

INTEGRATING HEALTH, ACTIVE TRANSPORT AND LAND USE PLANNING

Transport Case Study

THE UNIVERSITY OF SYDNEY
BUSINESS SCHOOL

CORINNE MULLEY
CHAIR OF PUBLIC TRANSPORT | ITLS



THE UNIVERSITY OF
SYDNEY



- › Health and transport connections
- › Lifestyle disease and transport
- › Increasing active modes and justifying new infrastructure
- › Emerging evidence
- › Future directions

- › Awareness of the many different connections between health and transport is not new
 - Safety
 - Transport emissions
 - Health impacts of sedentary behaviour an area of growing concern
 - Decline in more active transport modes
 - Walking
 - Cycling
 - Negative impacts of driving



Source: designbuildsource.com.au

- › Insufficient Physical activity and increase in travel are both concerns
 - Car travel works against meeting physical activity guidelines
 - Increasing travel by car exacerbates effect
- › Policy approaches are three pronged
 - Reduce harms of driving
 - Reduce the daily travel by car
 - Increase active travel modes
- › Benefits of healthier travel
 - Benefit individuals
 - Benefit society
 - Countries with high levels of non motorised travel have fewer fatalities and injuries per km

WHAT CONSTITUTES ACTIVE TRAVEL

- Walking
- Cycling
- Public transport use
 - Users need to access public transport
 - Mode switch to public transport reduces harm to drivers
 - Improves capacity utilisation of road networks



Source: chichester-march.org.uk



Source: nwscycling.com



Source: deborahcolumn.blogspot.com

- › ‘Soft’ policies
 - Reducing travel
 - Sticks –eg purchase taxes, congestion charges, parking charges
 - Carrots – improving conditions for active travel, improving attraction of nearby attractions
 - Encouraging mode shift through planning eg travel plans
 - Design of more walkable areas
- › Infrastructure to make active transport more amenable and safe

- › Public infrastructure is justified in evaluation
 - Identifying costs
 - Identifying benefits
- › Current guidelines capture health impacts imperfectly
 - **Costs** include extra time taken eg to interchange on public transport but not **benefits** of this walking to physical activity targets
 - **Costs** include the provision of new active transport infrastructure but struggle with identifying **benefits** as many active transport trips are slower
 - Methodological difficulties of
 - Identifying demand
 - Quantifying health benefits
 - **Costs** of implementing walkable neighbourhoods but not the **benefits** – amenity values etc

WHY IS EVIDENCE IMPORTANT?

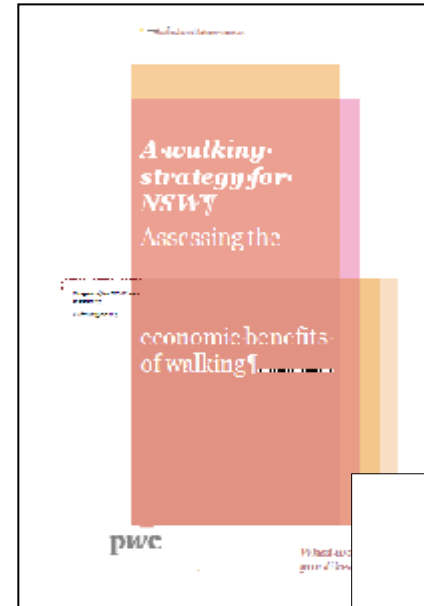
- › Evaluation compares COSTS and BENEFITS
- › Better evidence on COSTS and less good evidence on BENEFITS
- › Better evidence on BENEFITS of public transport use make public transport infrastructure easier to justify



Source: tetest.idea.gov.uk

> Walking in NSW

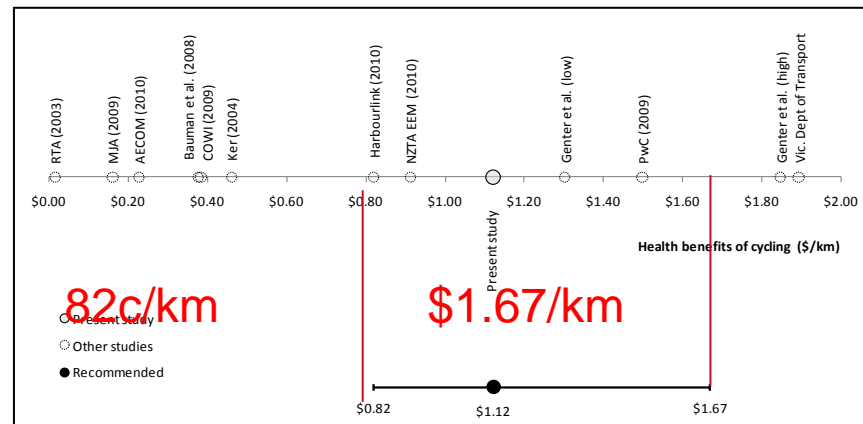
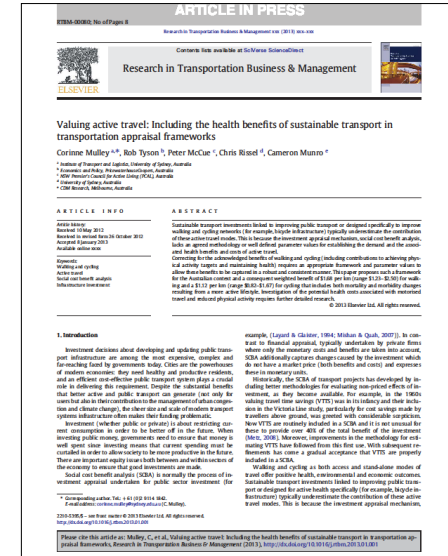
- Estimated benefits of switch to walking for journeys of less than 1km (10 mins)
 - 5% switch: \$134 m benefits
 - 10% switch: \$214 m benefits
- Methodology for inclusion in CBA evaluation
- Multimodal transport options currently only count costs, not benefits of walking



> Cycling

- methodology for route choice and mode switch as input into demand forecasting for new infrastructure
- Quantification of health benefits evidence
 - Direct costs of health estimated \$1,682 bn (2010 prices) or \$171 per insufficiently active person in Australia
 - Indirect costs – overall disease burden (time lost in illness, disability or premature death)
- **Recommended km rate for evaluation = \$1.12**

Source: Queensland Department of Transport and Main Roads, 2011



- › Evaluation guidelines under review provide an opportunity to include health related benefits
 - Win-Win for transport and health
- › More infrastructure
 - Encourages more use providing virtuous circle for health and transport
 - Reinforces sustainable transport policy objectives
- › Ongoing need for collaboration between transport and health
 - To refine methodologies and parameter values
 - To translate concepts into policy practice
- › Foster interest in academic community
 - To find synergies in transport and health
 - To support development of the evidence base



Source: sdx.com.au