



Inquiry into Environmental Design and Public Health in Victoria

Final Report
May 2012

Legislative Council

Environment and Planning
References Committee

Report No. 1



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Chair's foreword

I am pleased to present the final report of the *Inquiry into Environmental Design and Public Health in Victoria*.

This is the first inquiry undertaken by the Environment and Planning References Committee, one of three new references Committees established under the Standing Orders of the Legislative Council in late 2010.

In recent decades, Victoria has been a world leader in innovative and effective initiatives to prevent disease and promote health. However, today, rates of serious chronic diseases are rising, including type 2 diabetes, heart disease and respiratory illness. Risk factors that heighten the chances of developing chronic disease are also increasing, such as obesity and physical inactivity. Coupled with an ageing population, these trends will place unsustainable pressure on our healthcare system and state economy in coming years.

This report explores the compelling evidence linking these public health challenges to the planning and design of our urban environments. We know that there are a range of health benefits from designing environments that encourage physical activity through walking, cycling and using public transport. We know that open space and green areas not only provide opportunities for physical activity but also benefit mental health. We are also increasingly aware that the style of sprawling low density, car-oriented residential development that characterised Victorian urban fringe areas in the past can be a barrier to people making healthy lifestyle choices.

This report emphasises the importance of considering health in the design of our communities, such as: creating environments that promote physical exercise and social interaction; providing access to healthy, fresh food; facilitating access to green and other open public spaces; and ensuring inclusivity and accessibility in the built environment. Such health-promoting elements can be purposely designed into the built environment, or, as is too often the case, designed out.

Importantly, the Committee heard that there is a strong consensus between the planning and the public health professions on how to approach the problems in Victoria. Based on this evidence, the report makes 36 recommendations. An important first step, and a key focus of this report, is to embed considerations of health and wellbeing throughout the planning system's legislative and policy framework. The concurrent development of a new planning strategy for metropolitan Melbourne and the review of the *Planning and Environment Act 1987* both present opportunities to do this and to take up the other themes and ideas put forward in this report.

The report acknowledges that the built environment is only one of several factors influencing health and wellbeing. Technology and changes in the nature of work mean that we live increasingly sedentary lives. Service provision is also fundamental – continuing investment is needed in public transport and primary health care, particularly in our outer suburbs and regional areas. Jobs must be located closer to where people

reside, requiring a stronger emphasis on developing local economies in the outer suburbs of Melbourne and in our regional cities. Nevertheless, there are numerous practical, achievable recommendations in this report to influence the planning and design of communities.

The Committee was encouraged by the high level of public interest in the Inquiry. I thank all those who took time to present to the Committee, meet with us on site visits or make written submissions. I also thank members of the Committee for their work and commitment to the Committee's Inquiry.

Finally, I would like to thank the staff of the Committee secretariat for their research, writing and administrative assistance: Mr Keir Delaney, Secretary, Dr Rosalind Hearder, Research Officer, and Mr Anthony Walsh, Research Assistant.

Gayle Tierney, MLC

Chair

Executive summary

On 5 April 2011 the Legislative Council's Environment and Planning References Committee received wide-ranging terms of reference on the contribution of environmental design to public health in Victoria. In preparing this report, the Committee consulted with a broad cross-section of stakeholders through submissions and public hearings, made a number of site visits and assessed the extensive relevant literature.

Future challenges for public health

Victoria has seen significant public health improvements in recent decades due to a range of government education programs and preventive health initiatives. In today's developed world however, more people die from chronic disease than infectious disease. Chronic conditions including type 2 diabetes, cardiovascular disease, mental illness and respiratory illness now account for the highest social and economic burden on the Victorian healthcare system, and their rates are predicted to rise.

Many chronic diseases are preventable. There are several risk factors that make people more vulnerable to chronic disease including obesity, levels of physical activity, diet and alcohol consumption, and socio-economic status. The interaction and combination of these factors can increase the likelihood of chronic disease.

The development and severity of chronic disease can be attributed partially to lifestyle choices. However international and Australian evidence shows that the built environment plays an influential role in encouraging or discouraging healthy behaviours.

Other significant future challenges to Victorians' health include a rapidly growing population in outer suburban locations, an increasing ageing population and the potential environmental consequences of climate change. Effective urban planning likewise has a key role to play in mitigating the negative health effects of all these trends.

Health in planning

Contributors to this Inquiry consistently emphasised that the Victorian planning system needs to be better integrated with health and wellbeing goals. The overarching legislation for state planning – the *Planning and Environment Act 1987* – does not directly engage with considerations of health. Similarly, the Committee heard that subordinate instruments (such as the Victoria Planning Provisions), planning guidelines (such as the Precinct Structure Planning Guidelines) and associated policy approaches (including the forthcoming Melbourne Metropolitan Strategy) should offer specific direction in developing a healthier built environment.

Victorian local governments play an important role in community wellbeing through the delivery and regulation of public health infrastructure and disease prevention measures. Evidence put to the Committee identified several opportunities to assist local governments in this role, including aligning Municipal Public Health and Wellbeing Plans with Municipal Strategic Statements, which set the high-level strategic direction for all the controls in local planning schemes. The Committee also recommends that the Environments for Health framework, while considered generally effective, be reviewed and updated.

Other opportunities to incorporate health throughout the planning system are considered, including reviewing Precinct Structure Plans, involving health professionals in the precinct structure planning process, and incorporating health impact assessments into major planning decisions.

Urban growth and public health

Victoria's rapid population growth will continue to put pressure on housing, services and community infrastructure, making it increasingly vital to integrate planning with public health goals. The prevailing post-war design of outer suburban Melbourne and Victorian regional centres – that is, sprawling, low density lots with large, detached houses – has been criticised for creating built environments that may not promote good public health outcomes. Such areas may feature less provision for physical activity (such as walking and cycling), contribute to poorer air quality due to high car emissions and fewer green spaces, and provide fewer opportunities for social interaction and building community. They may also fail to provide a variety of housing options for Victoria's growing urban and ageing populations who represent a diverse range of ages and demographics.

