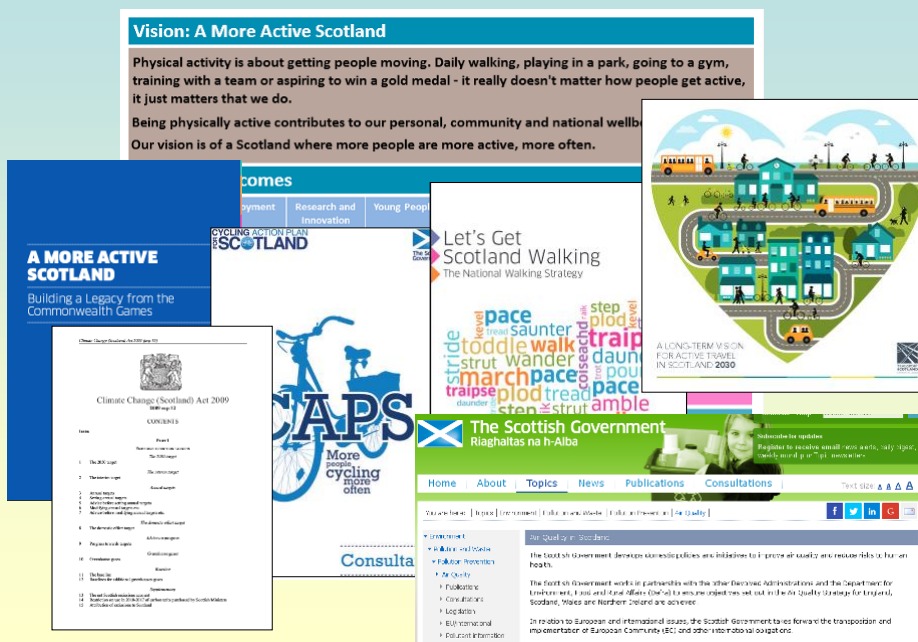
Active travel in Scotland – trends and challenges

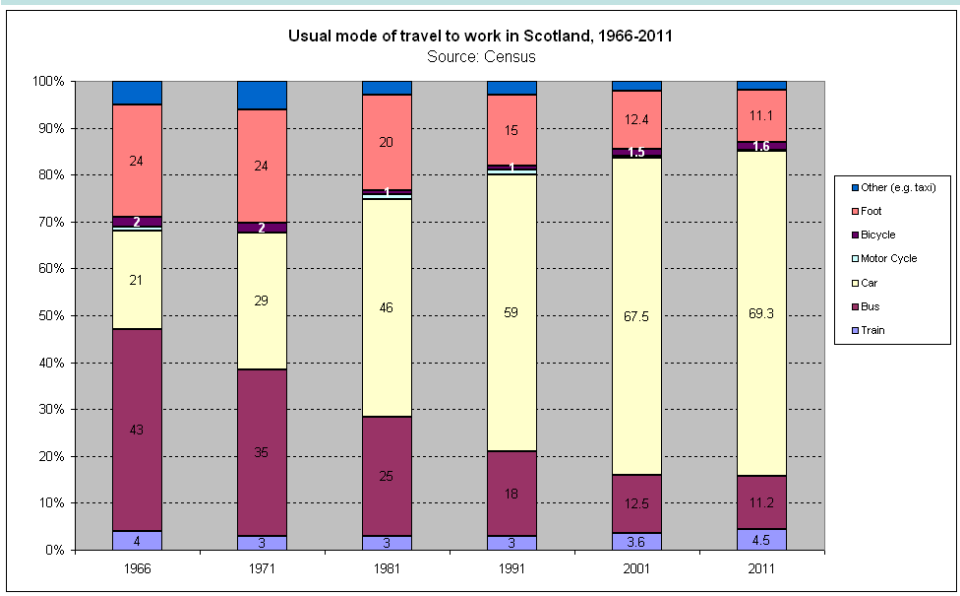
Bruce Whyte, Glasgow Centre for Population Health

Policy

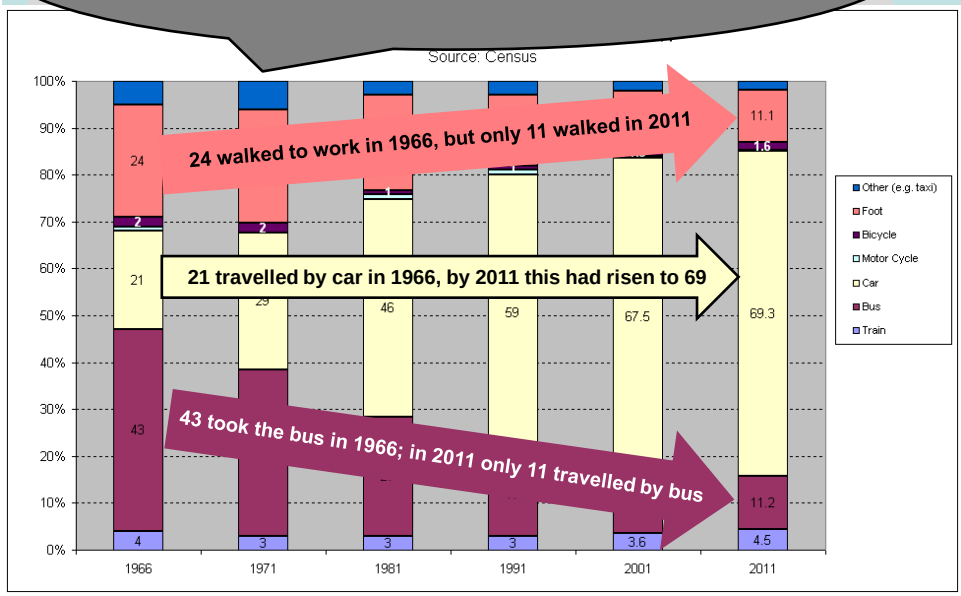


What are the trends?

