



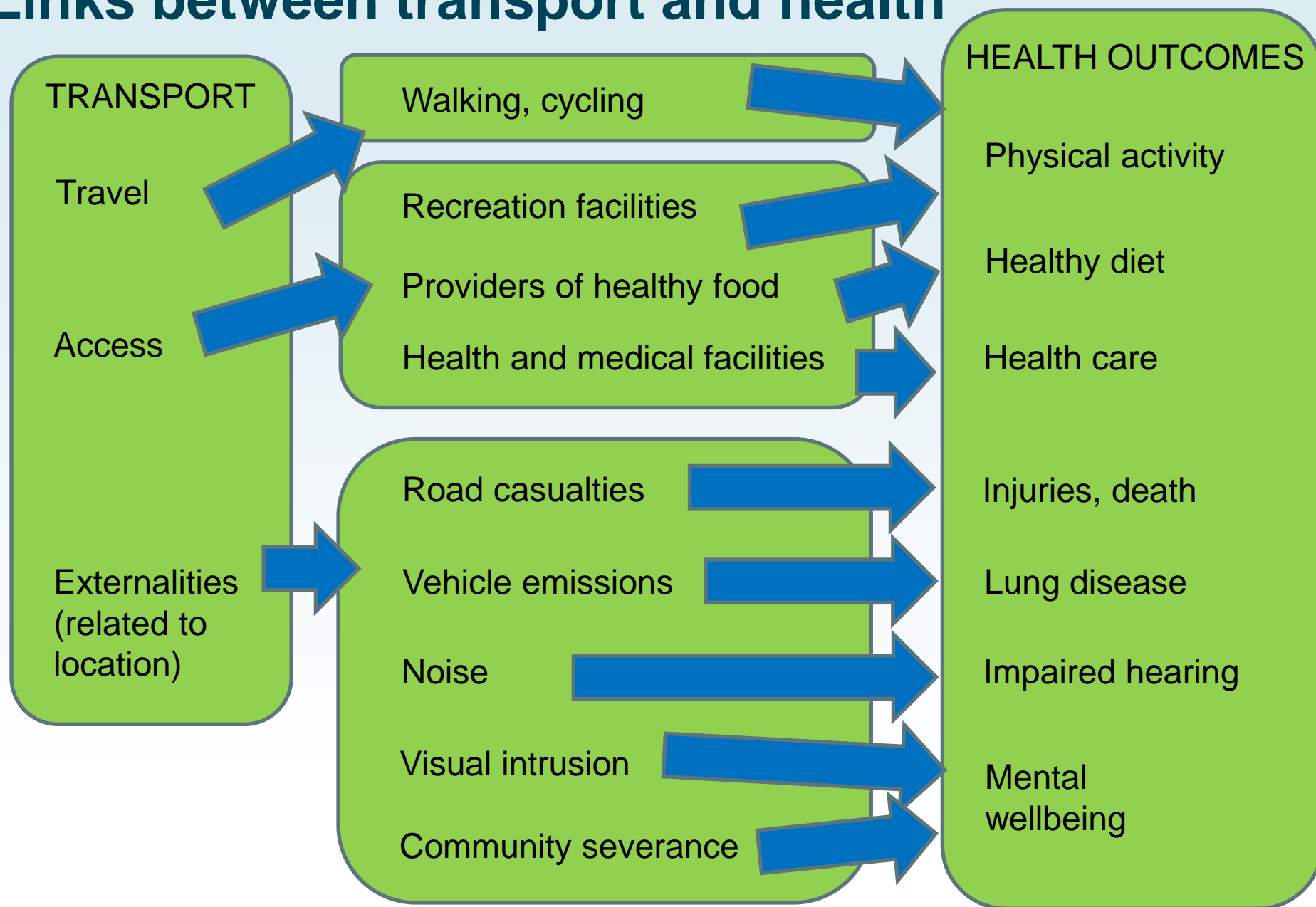
Transport, health and inequality

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Links between transport and health



Barriers to travel that cause inequalities

- Cost – affordability
- Availability
 - spatial e.g. lack of bus services
 - temporal e.g. no buses early in the morning
- Nature of the transport system
 - physical barriers
 - psychological barriers
 - safety issues

