to be licensed as mini cabs. Volunteers can be made safer by undergoing work-related road safety education or training such as the Minibus Driver Awareness Scheme organised by the Community Transport Association.<sup>132</sup>

Community transport has great potential as demand responsive, flexible transport, particularly in rural areas where public local buses may not be viable. There is a suggestion that the concessionary bus scheme could be extended to become a 'mobility pass', which would cover local buses, trains, and community transport schemes, thereby benefiting older people who live in areas where local buses are not the most efficient means of transport. **PACTS recommends that the government considers both the equality of the bus pass scheme and its extension to become a 'mobility' pass.**

This suggestion arouses the debate surrounding the concessionary bus scheme and whether it is financially sustainable. While this is a matter for national and local government, local bus companies and older people to discuss and agree on a solution, there is evidence to suggest that paying an annual sum for a bus pass or a discounted fare would be preferable to seeing services cut. The House of Commons Transport Committee inquiry into 'Bus Services after the Spending Review' found that some people would prefer to pay a discounted fare rather than see local bus services withdrawn.

*"My husband and I have free passes but they are not much use since the council has withdrawn our local bus service".*<sup>133</sup>

<sup>132</sup> <http://www.ctauk.org/training/introduction-to-midas.aspx>

<sup>133</sup> House of Commons Transport Committee, 2011. op. cit. Page 24.

### 5.1.3 MONITORING SAFE MOBILITY

As concluded in Chapter 3, **PACTS recommends that an in-depth analysis of casualty data to establish the safety of older people should be carried out, as well as further evidence gathering from road accidents in-depth studies.** This should be a regular analysis, to try to identify potential problems before they develop. In terms of vehicle safety and design, the UK government has a responsibility to contribute at a European level to regulations for manufacturers and consumer information standards.

**EuroNCAP should include further safety assist categories during testing and recognise older people as a vulnerable group as it has recognised children. Additionally the UK government should establish a systematic, independent programme for evaluating new active safety devices. The role of mobility centres in assessing and advising older drivers on safe driving, vehicle adaptations and new technologies could be further developed and the centres more widely spread.**

In terms of mobility, the government should monitor the provision of alternative modes of transport. As discussed in Chapter 4, perceptions are particularly important for public and active transport. Currently, perceptions are not surveyed consistently. In the Road Safety Strategic Framework published by the DfT in May 2011, under 'Perceptions of Road Safety', there is one sole indicator: 'Whether people feel safe walking and cycling.'<sup>134</sup> It states that this indicator is under development, but that a question would be included in an attitudinal survey, such as Think! tracking which measures road safety attitudes and behaviour among the population. **PACTS welcomes this inclusion, and recommends that the government consider how best to measure feeling safe while walking and cycling, and how to interpret and act on the findings.** For example, it would be useful to be able to break the information down into subsets, to determine the attitude of older people and other road user groups.

The DfT propose to stop asking questions currently included in the annual 'National Travel Survey'(NTS) on attitudes to local services:

- Satisfaction, reliability and frequency of local bus services and train services.
- Ratings of the provision of cycle lanes/cycle paths and of the condition of pavements.

The first is covered by the National Passenger Survey to a certain extent, but with the important omission of consulting the opinions of non-passengers. The Department states that they will use the DfT sponsored omnibus surveys<sup>135</sup> or other attitudinal surveys as an alternative source for the questions on attitudes to local services 'where necessary'. DfT should consider whether this occasional inconsistent surveying of attitudes on a national level is useful and meaningful. It may be that local authorities could make more use of the information, and that the Department should support attitudes being surveyed at a local level.

#### SENIOR STAKEHOLDER MEETINGS. SWEDEN. <sup>136</sup>

The Swedish Road Administration ran a project mapping the traffic environment from an older person's perspective. In groups, pensioners observed and reported hazards in the infrastructure to the Swedish Society for Road Safety which passed the information

<sup>134</sup> Department for Transport, 2011d. Strategic Framework for Road Safety. Available at: <http://assets.dft.gov.uk/publications/strategic-framework-for-road-safety/strategicframework.pdf> Page 75

<sup>135</sup> <http://www2.dft.gov.uk/pgr/statistics/datatablespublications/trsnstattsatt/>

<sup>136</sup> European Transport Safety Council, 2008. PIN Flash 9: Reducing Older People's Deaths on the Roads. Available at: [http://www.etsc.eu/documents/PIN\\_Flash\\_9.pdf](http://www.etsc.eu/documents/PIN_Flash_9.pdf)

on to the responsible road operators. The most common faults reported were holes or dangerous objects in the pavements and short crossing times at signalled crossings. More than 3000 older people took part in the work and 45% of the 5000 faults reported were treated by road operators immediately or within a couple of years.

#### 5.1.4 PLANNING FOR THE AGEING POPULATION

There is currently no government minister who has sole responsibility for older people or the ageing society, though there is a shadow minister for older people. Although some responsibilities lie with ministers in the Department of Health and the Department of Work and Pensions, there is no minister who has the role of considering all needs of older people and analysing policies across departments in terms of their impact on older people. **PACTS recommends that the government fill this void and appoint a minister for older people.**

PACTS also recommends giving planning for the ageing population a better steer, by publishing a strategy or policy statement on safe mobility. 'Building a Society for All Ages'<sup>137</sup> was published in 2009, and although the document is referred to as a strategy it also asks questions for consultation, giving it the feel of a draft document. Some intentions stated within it are excellent, for example the development of a 'driving for life package'. **PACTS recommends an evaluation and update of this strategy.**

The government could look to strategies in devolved administrations for inspiration. 'The Strategy for Older People in Wales 2008 – 2013'<sup>138</sup> gives strategic aims, objectives, and clearly lays out who will have responsibility for each. 'All Our Futures: Planning for a Scotland with an Ageing Population'<sup>139</sup> outlines an action plan, where government states what it will do, what it invites others to do, and what success will look like.

The UK Advisory Forum on Ageing is an excellent platform from which to launch a new strategy, as the group's mission statement states:

**'The UK Advisory Forum on Ageing (UKAFA) will work collaboratively to improve levels of older people's engagement at community, local, regional and national level, identifying and promoting approaches that give opportunity for engagement to older people and in particular to more diverse groups whose voices are seldom heard.'**<sup>140</sup>

This national forum links up to regional and local champions, such as the Older People's Advocate in Northern Ireland<sup>141</sup>, the Older People's Commissioner in Wales<sup>142</sup> and English regional forums.

