

# Walking - the neglected element of public transport travel

Walk 21 Sydney

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- › Health and transport connections
- › Lifestyle disease and transport
- › Walking and public transport
  - Walking benefits
- › The need for quantified evidence
- › Justifying infrastructure
  - How interchange, normally thought of as bad can be good
- › What still needs to be done and future directions (and challenges)

- › 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](http://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

# THE ROLE OF WALKING AND PUBLIC TRANSPORT

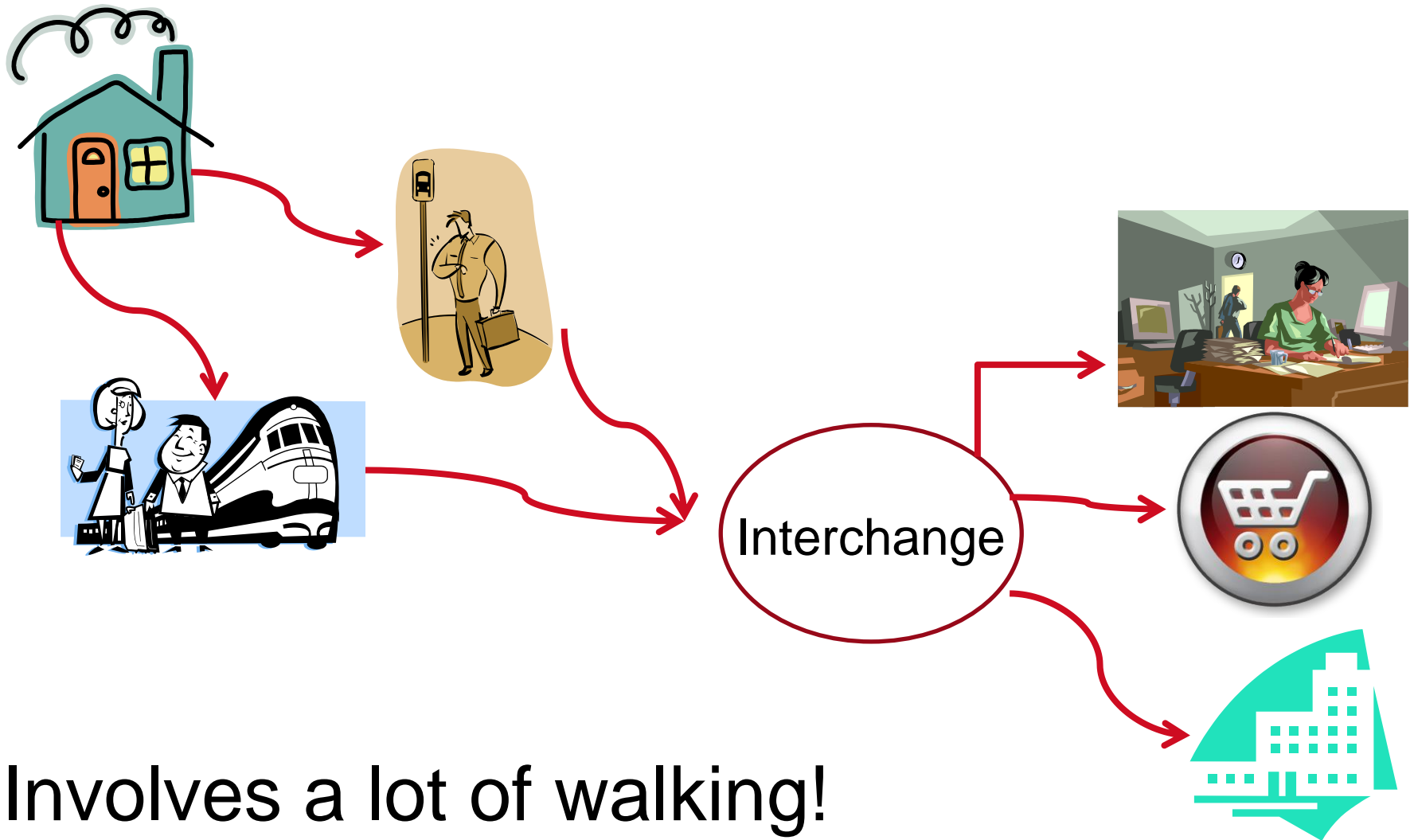
- › Walking is the primary mode of access to public transport
  - In Sydney: 90% for bus trips and 50% for train trips.
- › Public transport users spend more time walking
  - Median of 19 minutes per day in US (Besser 2005)
  - 8-33 minutes extra due to public transport in NSW (Rissel et al 2012)



Source: [chichester-march.org.uk](http://chichester-march.org.uk)



Source: [deborahcolumn.blogspot.com](http://deborahcolumn.blogspot.com)



Involves a lot of walking!