Several witnesses testified to the importance of increasing residential housing densities, particularly in outer suburban areas and pockets of rapid population growth. Higher densities and mixed land use can offer many health co-benefits, such as attracting a diverse variety of ages and cultures within a community, attracting better active transport networks to accommodate more population, and providing economic incentives to develop local shops and destinations.

Accessible and inclusive housing is increasingly essential in Victoria, both in new developments and existing housing stock. This is particularly relevant when considering Victoria's growing ageing population and those living with physical disabilities. Evidence shows, for example, that older people who can 'age in place' and stay in their homes or areas longer will lead more active and healthy lives.

Public spaces, active transport networks and health

This report emphasises two particular elements of the built environment that promote healthy lifestyles choices: parks and other public open spaces, and active transport modes (walking, cycling and public transport).

A key finding of this Inquiry is that one of the most important aspects of the built environment that impacts positively on health is provision of parks and other public spaces. Extensive research links multiple positive physical, mental and social health benefits to living near green and open public areas. Conversely, health outcomes are generally poorer in communities that lack such spaces. Green public spaces encourage a range of physical activities, provide opportunities for social interaction and aid in mitigating urban heat island effects.

While provision of green and other public space is important, its quality is also relevant to health outcomes. Attractive public spaces which offer multiple functions and amenities encourage use for a variety of health-promoting activities. Shade provision in public parks and outdoor community sporting areas, for example, is an important part of reducing Victoria's rates of skin cancer.

Another vital part of encouraging healthy behaviours in the built environment is facilitating active transport. Walking, cycling and public transport networks allow people to move between places in ways that increase exercise levels. Other health co-benefits in using active transport include opportunities for social interaction, reducing cars on roads and decreasing traffic congestion and air pollution, and increasing community safety.

As in housing design, safe, accessible and reliable active transport networks need to include all groups that may have particular needs, such as older people, the disabled and parents with young children. The Committee also received evidence that decreasing rates of children walking or cycling to school, and low numbers of Victorians cycling for transport, are both often linked to concerns about road safety.

Case studies

This report includes several case studies from information gained at site visits and otherwise provided to the Committee during the course of the Inquiry. Members of the Committee conducted site visits to the City of Melbourne (Docklands), the City of Maribyrnong (Bradmill development), the City of Geelong (Armstrong Creek), the City of Wyndham (Point Cook) and the City of Kingston (Kingston Green Wedge).

Recommendations

Principles informing the recommendations

- The Committee recognises that increasing rates of chronic disease in Victoria, combined with an ageing population, represent an unsustainable social and economic burden.
 - Many chronic diseases are preventable, and increasing evidence shows that the built environment can influence whether people are more vulnerable to developing chronic disease.
 - Strategies to address chronic disease should focus on prevention rather than treatment.
- The Committee believes that Government has a key role in facilitating built environments which makes it easier for people to adopt healthy lifestyle behaviours.
- The Committee believes that as part of a coordinated response to these public health challenges:
 - Considerations of health and wellbeing must be incorporated into planning legislation, statutory rules and regulations, and policy approaches.
 - All levels of government, community groups, private industry and professionals in the planning, health and building sectors need to be consulted and involved.
 - Land use planning should be based on the principles of promoting health and wellbeing, environmental and economic sustainability, and social inclusiveness.
 - Retrofitting healthy design elements – particularly those which facilitate physical activity – into the existing built environment is more complicated and expensive than embedding them in initial planning stages.
 - Traditional urban development patterns of low density sprawl which often force residents into patterns of little physical activity and car dependency are not health-promoting, and should no longer represent the dominant development pattern in Melbourne’s metropolitan fringe areas and Victoria’s expanding regional centres.
 - Green and other public open spaces should be recognised and valued for their proven contribution to physical and psychological health.

Planning and Environment Act 1987

Recommendation 12

That the Victorian Government amends section 4(1) of the *Planning and Environment Act 1987* to include ‘the promotion of environments that protect and encourage public health and wellbeing’ (or similar wording) as an objective of planning in Victoria.

[page 63]

Recommendation 14

That the Victorian Government amends section 12 of the *Planning and Environment Act 1987* to require planning authorities to conduct a Health Impact Assessment for key planning decisions, such as major urban developments or making or amending a planning scheme. The Committee further recommends that:

- a suitable and easy to use Health Impact Assessment tool be developed by the Department of Health and the Department of Planning and Community Development, in consultation with the planning industry and local governments
- the Department of Health and the Department of Planning and Community Development provide resources and support to local governments to conduct Health Impact Assessments.

[page 69]

Recommendation 22

That the Victorian Government amends section 12A(4) of the *Planning and Environment Act 1987* to require Municipal Strategic Statements to be consistent with Municipal Public Health and Wellbeing Plans. Following this, the Government should conduct an audit of Municipal Strategic Statements annually to monitor compliance with the amendment.

[page 80]

Municipal Public Health and Wellbeing Plans

Recommendation 23

That the Department of Health reviews and updates *Environments for Health* and provides ongoing assistance to local government to use the framework in preparing Municipal Public Health and Wellbeing Plans.

[page 83]

Recommendation 24

That the Department of Health provides guidance to local governments to evaluate Municipal Public Health and Wellbeing Plans and to benchmark with other municipalities.

[page 83]

Recommendation 25

That the Department of Health works with SunSmart and local governments to ensure that UV protective shade measures are included in Municipal Public Health and Wellbeing Plans. This should be followed with regular audits of the Plans to monitor compliance with the measures.

[page 84]

Victoria Planning Provisions

Recommendation 13

That the Victorian Government amends the State Planning Policy Framework within the Victoria Planning Provisions to include a policy on planning for health and wellbeing. Following from this, clauses throughout the Victoria Planning Provisions which relate to health and wellbeing should be amended as is necessary to provide clear and coherent direction for the planning system.

[page 66]

Recommendation 7

That the Victorian Government amends the Victoria Planning Provisions to encourage greater housing density and minimum requirements of open space, while maintaining choice in the market.