**'Recruiting influential and credible figureheads who are respected by the members of a peer group can also be effective in 'normalising' new behaviours. They can help to spread key messages and to provide social proof of the acceptability of a particular behaviour.'**<sup>143</sup>

137 HM Government, 2009. Building a Society for All Ages. The Stationery Office, Norwich. Available at: <http://www.hmg.gov.uk/media/33830/fullreport.pdf>

138 Welsh Assembly Government, 2008. The Strategy for Older People in Wales, 2008 - 2013. Available at: <http://wales.gov.uk/strategy/strategies/2166490/olderpeoplell.pdf?lang=en>

139 The Scottish Government, 2008. All Our Futures: Planning for a Scotland with an ageing population. Available at: <http://www.scotland.gov.uk/Topics/People/Equality/18501/Experience>

140 <http://www.dwp.gov.uk/docs/uk-advisory-forum-vision-mission.pdf>

141 <http://www.olderpeoplesadvocateni.org/>

142 <http://www.olderpeoplewales.com/en/home.aspx>

143 Department for Transport (DfT), 2011c. op. cit. Page 25.

The UK Advisory Forum on Ageing could elect a champion, like the commissioner in Wales and the advocate in Northern Ireland, who would be responsible for raising awareness of the Forum's work.

Finally, the Behavioural Insights Team (BIT) was established in 2010 to help the government find 'intelligent ways to encourage, support and enable people to make better choices for themselves'<sup>144</sup> **PACTS recommends that BIT include mobility for the older population within their priority areas, and research ways to encourage, support and enable people to make better choices about their mobility.**

## 5.2 LOCAL POLICY

Local authorities have a responsibility to meet the needs of older people for getting out and about, for example by ensuring the provision of local buses, or maintaining public benches and toilets. Where finance is a problem **PACTS recommends that other options should be explored which will enable safe mobility, such as community transport or paying a small stipend to local businesses for allowing the public to use their toilets.**

Community transport could potentially fill the gap left by cuts to local public transport, but needs support from local authorities. Community Transport organisations are at a disadvantage due to the fact they are generally small charities with little buying power or group strength. **Therefore the local authority could assist by integrating community transport groups into their fuelling and maintenance systems, and helping to amalgamate smaller groups together to promote efficiency.**

As previously mentioned, **one of the simplest actions local authorities can take to improve the mobility of older people is the maintenance of pavements and footpaths.** Many more older people are taken to hospital as a result of falls whilst walking than as a result of traffic collisions. A fall can be fatal for an older person, or leave them seriously injured. It could also badly affect their confidence, with around a seventh of those who do fall thereafter becoming scared to leave the house.<sup>145</sup> In order to encourage under-confident residents, local authorities will need to work on both safety improvements and negative perceptions. The DfT has identified that campaigns to encourage people to make certain transport choices are more successful if they are introduced alongside another measure, such as a visible improvement to public transport infrastructure.<sup>146</sup> Therefore a campaign to encourage more walking could be timed with improvements to pavements and public spaces.

For older drivers, the previous section proposed that central government should take responsibility for a publication on renewing the driving licence, information on self-regulation, potential vehicle adaptations and various other issues. Authorities could add value by including local information on transport provision and prices. Different ways of encouraging older drivers to try other modes of transport before they give up driving should be explored. For example, a cycle map could be included along with information on bike storage facilities, or a voucher for a bus journey included with information on timetables and fares. Taxis can be a good solution but are often overlooked as they are assumed to be too costly. Local authorities could display prices of example trips in the area alongside prompts to calculate the costs of owning and using a car.

144 Behavioural Insights Team, 2011. Annual Update 2010 – 11. Cabinet Office, London. Available at: [http://www.cabinetoffice.gov.uk/sites/default/files/resources/Behaviour-Change-Insight-Team-Annual-Update\\_acc.pdf](http://www.cabinetoffice.gov.uk/sites/default/files/resources/Behaviour-Change-Insight-Team-Annual-Update_acc.pdf) Page 3

145 <http://www.telegraph.co.uk/news/uknews/2180267/The-16.3-million-compensation-set-aside-for-pavement-falls.html>

146 Department for Transport (DfT), 2011c. op. cit.

In order to better tailor the information on encouraging the use of a variety of modes, local authorities will need to engage with older people and understand their perceptions of the local environment. Knowing at what age people would appreciate this information and support could also be ascertained through engagement. It may be that the intervention would seem more appropriate tied to a life event, namely retirement, rather than a certain age.

With engagement being imperative, it is significant that the 'Citizenship Survey 2009-10' found that older people were less likely than younger groups to feel they could influence decisions locally and nationally.<sup>147</sup>

#### PRIDE OF PLACE, AGE UK.<sup>148</sup>

This document produced by Age UK outlines how councillors can improve neighbourhoods for older people. It highlights the importance of high quality neighbourhoods and what older people need from them, such as public transport, places to sit and public toilets. Councillors should take the lead on engagement, as they are ideally placed to listen to and act on the concerns of older people.

Most local authorities have a form of older person 'council', which could be used to address local safety and mobility issues. **These should be regularly assessed to ensure they are fully effective and representative of all older people in the area.** Often, those who are most vulnerable to the impact of decisions made at a top level are those who are least likely to be included, or include themselves, in democratic processes such as this. Many local authorities are already aware of this and make a concerted effort to engage with older people from all ethnic and social backgrounds. Sharing good practice between authorities should be encouraged.

#### SENIOR VOICE. MILTON KEYNES, UK.<sup>149</sup>

Senior Voice is a group of people over 60 years of age which aims to represent the views of older residents and ensure that their voices are heard. The group encourages older people to contact them with comments and suggestions about local services or any issue which affects their quality of life.

Engagement could be in a number of forms, through surveys or public meetings, or by using social networks already in use, such as societies, clubs, and church groups. Questions could be specific to a certain area i.e. what are your thoughts on the guard rail outside the post office, or more general i.e. what do you think is the likelihood of you being injured as a pedestrian in the town centre? Ascertaining local citizens' perceptions of safety could be useful to land use planning, transport planning, infrastructure maintenance, and local transport providers as well as road safety.