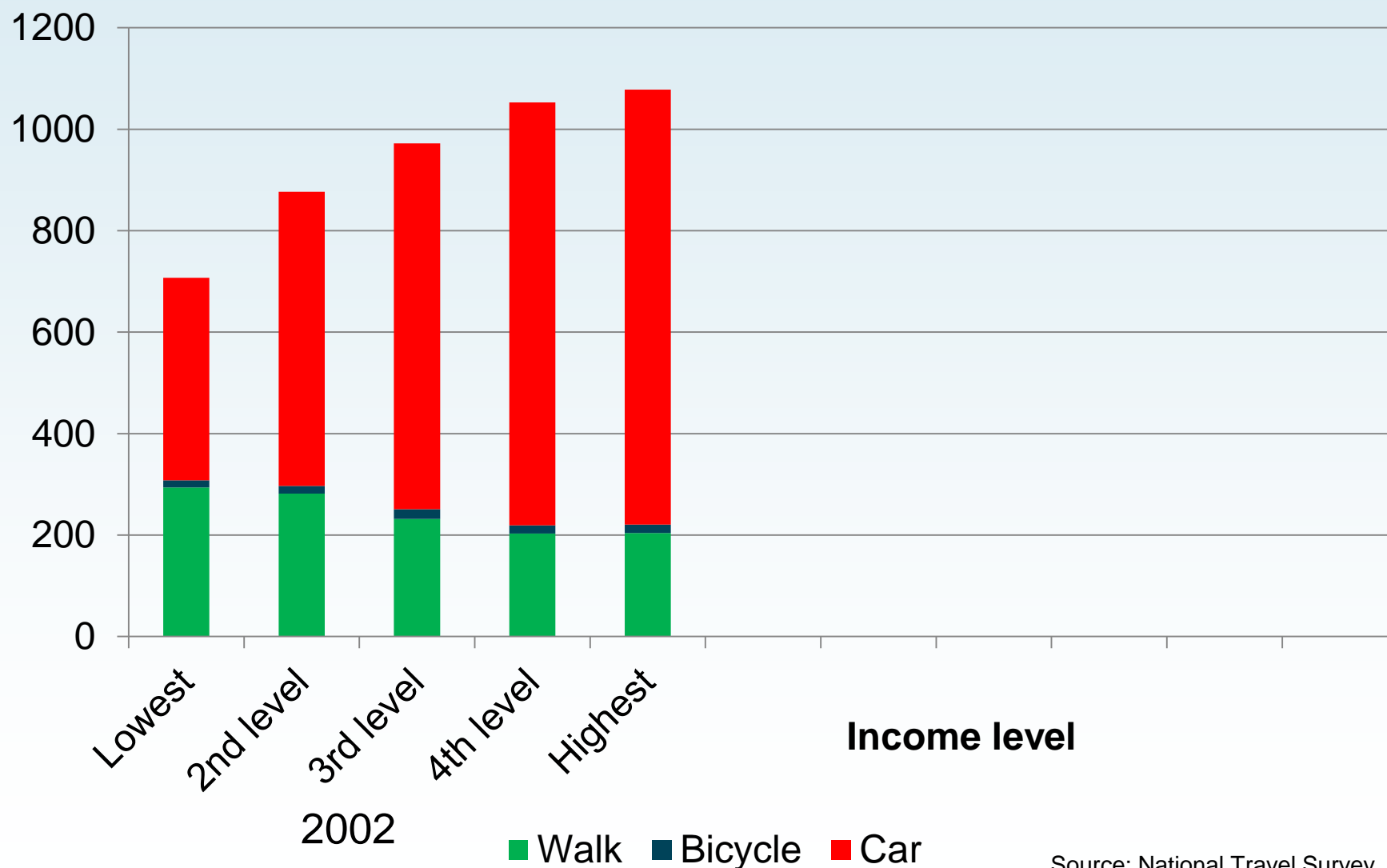
Inequality categories

- Income
- Gender/family structure
- Sexuality
- Ethnicity
- Disability
- Age
- Rurality