[page 50]

Precinct Structure Plans

Recommendation 15

That a review of the effectiveness of Precinct Structure Plans be undertaken, with a particular emphasis on whether expected outcomes for green and other public spaces, and walking, cycling and public transport infrastructure, are being delivered.

[page 72]

Recommendation 16

That the Victorian Government revises the Precinct Structure Planning Guidelines to:

- identify public health and wellbeing as a priority matter for Precinct Structure Plans
- provide clear direction on how public health and wellbeing should be advanced within Precinct Structure Plans.

[page 72]

Recommendation 18

That Planning Panels Victoria ensures that all panels established as part of the growth areas Precinct Structure Planning process have a public health specialist as part of their membership.

[page 75]

Recommendation 29

That the Victorian Government requires Precinct Structure Plans to ensure the provision of community space, such as community gardens, in new housing developments.

[page 96]

Melbourne Metropolitan Strategy**Recommendation 3**

That the Melbourne Metropolitan Strategy includes measures to identify and protect valuable agricultural land in peri-urban Melbourne.

[page 29]

Recommendation 20

That the Victorian Government ensures the Melbourne Metropolitan Strategy includes public health and wellbeing as a key goal supported by measurable initiatives, such as the provision of walking and cycling infrastructure, public transport and public open space. The Committee further recommends that the Strategy provides for a review of implementation every five years.

[page 76]

Consistency of policy approaches across government**Recommendation 21**

That the Victorian Government, recognising that the work of all government agencies influence health and wellbeing, adopts a whole-of-government approach to health policy-making, such as the 'Health in All Policies' model used by the South Australian Government and the European Union.

[page 78]

Recommendation 9

That Environment Protection Authority Victoria plays an increased strategic role at an early stage in major land use planning decisions.

[page 54]

Recommendation 17

That the Victorian Government reviews the Urban Design Charter to:

- strengthen the role and function of the Charter in guiding Victorian urban design
- ensure that design objectives which promote health and wellbeing are included in the Charter.

[page 74]

Recommendation 19

That the Victorian Government appoints public health specialists (or persons with appropriate health expertise) to the Boards of the Growth Areas Authority and Urban Renewal Authority.

[page 75]

Contaminated land/air quality/heat island effect

Recommendation 8

As part of its response to the Victorian Auditor-General's reports in relation to contaminated sites, the Victorian Government, together with local government:

- undertakes a systematic and coordinated review of its contaminated land sites audit and considers its implications for health and wellbeing
- reviews the current legislative framework for developing contaminated land with a view to making it clearer and more consistent.

[page 54]

Recommendation 5

That the Victorian Government urgently develops a whole-of-government response to the emerging health problems stemming from poor air quality and the urban heat island effect in Melbourne. As part of this, the design of residential communities should prioritise tree planting and green spaces to provide shade, improve respiratory health and to lower ambient temperatures in summer months.

[page 40]

Food and alcohol

Recommendation 1

That the Victorian Government:

- works with VicHealth to commission further Victorian research into the cumulative health and wellbeing impacts of the density of fast food outlets on a community
- assists local governments to map all food outlets within a local government area
- develops a planning mechanism that can be used by local councils to limit the oversupply of fast food outlets in communities
- develops a plan to facilitate the supply of healthy food choices to Victorians.

[page 28]

Recommendation 2

That the Victorian Government conducts a review into the economic, environmental and social importance of food production and distribution in Victoria and its consequences for public health.

[page 29]

Recommendation 4

That the Victorian Government:

- works with VicHealth to commission further Victorian research into the cumulative health and wellbeing impacts of the density of packaged liquor outlets on a community
- strengthens planning mechanisms to allow local government to regulate the oversupply of packaged liquor outlets.

[page 31]

An accessible built environment

Recommendation 10

That the Victorian Government supports the introduction of design standards for new housing to ensure access for seniors and people with limited mobility.

[page 57]

Recommendation 11

That the Victorian Government works with local government, developers, the building industry and community groups to ensure that universal design principles that improve accessibility are applied to all aspects of the built environment, including the maintenance and retrofitting of existing building stock, roadways, cycling and pedestrian paths, and public transport infrastructure.

The Committee further recommends that the Department of Planning and Community Development assesses progress and reports back to the Parliament annually on measures taken to improve the accessibility of the built environment in Victoria.

[page 57]

Parks and open spaces

Recommendation 26

That the Victorian Government takes note of the outcomes of Parks Victoria's innovative Active in Parks program and identifies opportunities to develop similar partnerships involving Parks Victoria, the public and private health sectors, local government and community groups.

[page 89]

Recommendation 27

That the Victorian government establishes targets for the provision of green and open public spaces.

[page 94]

Recommendation 28

That the Victorian Government takes the following steps to ensure high quality open spaces are available:

- amends the Precinct Structure Planning Guidelines to establish minimum requirements for open space, including features such as walking paths, play equipment, adult exercise equipment, seating and shade
- provides guidance to local government on appropriate rating tools for assessing the quality of public open space
- supports the ongoing maintenance of existing open space and the establishment of green and other public spaces in new residential developments, particularly in high density areas.

[page 94]

Walking and cycling

Recommendation 30

That the Victorian Government implements the Victorian Pedestrian Access Strategy 2010.

[page 102]

Recommendation 34

That the Victorian Government continues to support initiatives which aim to increase the number of children walking and cycling to school, particularly in outer suburban and regional Victoria, and calls on the State Government to reinstate the Walking School Bus Program.

[page 111]

Recommendation 31

That the Victorian Government:

- reviews cycling infrastructure, with a particular focus on improving provision for Melbourne's outer suburbs and Victoria's regional cities
- sets measurable targets and promotes activities such as the Ride2School Program to increase cycling participation, and reviews targets on an annual basis.

