Transport, wellbeing and community: learning from recovering Christchurch

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Transport, health and wellbeing

• Access
  • Employment
  • Recreation
  • Social networks
  • Health
Transport, health and wellbeing

- Access
- Accidents

[Diagram: Road deaths, Year to March 2018]

Transport, health and wellbeing

- Access
- Accidents
- Activity

New Zealand has the third highest adult obesity rate in the OECD and our rates are rising

Active commuters 'have lower BMI'
Public transport – active?

Walking to transit: An unexpected source of physical activity
Catherine Morency b,c,e, Martin Trépanier a,b,c, Marie Demers b,d

Walkability, transit, and body mass index: A panel approach
Michael J. Smart

Analyzing the impact of public transit usage on obesity
Zhaowei She a, Douglas M. King b, Sheldon H. Jacobson c
Transport, health and wellbeing

- Access
- Accidents
- Activity
- Pollution

650 deaths p.a.

1.5 m deaths p.a.
Transport, health and wellbeing

- Access
- Accidents
- Activity
- Pollution
- Transport environment  
  - e.g. mental health, community
Compared to driving, wellbeing was higher when using active travel or public transport.
Use of active travel reduced the likelihood of two specific GHQ12 psychological symptoms.
Switching from car driving to active travel improved wellbeing.
Wellbeing increased with travel time for walkers, but decreased for drivers.

Does active commuting improve psychological wellbeing?
Longitudinal evidence from eighteen waves of the British Household Panel Survey

Adam Martin\textsuperscript{a, b}, Yevgeniy Goryakin\textsuperscript{a, b}, Marc Suhrcke\textsuperscript{a, b, c}
Wellbeing Lower Among Workers With Long Commutes

by Steve Crabtree

Back pain, fatigue, worry all increase with time spent commuting

WASHINGTON, D.C. -- American workers with lengthy commutes are more likely to report a range of adverse physical and emotional conditions, leading to lower overall scores on the Gallup-Healthways Well-Being Index.
Drivers Have the Most Stressful Commutes

Transit riders and walkers, who avoid the “unexpected delays” of traffic, stack up better in a new survey.

ERIC JAFFE | @e_jaffe | Sep 21, 2015 | 4 Comments

Am stressed, must travel: The relationship between mode choice and commuting stress

Alexander Legrain a, Naveen Eluru b, Ahmed M. El-Geneidy a,*
Christchurch research

What can we learn about community from post-earthquake Christchurch

• Including travel, transport, streetscape, urban design

Interviews with residents, leaders, stakeholders

• Density, Socio-economic status, accessibility, environment, urban form

Karen Banwell
What we found: home & place

- **Geographically defined** - hills, river, parks, social boundaries
- **Housing stability** – often renting vs owning, longevity of tenure
- **Pre-existing community development initiatives/programmes** – govt or community, formal or informal
What we found: streets and travel

- **Intimate streets** – cul-de-sacs, laneways, back sections
  - “Our street is wide so we don’t know each other”
  - “People get into their cars and go to work and then come home press the little button for their garage door and they go inside to their private spaces never once turning around”
Back lanes as recreational areas

THE IPOH City Council is mulling the idea of converting back lanes into recreational areas, similar to what is being done in many other countries.

Mayor Dato' Zaini Man said the council is studying suitable locations at Ipoh's Old and New Town areas.

He said either the back lanes could be converted to recreational areas or made into parking lots.

"Since we have limited places to construct recreational areas within the city, we need to enhance and upgrade the existing ones.

