SUBMISSION FROM NHMRC CENTRE FOR RESEARCH EXCELLENCE IN HEALTHY LIVEABLE COMMUNITIES, RMIT University.

Inquiry into the Australian Government's role in the development of cities

Background

Australia's population may double by 2050, with growth mostly occurring in cities.[1] Hence, the future health and wellbeing of Australians will be determined by the liveability, sustainability and productivity of cities. Cities are confronting unparalleled challenges: inadequate (and ageing) physical and social infrastructure, inadequate public transport (particularly in outer suburban areas), housing inflation, growing inequities, ageing populations, rising chronic disease, new disruptive technologies that will change the ways cities are designed and governed as well as climate change and fossil fuel depletion. Although Australia is already highly urbanised, the future success of cities will be shaped by decisions about how to accommodate the needs of growing urban populations.

In the last decade, there has been growing interest in the impacts of city planning and urban design, on the health and wellbeing outcomes **of urban populations** [2]. City planning and urban design directly and indirectly influence health and health behaviour outcomes via a number of pathways outlined in a recent Heart Foundation report.[3] Together planning and urban design affects access to local shops and services, footpaths and cycle paths (hence how easily residents can walk or cycle locally); whether jobs are co-located near housing and whether residents have access to public transport (impacting the mode and time spent commuting to work); whether neighbourhoods are exposed to traffic, and therefore whether children can walk safely alone to and from school; and whether local recreational opportunities are healthy-enhancing (e.g., parks or sports centres) or health-damaging (e.g., focussed on alcohol and/or gambling). All these outcomes, directly or indirectly impact the health and wellbeing of citizens by encouraging or discouraging physical activity (principally through walking or cycling), and sedentary behaviour (including time spent driving). These behaviours impact chronic disease profiles including costly and highly preventable chronic diseases including cardiovascular disease and diabetes 2 outcomes.

Neighbourhoods with health-enhancing characteristics have been shown to be valued by consumers. Although housing affordability is a major driver of housing demand, consumers prefer to live in neighbourhoods with local amenities**.** A Heart Foundation Newspoll telephone survey of 1400 Australians aged over 18 years[4] found that being within easy walking distance of public transport was the ***most often ranked highest priority***, with almost 70% of participants reporting as extremely or very important; and 64% reporting that being within easy walking distance to a range of local services would be extremely or very important.

A Grattan Institute **report** found a mismatch between what is provided and the types of housing consumers would choose if it was available.[5] This observation aligns with our team's own research, which found that two thirds of those living in low density neighbourhoods would prefer to live in areas where they could walk to local shops and services.[6] Similarly, a Brisbane study of older adults (i.e., aged 45+), found that 61% of living in non-transit oriented development areas, would have preferred to live in a transit oriented development.[7]

Along with many other commentators, the Grattan Institute report noted that new low density greenfield communities are heavily dependent on motor vehicles due to a shortage of public transport.[5] Typically, they also lack social infrastructure such that 'meeting the demand for childcare, school places, recreation and social services remains a major challenge in growth areas'**. Indeed, in 2013, the Victorian Auditor General found that in Victoria alone, excluding maintenance and**

renewal $36 billion was required in next 30 years to meet shortfalls in infrastructure requirements in growth areas.[8]

Policy required to address the negative externalities of low density housing on the urban fringe

A major contributing factor to the shortage of public transport and the lack of social infrastructure on the urban fringe of cities is the prevailing *level of low density housing* in greenfield areas. Detached family housing still predominates greenfield developments: 88 percent of homes in rapidly growing new growth areas are detached compared with 76 per cent nationally.[5] Delivering local public transport and social infrastructure in low density is challenging because the housing is spread over a wide area, and the population is too low to make mixed use planning and public transport viable. Low density housing development discourages active forms of transport including local walking and cycling, and requires more time being spent driving.