[page 106]

Public transport and road safety

Recommendation 32

That the Victorian Government recognises that public transport is a key component of a healthy community, and:

- audits current public transport provision, with an emphasis on outer suburban and regional areas
- establishes minimum standards and targets for public transport in new outer suburban residential developments, linking important destinations such as schools, shops, places of work, community facilities and green and open public spaces
- commits to a program of long-term investment to improve public transport infrastructure for Melbourne's outer suburbs and regional metropolitan areas.

[page 109]

Recommendation 33

That the State Government's transport objectives give priority to connectivity, safety, accessibility and reliability.

[page 109]

Recommendation 35

That the case for the lowering of speed limits to 30 kilometres per hour for school, residential and other appropriate areas be considered by current or future speed limit reviews undertaken by VicRoads, in consultation with the Victoria Police and other stakeholders.

[page 115]

Public health and the built environment: the evidence base

Recommendation 36

That the Victorian Government takes note of the Selandra Rise project with a view to:

- ensuring key lessons and quantifiable evidence arising from the project regarding health and wellbeing are widely disseminated and inform policy development
- encouraging collaborations in residential development between community, private and government bodies.

[page 125]

Recommendation 6

That the Victorian Government, in partnership with universities and relevant community groups, commissions ongoing research to further develop the evidence base for the impact of the built environment and urban design on public health and wellbeing.

[page 49]

Acronyms

AILA	Australian Institute of Landscape Architects
BiXE	Bicycle Expenditure Index
BMI	Body Mass Index
CBD	Central Business District
CNDAB	Corio Norlane Development Advisory Board
COTA (Vic)	Council on the Ageing (Victoria)
CVD	Cardiovascular disease
DPCD	Department of Planning and Community Development
EPA (Vic)	Environment Protection Authority Victoria
GP	General Practitioner
GAA	Growth Areas Authority
HIA	Health Impact Assessment
HiAP	Health in All Policies
KGW	Kingston Green Wedge
MPHWP	Municipal Public Health and Wellbeing Plan
MSS	Municipal Strategic Statement
OECD	Organisation for Economic Co-operation and Development
PIA (Vic)	Planning Institute of Australia (Victorian Division)
PSP	Precinct Structure Plan
RIS	Regulatory Impact Statement
SES	Socio-economic status
SPPF	State Planning Policy Framework
SSIG	Safe Speed Interest Group
VCAT	Victorian Civil and Administrative Tribunal
VPP	Victoria Planning Provisions

Chapter 1: Introduction

*Through reducing physical and psychological barriers in the built environment, improvements to health and wellbeing may be experienced fairly and equitably by all Victorians.*¹

Victorians have seen steady improvements in public health over recent decades. Through the combined efforts of the Victorian government and world-leading health promotion agencies such as VicHealth, people are living longer, standards of living are high compared to many parts of the world² and rates of smoking have decreased significantly.³ In general, the public are also better educated about the importance of eating well and exercising regularly.⁴

Melbourne is often described as one of the most 'liveable' cities in the world.⁵ Former metropolitan planning strategies *Melbourne 2030* and *Melbourne @ 5 million* aimed to protect this liveability through sustainable planning strategies to meet future challenges, particularly Melbourne's rapid population growth.⁶

Yet Victoria is currently facing increasing rates of chronic disease and disability. Chronic conditions such as type 2 diabetes, cardiovascular disease, mental illness and respiratory illness are now leading causes of disability and death.⁷ Key risk factors that contribute to the development of chronic disease are also rising, such as obesity and physical inactivity. Groups within the Indigenous community and those living in socio-economically disadvantaged areas continue to experience 'a disproportionate burden of disease and injury.'⁸ Victoria's increasing ageing and urban population both present particular health challenges that will also impact on the rates of chronic disease.

While definitive causal connections are difficult to prove, there is an emerging body of Australian and international literature showing that aspects of the built environment can promote, or be a barrier to, public health and wellbeing.⁹ People

¹ Obesity Policy Coalition, 'Modernising Victoria's Planning Act – A discussion paper on opportunities to improve the Planning and Environment Act 1987', Melbourne, 2009, 2.

² Australian Institute of Health and Welfare 2010, *Australia's health 2010*, AIHW, Canberra, x.

³ 'Smoking rates in Victoria', Quit Victoria, 2012, <http://bit.ly/lykdnG> accessed 13 January 2012. Such changes include a raft of reforms in 2006 to the *Tobacco Act 1987*: 'New tobacco laws: Workplaces', Department of Human Services, 2005, <http://bit.ly/HFHQHu>; the Tobacco Amendment (Protection of Children) Act 2009, 'Tobacco reforms', Department of Health, 2012, <http://bit.ly/HrMfyk> accessed 13 January 2012.

⁴ This includes the establishment of the Preventive Health Taskforce and the *National Preventative Health Care Strategy*, 2009, <http://bit.ly/9Gtyx>; other former campaigns by the Department of Health and Ageing: 'Previous Campaigns', 2007, <http://bit.ly/HwoEQJ>, 'Related departmental websites', 2011, <http://bit.ly/HYKcUA>, 'Kids – "Go for your life"', 2012, <http://bit.ly/dDh6nv>; 'Healthy living', Better Health Channel, 2012, <http://bit.ly/pVOVqL>; 'Commonwealth Commitments to Primary Health Care in Victoria – Background Paper March 2008', General Practice Victoria, <http://bit.ly/lykQh3>; 'Quit campaign', VicHealth, <http://bit.ly/HuafFz>; Department of Health and Ageing, 'Quitnow', 2012, <http://bit.ly/kpWKII>; accessed 13 January 2012.

⁵ A Ferguson, 'Melbourne judged world's most liveable city', *Sydney Morning Herald*, 30 August 2011, <http://bit.ly/nlHEoV>, accessed 1 September 2011.

⁶ Department of Infrastructure 2002 *Melbourne 2030: Planning for sustainable growth*, Victorian Government, Melbourne; Department of Planning and Community Development 2008 *Melbourne 2030: A planning update: Melbourne @ 5 million*, Victorian Government, Melbourne.

⁷ 'Chronic disease', Department of Health and Ageing, 2011, <http://bit.ly/lDgFKn> accessed 7 February 2012.