Transport links with inequalities

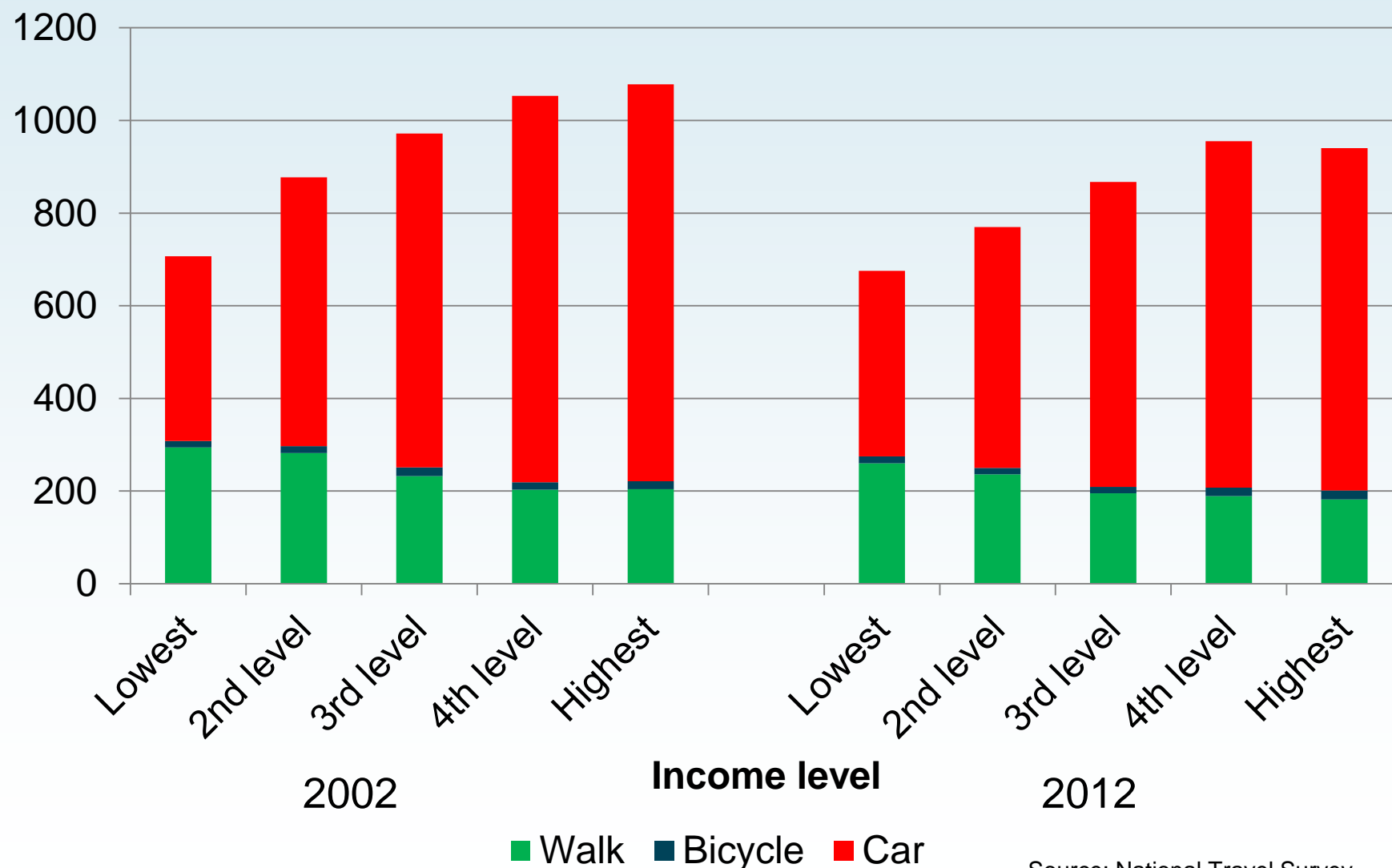
| Basis of inequality | Possible barriers to travel | Impacts of externalities of travel |
|---------------------|--|------------------------------------|
| Income | Cost | High because of locational factors |
| Gender | <i>For single parents, who tend to be female:</i> income, access to vehicles | |
| Sexuality | Discrimination | |
| Ethnicity | Cultural factors, language issues | High because of locational factors |
| Disability | Access to vehicles, access to bus and railway stations, inadequate information, discrimination | |
| Age | Cost, access to vehicles, access to bus and railway stations, inadequate information | |
| Rurality | Inadequate transport supply | |