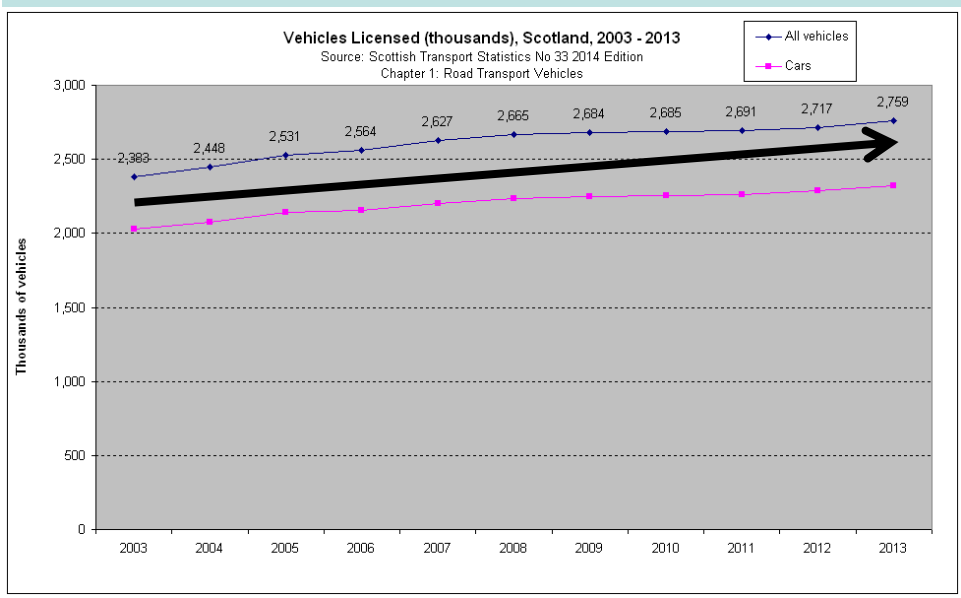
Travel to work trends, 1966 - 2011



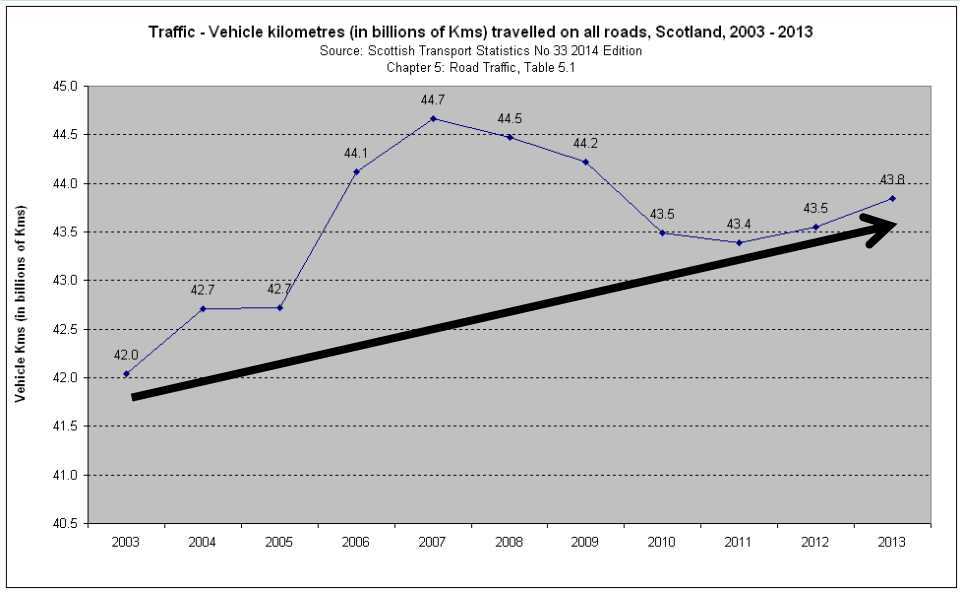
Out of 100 commuters…



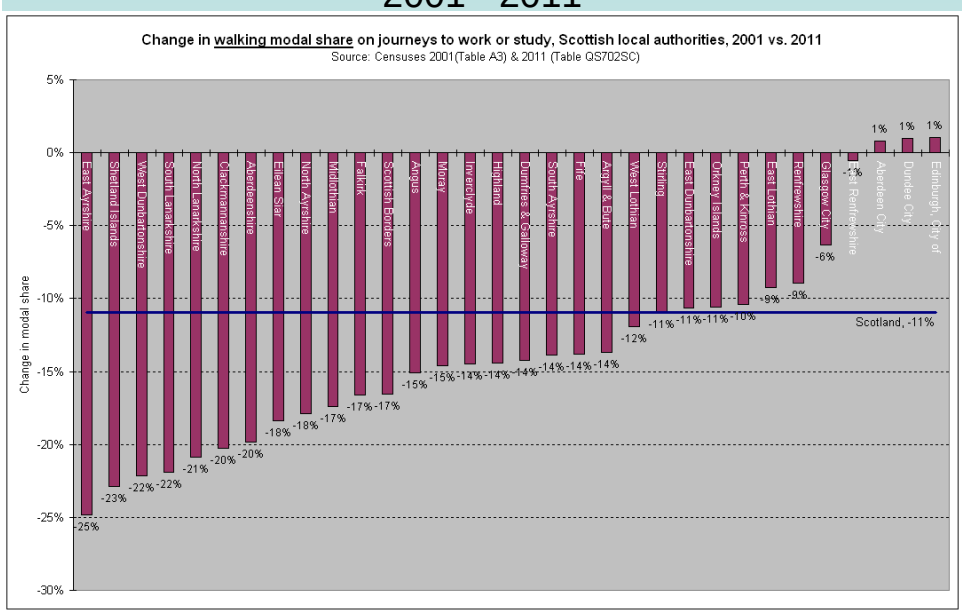
Vehicles licensed for road use



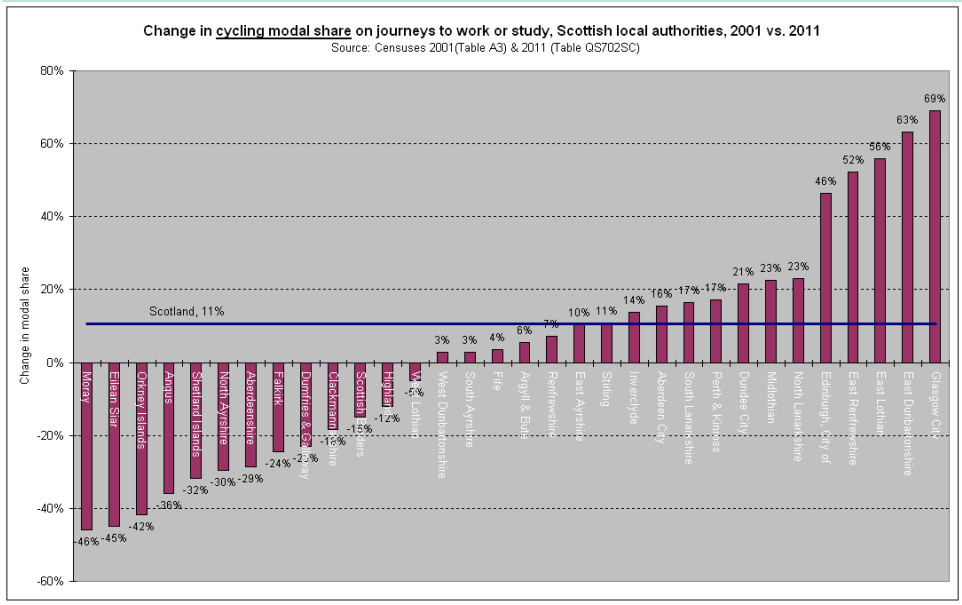