⁸ Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, Prevention and Population Health Branch, Victorian Government, Melbourne, 7.

⁹ *HBEP literature review – Executive Summary*, Healthy Built Environments Program, University of New South Wales, Sydney, 2012, 13–19.

make behavioural choices that affect their wellbeing 'within environments that are either supportive or destructive of good health outcomes.'¹⁰ The *Victorian Public Health and Wellbeing Plan 2011-2015* outlines:

It is not the role of government to tell people what to do to follow a healthy lifestyle – people themselves have to take that responsibility – but governments can and do work hand in hand with the community to encourage healthy habits.¹¹

For example, urban planning that encourages active transport modes (walking, cycling and public transport) and provides public spaces for outdoor activity is more likely to facilitate good cross-community health.

The profession of urban planning had its beginning in the public health domain. From the mid-nineteenth century in Australia, rapid industrialisation and urbanisation gave rise to overcrowding, pollution and rampant communicable disease. An 1848 Melbourne City Council report drew attention to the need for drainage, the filthy condition of city streets, 'poisonous liquid and gaseous matters generated within the city', 'the habit of slaughtering animals in the city proper', and 'Lake Lonsdale', a large unhealthy swamp in the city's east.¹² These conditions were blamed for successive waves of infectious diseases, including gastrointestinal disorders, tuberculosis and typhoid.¹³

The planning response included the development of a sewerage system and the protection of potable water supplies. A land use zoning system was created to separate land polluters (such as factories) from residential areas. In 1929 the Metropolitan Town Planning Commission was motivated by a vision of a healthy city when it laid out a blueprint for the public parks and recreational areas still enjoyed by Melburnians today, noting:

Abundant evidence is available to substantiate the views of city planners, the medical profession and psychologists that proper outdoor recreation has the most beneficial effect on the health, morals and business efficiency of communities and consequently the national life.¹⁴

From the mid-twentieth century, the suburbs became typified as the healthiest and best place to raise families, in an environment removed from industry and the squalor of the crowded inner city.¹⁵ A 1954 Melbourne planning report called for houses to be designed and located 'for health, convenience and amenity, and with due consideration for social life ... Town planning centres around the provision of living conditions for the people.'¹⁶

¹⁰ Australian Medical Association Victoria, *Submission No. 23*, 30 June 2011, 1.

¹¹ Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, v.

¹² 'Health', E-melbourne: the Encyclopaedia of Melbourne Online, School of Historical Studies, University of Melbourne, 2010, <http://bit.ly/ycbShT>

¹³ 'Health', E-melbourne: the Encyclopaedia of Melbourne Online.

¹⁴ Cited by Ms Fran Horsley, Parks Victoria, *Transcript of Evidence*, 7 September 2011, 232.

¹⁵ S Thompson, 'A planner's perspective on the health impacts of urban settings', *NSW Public Health Bulletin*, 2007, 18: 157-160.

¹⁶ Melbourne and Metropolitan Board of Works 1954 *Melbourne Metropolitan Planning Scheme 1954: Report*, Melbourne, <http://bit.ly/HEhD2t> accessed 12 October 2011.

Today, however, there is increasing concern that the built environment contributes to a different set of health challenges from those faced by early public health and urban planning movements. Low density sprawling outer suburban and regional housing developments often lack adequate public transport provision, quality public and green spaces, and may not meet the potential future challenges of climate change. These factors are having a cumulative negative effect on Victorians' health and wellbeing – in particular, the rising rates of chronic disease.

Federal, state and local governments have varying levels of responsibility for public health issues. The overarching legislation that guides all Victorian planning decisions is the *Planning and Environment Act 1987*. Its objectives include 'to secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria', yet the Act addresses health considerations only in passing.¹⁷

Community expectations of the built environment are also changing. While many Victorians enjoy high quality housing compared to other world standards,¹⁸ people increasingly want to live in environments that promote health and which are ecologically sustainable. Urban development patterns are slowly shifting away from the late twentieth century orthodoxy of low density suburbs with detached houses and high car dependency, to walkable, medium-high density communities with neighbourhood activity centres.¹⁹ In light of the general trend of smaller backyard sizes, residential areas increasingly must provide parks and other public open spaces that offer communities diverse forms of recreation.²⁰

Metropolitan areas concentrate people, opportunities, and services, including those for health and education. But they can also concentrate disadvantage, and many studies show that a community's socio-economic status is often related to its health. In general, the more socio-economically disadvantaged an area, the poorer its residents' health outcomes. This relates to many interconnected factors: housing affordability, amenity for active transport modes, the saturation of fast food and liquor outlets, access to fresh food and other variables which 'concentrate risks and hazards for health.'²¹

On some health indicators, Victorians living in rural and regional areas suffer from poorer health than their metropolitan counterparts. Both men and women living in Ballarat, for example, have a lower life expectancy than the Victorian average.²² This is attributed to many factors such as lower rates of physical activity, more social isolation and higher levels of drinking, smoking and unemployment.²³

¹⁷ Victorian Government, *Planning and Environment Act 1987*, 8.

¹⁸ Infrastructure Australia 2010 *State of Australian Cities 2010*, Major Cities Unit, Commonwealth of Australia, Canberra, 98.

¹⁹ Department of Infrastructure and Transport 2010 *Our Cities – building a productive, sustainable and liveable future*, Discussion paper, Commonwealth of Australia, Canberra, 42.

²⁰ City of Stonnington, *Submission No. 40*, 14 July 2011, 2.

²¹ World Health Organization 2010 *Why urban health matters – 1000 cities, 1000 lives*, 2, <http://bit.ly/eGOTX0> accessed 14 October 2011.

²² 'Fact Sheet 1 – healthy, safe & inclusive communities', City of Ballarat, <http://bit.ly/IdQTWh> accessed 15 October 2011.

²³ City of Ballarat, *Submission No. 19*, 30 June 2011, 1.