Planning in particular requires the consideration of perceptions, as unintended and unforeseen consequences could have a negative impact on the community. The following excerpt refers to community severance, which happens when roads bearing high levels of traffic cut through communities:

<sup>147</sup> Department for Communities and Local Government, 2010. Citizenship Survey: 2009 – 10. Available at: <http://www.communities.gov.uk/publications/corporate/statistics/citizenshipsurveyq4200910>  
Table 2: Whether people feel able to influence decisions affecting their local area and Britain, by ethnicity, religious affiliation, sex and age, 2009-10

<sup>148</sup> [http://www.ageuk.org.uk/Documents/EN-GB/Pride%20of%20Place\\_How%20councillors%20can%20improve%20neighbourhoods%20for%20older%20people.pdf?dtrk=true](http://www.ageuk.org.uk/Documents/EN-GB/Pride%20of%20Place_How%20councillors%20can%20improve%20neighbourhoods%20for%20older%20people.pdf?dtrk=true)

<sup>149</sup> <http://www.ageuk.org.uk/miltonkeynes/Activities--events/Senior-Voice/>

'A recent review of community severance noted that the effects were broader than merely division of people from services, and included psychological effects of traffic and effects on quality of life and social cohesiveness, as well as implications for accessibility planning, mobility, and social exclusion.'<sup>150</sup>

A coalition of health and transport organisations recently called for each transport and land use decision to be 'health checked' for the potential impact on walking, cycling and other aspects of health.<sup>151</sup> **PACTS recommends that each decision has a 'health check' for older people**, for example by checking the length of walk at the pace of someone with reduced mobility. At present planners' models assume that users are an 'average person'. Although they acknowledge that some groups of people will have different needs, there is little research on which to base the assumptions of a 'non-average' person. This is illustrated by a DfT commissioned modelling tool which allows analysis of accessibility problems. The tool makes the following assumptions when calculating the journey times between origins and destinations:

- perfect knowledge of the options available to the user;
- all services can be used;
- an acceptable walk distance to a bus stop of 800m;
- a willingness to walk 500m to interchange to another service; and
- an average walk speed of 4.8km/hr.<sup>152</sup>

In contrast to this, a study carried out in Leeds found that 500m was a more realistic acceptable walking distance to a bus stop, and that a more appropriate walking speed for older people would be 2.4 km/h. As the Leeds report went on to remark:

'There is therefore a need for a cultural shift in the way that transport planners engage with older people. Our participants often had simple suggestions for ways in which the problems could be resolved or could have been avoided if there was more engagement.'<sup>153</sup>

**PACTS recommends that local authorities develop their engagement with older citizens to ensure perceptions are considered when planning interventions.**

#### WORLD HEALTH ORGANISATION (WHO) GLOBAL NETWORK OF AGE-FRIENDLY CITIES AND COMMUNITIES.<sup>154</sup>

The Global Network was developed to link cities and communities, and to ensure that the label 'Age friendly city and community' reflects a common global understanding, encompassing:

- a commitment to a process of continually assessing and improving age-friendliness;
- involving older residents in a meaningful way throughout the process.

To join the Network, cities and communities are required to commit to stages of planning, implementation, process evaluation and continual improvement.<sup>155</sup>

The network aims to provide technical support and training, to facilitate the exchange of information and best practices, and to ensure that interventions taken to improve the lives of older people are appropriate, sustainable and cost-effective.

150 Mindell, J. and Watkins, S., 2011. op. cit. Page 5-7.

151 [http://www.sustrans.org.uk/assets/files/AT/take\\_action\\_on\\_active\\_travel\\_2010.pdf](http://www.sustrans.org.uk/assets/files/AT/take_action_on_active_travel_2010.pdf)

152 Marsden et al, 2010. op. cit.

153 Ibid. Page 23.

154 [http://www.who.int/ageing/age\\_friendly\\_cities\\_network/en/index.html](http://www.who.int/ageing/age_friendly_cities_network/en/index.html)

155 [http://www.who.int/ageing/age\\_friendly\\_cities\\_process/en/index.html](http://www.who.int/ageing/age_friendly_cities_process/en/index.html)



**MANCHESTER: A GREAT PLACE TO GROW OLDER 2010 – 2020. MANCHESTER, UK.** <sup>156</sup>

Manchester has produced a strategy for 2010-2020 which aims to improve the city for its older residents, and encourage other older people to move there. The strategy states that the Valuing Older People partnership - set up with Manchester City Council, NHS, the voluntary sector and older residents – aims to make people dream of moving to Manchester when they retire. They will do this by promoting equality, improving housing, transport, the environment and community safety, promoting opportunities for income and employment, culture and learning, and providing the support required for healthy ageing. For each element the strategy lays out the current situation, the objectives and how they will be achieved.

In transport, accessibility to buses and trains is being improved by looking at station access, and mobility choices increased with 'door to door' bus services, Park and Ride and Shopmobility schemes.

Plans for the short-term include:

- Improve waiting environments and seating at stops, especially those with least frequent services;
- Ensure that the needs of older people are taken into consideration by Metrolink, cross-city bus plans, and the Local Transport Plan;
- Expand the availability of flexible, demand-responsive services such as Ring and Ride;
- Promote to older people the use of public transport for accessing the countryside and walks in Greater Manchester, with information on the location of toilets and seats provided;
- Promote cycling through improved cycle routes and the Wheels For All initiative;
- Continue to work with transport providers to investigate the issues surrounding mobility scooter users' access to buses, trains and trams;
- Produce road safety education materials for older people;
- Improve road safety at seven sites per year and improve road crossing points at the worst collision sites; and
- Conduct a trial of new tactile layouts that could benefit visually impaired people and older people who are less steady on their feet.

**AGE FRIENDLY COUNTIES PROGRAMME. NATIONWIDE, IRELAND.** <sup>157</sup>

The Age Friendly Counties Programme aims to make Ireland 'one of the best countries in the world in which to grow old', by creating communities where citizens enjoy good quality of life as they age and participate fully in community life. The programme is currently being rolled out and eventually every local authority will be involved in an alliance of senior decision makers and influencers across key public, private and voluntary agencies, and the leaders of an Older People's Forum which is open to all older people.

<sup>156</sup> Valuing Older People partnership, 2010. Manchester: A Great Place to Grow Older. 2010 – 2020.

Available at:

[http://www.manchester.gov.uk/downloads/file/11899/manchester\\_a\\_great\\_place\\_to\\_grow\\_older\\_2010-2020](http://www.manchester.gov.uk/downloads/file/11899/manchester_a_great_place_to_grow_older_2010-2020)

<sup>157</sup> <http://afcireland.com/index.php>

## 5.3 SUPPORT NETWORKS

### 5.3.1 HEALTH CARE PROVIDERS AND FAMILY

Older people need information on medication and advice on fitness to drive. **GPs are best placed to provide this information and advice, but they require support to be able to do this.** A study commissioned by the Department for Transport to investigate the knowledge and attitudes of health professionals to giving advice on fitness to drive found that there was support for implementing computer prompts.<sup>158</sup> For example DVLA regulations could flash up when certain diagnoses were entered into the computer. It was also thought that raising patient and general public awareness of fitness to drive issues would help when GPs have to broach the issue in a consultation.