Traffic - Vehicle Kilometres



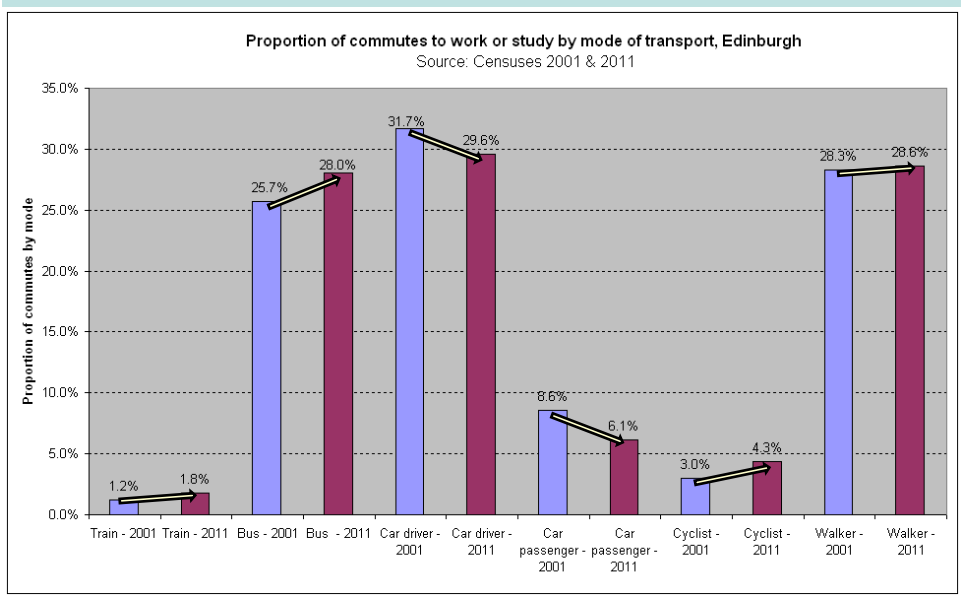
Trends in walking to work or study, by local authority, 2001 - 2011



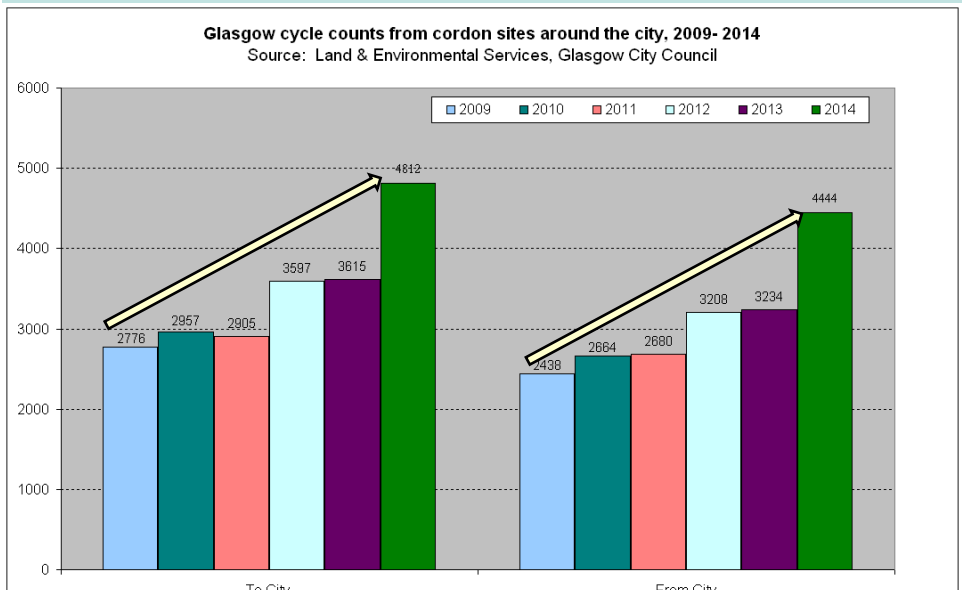
Trends in cycling to work or study by local authority, 2001 - 2011