Weighing the evidence regarding urban planning's potential influence on health outcomes is a complex task.²⁴ In linking the positive health benefits of living near green spaces, for instance, there are several potentially interrelated factors: does living near green space lead to better health outcomes, or do healthier people choose to live near green space?²⁵ As well, designing environments to promote healthy and active lifestyles is a relatively recent concept in urban planning; many initiatives may take years to demonstrate their benefits.

Despite decades of achievements in government-directed health programs and promotions, Victorians still face significant future challenges to their health and wellbeing: the rising rates of chronic disease and resulting pressure on healthcare services; and the health impacts of both an increasing ageing and urban population.

This report examines some of the complex contributors to public health and wellbeing, and how they can be influenced by the urban planning and design of the places in which Victorians live. Through the findings and recommendations of this Inquiry, the Victorian Government has an opportunity to improve the quality and design of the built environment in ways that promote and encourage positive health outcomes for all.

1.1 Establishment of the Committee

This is the inaugural report of the Environment and Planning References Committee for the 57th Parliament.

The functions of the Committee are set out in the Legislative Council Standing Orders. The Committee will 'inquire into and report on any proposal, matter or things concerned with arts, coordination of government, environment, and planning the use, development and protection of land.'²⁶

Further, the Standing Orders state that reference committees 'may inquire into, hold public hearings, consider and report on other matters referred to them by the Legislative Council.'²⁷ The Committee is allocated references relevant to the following departments (and their agencies):

- Department of Premier and Cabinet
- Department of Planning and Community Development
- Department of Sustainability and Environment.

On 8 February 2011, the following Members were appointed to the Committee:

- Mr Andrew Elsbury
- Mrs Jan Kronberg

²⁴ HBEP literature review – Executive Summary, Healthy Built Environments Program, 18-19.

²⁵ Australian Institute of Health and Welfare 2011 *Health and the environment: a compilation of evidence*, AIHW, Canberra, 43.

²⁶ Parliament of Victoria 2010 *Legislative Council of Victoria Standing Orders*, Parliament of Victoria, Melbourne, s.23.02 (2).

²⁷ Parliament of Victoria 2010 *Legislative Council of Victoria Standing Orders*, s.23.02 (4)(b).

- Mr Craig Ondarchie
- Ms Sue Pennicuik
- Mrs Inga Peulich
- Mr Johan Scheffer
- Mr Brian Tee
- Ms Gayle Tierney

At the Committee's first meeting, Ms Tierney was elected Chair and Mrs Peulich was elected Deputy Chair.

1.2 Terms of Reference

On 5 April 2011, the Legislative Council agreed to the following motion:

That this House requires the Environment and Planning References Committee to inquire into, consider and report on the contribution of environmental design to prevention and public health in Victoria, and in particular:

- 1) review the evidence of the contribution of the natural and built environments to the promotion of health and well being;
- 2) identify and report on those elements of environmental planning and design which provide the most promising opportunities for improving health outcomes in Victoria;
- 3) assess the extent to which these factors are currently taken into account in environmental planning and design in both the public and private sectors, and their effectiveness, with particular reference to new growth areas;
- 4) determine opportunities to influence environmental planning and design for health, including consideration of the role of legislation, guidelines, and public-private partnerships, and the costs and benefits of various options; and
- 5) provide recommendations for future planning and investment; and that the Committee will consider:
 - a) the effectiveness of the Environments for Health Municipal Public Health Planning Framework;
 - b) the *State Public Health and Wellbeing Act 2008*, the *Transport Integration Act 2010* and the *Planning and Environment Act 1987*;
 - c) international experience such as the World Health Organisation's (WHO) Healthy Cities initiative;
 - d) the consistency of policy approaches across the Victorian Government to promote health through evidence based environmental planning and design measures; and
 - e) the role of public open space in promoting health;and that the Committee present its final report to Parliament no later than 12 months after this reference is given to the Committee.

On 29 March 2012, the Legislative Council agreed to extend the Committee's reporting date to no later than 31 May 2012.

1.3 Inquiry process

On 2 May 2011, the Committee advertised the terms of reference in *The Age* and called for written submissions to be received by 30 June 2011. The Committee also wrote to 173 key stakeholders throughout Australia. A total of 63 submissions were received (see list of submissions, Appendix A).

On 25 May 2011, the Committee sought informal briefings from relevant departments on the issues raised in the reference. On 15 and 29 June 2011 respectively, representatives from the Department of Health and the Department of Planning and Community Development briefed the Committee.

Following receipt of written submissions, the Committee invited organisations to appear at public hearings. The Committee held public hearings on seven separate days and 31 different organisations or individuals appeared to give evidence (see list of witnesses, Appendix B).

To gain further insights into the issues as they applied in different metropolitan contexts, members of the Committee conducted site visits to five municipal areas:

- City of Maribyrnong (4 October 2011) – Bradmill urban redevelopment site
- City of Melbourne (4 October 2011) – Docklands
- City of Wyndham (18 October 2011) – outer urban development and Point Cook town centre
- City of Greater Geelong (18 October 2011) – Armstrong Creek development
- City of Kingston (9 December 2011) – open space and green wedge.

1.4 Scope of the Inquiry

This report focuses on the built environment and its potential interactions with public health and wellbeing. The built environment encompasses the human-made aspects of our cities and towns, such as buildings, transport infrastructure (such as public transport and roads), parks and open spaces, and utilities. The report also discusses components of the natural environment, including air quality and global climate change, and how these may impact on public health for people living in urban areas.

The terms of reference provided for this Inquiry include the ambiguous phrases ‘environmental design’ and ‘environmental planning.’ The Committee was advised by the Planning Institute of Australia (Victorian Division) that these may cause confusion. In the built environment sector, these terms imply a focus on the natural physical environment, whereas health professionals would interpret ‘environmental planning’ more widely, encompassing the natural, built, social and economic spheres. The Committee accepts the Institute’s suggestion that the term ‘land use planning and design’ more accurately describes the intent of the Committee’s Inquiry.