**Health care providers should also be aware of the need to help drivers to adjust psychologically to being a non-driver.** Families are important at this stage, and could help their older relative learn about alternative transport options and how to maintain the same social contacts and activity levels. Helpful advice on preventing a fall in the home on the NHS website<sup>159</sup> should be extended to preventing falls when walking outside.

Eyesight is an important factor in mobility, and **people over 60 should be encouraged to take advantage of free eye tests to ensure they have the minimum field of vision for safe driving. Opticians, and also pharmacists, should be alert to the issues surrounding older drivers and their fitness to drive, and the importance of mobility.** As a first point of call in many instances, they could provide a valuable service by raising the question of fitness to drive in a professional setting, which then may make it easier for family to open conversations with their older relative.

#### WE NEED TO TALK ... FAMILY CONVERSATIONS WITH OLDER DRIVERS. USA.<sup>160</sup>

This guide was produced by the Hartford Financial Services Group, Inc. and the MIT AgeLab in order to help families initiate useful conversations with older relatives about driving. It includes information on with whom older drivers are most likely to prefer discussing concerns, advice on when to start the conversation and how to prepare for it, and tips on helping older people plan for a future without a car.

### 5.3.2 THIRD AND PRIVATE SECTORS

The third sector already plays an important role in community transport, supported by the Community Transport Association (CTA), and this role should be further developed. An education programme would give the community transport sector more recognition and training could help managers and staff. The CTA, which already offers valuable support and advice, could develop this programme, and produce a 'how to' guide for local citizens hoping to set up schemes. **In the current climate of decentralisation, the third and private sectors can benefit by taking advantage of opportunities and finding new and innovative ways of enabling safe mobility, such as neighbourhood car sharing schemes or the following example from America. A feasibility study is recommended to determine if this model could be used in the UK.**

158 Hawley, C., 2011. Presentation The Role of the GP in Giving Advice on Fitness to Drive at PACTS conference Older, Wiser, Safer: the challenge of an ageing population. London, UK 13th October 2011

159 <http://www.nhs.uk/Conditions/Falls/Pages/Prevention.aspx>

160 The Hartford MIT AgeLab Partnership, 2007. We Need to Talk... Family conversations with older drivers. The Hartford, Southington, Connecticut. Available at: <http://www.seniordrivers.org/lpp/pdf/WeNeedtoTalkHartfordMASS.pdf>

**THE INDEPENDENT TRANSPORTATION NETWORK (ITN). USA.**<sup>161</sup>

The ITN is a scheme whereby older people become members and use credits to 'pay' for door-to-door lifts from volunteer drivers. In this country-wide scheme younger volunteer drivers can gift the credits they earn to older relatives, meaning that even if families do not live close they can help older relatives remain mobile. Volunteer drivers can also donate the credits they earn to low income seniors, or choose to keep their credits for their own future use. Members can gain credits by trading in their car. Commercial outlets such as supermarkets can also give credit to their customers.

'The Independent Transportation Network (ITN) allows older people to maintain their independence and their dignity. With safe transportation, older adults remain vital to the economic and social health of their communities. Mobility empowers them. They stay connected to family, friends and community. Businesses retain their valuable customers, and more importantly, adult children find relief from a daunting and complex problem. ITNAmerica is the first and only national non-profit transportation system for America's aging population.'

'ITNAmerica understands that older people want to do much more than go to the doctor or the market. For this reason, the service may be used for any purpose, without restriction, in an ITNAmerica service area. For example, ITNAmerica members use the service to attend senior college, to get their hair done, to shop at the mall, and to go out on dates.'

**Private and third sectors could benefit by encouraging use of technology and the Internet.** For journey planning in particular, information technology skills give the traveller a huge advantage in terms of efficiency and cost-effectiveness. All citizens should be able to profit from this, and some may need training and encouragement to do so. Careful consideration needs to be given to reaching those who could benefit from such training but who are unlikely to seek it.

**In addition to accessing official information, Internet users can share informal information.** This can be seen on the website 'TripAdvisor'<sup>162</sup> where customers share their own reviews of airlines, hotels and restaurants. There is potential here to address both the barrier to public transport of 'difficulties getting information about journeys' found by Gilhooly et al<sup>163</sup>, and the importance of informal information which Musselwhite discovered.<sup>164</sup> In allowing older transport users to share their experience and give each other advice, the benefits of peer to peer education would be maximised and there would be an additional benefit of creating a new online community. This is a possible role for an organisation such as Passenger Focus, the independent passenger watchdog, to take a lead on informal information sharing.

**WHEELMAP.ORG. BERLIN, GERMANY**<sup>165</sup>

wheelmap.org is a website which maps out wheelchair accessible locations. Users can share experiences by grading a location they have visited, as accessible, limited, or non-accessible. The location – for example a shop, restaurant, hairdresser or bus stop - then becomes colour coded on the map, offering a quick and simple way to plan a journey or a visit. The website has been developed by a German not-for-profit association, who intend it to be a global project.

161 <http://www.itnamerica.org/index.php>

162 [www.tripadvisor.co.uk](http://www.tripadvisor.co.uk)

163 Gilhooly, M., Hamilton, K., O'Neill, M., Gow, J., Webster, N. and Pike, F., 2003. op. cit.

164 Musselwhite, C., 2011b. Successfully giving up driving for older people. International Longevity Centre, London.

165 <http://wheelmap.org/en>

In the private sector, car manufacturers are an important player. As discussed in section 3.2.2, there are many design features and helpful technologies which could make a car more older person friendly.

Insurers have a unique position in that they are able to identify those making claims. Anecdotal evidence suggests they quite often see an elderly customer who has not claimed for years suddenly having a number of claims in short succession, perhaps indicating that it is time to stop driving. At this point insurers could have a conversation with their policy holder, and offer information on difficulties older drivers face, recommend that the policy holder ask their GP for advice, or offer a referral to a driving professional who could give them an assessment and advice on safe driving. A concerned phone call would not be out of place in the safe systems approach where responsibility is shared.

### 5.3.3 OTHER ROAD USERS

As well as raising the awareness of older road users as to the difficulties they may face, road users of all ages should understand this, and understand how their own behaviour could impact on an older road user. Unexpected behaviour, such as speeding when an older driver is merging, makes manoeuvres more difficult for an older person. All road users can improve safety by behaving correctly. Although ideally this behaviour would be intrinsic, it is more realistic to suggest that effective enforcement of road traffic law will continue to play a key part in keeping all road users safer and mobile.