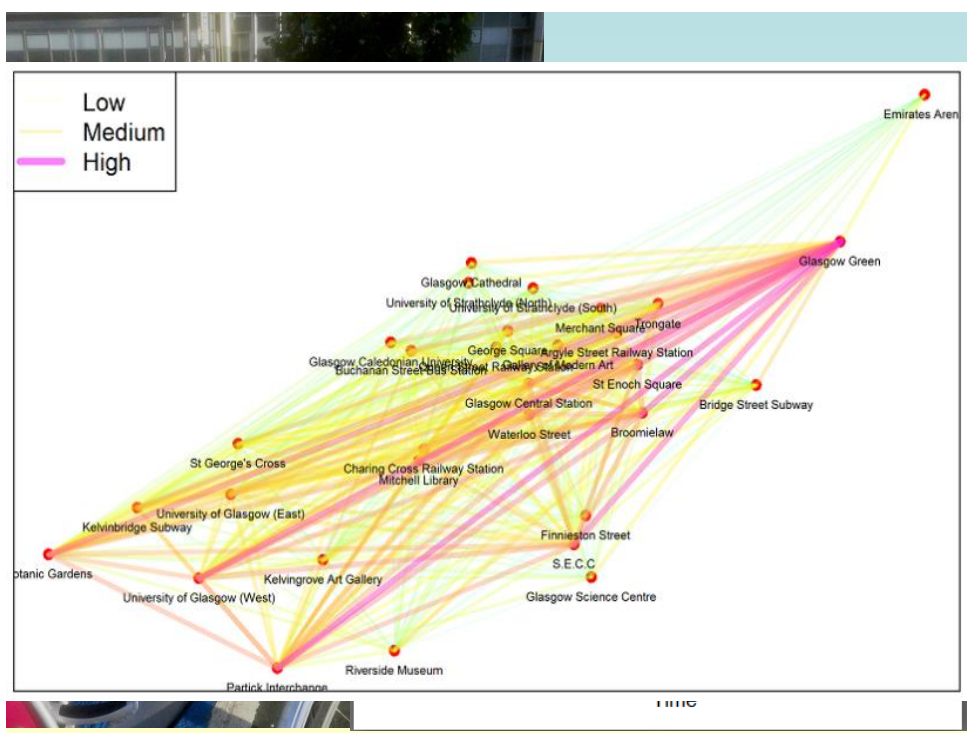


Edinburgh

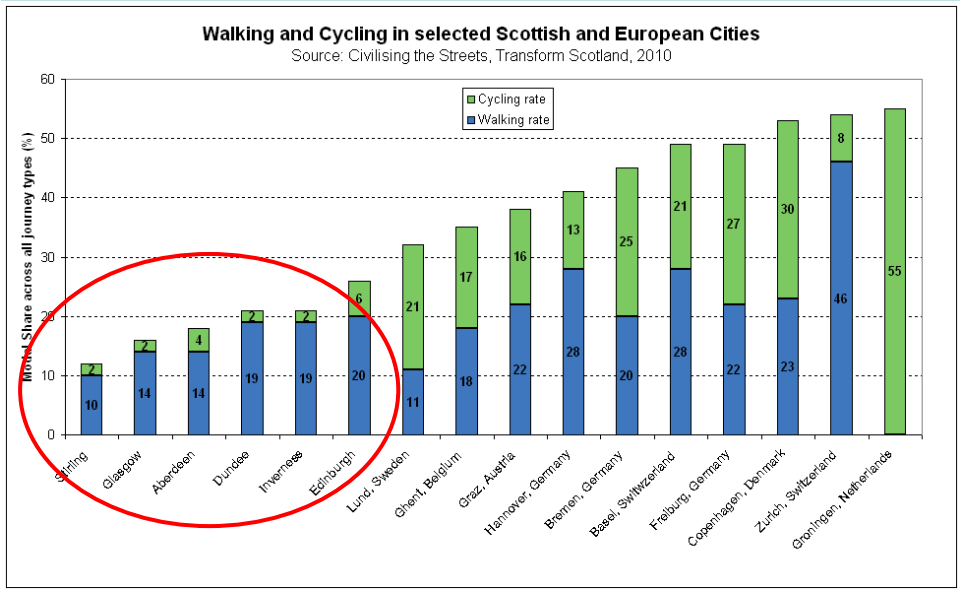


Glasgow City Council
City Centre Cycle Counts, 2009-2014



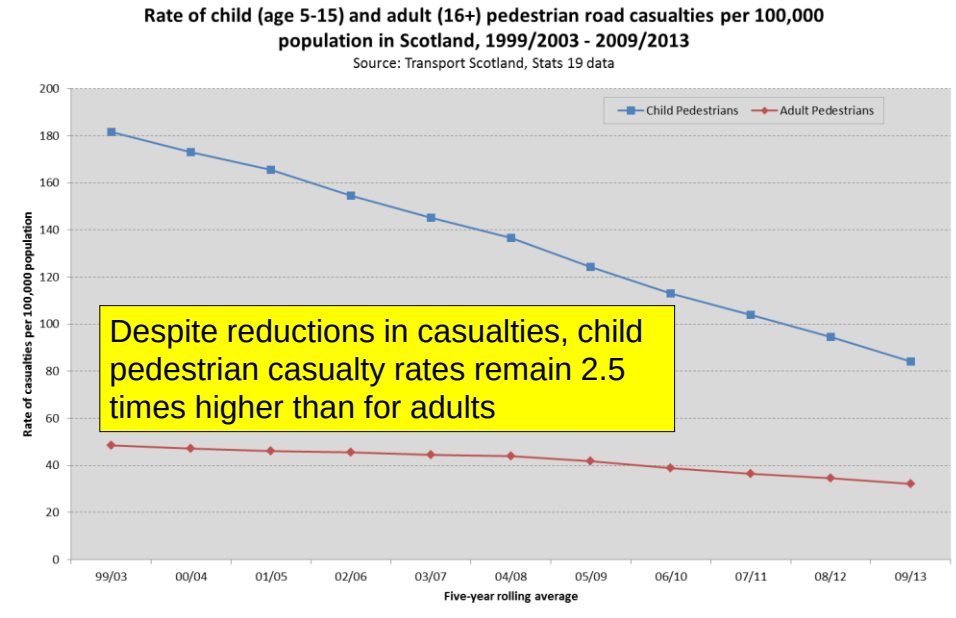


