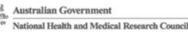# Reconnecting urban planning with health: The Liveability Project

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Acknowledgements

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Background

- Urban form that supports 'liveable and sustainable' communities are recommended by multiple sectors, suggesting the need for a systems approach

- There has been little systematic research examining how 'upstream' built environment factors influence health, and even less attention for how to best measure these in a policy context

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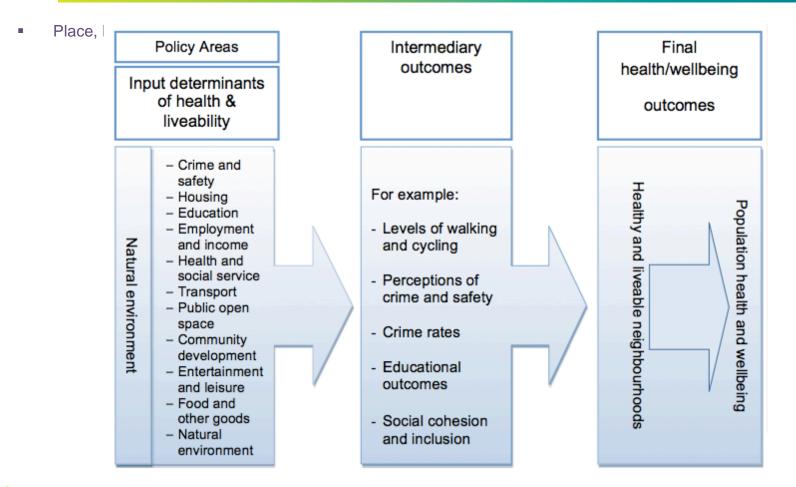Systems and solutions for better health

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Healthy *Liveable* Communities

What is a 'liveable' community?

…safe, socially cohesive and inclusive, environmentally sustainable with affordable and diverse housing linked to employment, education, public open space, local shops, health and community services, leisure and culture via public transport, walking and cycling …

(Lowe, Whitzman et al. 2013)

Source: J. Perkovic

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How 'liveable' are Australian communities from a health perspective and what is the impact?

- Place,

Policy Areas	Intermediary outcomes	Final health/wellbeing outcomes
Input determinants of health & liveability		

Natural environment
– Crime and safety
– Housing
– Education
– Employment and income
– Health and social service
– Transport
– Public open space
– Community development
– Entertainment and leisure
– Food and other goods
– Natural environment

For example:
- Levels of walking and cycling
- Perceptions of crime and safety
- Crime rates
- Educational outcomes
- Social cohesion and inclusion

Healthy and liveable neighbourhoods

Population health and wellbeing

Research aims

Develop and validate state and national sets of spatially-derived liveability indicators of the built environment that impact chronic disease risk factors and / or health outcomes

Liveability indicators will be:
1. Aligned with urban planning policy discourse
2. Developed using readily available spatial data
3. Standard and consistent over time
4. Suitable for monitoring progress towards creating more liveable and sustainable communities
5. Associated with chronic disease risk factors and / or health outcomes

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What domains?

DOMAIN	HEALTH BEHAVIOURS & OUTCOMES	STATE
Public open space	Walking (overall, recreation), physical activity, mental health	WA
Transport	Walking (overall, transport), cycling (transport), commute time, obesity	QLD
Walkability	Walking (overall, transport), obesity	VIC
Alcohol	Alcohol consumption, self-rated health	VIC
Food	Fruit and vegetable consumption, fast-food consumption, obesity	NSW

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What is the task?

For each domain:

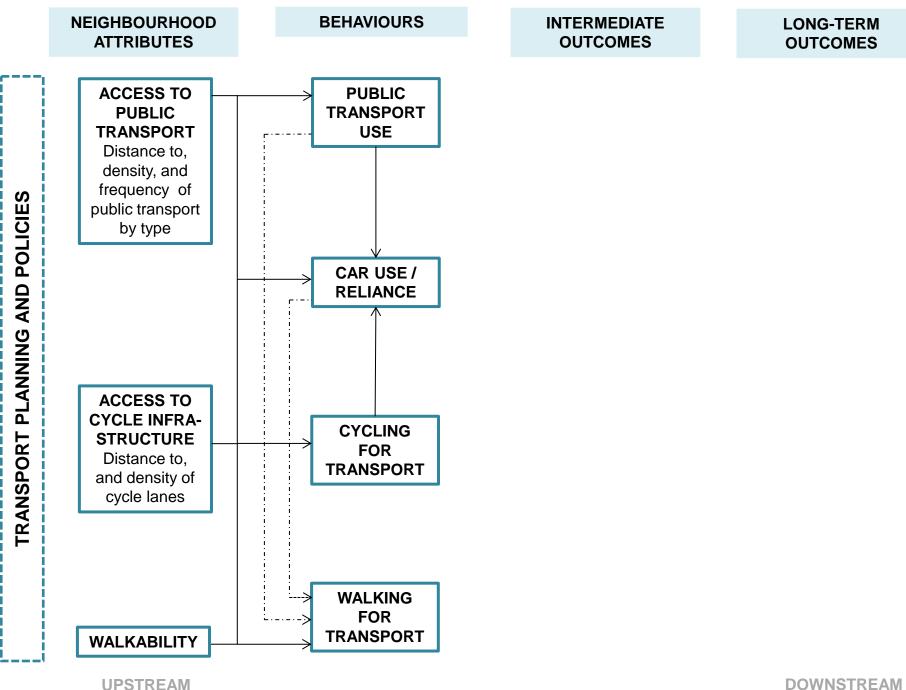1. **Review** relevant state-level spatial urban planning policies (ACT, NSW, QLD, WA, VIC)