## 5.4 SUMMARY OF POLICY RECOMMENDATIONS TO IMPROVE SAFE MOBILITY

**NATIONAL GOVERNMENT** has a responsibility to ensure that the older citizens of the UK can continue being active citizens, by ensuring that they have the widest possible range of options for keeping mobile.

### SAFETY

- PACTS recommends that an information pack is developed raising awareness and giving advice on the issues facing older drivers such as renewing the driving licence, self-regulation, and vehicle adaptation. To this end, more research is required into the effectiveness of self-regulation, and how to advise helpful self-regulation.
- The government should also develop a course accreditation system or standard course for older drivers which could be available throughout the country. An in-depth study of older drivers' safety should be a foundation on which to develop the course. As a first step, the Department for Transport should create an index of the range of education and retraining courses aimed at older drivers currently offered around the country.
- The government has a responsibility to monitor casualty data, and to seek to improve the safety of older people on all modes of transport. The continuation of road accidents in-depth studies would contribute to this.
- With vehicle design being of vital importance to safety, the government should oversee and monitor the continued improvement of this through engagement with European regulations and involvement in European projects. New vehicle technologies should also be monitored and evaluated systematically and independently.

## MOBILITY

- The government should consider extending the concessionary bus scheme to include other modes of transport, benefiting people in areas where local bus services are not viable.
- Public transport and community transport should be supported and facilitated. A feasibility study could be commissioned to gather information on the possibility of setting up a UK version of the American Independent Transport Network.
- The 'perceptions of road safety' indicator referred to in the Strategic Framework for Road Safety should be developed as soon as possible, and consideration given to how to interpret and act on findings.
- Mobility centres could further develop and widen their role in supporting older people, in giving advice on vehicle adaptations and new technologies, and assessing drivers.
- Finally, the government should appoint a minister for older people, publish a national strategy for the ageing population, and request that the Behavioural Insights Team include mobility for the ageing population in their research.

**LOCAL POLICY MAKERS** have an important role in providing local transport and engaging with local older citizens.

## LOCAL TRANSPORT

- Maintenance of good quality pavements, footpaths and cycle paths is imperative, along with the provision of facilities such as public conveniences and benches.
- Local authorities can assist community transport groups with practical matters such as fuel, procurement and maintenance, and support them by helping to amalgamate smaller groups to promote efficiency.
- Local authorities can also contribute by encouraging their local citizens to try other modes of transport before they give up driving. Information on public and community transport, as well as taxis and active transport routes should be accessible and tailored for the older age group. Campaigns to encourage specific forms of transport should be accompanied by visible improvements to infrastructure.

## ENGAGEMENT

- Local authorities should monitor perceptions and attitudes and take them into account when making decisions. Each decision should be 'health checked' for older people, with mobility considered as well as accessibility: the needs to travel for enjoyment, to socialise and to remain independent.
- Local stakeholder groups such as an older persons' council should be regularly assessed to ensure they are fully effective and representative of all older people in the area.

**HEALTH CARE PROVIDERS** should be better supported so that they can become more effective in giving advice on both physical and mental fitness to drive. The professionals, as well as family members, should be made aware of the psychological effects of giving up driving. Eyesight tests should be encouraged on a regular basis and opticians as well as pharmacists should be alert to fitness-to-drive issues.

**THIRD AND PRIVATE SECTORS** can support community transport by finding new and innovative ways of enabling people to move around safely, as the Independent Transport Network in America did.

- Benefits would be plentiful if technology and internet use were encouraged amongst those who currently use it least. In particular, platforms for informal information sharing could improve mobility.
- Car manufacturers should continue to develop designs to produce vehicles which are as safe as possible for older users.
- Insurers can monitor safety with blackbox technology, and there is a possibility they could take on a role of concerned advisor if a customer has a number of successive claims.

**ALL TRANSPORT USERS** should be aware and understanding of the difficulties older users may face, and their good behaviour enforced.

## 6

## LOOKING TO THE FUTURE FACTORS AFFECTING SAFE MOBILITY

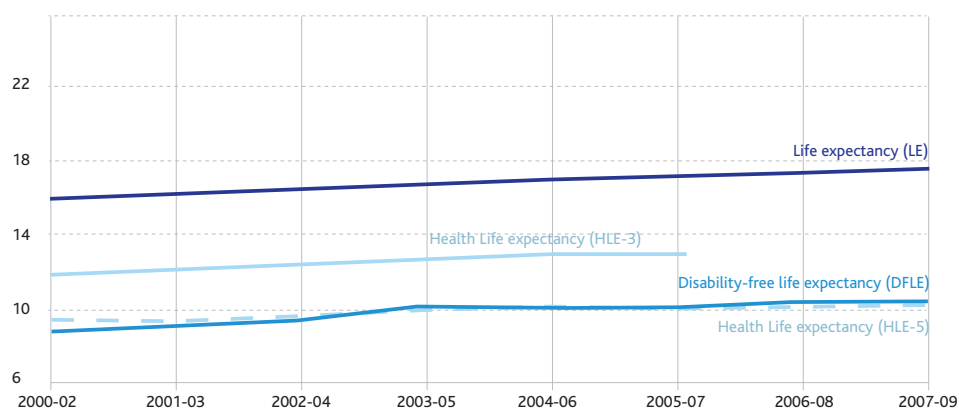
Having given policy recommendations in chapter 5 for the situation we are currently facing with an ageing population, and having explained in chapter 2 how the ageing population will develop over the coming decades, this chapter begins to consider factors which could affect the safety mobility balance in the future. From this point the content of the report becomes speculation rather than conclusions based on evidence and research. This chapter addresses the question 'what could happen in the future?', and contemplates the context in which UK citizens will be ageing. The discussion is not an attempt to predict safe mobility in the future, but to consider the factors that could influence how safe and mobile the older people of the future will be.

The timetable of the future can be thought of in terms of baby booms. There are of course other cohorts of older people in between the baby boomers, also diverse in their needs and important in numbers; however the baby boomer cohorts are useful as markers. In the short term the post-war baby boomers are aged 61 – 65 in 2012. Looking forward to the medium term means taking into account the 1960s baby boomers who will be aged 60 - 70 in 2030, while the first baby boomers will be aged 79 - 83. The 1990s baby boomers will be aged 60 - 70 in 2060. Therefore this chapter refers to 2030 as the medium term and 2060 as the long term.