A European comparison of walking and cycling

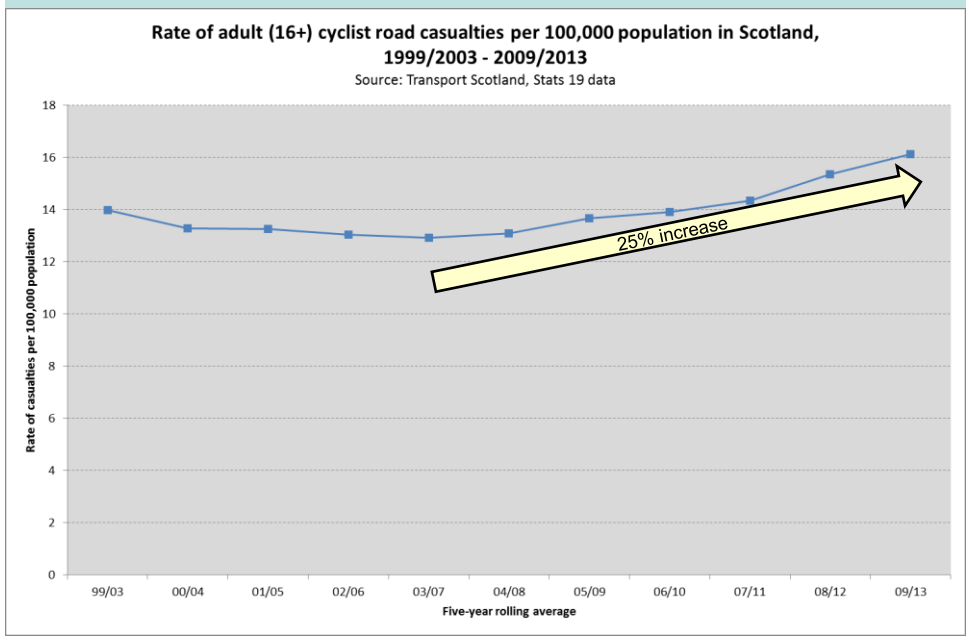


Safety is an issue

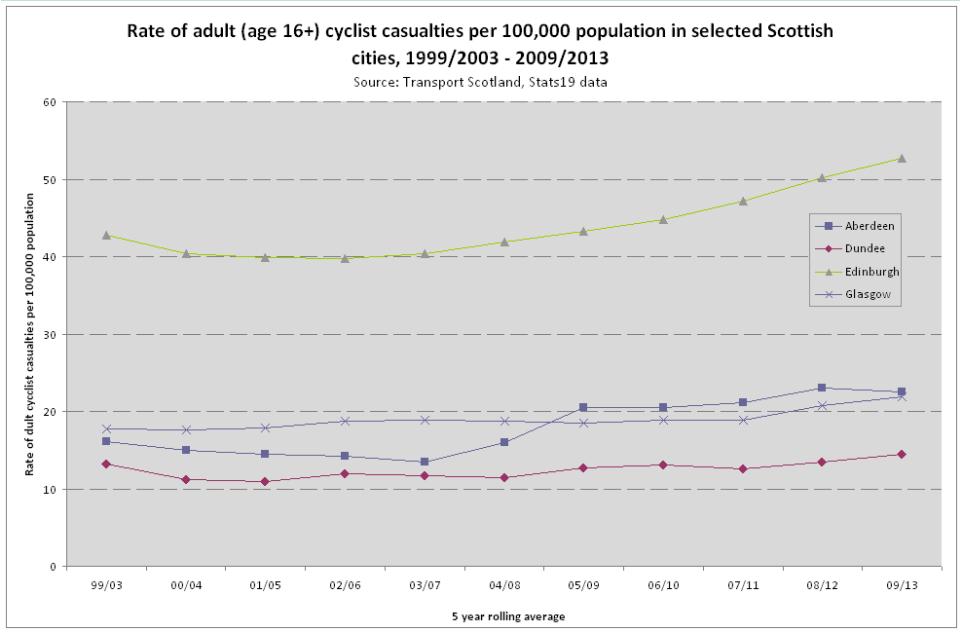
Child pedestrian casualties remain higher than adult casualties