Trips per head, per year in Great Britain



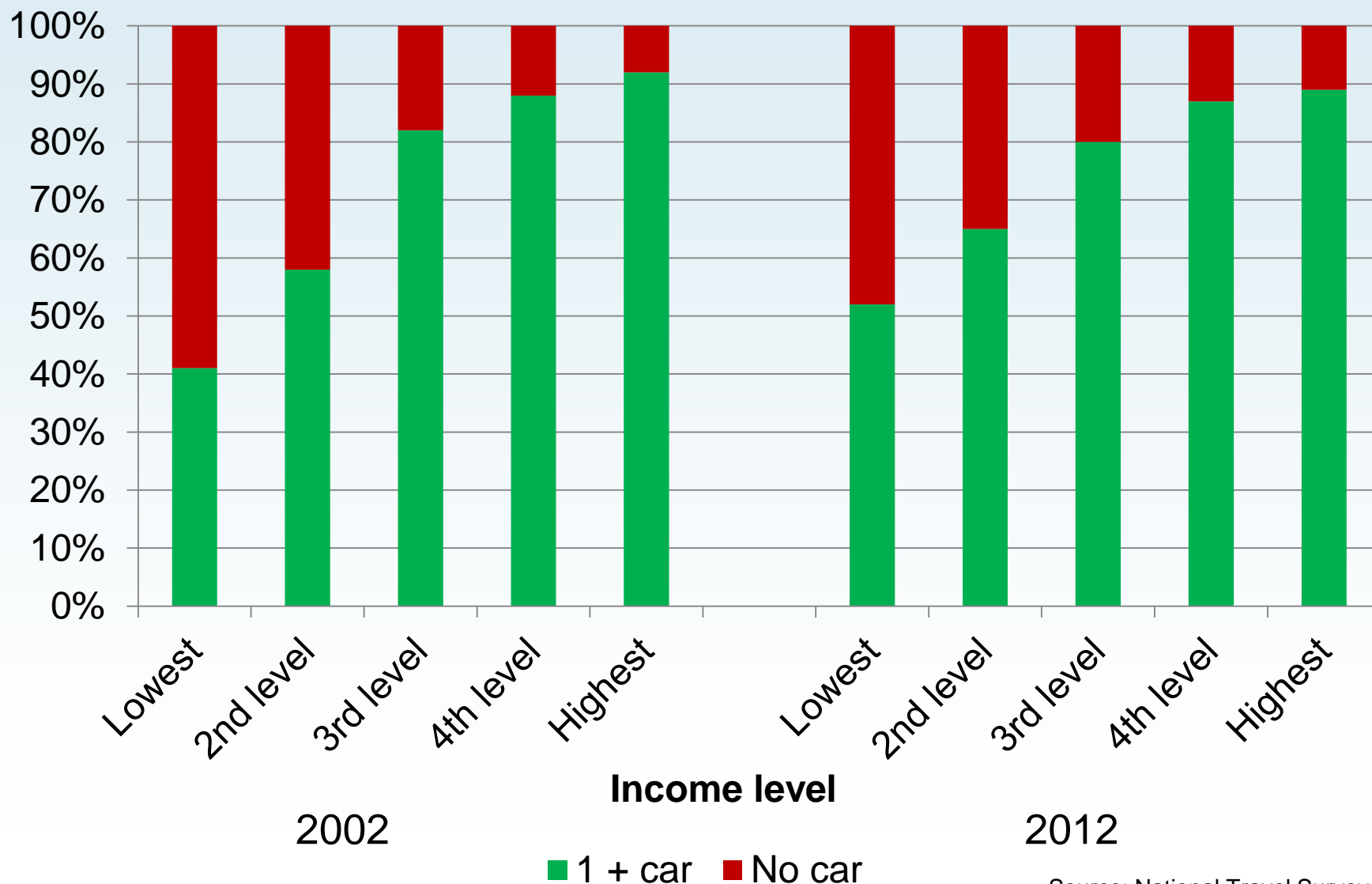
Source: National Travel Survey

Trips per head, per year in Great Britain

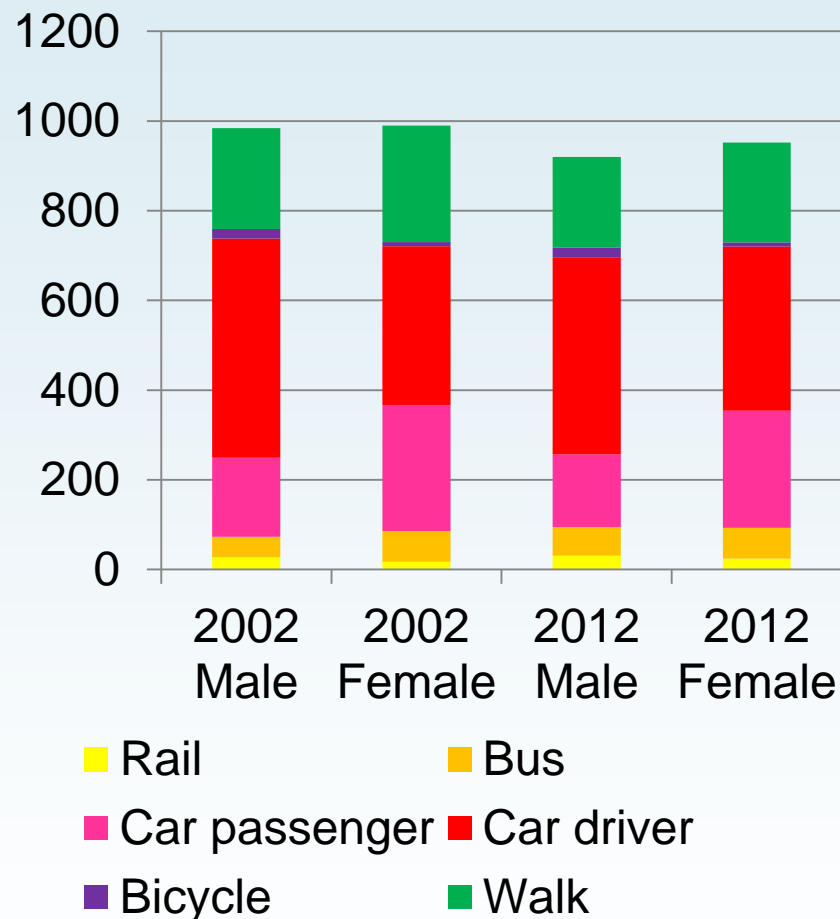


Source: National Travel Survey

Household car ownership in Great Britain (%)



Trips per head by gender and mode in GB



- Women make more trips than men (but not as far)
- They make more walking, car passenger and bus trips than men
- Between 2002 and 2012 women's car driving trips increased and men's decreased.