## 6.1 HEALTH

As seen in Chapter 2, increasing life expectancy results in a widening of the tip of the population pyramid. Consequently the oldest old are the fastest growing age group, with the Office for National Statistics predicting that in 2066 there will be at least half a million people aged 100 or over.<sup>166</sup> In addition to this, life expectancy has mostly been increasing in line with healthy life expectancy and disability-free life expectancy.

FIGURE 20: LIFE EXPECTANCY (LE), HEALTHY LIFE EXPECTANCY (HLE-3, HLE-5) AND DISABILITY FREE LIFE EXPECTANCY (DFLE) FOR MALES AT AGE 65: 2000-02 TO 2007-2009, UK. <sup>167</sup>



However, it is difficult to predict future trends in life expectancy, healthy life expectancy (HLE) and disability free life expectancy.

'A range of factors will influence the health of future cohorts so it cannot be assumed that HLE will remain at current levels. For example, some academics predict that rising obesity levels will cause future decreases in HLE, whereas improvements in medical technologies such as joint replacements could contribute towards lower disability rates and higher HLE.'<sup>168</sup>

Factors such as obesity or alcohol could negatively affect HLE, while more rapid and accurate diagnosis or advances in biomaterials<sup>169</sup> could further improve HLE. While obesity looks set to increase in the medium term, it is thought that it will probably decrease in the long term due to improved education and socio-economic conditions.<sup>170</sup> Trends to keep an eye on include an increase in drinking alcohol amongst women<sup>171</sup>, and other health inequalities in general.

<sup>166</sup> <http://www.dwp.gov.uk/newsroom/press-releases/2011/aug-2011/dwp096-11.shtml>

<sup>167</sup> Falkingham, J., 2011. op. cit. Slide 24.

<sup>168</sup> Parliamentary Office of Science and Technology, 2006. Postnote: Healthy life expectancy. Available at: <http://www.parliament.uk/documents/post/postpn257.pdf>. Page 3.

<sup>169</sup> ScienceDaily, 2009. Advances in Medical Technology: What does the future hold? Available at: <http://www.sciencedaily.com/releases/2009/06/090616080133.htm>

<sup>170</sup> Sassi, F., 2010. Obesity and the Economics of Prevention. OECD Publishing, Paris. Available at: [http://www.oecd-ilibrary.org/social-issues-migration-health/obesity-and-the-economics-of-prevention/obesity-past-and-projected-future-trends\\_9789264084865-7-en](http://www.oecd-ilibrary.org/social-issues-migration-health/obesity-and-the-economics-of-prevention/obesity-past-and-projected-future-trends_9789264084865-7-en)

<sup>171</sup> Smith, L., and Foxcroft, D., 2009. Drinking in the UK: An exploration of trends. Joseph Rowntree Foundation, York. Available at: <http://www.jrf.org.uk/sites/files/jrf/UK-alcohol-trends-SUMMARY.pdf>



The government set national health inequalities targets in 2001<sup>172</sup>, with a review of developments in tackling health inequalities published in 2008.<sup>173</sup> Likewise Scotland and Northern Ireland administrations monitor health inequalities, and the Welsh Assembly Government recently published 'Fairer Health Outcomes For All - Reducing Inequities in Health Strategic Action Plan' to tackle the estimated annual cost of £4 billion stemming from dealing with the consequences of health inequalities in Wales.<sup>174</sup>

Therefore it can be assumed that life expectancy will continue to rise. The real challenge will be to reduce health inequalities, though this is part of a bigger challenge of narrowing all inequalities. The older population of the future could be healthier than today's, though the increased numbers will create challenges for the health service. Continued improvements in public health are therefore vitally important to ensure that **all** the UK's citizens remain healthy as they grow older.

## 6.2 WEALTH

It is hoped that UK GDP growth will recover to pre-recession levels in the next couple of Years. The British Chambers of Commerce estimate that this recovery will take place by 2013, with unemployment peaking in 2012.<sup>175</sup>

The long-term economic situation depends on too many factors to be able to comment on it with precision. The political situation, price of crude oil, position of the energy sector, the environment and the financial markets are amongst the many aspects that could affect the international and domestic economy. Though the recovery of the economy is assumed in the medium term, the challenge remains in tackling inequalities. Poverty still affects one in five older people,<sup>176</sup> and within this figure further inequalities exist:

- There are high concentrations of pensioner poverty in urban areas.
- Ethnic minority pensioners are more likely to be in low income households than white pensioners (29% compared to 19%), and more likely to experience multiple deprivation (i.e. absence of central heating, car, phone, have no formal qualifications etc).
- Women's income in retirement is on average only 57% of men's<sup>177</sup>.

172 [http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/documents/digitalasset/dh\\_4078224.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4078224.pdf)

173 Department of Health, 2009. Tackling Health Inequalities: 10 years on. Department of Health, London. [http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/documents/digitalasset/dh\\_098934.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_098934.pdf)

174 <http://www.walesonline.co.uk/news/health-news/2011/03/30/health-inequalities-reduciobid-91466-28432321/>

175 [http://www.britishchambers.org.uk/zones/policy/press-releases\\_1/bcc-reduces-growth-forecasts-for-2011-and-2012-but-expects-uk-prospects-to-improve-gradually.html](http://www.britishchambers.org.uk/zones/policy/press-releases_1/bcc-reduces-growth-forecasts-for-2011-and-2012-but-expects-uk-prospects-to-improve-gradually.html)

176 Social Exclusion Unit, 2006. A Sure Start to Later Life: Ending Inequalities for Older People. Office of the Deputy Prime Minister, London. <http://www.communities.gov.uk/documents/corporate/pdf/913275.pdf>

177 Ibid. Page 38.

These inequalities may translate into restrictions to mobility (the concept of transport poverty was discussed in chapter 4). Many older households do not own a car, the primary means of independent mobility. If road user charging is introduced, as it is suggested it will be in order to pay for infrastructure and encourage modal switch<sup>178</sup>, this will put lower income older people at a further disadvantage. Lower income older people, and within that group particularly women and ethnic minorities, are a vulnerable group who should be supported and given specific consideration when decisions are taken.

With the current emphasis on deficit reduction, it is fortunate that many improvements for older people are simple, low-tech and low-cost. As explained earlier in the report, one of the simplest ways to improve both safety and mobility for older people is by maintaining even, uncluttered, well-lit pavements. Though in times of austerity it is difficult to justify spending, the cost of improving local neighbourhoods could be offset against savings in health and social care budgets where the financial impact of falls are felt.