The report has a distinct focus on land use planning and design in metropolitan Melbourne and, to a lesser extent, regional cities. This in part reflects the weight of evidence: most submissions and witnesses focused on the larger population centres where development activity and population pressures on service delivery are at their strongest. It also reflects the terms of reference which direct the Committee to particularly investigate the new growth areas (those municipalities on the edge of Melbourne designated as growth corridors). However, rural and regional areas have distinct health challenges and the Committee includes discussion of these throughout the report.

Victorian health services are not examined in this report. It is important to emphasise that the term ‘public health’ refers to populations, not individuals, and is about prevention, promotion and protection, not treatment. Public health initiatives aim to improve health, prolong life and improve the quality of life among whole populations through disease prevention, health promotion and other forms of protection.

The term ‘wellbeing’ – also used in the terms of reference – has different meanings for different people. By one definition, wellbeing relates to ‘the desire for optimal health, for better living conditions and improved quality of life.’ It also depends on many factors, including family and community connections.²⁸

1.5 Summary of submissions

The Committee received 63 submissions, including from local government (representing nearly one-third of submissions received), planning and health peak bodies, various community groups, and individuals and academic researchers in the fields of planning, public health and the environment.

While the Inquiry’s terms of reference encompass a range of potentially relevant issues, there were common themes across submissions. These are briefly summarised below:

- *The link between the built environment and public health:* submissions drew the Committee’s attention to evidence linking the built environment with public health. For example, people living in more walkable neighbourhoods are reported to have higher levels of physical activity and lower obesity rates. In general, submissions concurred that while it is difficult to identify definitive causality between aspects of the built environment and health, there is substantial evidence that better urban design is an important element in encouraging better public health.
- *Legislation, policy and guidelines:* submissions from planning groups and local government discussed the need for public health objectives to be part of Victorian planning legislation, policy and associated guidelines. Changes were most commonly proposed to the *Planning and Environment Act 1987*, as well as integration with the *Public Health and Wellbeing Act 2008*.

²⁸ Australian Bureau of Statistics 2001 *Measuring Wellbeing: Frameworks for Australian Social Statistics*, ABS, Canberra, 3.

- *Chronic disease*: submissions highlighted concerns over Victoria's rising chronic disease rates (including cardiovascular disease, type 2 diabetes and respiratory illness) and argued that risk factors (such as obesity) could be mitigated through modifying the built environment. Several submissions highlighted the importance of planning for inclusivity, so that older people and the disabled can live in appropriate accommodation, access public transport and continue to engage with their communities.
- *Active transport*: submissions stressed the importance of planning for active transport networks (walking, cycling and public transport) in all communities to encourage physical activity in both adults and children; decrease car use, traffic congestion and emissions; and build community through encouraging social interaction. Factors such as urban density, the availability of local destinations, and the quality of people's experience of walking, cycling and public transport, all influence transport choices.
- *Public open space*: the Committee received a significant amount of evidence promoting the physical and mental health benefits of attractive, high quality parks, public open space and 'green infrastructure' (such as trees and green spaces).

1.6 Structure of the Report

Chapters 2 to 4 of this report review the extensive Australian and international literature linking aspects of the built environment to negative impacts on public health, and consider them in the Victorian context. The rising rates of chronic disease and disability among Victorians are explored, along with some of the main environmental factors contributing to these health trends. The population growth of outer suburban Melbourne and Victoria's regional areas is examined in terms of its potential impacts on public health.

Chapter 5 explores Victoria's complex legislation and regulatory planning framework, and its engagement with issues of public health and wellbeing. Drawing on evidence from the Inquiry's submissions and public hearings, it explores opportunities to promote considerations of planning for health and wellbeing in Victorian legislation, guidelines and policy approaches.

Chapters 6 and 7 focus on two important elements of environmental design – parks and public open spaces, and active transport modes. They examine best practice models in terms of modifying aspects of the built environment in ways that lead to better health outcomes.

Chapter 8 discusses a number of relevant case studies brought to the Committee's attention during the Inquiry.

Chapter 2: Chronic disease

*We should think of the built environment as a potential 'treatment' for chronic disease, as well as a place for 'prevention' of disease.*²⁹

Infectious disease was once the leading cause of death around the world; today, chronic disease holds that position.³⁰ Chronic disease is currently the largest burden on Australian healthcare services, yet like infectious disease, is often preventable and/or attributable to individual lifestyle and behavioural choices.³¹ This chapter briefly describes the main chronic diseases that are increasing in Australia and Victoria, and examines some of the circumstances contributing to their prevalence.

Chronic diseases are 'illnesses that are prolonged in duration, do not often resolve spontaneously, and are rarely cured completely',³² and are defined by the following broad characteristics:

- complex causality
- multiple risk factors
- long latency periods
- a prolonged course of illness
- functional impairment or disability.³³

The Australian Institute of Health and Welfare has identified twelve main chronic diseases:

- 1) coronary heart disease
- 2) stroke
- 3) lung cancer
- 4) colorectal cancer
- 5) depression
- 6) type 2 diabetes
- 7) arthritis
- 8) osteoporosis
- 9) asthma
- 10) chronic obstructive pulmonary disease
- 11) chronic kidney disease
- 12) oral disease.³⁴

²⁹ A Capon, 'The view from the city', *World Health Design*, July 2011, 8.

³⁰ 'Noncommunicable diseases now biggest killers', World Health Organization, 2008, <http://bit.ly/cIN9Ly>; see also A Caldwell, "'Lifestyle" diseases the world's biggest killer', ABC News, 28 April 2011, <http://bit.ly/fwJa2> accessed 6 October 2011.

³¹ Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, Prevention and Population Health Branch, Victorian Government, Melbourne, 17.

³² 'Chronic disease', Department of Health and Ageing, 2011, <http://bit.ly/lDgFKn> accessed 6 October 2011.

³³ 'About chronic disease', Australian Institute of Health and Welfare, 2011, <http://bit.ly/luCkr7> accessed 6 October 2011.