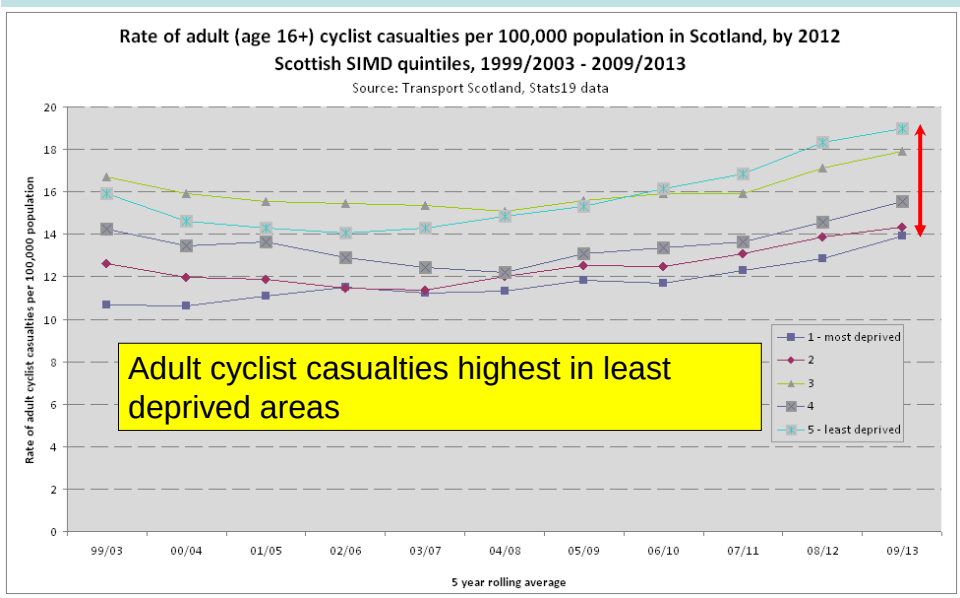
Rise in adult cyclist casualty rate



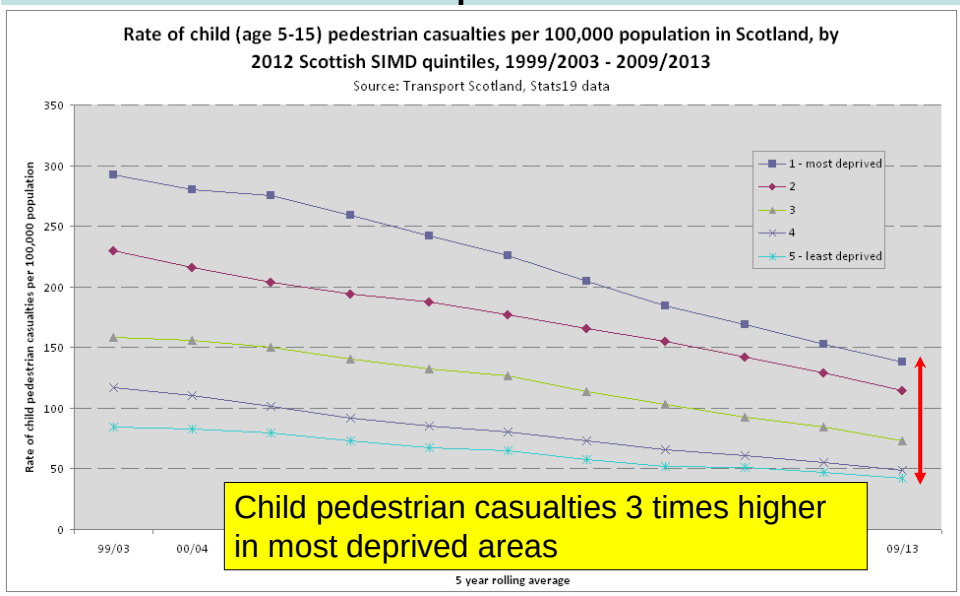
Adult cyclist casualty trends by city



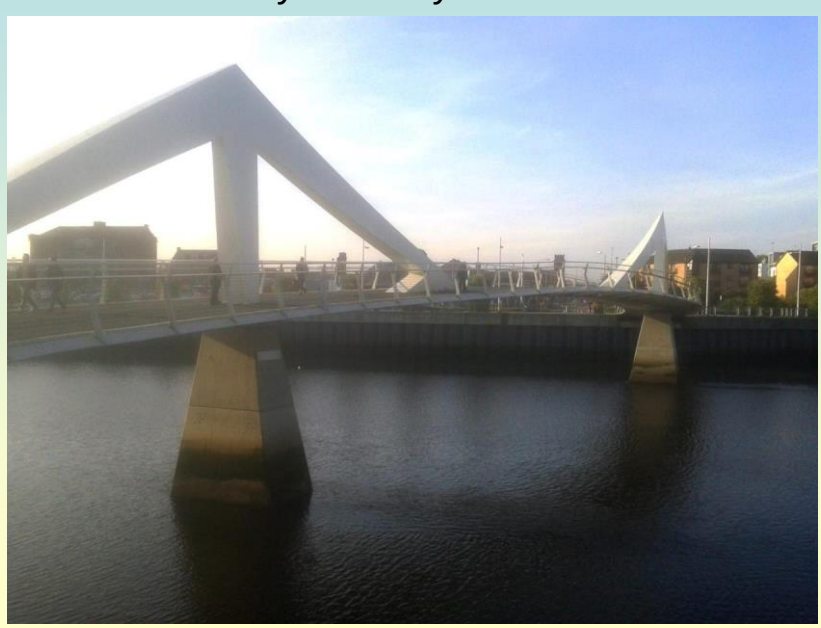
Adult cyclist casualty trends by deprivation