### 6.3 LIFESTYLES

As mentioned in the discussion on the ageing population in chapter 2, it is now more common for older people to live alone, due to divorce or separation or having never married. There is also an increasing proportion of people who have no children, though the proportion that have three or more has remained steadier.<sup>179</sup>

The State Pension Age is set to increase to 67 years old, and with the Default Retirement Age being scrapped and the average age of retirement increasing in recent years<sup>180</sup> individuals are working for longer. Therefore their safe mobility to and at their place of work will become more important, an issue which the rail industry has already begun considering. The chapter 'Great Britain's railways as employers' in the report 'The implications of an ageing population for the railway'<sup>181</sup> considers the industry's future older employees and what their needs will be. The impact on road safety should likewise be considered, with a greater number of older employees driving for and to work. It should also be ensured that a lack of or difficulty with public transport should not be a barrier to work for older people.

People born in different times will age differently, and the future groups of older people will have grown up in a different social, cultural and economic situation to their previous generations. Significant for transport safety will be the increasing number of older people who have grown up with cars and licences. In particular the number of older female drivers is predicted to continue to rise, and they will be more experienced. The following graph shows a forecast of the percentages of women holding licences for each age group.

176 Social Exclusion Unit, 2006. *A Sure Start to Later Life: Ending Inequalities for Older People*. Office of the Deputy Prime Minister, London.

Available at: <http://www.communities.gov.uk/documents/corporate/pdf/913275.pdf>

177 Ibid. Page 38.

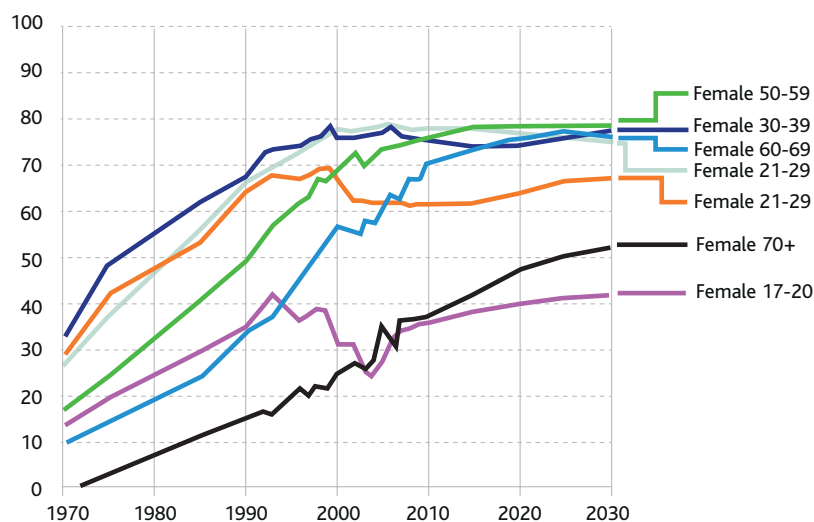
178 Chartered Institute of Logistics and Transport (CILT), 2011. *Vision 2035*. CILT, Northamptonshire.

179 Falkingham, J., 2011. *op. cit.*

180 <http://www.ageuk.org.uk/latest-news/archive/average-retirement-age-on-the-rise/>

181 Rail Safety and Standards Board (RSSB), 2008. *op. cit.*

FIGURE 21: WOMEN HOLDING DRIVING LICENCES, GREAT BRITAIN.<sup>182</sup>

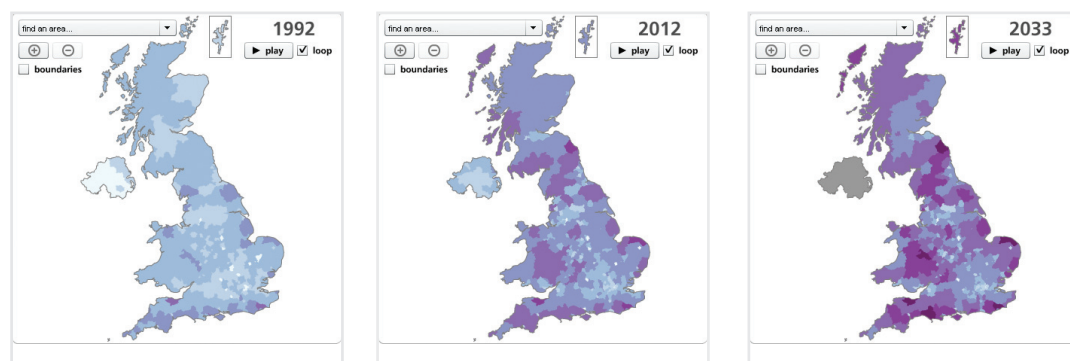


Lifestyles will adapt as technologies emerge: currently it looks likely that the use of smart phones will continue and develop, with useful mobile applications such as real time bus information systems direct to the phone or embedding the travel card within the SIM card of a mobile phone. The older people of the medium and long term future will be more at ease with current technologies. They will probably take more advantage of services offered online, such as online grocery shopping. Their consumer power will be strong: they are likely to have more demands, as they will be well-informed consumers with high expectations, the Internet having facilitated the sharing of information and comparing of prices.

6.4 PLANNING

In order to be able to provide transport options, it will be necessary to consider how and where older people will travel in the future. It is known that there is an increasing number of older people living in rural and coastal areas and this trend is predicted to continue, as illustrated by the following maps taken from the Office for National Statistics website. The colours represent the median age: the age at which half the population is younger and half is older. The lightest blue represents a median age of 27.1 – 31.8, and the darkest purple 56.2 – 61.

FIGURE 22: MAPS SHOWING MEDIAN AGE BY LOCAL AREA: 1992, 2012 AND 2033.<sup>183</sup>



182 Mitchell, K., 2011. Direct correspondence with source.

183 <http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc5/agemap.html>

In rural areas relying on public transport is often not an option; therefore residents will require access to independent transport, for example a car or a demand responsive transport. How, where to, and how far older people travel will depend on many factors including their health and wealth, and also land-use and transport planning. The Department for Transport intends to launch a consultation on a draft National Policy Statement for national road and rail networks, which will set out the government's assessment of the need for different types of infrastructure in relation to trends in population.<sup>184</sup> The rail industry has already recognised that they may need to reappraise service patterns and the shape of the network to provide better services to those living in rural and coastal areas.<sup>185</sup> Another way to ease the pressure on public transport in rural areas is to improve housing and the public realm in urban areas, so that urban living becomes more attractive.