Given the economic and social burden of community levels of heart disease, urban and transport planning that encourages walking, cycling and public transport are critical because they are passive interventions that whole populations and could help improve cardiovascular health outcomes.[9-12] However, higher density, mixed use development pedestrian and cycling friendly development well connected to employment with good public transport, is likely to produce a range of co-benefits including lower levels of driving, reduced traffic congestion, improved air quality and lower greenhouse gas emissions.[13]

In our recent paper published in The Lancet,[2] we identified the need for integrated planning of all the urban policies required to create liveable cities (i..e, transport, land use and urban design, social and health services, education, employment and economic development, housing, public open space and recreation and public safety) with the aim of ensuring the delivery of urban and transport planning and design interventions that encourage active modes of transport. These include good regional planning that ensures access to employment by high quality public transport, the equitable (re-)distribution of employment across cities to reduce commuting times; and demand management (i.e., controlling the cost and amount of parking, and congestion charging). It also includes local urban design that encourages local walking: connected street networks (rather than curvilinear design); higher density development, reduced distances to transit, the diversity of land use mixes and housing types; and the desirability of an area (aesthetics and real and perceived safety).

Dwelling density is therefore a critical factor to deliver healthy liveable communities,[14] as it underpins the delivery of three other 'D's (i.e., distance to transit, diversity and destination accessibility) and is related to another 'D' (i.e., neighbourhood design). For example, without a minimum threshold of population density, public transport and local shops and services are not viable, nor is there sufficient population to create vibrant local communities. The diversity of housing available in local neighbourhoods also impacts the neighbourhood's density.

Both the Australian Government, and many State Governments, including the Victorian State Government, are promoting the 30 or 20-minute city (respectively). However, if this aspiration is to be achieved, more attention needs to be given to the density of housing being built in our rapidly growing Australian cities. While high density housing attracts both attention in the media and in the general community, [15] low density development is equally problematic with poor access to public transport and amenity, promoting car dependency and discouraging active forms of travel. [3]

Figure 1 shows the 'walkability' of Australia's capital cities. Walkability is an index based on three environmental measures: density, street connectivity and access to local destinations. Research funded by Australian Government research through the NHMRC Centre for Research Excellence in

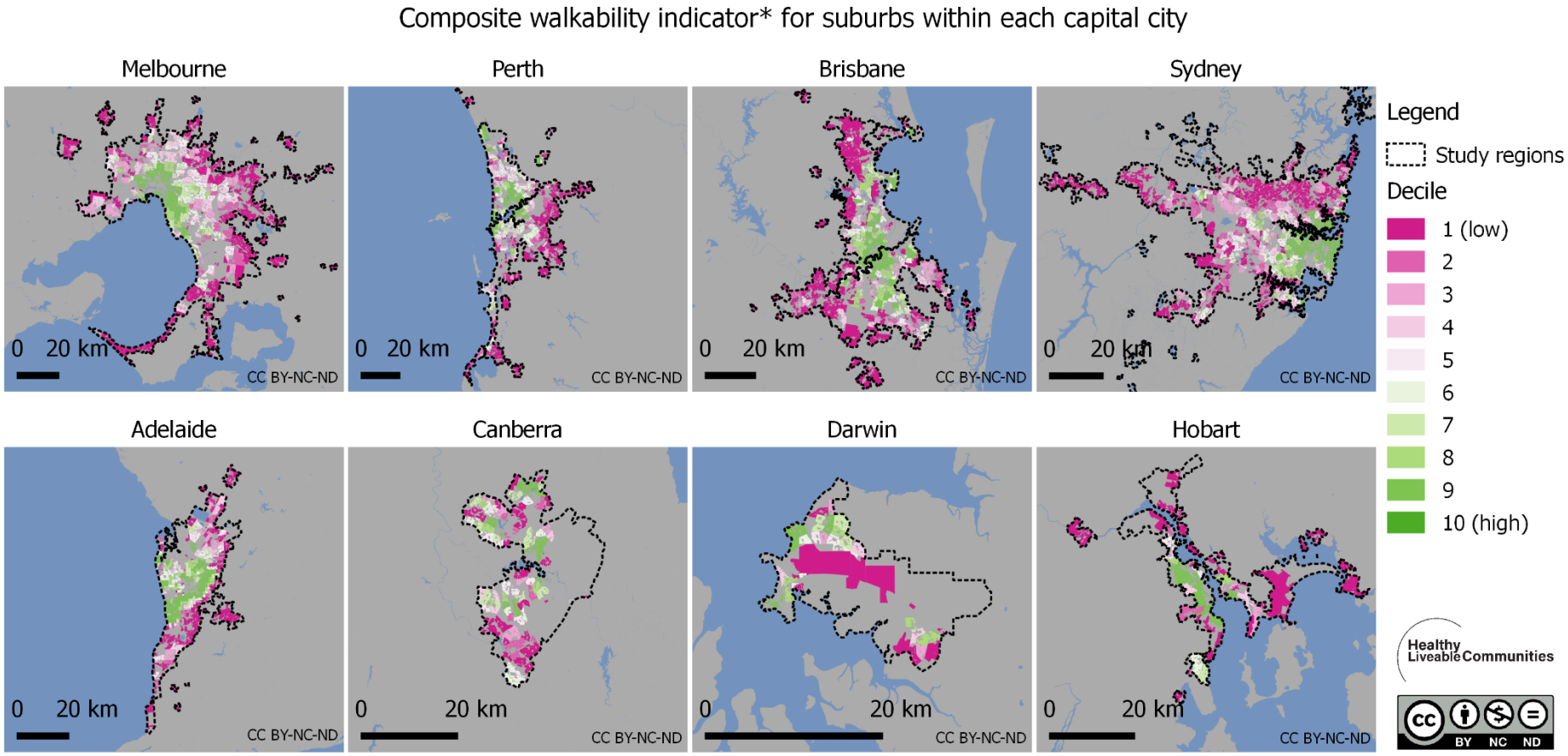
Healthy Liveable Communities, The Australian Prevention Partnership Centre (also NHMRC); and the Clean Air and Urban Landscape Hub funded by the Australian Government through the National Environmental Science Program has created liveability indicators for all of our domains of liveability. This report will be released shortly, and we can make this available to the Inquiry. It will show poor access to public transport and walkability across most Australian capital cities: policies are required to address these planning deficits.