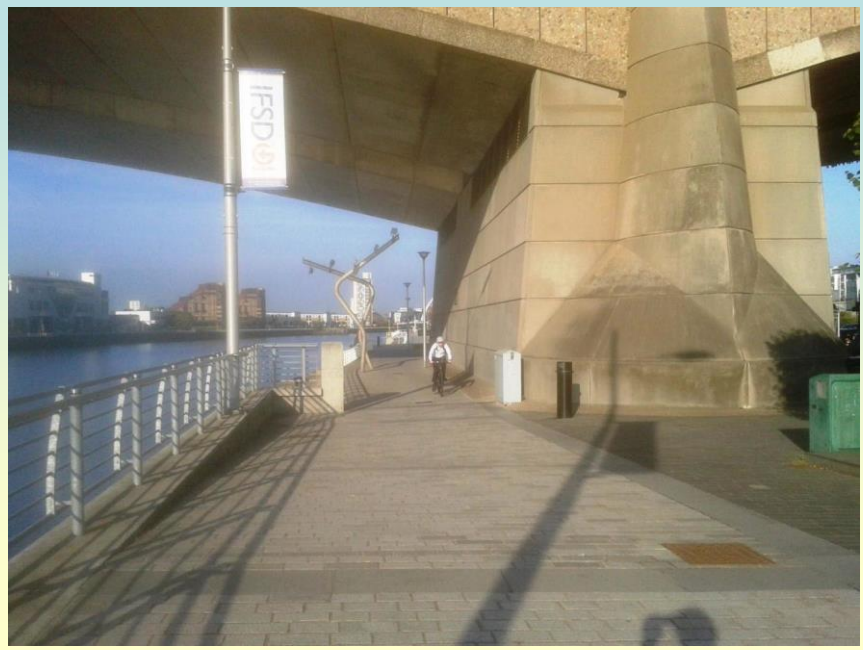
Child pedestrian casualty trends by deprivation



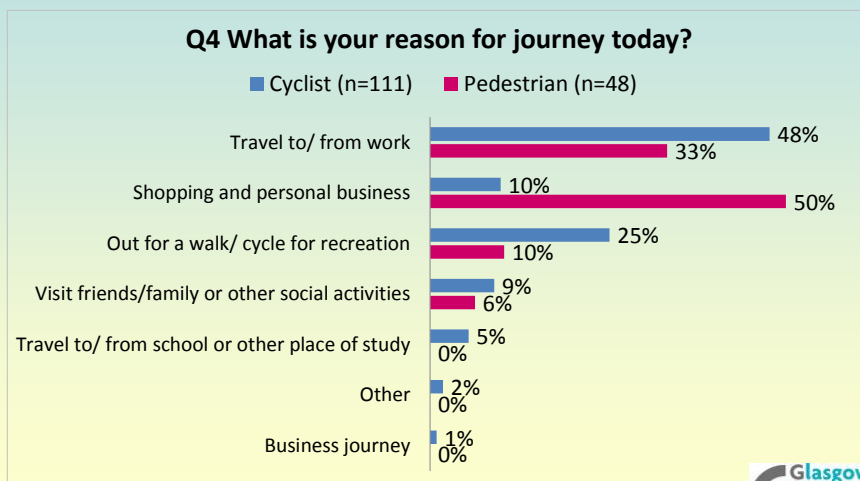
How do we encourage more people to walk and cycle safely?



Safe well-designed infrastructure



Reason for travelling on the route



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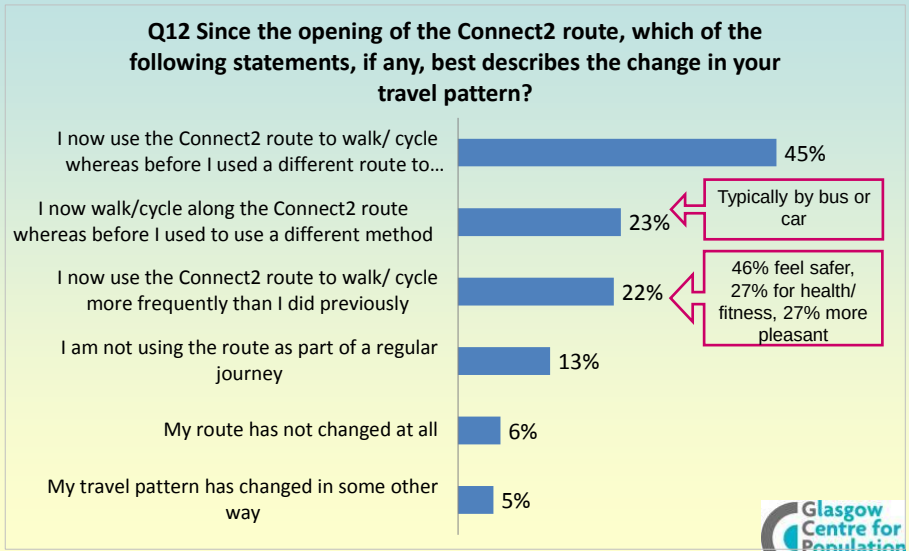
Impact of Connect 2 on travel patterns



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Views on design and quality of route

- Overall appearance of route was positive.
  - 95% of survey respondents were satisfied.

- Positive aspects of the design of the route included:
  - Small kerb to physically separate the route from traffic.
  - Bollards to alert to the shared-use of the route.
  - Cycle friendly with few drains or guttering.

  - *"The kerb bit is a major plus. It stops the cars coming at you."*
    (Cyclist, male, commuting, Kelvingrove section)

Waterloo Street, City Centre section of the route

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Perceptions of safety

- Strong view that route had improved feelings of safety for cyclists and pedestrians.
  - Physical separation from traffic seen as a positive.
  - Pedestrians report feeling safe on shared use aspects of route – especially the bridge at Anderston.
  - *"There is plenty of room for everyone."*

(Cyclist, male, commuting, Anderston section)

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Bridge connecting Anderston to City Centre

Benefit of the route

- Benefits reported in focus groups included:
  - Less stressful, more pleasant journeys.
  - Practical benefits such as more direct and faster journeys.
  - Improved health from increased walking and cycling.
  - Safer journeys making cyclists more confident to travel.
  - *"Today I went from the east end to Byres road. It was no bother, but with the car it would've been a nightmare. I saved time and my health is a lot better."* (Cyclist, male, leisure, all sections of the route)

Elderslie Street, Kelvingrove section of the route

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Value of route

Safety was valued more highly than journey time – some chose to make a longer journey to take advantage of the route as it was perceived as safer.