The current government has stated their wish to be the greenest government ever. It is fortunate therefore that sustainability and safety mostly stand side by side. Providing good facilities to enable and encourage active transport, such as segregated cycle tracks and good quality pavements, will be welcomed by older people and the environment and safety sectors alike. If the environment agenda is to be further prioritised, with reducing carbon dioxide emissions in the transport sector an objective, a mode mix involving fewer cars is desirable. It is also likely that the vehicle fleet mix will evolve to include more electric or hybrid vehicles. A TRL report considering the safety impact on pedestrians of low-noise electric vehicles concluded that currently, it was not an issue, due to the minimal number of these types of vehicles in use.<sup>186</sup> However, if this number rises, the effect on older people may be negative, particularly those who may be hard of hearing. Any research that looks into the possibility of adding false noise to electric vehicles should consider the ageing population.

It should be ensured that the older population has the means of making their voices heard, particularly those who may be vulnerable and the least likely to speak up. Planning decision makers will probably consider more thoroughly the effects of any proposals on the older population as that group grows, especially given the voting power of that group. This natural 'safety in numbers' effect could apply to transport safety as well as to decision making in general: with a greater number of older people, other transport users and transport providers will grow more accustomed to their behaviour and needs and will be more likely to adapt to them.

Older people may benefit from the changing role of government which is currently unfolding. Decisions taken at a local and regional level mean the communities affected should have more influence on the outcome. Therefore if that community includes a concentration of older age groups the voices of older people should be heard more clearly.

184 Hansard, 2011. Parliamentary Question 'Transport: Infrastructure' asked by Mr Buckland MP answered by Mike Penning MP on 15th Nov 2011. Available at: <http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm111115/text/111115w0005.htm#1111164000064>

185 McKay, S., 2011. Knowledge Search Report on: The effects of an ageing population on rail travel. Document prepared for PACTS by Rail Safety and Standards Board R&D Knowledge and Technology Transfer Services.

186 Morgan, P.A., Morris, L., Muirhead, M., Walter, L.K., and Martin, J., 2011. Published Project Report PPR525: Assessing the perceived safety risk from quiet electric and hybrid vehicles to vision-impaired pedestrians. Available at: <http://assets.dft.gov.uk/publications/assessing-the-perceived-safety-risk-from-quiet-electric-and-hybrid-vehicles/PPR525-assessing-the-perceived-safety-risk-from-quiet-electric-and-hybrid-vehicles.pdf>

## 6.5 PROVIDING INDEPENDENT SAFE MOBILITY IN THE FUTURE

A future with a greater proportion of the population in the older age groups presents both challenges and opportunities. Mobility will remain an issue, with a greater number of older people living in rural and coastal areas. Though technologies are likely to make vehicles even safer, it should be noted that driving may not be a safe or possible option for the oldest old, the fastest growing age group.

Flexible demand-responsive transport should play a bigger part in the future, and with the private and voluntary sectors becoming more important in the current government's agenda of decentralisation, opportunities could arise for those who are able to develop imaginative and innovative solutions to transport difficulties. This transport mode needs to ensure that all categories of needs are met: utilitarian needs include accessing services and seeing friends; affective needs incorporate independence and control; and aesthetic needs contain the desire to travel for travel's sake.<sup>187</sup>

Meanwhile, to make active transport more attractive and safer, good quality facilities need to be provided. In order to provide for a future with a greater number of older people, the curriculum for designers, engineers and planners should be adjusted so that the able-bodied person is no longer the main focus. Older people should not be treated as a separate group to think about afterwards, but included in decision making and design processes. Inclusion means taking into account those who are most vulnerable and those who may traditionally have been pushed to the edges of society.

Enabling a variety of choices of transport will aid the rising population in the UK, as well as its growing older population. Although modes need to be considered in turn, it should be remembered that journeys are seldom made up of only one mode. 'Vision 2035' a report published by the Chartered Institute of Logistics and Transport states the following: **'New and emerging information and payment systems form part of a vision for 'collective mobility' integrating local rail, bus and tram services with community transport, taxis, lift-sharing and car clubs. It includes principles of partnerships, customer focus, innovative and integrated services, greener mobility and catering for all sections of society. It is a vision that will become increasingly important in the future.'**<sup>188</sup>

Integrating modes is becoming increasingly possible with technology, with the potential of the Internet not yet fully exploited. 'Vision 2035' describes the areas where use of technology could become significantly more advanced: aiding efficient use of transport, promoting mode changes and improving service quality.<sup>189</sup> Other technology that is likely to further develop in the medium term is communication with vehicles, which could aid both mobility and safety. In general crash avoidance technology should greatly improve the safety of driving.

Finally, in considering the safety of the older generations of the future, PACTS does recommend that the UK create its own version of Vision Zero, as discussed in section 3.2. The safety culture of the UK's rail industry should be carried over into road, where risk should be as low as reasonably practicable. The UK's Vision Zero should focus on improving the safety of all citizens, without hindering their mobility.

<sup>187</sup> Musselwhite, C., and Haddad, H., 2010. op. cit.

<sup>188</sup> CILT, 2011. op. cit. Page 31.

<sup>189</sup> Ibid

# 7 CONCLUSIONS

The main theme which has run throughout the report is choice.

Older people should be given help to help themselves, so that they can make better, safer, well-informed choices. By giving individuals information and guidance and allowing them to make informed decisions themselves, quality of life can continue into later life.

A restriction in choices is not inevitable as people grow older. With a safe and forgiving network, and encouragement to improve perceptions of transport safety, older people can enjoy mobility in later life. Mobility is not only necessary for everyday tasks usually encompassed under the heading of accessibility (shopping, visiting friends, etc) but also in order to feel independent and enjoy the journey itself. Without these aspects of mobility quality of life is impaired.

The aim of this report is to widen the discussion on transport safety and the ageing population, in the hope that future conversations on the topic will not only cover older drivers. Driving should be made as safe as possible for as long as possible, through a national standard course, and increased awareness and self-assessment. However, although driving has an important role to play in allowing independent mobility, it should not be the only option.

Journeys are often multi-modal, and therefore it is vital that older people feel safe and confident at each stage of the journey. Trains may be a statistically safe mode of transport, but if an individual does not feel safe on the walk to the station, or waiting on the platform, then they will avoid the whole journey. In order to maximise choice, all forms of transport should be safe, convenient and integrated, with positive perceptions to match.

A well-maintained public realm, where all planning decisions are checked for the effect they will have on older people, makes a great contribution to safe mobility. Preventative work undertaken now could help prevent the undesirable outcome of casualties rising, particularly as the oldest age group grows.

**In contribution to providing safe mobility, further research is suggested on a number of topics:**

- the impact of inequalities on safety and mobility;
- a full analysis of the safety of older people for all modes of transport, including considering the risk that older drivers pose to themselves and other road users;
- the extent and effectiveness of self-regulation.



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