Source: National Travel Survey

Travel by ethnic group in Great Britain, 2012

| Ethnic group | Number of trips per year by adults | % of adults in a household with a car or van |
|---------------------------------------|------------------------------------|--|
| White | 998 | 81 |
| Mixed/multiple ethnic groups | 965 | 67 |
| Black/African/Caribbean/Black British | 839 | 59 |
| Asian/Asian British | 815 | 71 |
| Other ethnic group | 773 | 59 |
| All ethnic groups | 979 | 80 |

Source: National Travel Survey

- Large differences in trip making between ethnic groups.
- Whilst income is probably a significant factor, cultural factors may be important.
- Asian/Asian British make fewer trips than some other groups with lower car ownership levels.

Trips per person by age and mobility status in Great Britain, 2012

| Mobility status | All aged 16+ | 16-49 | 50-59 | 60-69 | 70+ |
|--------------------------|--------------|-------|-------|-------|-----|
| With mobility difficulty | 634 | 725 | 735 | 748 | 517 |
| No mobility difficulty | 1021 | 1024 | 1088 | 1036 | 871 |
| All | 976 | 1013 | 1050 | 986 | 733 |

Source: National Travel Survey

- People make fewer trips as they get older.
- People with mobility difficulties make fewer trips than the rest of the population.
- People in each age group with mobility difficulties make fewer trips than people aged 70+ without a mobility difficulty.

Average minimum time to reach nearest key services, Great Britain, 2011

| | PT/walking | | Car | |
|-------------------|------------|-------|-------|-------|
| | Urban | Rural | Urban | Rural |
| Employment | 9 | 16 | 5 | 6 |
| Primary school | 8 | 12 | 5 | 5 |
| Secondary school | 12 | 25 | 5 | 7 |
| Further education | 14 | 28 | 6 | 9 |
| GP | 9 | 15 | 5 | 6 |
| Hospital | 26 | 46 | 8 | 13 |
| Food store | 7 | 14 | 5 | 6 |
| Town centres | 14 | 29 | 6 | 10 |

Source: Transport Accessibility Statistics

- Not having access to a car in rural areas means that there are major issues reaching key services.
- This is largely due to poor bus services and greater distances.

Externalities

- The adverse effects of car use are concentrated where car travel occurs rather than where car owners live.
- Evidence shows that children from the lowest social groups are more likely to die as pedestrians than those from the highest group.
- King and Stedman (2000) found a strong correlation between poverty and air pollution.
- Brand and Boardman (2008) estimated that the highest income quintile in their sample in Oxfordshire produced 3.5 times the annual travel emissions of those in the lowest income group.

Transport schemes to help address poverty

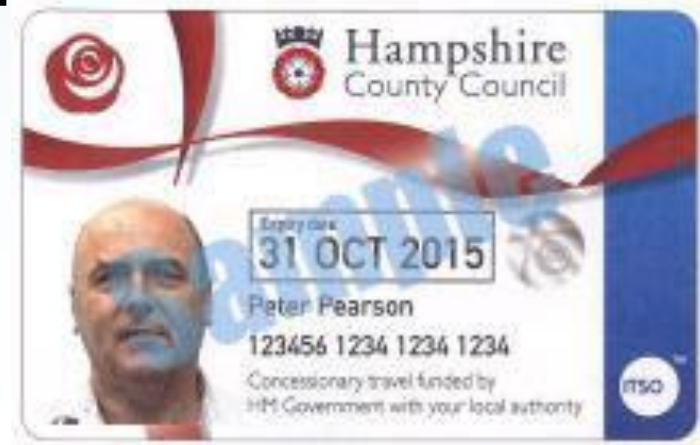
- Schemes to address unemployment
 - Travelcards to find a job (e.g. TfL, West Yorkshire)
 - Bus Bonus (tax incentives)
 - Wheels 2 Work (motor bikes, etc.)
- Schemes to reach education
 - Extended concessionary fare schemes
- Concessionary fares for older and disabled people
 - Taxi vouchers as an alternative
- Public transport schemes
 - New routes
- Community based transport schemes
- There is a need for integrated PT services in rural areas involving bus, community transport, taxi and volunteer drivers, with scope for local transport brokers