2. **Test** policies with state-level health outcomes.

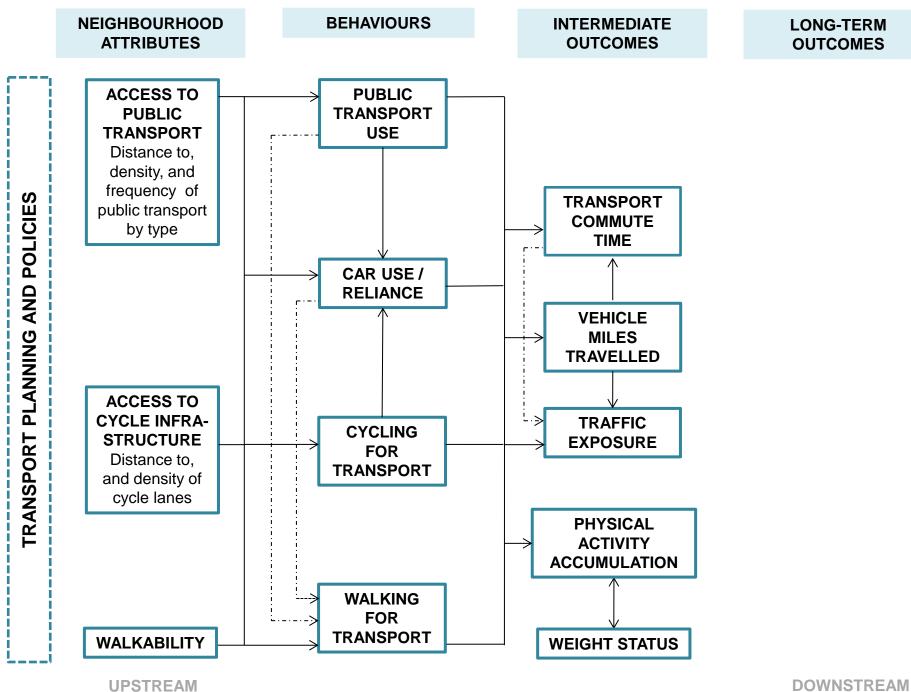3. **Identify** the optimal urban planning policies related to health outcomes

4. If no appropriate urban planning policies exist, select a measure guided by the evidence

5. **Build** the optimal urban planning policy indicators(s) using **national-level spatial data**

Is it replicable?

No

Yes

Advisory group input

6. **Test** national-level urban planning policy measure(s) with national-level health outcomes

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NEIGHBOURHOOD ATTRIBUTES	BEHAVIOURS	INTERMEDIATE OUTCOMES	LONG-TERM OUTCOMES

TRANSPORT PLANNING AND POLICIES

ACCESS TO PUBLIC TRANSPORT
Distance to, density, and frequency of public transport by type

ACCESS TO CYCLE INFRA-STRUCTURE
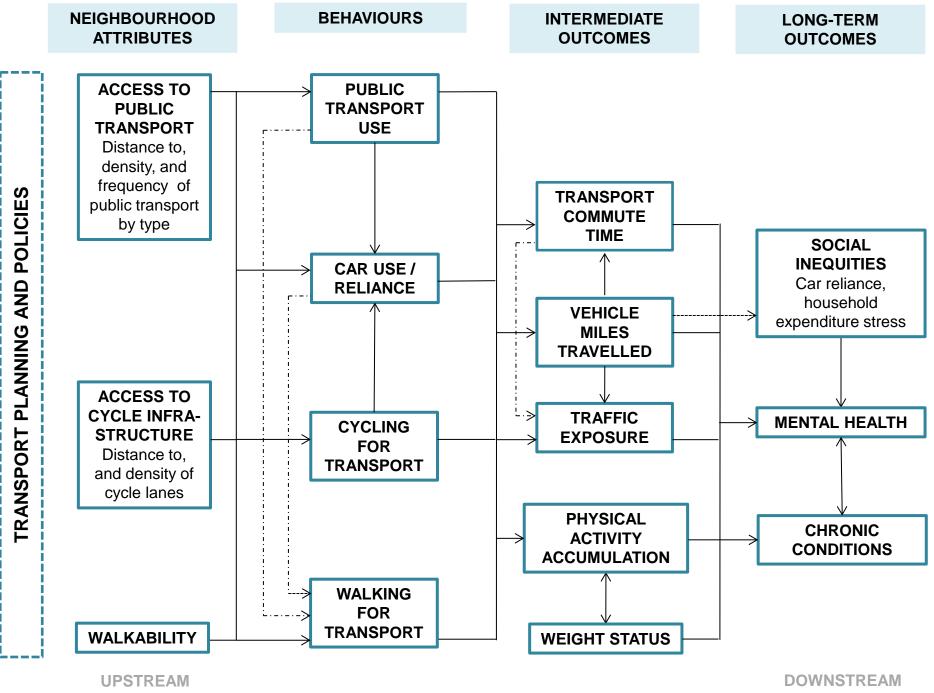Distance to, and density of cycle lanes