RECOMMENDATIONS

1. Initiate a review of the governance of cities to transform urban government with the aim of achieving better outcomes taking and clarifying local, state and federal roles and responsibilities in the light of significant population growth.
2. Commit to integrated horizontal planning across Federal government departments aimed at achieving healthier, more liveable and sustainable cities.
3. Ensure that health, and equity, are at the heart of city governance.[16]
4. Prioritise investments in walking, cycling and public transport infrastructure, explore how this can be delivered in outer suburban areas and in particular, clarifying the roles of different layers of government (local, state and Federal) to achieve vertical integrated planning.
5. Commit to a set of city planning indicators to benchmark and monitor the implementation of Federal and state government policies that would create healthy liveable and more sustainable cities. This will complement (and go further than) the Smart Cities Framework developed by the Department of Prime Minister and Cabinet. A set of suitable indicators recently published in the Lancet Series,[2] is included in Appendix 1. A number of these indicators (marked in Blue) are already available nationally through our research team, and could be supplied later in the year after our Federally funded CAUL/TAPPC report is released in October; and we will also have a portal of data available.
6. Commit cities to urban growth boundaries and increasing gross population densities, particularly for greenfield development on the urban fringe and ensure early deliver of social in outer suburban areas. We wouldn't build communities without essential physical infrastructure, we also need to ensure timely delivery of ***essential social infrastructure.***
7. Explore mechanisms (e.g., tax) for redistributing employment across cities and the impact of disruptions to work with the aim of reducing traffic congestion and commuting times, and commuting by private motor vehicles.
8. Continue to (and further) invest in urban rail and public transport infrastructure.
9. Encourage more cycling across cities by committing to matched Federal funding in cycling infrastructure particularly within 5km of all urban rail stations and activity centres. See Appendix 2, which was included in our ACOLA report on the health impacts of sustainable mobility to the Chief Scientist.[17]
10. Ban political donations by property developers to ensure decision-making is free from interference from the development industry.

Billie Giles-Corti, Director Enabling Capability Platform Director RMIT, and Lead of the NHMRC Centre for Research Excellence in Healthy Liveable Communities, Centre for Urban Research, RMIT

Figure 1:



* decile score for the suburbs of each city, combining street connectivity, dwelling density and daily living scores - note that decile rankings are not comparable across cities

***Appendix 1*: Adaptors indicators that could be used to monitor progress towards the implementation of urban and transport legislation, policies, investment, and outcomes to create cities that enhance health and reduce NCDs (Source: [2])**