The concessionary travel pass (CTP) policy

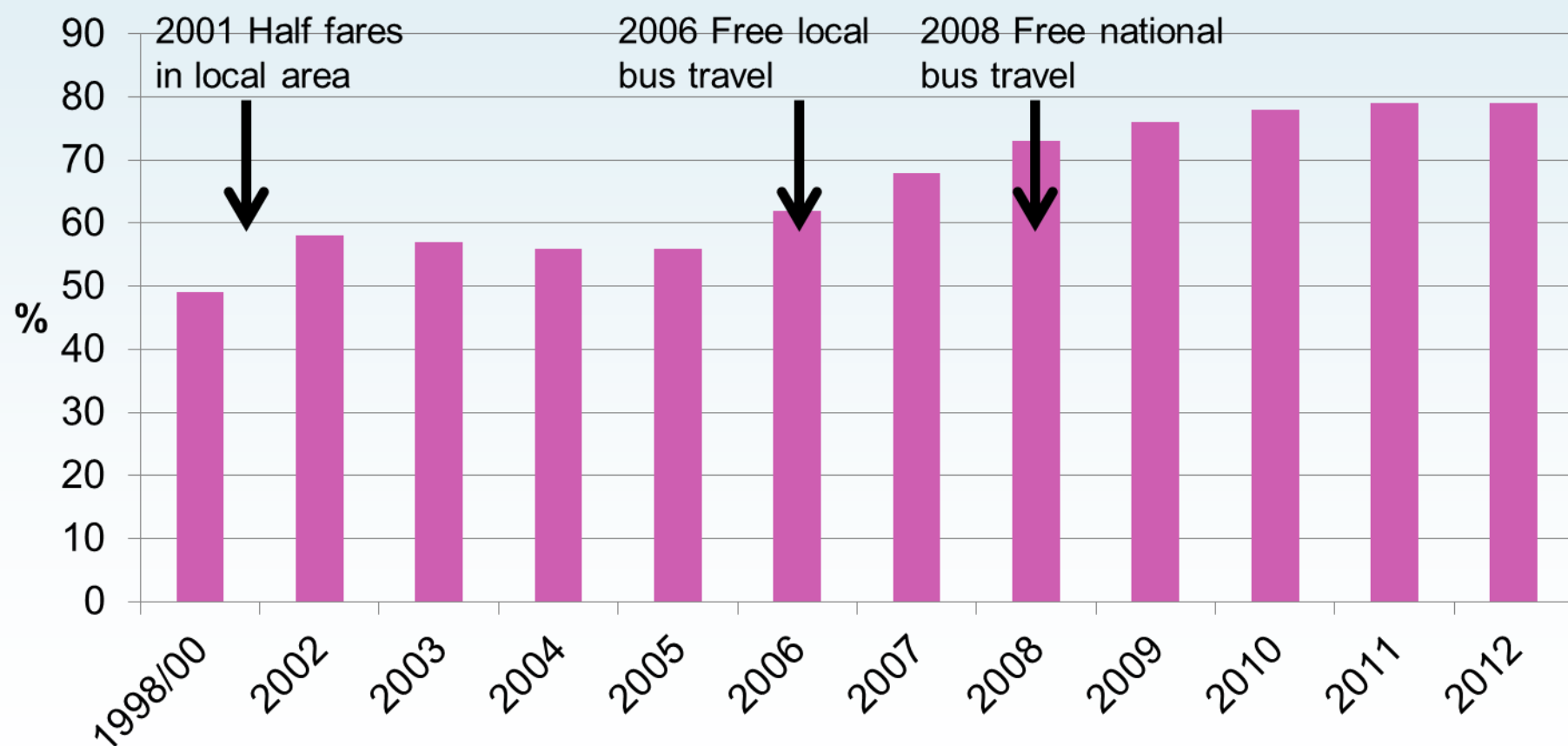
- The 1998 White Paper proposed the scheme, saying: *“... enable elderly people, especially those on low incomes, to continue to use public transport and to use it more often, improving their access to a range of basic necessities such as health care and shops and reducing social isolation”*.
- The 2005 Budget Statement stated: *“... it should also help approximately 54 per cent of pensioner households who do not have a car to travel freely in their local area”*.
- The 2007 Budget Statement said that extending the scheme would help in: *“... tackling social exclusion and maintaining well-being”*.

Concessionary bus travel for older people in Great Britain

- In 2001, local half-fare off-peak bus travel was introduced for all those of pensionable age
- Eligible age for men reduced to 60 in April 2003.
- Concession extended to free local bus travel from 2006 in England (earlier in Scotland and Wales).
- Scheme extended to England-wide travel in 2008.
- 9 million pass holders in Britain on the grounds of age, 0.75 million on the grounds of disability.
- Costs over £1 billion per year.