Gardening? It's right up our alley! Community transforms Victorian passageway behind homes into oasis of greenery

- Once-dingy lane in Middlesbrough now haven of hanging baskets, trellises and trees with apples and pears
- Mavis Arnold has helped turn lane into a wonderland, while neighbouring alleys are still scruffy and rundown
- Alley was well-kept in 1960s but as the decades dragged on residents began to dump their rubbish on cobbles

back lane project - OUR LOST SPACE

www.bungoblog.com

quick access, place your bookmarks here on the bookmarks bar. Impor
What we found: streets and travel

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- **Walkable** – safe, attractive and connected
  - “Because walking somewhere you see people and that is really important to us to see people and have that eye contact and being human together”
  - “It can take a long time to get to the shops unlike the places with fences and garages”

- **Green** – presence of trees
Trees

e.g. Christchurch
What we found: proximity and urban design

- **Local** - community hubs, library, pools, parks, recreation areas
  - “If you have to get in your car it’s not local”
- **Bumping places** - schools, shops, street furniture
  - “The school was the only bumping place for Phillipstown and then the Ministry closed it, the constancy in the children’s lives. The Ministry did not see the school as a community hub or the importance for the community”
- **Gathering places** - churches, pubs, cafes
  - “It’s hard for people to engage with each other when you don’t have a meeting place to come together”
Bumping spaces

e.g. Vancouver (SK)
Bumping spaces
e.g. Christchurch (SK)
Bumping spaces

e.g. Christchurch (Alan Jamieson)
The academic evidence for local community...
Traffic levels: 16,000, 8,000 and 2,000 vehs per day

Figure 2: This illustration shows how a resident's sense of their home territories shrinks as traffic grows heavier and faster.

Source: Figure 4, page 23, Livable Streets, Donald Appleyard, University of California Press, 1981.
Traffic levels: 16,000, 8,000 and 2,000 vehs per day

Figure 1: This image shows how community ties can actually be knit together by a street that is livable and inviting — or torn apart when auto traffic noise, pollution, and threats dominate the street environment.

Source: Figure 3, page 21, Livable Streets, Donald Appleyard, University of California Press, 1981.
Christchurch research

Residents surveys
  • Streetscape, traffic volume

Heavy
8,000-14,000 vpd

Moderate
1,400-2,500 vpd

Light
Under 500 vpd

Local Home Area

LIGHT (<500 vpd)

“We have adopted this street as our home”
“Quiet, clean and friendly”

MODERATE (1400-2,500 vpd)

“Local parks host most of the leisure activities and games”
“I like the general ambience”

HEAVY (8,400-14,000 vpd)

“You don’t see many people”
“I would prefer not to live on such a busy and public street with noise, car fumes and dust”
Neighbourhood Connections

**LIGHT (< 500 vpd)**

- “We have great neighbours and live in a safe street”
- “I enjoy talking with my neighbours”
- 5.1 average connections

**HEAVY (8,400-14,000 vpd)**

- “Most people get out and about and talk on the street”
- “Family-orientated and friendly”
- 2.1 average connections

**MODERATE (1400-2500 vpd)**

- “My street is a car thoroughfare”
- “Lived here over 35 years, a decline in people talking to neighbours and children playing”
- 5.9 average connections
Community and belonging

Community Interaction

Sense of Belonging
Transport features of healthy communities

• Walkable
• Low/slow traffic
• Good public transport
• Close proximity to facilities e.g. schools, shops, job
• Green – trees
• Bumping and gathering spaces/places
Time and speed

Saving of travel time has been central to transport decision making, but.....

*The idea that the main benefit of improvements to transport infrastructure is the saving of travel time has been central to transport economic analysis. There is, however, little empirical evidence to support this proposition. Indeed, in the long run average travel time is conserved, implying that travellers take the benefit of improvements in the form of additional access to more distant destinations made possible by higher speeds.*

Final thoughts

• Fast is not always best
  • “It can take a long time to get to the shops unlike the places with fences and garages”

• Door to door is not always be best
  • First and last 100 metres
  • Exercise and interaction are good

• Slow residential streets
  • Streets as recreation spaces - walk, bike (slow) etc.
  • Only essential vehicles (disabled, deliveries, emergency)
“If you plan cities for cars and traffic, you get cars and traffic. If you plan for people and places, you get people and places.”

Fred Kent
Thanks

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