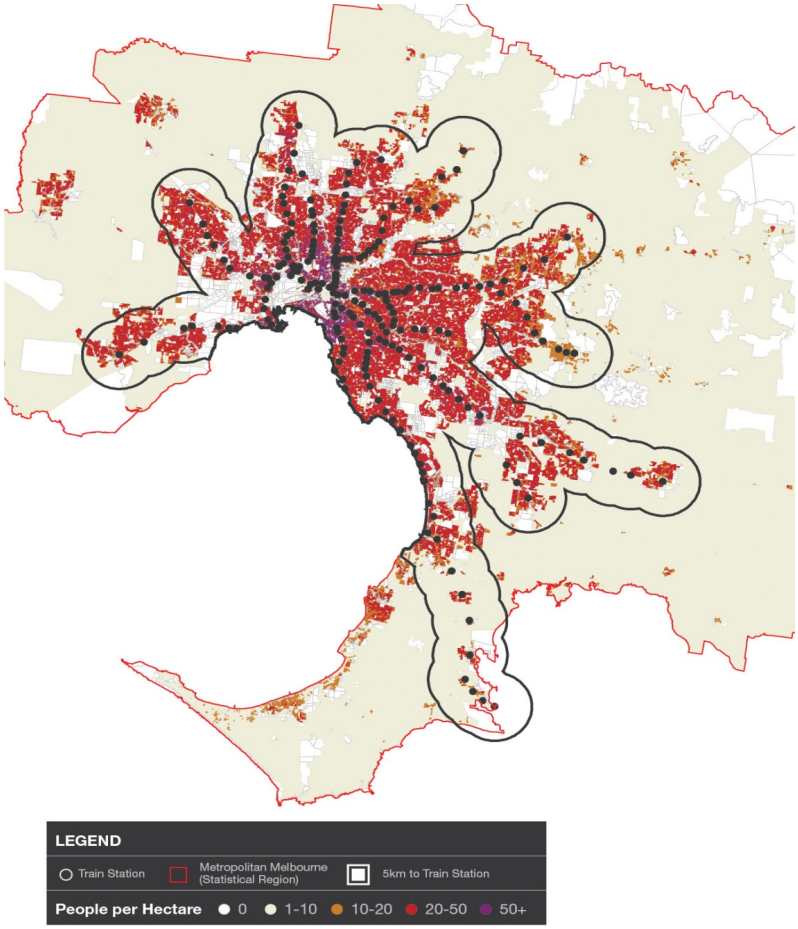
Action or outcome	Indicator
LEGISLATION AND POLICIES	
Integrated transport and urban planning	Federal or state transport and urban planning legislation requires integrated transport and urban planning actions to create healthy and sustainable cities and regular review of progress
Air pollution	Federal/state air pollution legislation seeks to protect and enhance air quality to promote the health of urban populations
Destination accessibility	Federal/state transport and urban planning legislation requires coordinated planning of transport, employment, land use, and infrastructure that ensures access by public transport
Distribution of employment	Urban planning and design codes that require a balanced ratio of jobs to housing (e.g., from 0.8 to 1.2)
Demand management	Urban planning, building codes and local government policies limit car parking; and price parking appropriately for context
Design	Urban design codes create pedestrian- and cycling-friendly neighbourhoods, requiring highly connected street networks (e.g., ped-sheds^2 ≥ 0.6 within 0.8 to 1.2 km)**;§** pedestrian and cycling infrastructure provision;**§** public open space; and lot layouts that maximise natural surveillance
Density	Urban design codes require minimum and maximum context-specific housing densities; including higher density development around activity centres and transport hubs
Distance to public transport	Urban design codes require frequent service public transport to be within 400-800 m of residential walkable catchments
Diversity	Urban design codes require a diverse mix of housing types**§** and local destinations needed for daily living
Desirability	Urban design codes incorporate crime prevention through urban design