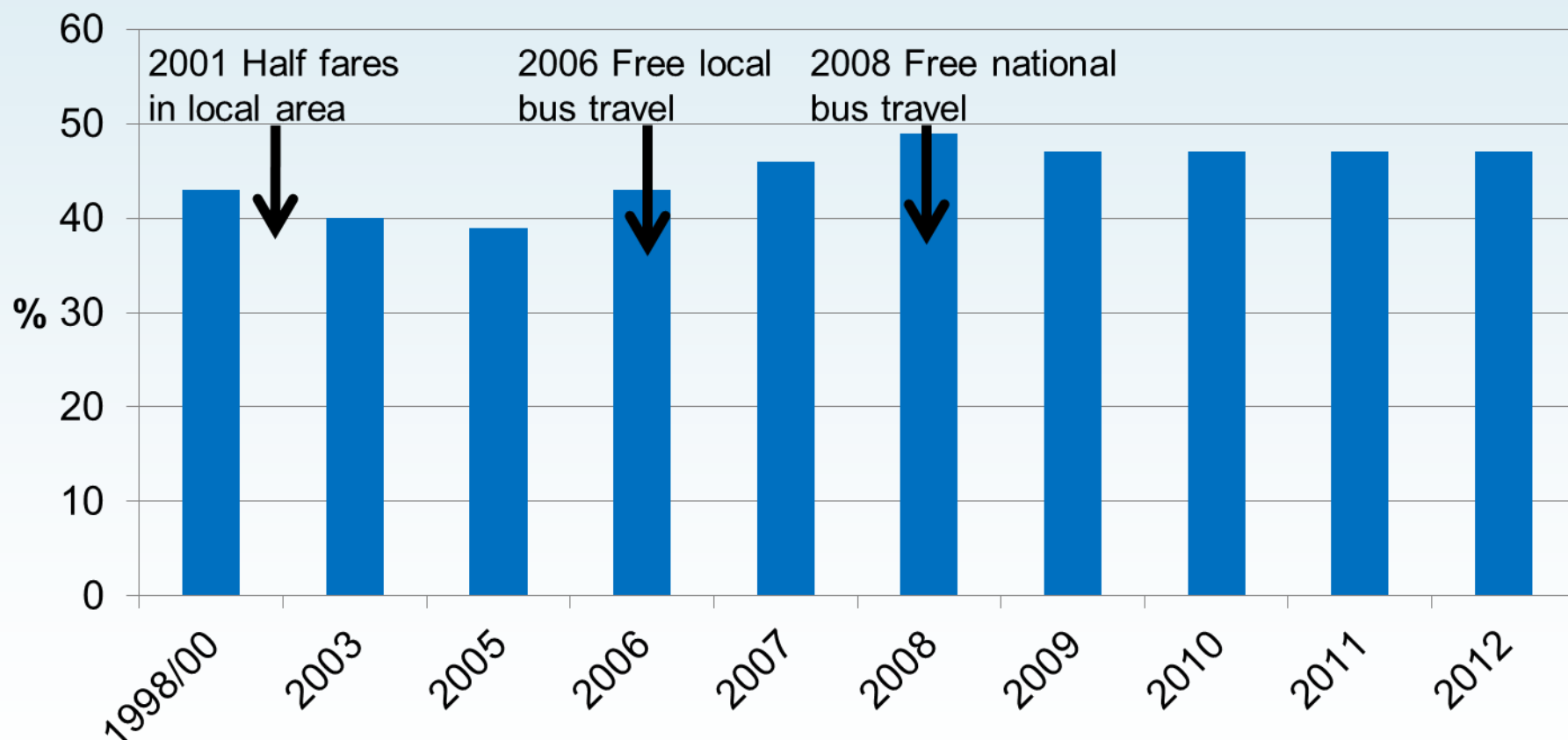


Take up rate of concessionary travel passes (CTPs) in Great Britain by those eligible on the grounds of age



Source: National Travel Survey

Percentage of those aged 60 years of age using the bus at least once a month



Source: National Travel Survey

The effects of free bus travel on walking by older people(%)

- The young old walk more, the old old walk less.

| Age | less | Walking the same | more |
|----------------|-----------|---------------------|-----------|
| 60-64 | 11 | 61 | 25 |
| 65-69 | 12 | 66 | 19 |
| 70-74 | 13 | 64 | 18 |
| 75-79 | 13 | 67 | 11 |
| 80+ | 21 | 60 | 8 |
| Overall | 14 | 63 | 17 |

Evidence on the impacts of CTPs on health

- Access to medical facilities is a major use of CTPs
- Webb et al. (2012) analysed ELSA and found that non PT users had a significant increase in BMI over the period 2004-08 while users did not.
- Coronini-Cronberg et al. (2012) found having a CTP is correlated with walking 3+ times a week.
- Whitley and Prince (2005) found that having a CTP allowed sufferers from a common mental disorder to access services, facilities and social support that appeared to ameliorate some of the symptoms.
- Transport Scotland (2009) found 70% of survey respondents said that Scotland-wide free transport gave them a more active lifestyle.

Conclusions

- The differences in availability of transport between different groups in the community almost certainly have implications.
- Travel can provide health benefits by providing access to facilities and by getting people out of their homes.
- Travel by rich people often has adverse effects on poor people through externalities.

