Resilient urban futures and the ACTIVE study

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NZ Centre for Sustainable Cities seminar

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http://www.iway.org.nz/routes-maps/
Resilient Urban Futures Programme

The New Zealand Centre for Sustainable Cities is running the Resilient Urban Futures Programme, thanks to a 4-year grant from the Ministry of Business, Innovation and Employment which began in October 2012.

The programme links researchers from:

- NZ universities – Otago, Auckland, Massey, Victoria, Canterbury
- National Institute of Water and Atmospheric research (NIWA)
- Local councils – Auckland, Tauranga, Hamilton, Kapiti, Wellington, Christchurch
- Research institutes – Motu, Waiti, Aria

The research framework views cities as systems, emphasising for example the links between housing and transport and urban form and water. Research focus areas have been developed in consultation with councils over the last 3 years. We emphasise comparative case studies and local policy experiments. Examples are: a Warrant of...
Translating research for policy & practice
NZ Centre for Sustainable Cities

• A network of researchers around NZ
• Main source of funding: won competitive MBIE grant – “Resilient Urban Futures”
• RUF research programme began late 2012
• Involves most of the universities in NZ, plus NIWA, Motu, Ecologic
• 9 strands of research
Some RUF motivations

• **Urban form** – In theory, varying urban settlement patterns can make a difference to environmental and health outcomes. Can we match people with housing and neighbourhoods they want, and cut travel and associated emissions?

• **Urban policy** – In principle, NZ’s bigger cities can adopt a range of transport and land use policies to become more sustainable. What seems to get in the way?

• **Transport** – In theory, better transport can allow emission cuts and generate health / other co-benefits. Can people be helped to get active?
The RUF strands

1. Drivers of urban change – Guy Salmon, Marie Russell, Philippa Howden-Chapman
2. Compact development v. dispersed development (sprawl) – the benefits and costs – Ralph Chapman, Nadine Dodge, Nick Preval, Pattern Reid
4. Modelling transportation, land use & the environment – Pengjun Zhao, Ed Randal
5. Evaluating active transport investment -- Michael Keall, Ralph Chapman, Philippa H-C, Karen Witten, Wokje Abrahamse,...
6. How infrastructure links shape development – Arthur Grimes et al, Motu

7. Modelling air quality, traffic emissions & energy use – Gustavo Olivares, NIWA

8. Effects of urban development on urban water – Jonathan Moores, Chris Batstone et al, NIWA

9. Taone tupu ora: Maori and urban land development – John Ryks, Keriata Stuart, Anaru Waa, Biddy Livesey
Why a particular interest in active travel?

multiple co-benefits – besides CO₂ reduction

Expected benefits of a policy to increase cycling and walking:
- reduced chronic diseases
- fewer accidents
- less noise
- improved air quality
- reduced road severance
- reduced vehicle congestion
- reduced energy consumption
- increased energy security
- increased economic resilience

Health co-benefits

Other social co-benefits

Economic co-benefits
The ACTIVE strand  
– what and why?

• **What?** The ACTIVE project: evaluating the NZTA-funded **Model Cities Programme** – investing in infrastructure & education to increase active travel

• ‘ACTIVE’ stands for: ‘Active travel investment for vitality and equity’: a multi-part study

• **Why?** Because *if* active travel is shown to be a good investment, with useful health outcomes *etc.*, then further investment in active travel is better justified
ACTIVE project outputs (all team efforts)

- Methods paper – led by Ralph Chapman
- Main results paper – led by Michael Keall
- Cost-benefit analysis paper – led by Ralph Chapman with Mark Grams
- Attitudes, perceptions and habits – led by Wokje Abrahamse
Increasing active travel: aims, methods and baseline measures of a quasi-experimental study

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Abstract

Background: Policy advisers are seeking robust evidence on the effectiveness of measures, such as promoting walking and cycling, that potentially offer multiple benefits, including enhanced health through physical activity, alongside reductions in energy use, traffic congestion and carbon emissions. This paper outlines the 'ACTIVE' study,
NEW PLYMOUTH PATHWAYS, ACCESSWAYS AND CYCLE LANES

- State Highways
- Main Roads
- Roads
- Parks Access Roads
- Shared Use Pathways - sealed or gravel
- Tracks - gravel, grass or ground, or steps (bikes prohibited in some areas)
- Accessways - some with steps
- Coastal Walkway - shared use
- Existing Cycle Lanes - on roads
Thanks, and now to Michael

Hastings off-road cycleway

New Plymouth schools promotion

www.iway.org.nz

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