WALKABILITY

UPSTREAM

DOWNSTREAM

Badland, H., S. Mavoa, et al. (in press). J Transport and Health.

| NEIGHBOURHOOD ATTRIBUTES | BEHAVIOURS | INTERMEDIATE OUTCOMES | LONG-TERM OUTCOMES |

TRANSPORT PLANNING AND POLICIES

ACCESS TO PUBLIC TRANSPORT
Distance to, density, and frequency of public transport by type

PUBLIC TRANSPORT USE

CAR USE / RELIANCE

ACCESS TO CYCLE INFRA-STRUCTURE
Distance to, and density of cycle lanes

CYCLING FOR TRANSPORT

WALKABILITY

WALKING FOR TRANSPORT

UPSTREAM

DOWNSTREAM

Badland, H., S. Mavoa, et al. (in press). J Transport and Health.

NEIGHBOURHOOD ATTRIBUTES

BEHAVIOURS

INTERMEDIATE OUTCOMES

LONG-TERM OUTCOMES

TRANSPORT PLANNING AND POLICIES

ACCESS TO PUBLIC TRANSPORT
Distance to, density, and frequency of public transport by type

ACCESS TO CYCLE INFRA-STRUCTURE
Distance to, and density of cycle lanes

WALKABILITY

PUBLIC TRANSPORT USE

CAR USE / RELIANCE

CYCLING FOR TRANSPORT

WALKING FOR TRANSPORT

TRANSPORT COMMUTE TIME

VEHICLE MILES TRAVELLED

TRAFFIC EXPOSURE

PHYSICAL ACTIVITY ACCUMULATION

WEIGHT STATUS

UPSTREAM

DOWNSTREAM

Badland, H., S. Mavoa, et al. (in press). J Transport and Health.

NEIGHBOURHOOD ATTRIBUTES	BEHAVIOURS	INTERMEDIATE OUTCOMES	LONG-TERM OUTCOMES

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WALKING FOR TRANSPORT

TRANSPORT COMMUTE TIME

VEHICLE MILES TRAVELLED

TRAFFIC EXPOSURE

PHYSICAL ACTIVITY ACCUMULATION

WEIGHT STATUS

SOCIAL INEQUITIES
Car reliance, household expenditure stress

MENTAL HEALTH

CHRONIC CONDITIONS

UPSTREAM

DOWNSTREAM

Badland, H., S. Mavoa, et al. (in press). J Transport and Health.

Activities to date

- Advisory and Technical Workshops (May 2014)
- Identified and agreed upon scope of work
- Completion of state urban planning policies review
- Commenced collecting spatial data
- Developed a publication plan

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PAPER 1: EMERGING URBAN LIVEABILITY LESSONS FROM AUSTRALIA

PAPER FOCUS:

STUDY DESIGN: Review

STUDY LOCATION: VIC

RESIDE · HABITAT · INDICATORS VIC

POPULATION: Adults

BUILT ENVIRONMENTAL FEATURES: Walkability, Transport, Public Open Space, Food Access, Local Employment, Housing, Crime & Safety, Social Infrastructure

HEALTH & WELLBEING OUTCOMES: Walking (Transport & Recreation), Obesity, Mental Health, Sitting Time

WHAT WE DID:

- Brought together the concepts of 'liveability' and the 'social determinants of health'.
- Reviewed 114 documents that included liveability measures used internationally in urban planning and empirical studies.
- Assessed the quality of these liveability measures using a social determinants of health lens.
- Applied these findings to the Australian urban planning policy context.

WHAT WE FOUND:

- 233 liveability measures: 61 were promising.
- 11 domains of liveability.
- Liveability measures were diverse and inconsistent, and few were validated.
- It was unclear how liveability measures could inform urban policy and practice.

SO WHAT?

- Liveability measures need to be tested with health and wellbeing behaviours and outcomes.
- There is potential to turn liveability measures into spatial indicators and test these with population surveys.
- Best-practice spatial liveability indicators could be used in future to monitor and better inform urban planning policies within Australia and internationally.

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