- *"My route is now shorter, but even if it was longer, I would still use the (K-A) route."*

  (Cyclist, male, commuting, all sections of the route)

- *"Even though its a longer walk – I'd still do it because it's safer."*

  (Pedestrian, female, leisure, Anderston section)

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Changes in mode of transport

- Others changed from driving to cycling – cheaper and less stressful commute.
  - *"I drove to work in town from the west end and spent £10 a day on parking – my commute is now free."*

    (Cyclist, male, commuting, Kelvingrove section)

- Pedestrians reported feeling encouraged to use route – walking at lunchtime in the city for example, or walking home after a night out.
- Route was used by many as part of a wider journey – with people travelling into Glasgow from surrounding areas.

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Kelvingrove-Anderston study

- The research highlighted the benefits of a new safe cycling and walking route.
  - It is perceived by users to be safer than other on-road alternatives.
  - It has encouraged modal shifts to more active and sustainable modes of travel.
  - Other benefits such as quicker and cheaper journeys.
- There is support for further development of this type of safe infrastructure in other parts of Glasgow.

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Good infrastructure

..and more of it

301.2 km of potential
across **Glasgow**

Bus Corridor
On road/low Traffic
On road Demarcation/Si
Shared Surface
Off Road Park Route/Lei
Segregated

Area speed restrictions

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Culture change

Better relationships

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Learning from elsewhere

The SFMTA is launching a new pilot program that will install three-bike capacity racks on select Muni routes.

Health and economic impact of cycling in Netherlands

A recent study estimated that cycling prevents about 6500 deaths each year in the country, that Dutch people live for half a year longer because of cycling and that the health benefits correspond to more than 3% of the Dutch gross domestic product.

But how does these health benefits compare to other measures?

- The 6500 deaths that are prevented in the Netherlands annually as a result of cycling is an impressive figure when compared with the population health effects of other preventive measures. Another study (Machenbach et al) showed that the 22 new preventive interventions introduced in the Netherlands between 1970 and 2010, such as tobacco control, cancer screening and road safety measures, altogether prevent about 16 000 deaths per year.

And how do the costs of investment in cycling compare to the benefits?

- Compared with the capital investments by all levels of Dutch government in road and parking infrastructure for cycling of almost €0.5 billion per year over the last decades, the annual benefits of €19 billion are much higher than the annual costs.

Does cycling have potential benefits across the whole population?

- The Dutch study is limited to adults. There were estimated health benefits across all age groups from 20 – 90 year olds with the greatest increases in life expectancy were among people aged 65 or over. In large part, this was because levels of cycling rise with age in the Netherlands, reaching a peak among people aged 65 to 69 years before reducing significantly above 80.

Fishman E, Schepers P, Kamphuis CBM. Dutch Cycling: Quantifying the Health and Related Economic Benefits. American Journal of Public Health 2015;105,8, e13-e15 http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2015.302724

Alongside…

- Proper maintenance and repair of infrastructure
- Ensuring that pavements and dedicated paths/routes are gritted and kept useable
- Improving the awareness and skills of all road users
  - Cycle proficiency courses, such as Bikeability Scotland
  - Some, but by no means all bus companies provide driver training that aims to increase awareness of cyclists, pedestrians and other vulnerable road users.
- Culture and behaviour change media campaigns

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To increase levels of active travel and to address real and perceived safety concerns….

We need multiple concurrent approaches:

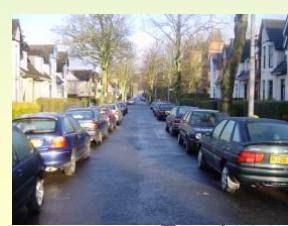
- investment in safe, well-designed and integrated infrastructure
- area speed restrictions
- better road maintenance
- training programmes for cyclists, bus drivers and other road users and culture change
- adoption of neighbourhood design approaches which enable safe walking, cycling and play, which will help create safer and more sustainable community environments.

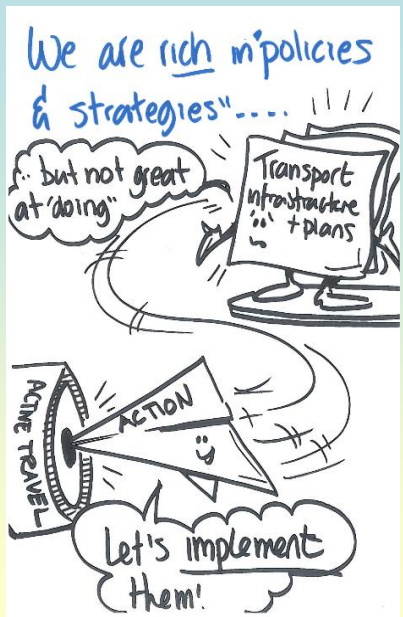
In a generally favourable policy context, the challenge is to increase investment in active travel sufficiently to enable significant modal shifts towards walking and cycling to be achieved.

Increases in everyday walking and cycling will boost levels of physical activity leading to better physical and mental health, help improve air quality, contribute to reduced carbon emissions and will benefit local economies.

"…. The solid facts are that walking and cycling benefit health while motor vehicles damage health. Walking and cycling need to be prioritised in transport planning; compact cities that minimise vehicle journeys need to be prioritised in economic and land-use planning; public transport must be significantly improved, while car travel is reduced; and leadership is needed from politicians, industry and 'civil society.'"

Social Determinants of Health, 1999


We are rich in policies & strategies"....
"... but not great at 'doing"
Transport infrastructure + plans
ACTIVE TRAVEL
ACTION
Let's implement them!


Can we change the priority...
CROSS HERE
"... everything seems to revolve around 'the car'
This space should be about human beings...
we should all share this space