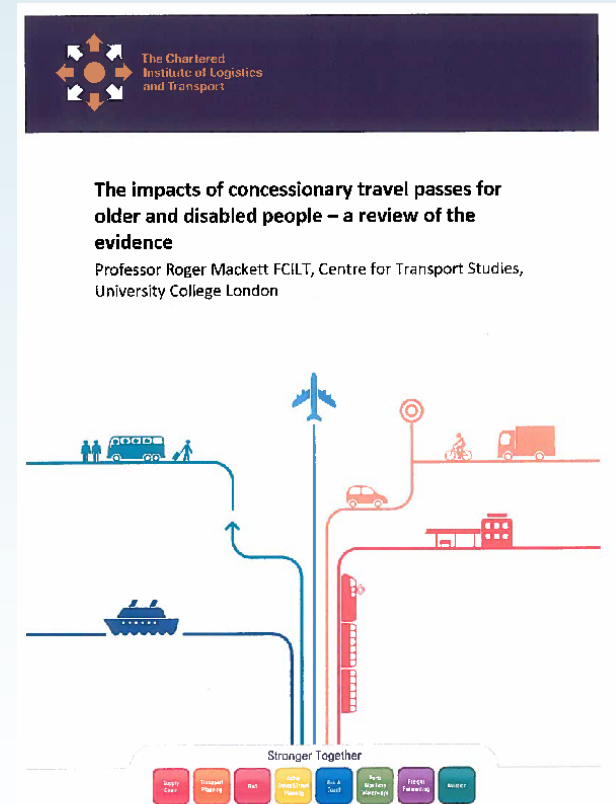
The impact of the Cambridgeshire Guided Bus

- The objective of this project is to examine the impact of the Cambridgeshire Guided Bus on walking and cycling and hence on health.
- Funded by NIHR.
- In co-operation with the MRC Epidemiology Unit in Cambridge and the University of East Anglia.
- Methods: surveys and quantitative and qualitative analysis.



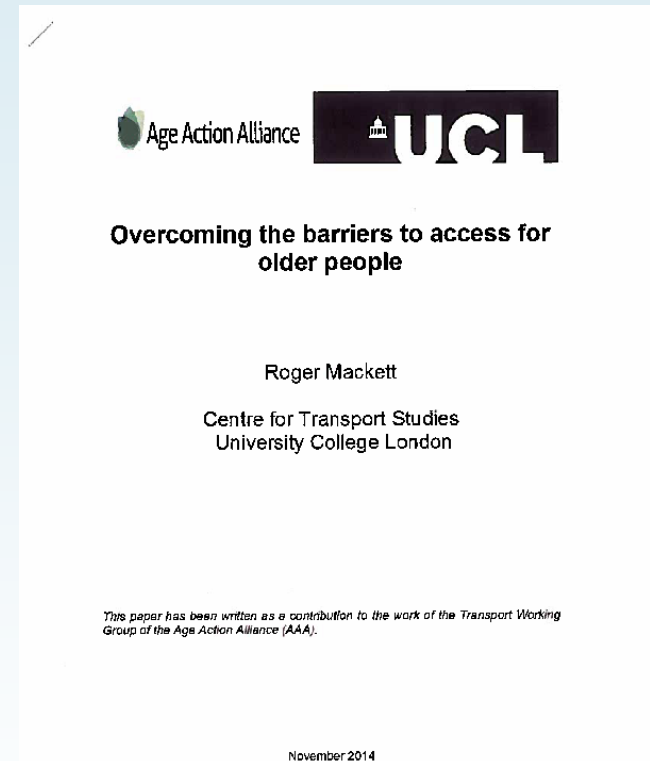
Improving older people's wellbeing through increased accessibility (1)

- This research stems from the EPSRC-funded AUNT SUE project, particularly the consultation work used in the St Albans Public Realm Delivery Strategy.
- I have produced a report reviewing the evidence on the benefits of concessionary travel passes for older and disabled people. It is available from www.bit.ly/concessionary.



Improving older people's wellbeing through increased accessibility (2)

- I have synthesised the evidence on older people's travel behaviour and its implications in my capacity as Chair of the Transport Working Group of the Age Action Alliance.
- It is available from <http://ageactionalliance.org/wordpress/wp-content/uploads/2014/11/Overcoming-the-barriers-to-access-Nov-14.pdf>.



Children's travel behaviour

- The data collected in the EPSRC-funded CAPABLE project has been analysed further to examine the implications of various factors on children's physical activity.
- Roger Mackett is involved in the project on children's independent mobility led by the Policy Studies Institute (PSI) in which the pioneering surveys on children's independent mobility carried out by Meyer Hillman and others in 1971 in England and in 1990 in England and Germany were repeated in England and Germany in 2010 and in fourteen other countries in 2011.

Transport, physical activity and health

- This research has the objective of ensuring that transport research contributes to health by encouraging more walking and cycling through reduced levels of car use.
- A report reviewing the evidence on the links between transport, physical activity and health has been produced with funding by the Department of Transport.



Transport, Physical Activity and Health: Present knowledge and the way ahead

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Scanning Study commissioned by the Department
for Transport, London, Great Britain

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Available from
<https://www.ucl.ac.uk/news/pdf/transportactivityhealth.pdf>.