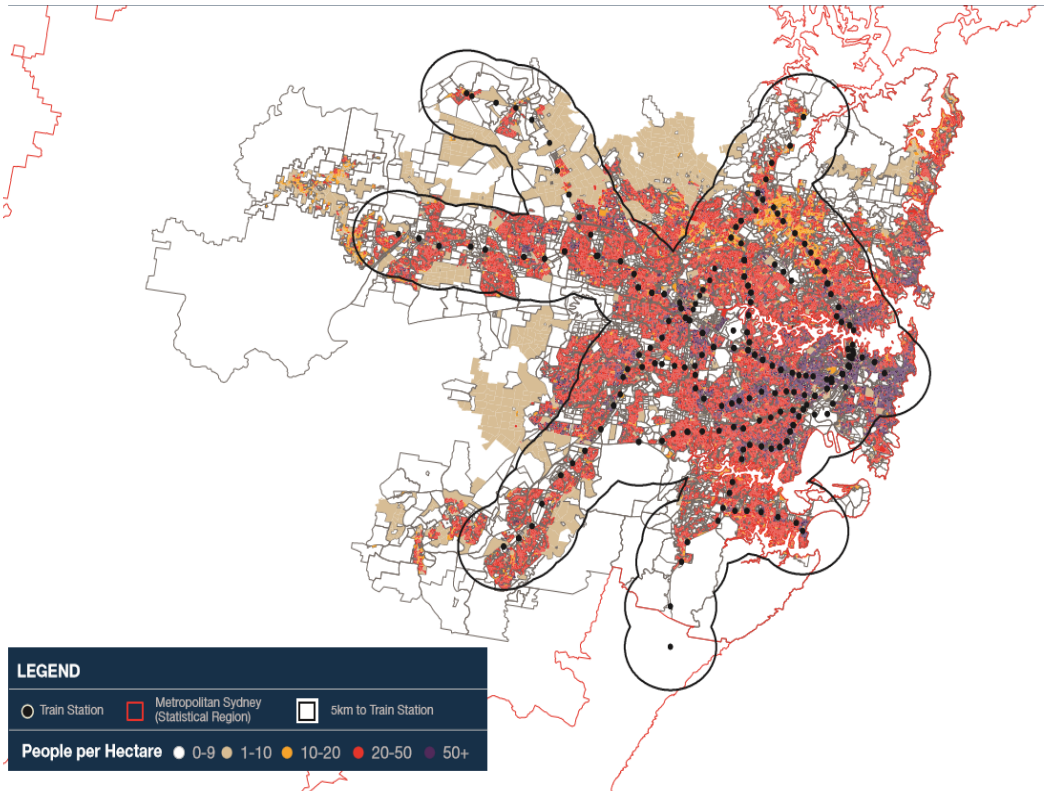
	principles, manage traffic exposure[§] and establish urban greening provisions
GOVERNMENT TRANSPORT INVESTMENT	
Transport infrastructure investment by mode	% of total government transport expenditure in a given financial year spent on: (i) pedestrian infrastructure; (ii) cycling infrastructure; (iii) public transport; (iv) road infrastructure
URBAN AND TRANSPORT PLANNING AND DESIGN INTERVENTIONS	
Public transport access	% population living within 400-800m of high frequency public transport
Employment	% of population with employment within ≤ 30 minutes of their home by walking/cycling/public transport.
Distribution of employment	Jobs-housing ratio
Transport infrastructure	Ratio of roads (km) to (i) footpaths (km); (ii) designated cycle lanes (km)
Density	Dwellings/area: (i) within 1.2km of activity centres and public transport hubs; and (ii) in urban fringe developments
Distance to transit	% of population living within: (i) 400m bus stop; (ii) 800m rail stop.
Destinations	% (urban) land area allocated to destinations required for daily living
Open or green space	% (urban) land area allocated to open or green space, expressed as a percentage
Walkability of neighbourhoods	Index of density, mixed use and street connectivity
TRANSPORT OUTCOMES	
Trip mode share	Proportion of: (i) total and (ii) commuting trips made by: (a) walking; (b) cycling; (c) public transport; and (d) private motor vehicle
RISK EXPOSURE OUTCOMES	
Road trauma	Road death/ injury rate expressed as the number of cases per 100 000 population

	Proportion of road injuries/deaths involving pedestrians and cyclists
Respiratory conditions	Number of respiratory-related hospital admission cases per 100 000 population
Physical activity	Prevalence of insufficient physical activity, expressed as a percentage of adults/adolescents/children who are physically inactive
Diet	Prevalence of adults/adolescents/children consuming ≥ 5 servings of fruit and vegetables a day
Obesity	Prevalence of adult/adolescent/child population classified as overweight or obese expressed as a percentage

§ Particularly within walking distance of shops, services and transport hubs ϯ Ratio of 'as the crow fly' distance buffer/street network distance buffer

Appendix 2: Integrated cycle paths with 5km of all train stations (Sydney and Melbourne)
Source: [17]





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