# WALKING BENEFITS OF PUBLIC TRANSPORT USE

- › The walking benefits of taking public transport now being recognised in public health but not in transport
- › Investment appraisal for public transport projects
  - Doesn't include the benefits of walking as part of the overall trip
  - Over-reliance on time savings so
    - Walking to public transport stop a 'cost'
    - Walking at interchange a 'cost'
    - Walking at the destination a 'cost'
  - Includes the cost building a better environment
    - But not the benefits of more walking coming from a more walkable environment



# WHY IS EVIDENCE IMPORTANT?

- › New projects require an evaluation of costs and benefits
- › Better evidence on COSTS
  - The costs of building
  - The environmental costs
  - The costs of accidents
- › Less good evidence on BENEFITS
  - Health benefits of public transport use
- › Including
  - Health benefits of public transport use
  - Health costs of car use
- › Less biased cost benefit analysis
  - Makes car based infrastructure 'less desirable'
  - Makes public transport infrastructure 'more desirable'



Source: [tetest.idea.gov.uk](http://tetest.idea.gov.uk)



- › Good walking infrastructure
  - Adds to costs
  - But adds to benefits - these are often forgotten
- › Walking infrastructure that positively impacts on determinants of walking is good value
  - Walkable environments – grid pattern built environment
  - Access to retail
  - Access to recreational spaces and activities
  - Access to a built environment with good aesthetics
- › Cost Benefit evaluation ‘rules’ do not capture all benefits eg amenity values of walkable neighbourhoods



# A BIG INTERCHANGE: MADRID PROGRAMME



# MADRID PROGRAMME HITS GOLD...

- › Planned for walkability
- › Good interchange between modes
  - Increases the 'reach' of public transport
- › Based on vision of putting interchange where necessary from a transport point of view
- › Good design – indoor 'built environment'
- › Created local environment through integrated shopping precinct
- › **ALL THE THINGS WHICH INCREASE WALKING!**
- › Throughput increased dramatically
- › Opened in 2005, plans to double capacity put in place in 2004



Source: [www.eia-ngo.com](http://www.eia-ngo.com)

# OPPORTUNITIES THAT DON'T SEEM LIKE OPPORTUNITIES.....

- › Using disruption to foster travel behaviour change
  - Sydney Olympics 2000 fostered intermodal travel
  - Fostered high levels of public transport use
- › Use new investments in public transport to be the trigger for change
  - Light rail in George Street will cause havoc with existing rail stations
  - Encourage through incentives and gaming an increase in walking? Eg Town Hall closed, walk to St James?



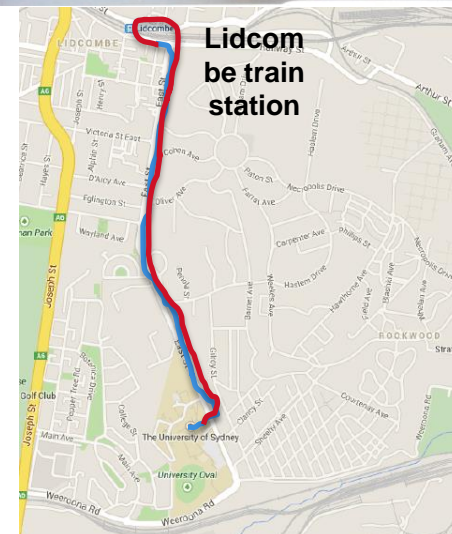
Source: [smh.com.au](http://smh.com.au)



Source: [www.sydneylightrail.transport.nsw.gov.au](http://www.sydneylightrail.transport.nsw.gov.au)

- › To identify how to quantify disruption costs generally
  - Specifically in new investment provision
- › To identify how to 'push' behaviour change with the 'buttons' available
  - Role of smart cards
  - Experience in Singapore
  - Possible trial in Brisbane....

- › Needed on the quantification of health benefits
  - How impacted by environmental factors
  - How impacted by mode
- › Current research looking at standardised journey and task to examine
  - Environmental impact
  - Stress impacts
- › Future research may need to focus on how to ameliorate emissions impacts on active travel
  - Built environment/green landscaping
  - Changes in traffic management eg prioritising pedestrians



# CONCLUSIONS AND FUTURE DIRECTIONS

- › Evaluation guidelines under review provide an opportunity to include health related benefits
  - Win-Win for transport and health
  - But questions left unanswered in relation to emissions and active travel
- › More infrastructure
  - Encourages more use providing virtuous circle for health and transport
  - But must be 'good' in the elements which determine walking
  - Public transport is only as good as its weakest link....
- › Foster interest in academic community
  - To find synergies in transport and health
  - To support development of the evidence base
  - Special issue coming soon on public transport and health
  - Edited book for Emerald (Transport and Sustainability Series) on Walking



Source: sdx.com.au