

# Impacts of Transport: Encouraging Potential Cyclists

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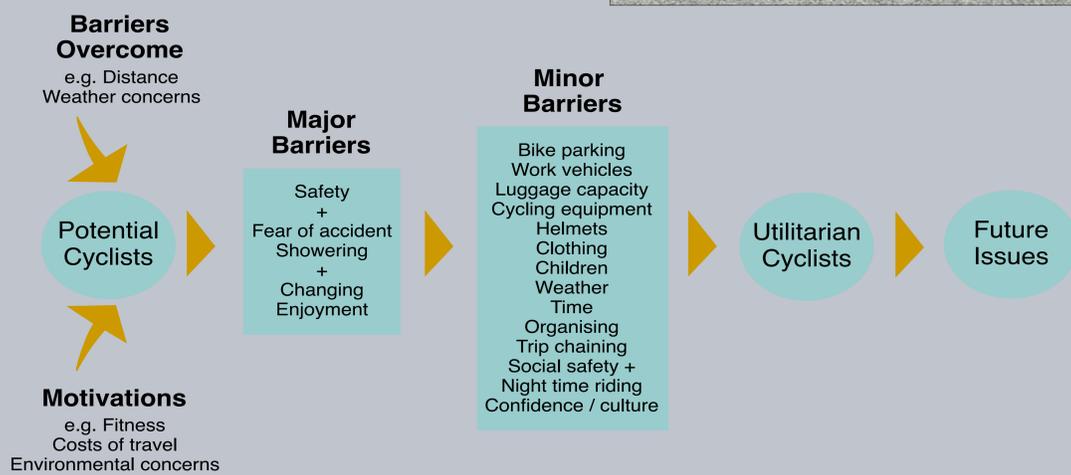


## Background

- There is increasing global concern about urban sustainability and the impacts of transport
- Transport has major impacts on spatial development of urban areas
- Urban planners are attempting to increase use of sustainable transport
- Cycling is an active transport mode with many positive impacts such as more sustainable communities, improved air and noise pollution, improved health, reduced traffic accidents and reduced traffic congestion
- There is great potential for cycling on short journeys (under 10 kms)



Figure 1: Barriers to cycling



## Methodology

Questionnaires of workplaces, university, recreational cyclists and wider community were carried out to identify transport mode choice, investigate motivations and barriers for cycling, and identify people who do not currently (or infrequently) cycle and would like to cycle.

Focus groups were carried out to discuss motivations and barriers, and assess cycling infrastructure likely to encourage more cycling.

## Research Aims

This research aimed to increase cycling for transport by:

- Identifying characteristics of people interested in cycling for transport
- Investigating their barriers and motivations for cycling
- Making recommendations about how to encourage cycling

## Findings

NZ Census 2006 travel to work - 77% drive, 3% cycle (Christchurch 6%)

University Travel Survey 2008 - 39% drive, 24% walk, 19% cycle

Recreational Cyclists – 44% drive, 40% cycle

### Potential for Cycling

- high proportions perceive a reasonable distance to cycle
- only 30% say nothing will encourage them to cycle

### Major barriers

- Safety, showering and changing facilities, and enjoyment of journey

### Solutions

- Improve driver behaviour, more cycle facilities, workplaces to provide showering & changing facilities, encourage other destinations to provide for cyclists to store bags



Table 1: Cycle policies, purposes and outcomes

Policy	Purpose	Target Audience	Outcomes
Cycle facility network – preferably off-road	Increase perceived safety of physical environment	Potential cyclists & vulnerable cyclists	People interested in cycling will perceive cycling as safer and more enjoyable
Consistent level of infrastructure	Cyclists and motorists know what to expect at intersections and roundabouts	Cyclists & potential cyclists	People cycling will be more confident about navigating difficult intersections
Education campaigns e.g. advertising, websites	Increase road users understanding and rights of other groups	General road users	Traffic behaviour from all road users will improve and cyclists will be more confident
Develop cycle friendly workplace campaigns	Encourage workplaces to provide showering and changing facilities for cyclists	Active commuters	People will have the opportunity to shower & change at work or after exercise



## Conclusions

- Three major barriers and many minor barriers for potential cyclists
- Future barriers and impacts depending on policy (see Figure 1)
- Need integrated policies to encourage cycling (see Table 1)
- Policies need to include strategic planning & impact assessment for better outcomes
- Significant potential for positive impacts of encouraging cycling on sustainability of urban centres leading to greater human well being

## Key References

- Banister, D. & Lichfield, N. (1995) The Key Issues in Transport and Urban Development. In Banister, D. (Ed.) Transport and Urban Development. London, E& FN Spon.1-16
- Hillman, M. (1997a) The potential of non-motorised transport for promoting health. In Tolley, R. S. (Ed.) The greening of urban transport: planning for walking and cycling in western cities. Second ed. Chichester, New York, John Wiley & Sons Ltd.21-27
- Jensen, S. U., Anderson, T., Hansen, W., Kjaergaard, E., Krag, T., Larsen, J. E., Lund, B. L. C. & Thost, P. (2000) Collection of Cycle Concepts. Copenhagen, Denmark, Road Directorate.
- Noland, R. B. & Kunreuther, H. (1995) Short-run and long-run policies for increasing bicycle transportation for daily commuter trips. Transport Policy, 2, 67-79.
- Pucher, J. & Buehler, R. (2008) Making Cycling Irresistible: Lessons from the Netherlands, Denmark and Germany. Transport Reviews, 28.
- Tolley, R. S. (2003) Sustainable transport: planning for walking and cycling in urban environments. Boca Raton, Cambridge, CRC Press; Woodhead.



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