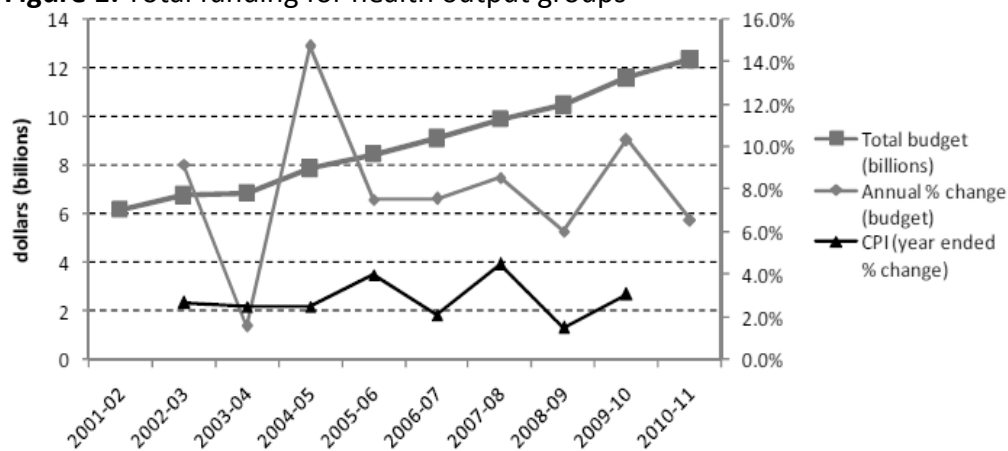
³⁴ 'About chronic disease', Australian Institute of Health and Welfare, 2011.

The rise in chronic disease can be partially explained by Australia’s ageing population – as people live longer, they are more likely to suffer from poor health.³⁵ They are also more likely to develop more than one, as chronic diseases are interrelated and can lead to clusters of comorbidities.³⁶ Diseases related to ageing, such as osteoarthritis and dementia (comprising a range of conditions including Alzheimer’s disease), are predicted to increase markedly in coming years.

2.1 The cost of chronic disease

Over the past decade, Australian government expenditure on healthcare has grown by approximately 70 percent.³⁷ Figure 1 shows funding for health in Victoria since 2001-02.

Figure 1: Total funding for health output groups



Source: Department of Health, presentation to Committee at public hearing, 14 September 2011, slide 5.

Much of this increase is attributable to the rise of chronic disease. In 2004-2005, one-third of approximately 10.5 million Australians aged 25-64 years were diagnosed with at least one of the following chronic conditions: arthritis, asthma, coronary heart disease, chronic obstructive pulmonary disease, depression, diabetes, osteoporosis or stroke.³⁸ A person with a chronic disease was 60 percent more likely to be unemployed or employed part-time than a person without a chronic disease.³⁹

Management and treatment of chronic disease places multiple demands on different healthcare sectors including primary medical care, care coordination and specialists.⁴⁰ An estimated 70 percent of the nation’s disease burden is caused by chronic disease through death, disability and diminished quality of life, and this is projected to increase another ten percent by 2020.⁴¹ In Victoria, government

³⁵ Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, 8.

³⁶ ‘About chronic disease’, Australian Institute of Health and Welfare, 2011.

³⁷ G Banks, ‘Health costs and policy in an ageing Australia’, Health Policy Oration 2008, Menzies Centre for Health Policy, John Curtin School of Medical Research, ANU, Canberra, 26 June 2008, 1.

³⁸ Australian Institute of Health and Welfare 2009 *Chronic disease and participation in work*, AIHW, Canberra, vii-viii.

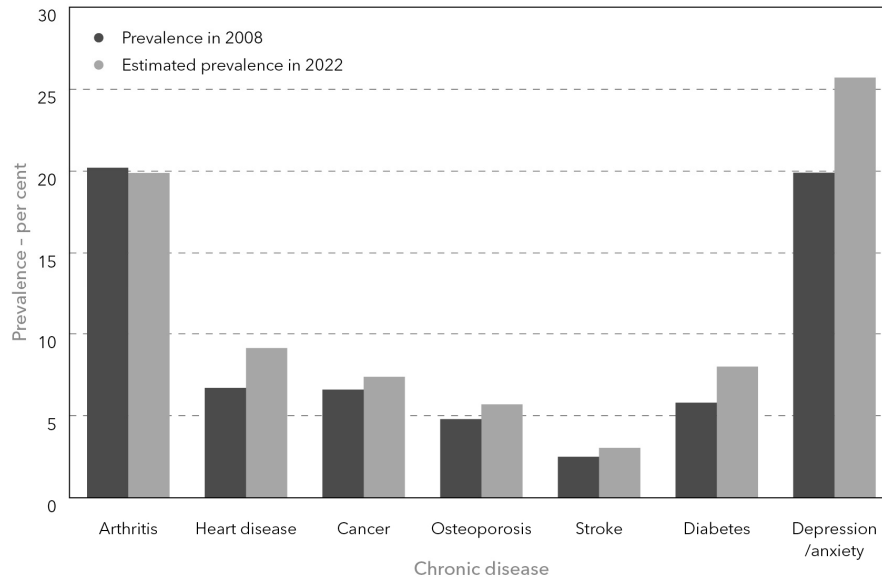
³⁹ Australian Institute of Health and Welfare 2009 *Chronic disease and participation in work*, vii-viii.

⁴⁰ Department of Health 2011 *Metropolitan Health Plan Technical Paper*, Victorian Government, Melbourne, 28, 32.

⁴¹ Department of Human Services 2008 *Revised Chronic Disease Management Program Guidelines for Primary Care Partnerships and Primary Health Care Services*, Victorian Government, Melbourne, 5; see also Department of Health 2011 *Metropolitan Health Plan Technical Paper*, 7.

spending on healthcare has increased at an average of 5.4 percent each year between 2004 and 2010.⁴² Figure 2 shows the recent and projected prevalence of particular chronic diseases in Victoria by 2022.

Figure 2: Projected prevalence of chronic disease in Victoria in 2008 and 2022



Source: Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, Victorian Government, Melbourne, 18.

Due to Australia's ageing population, dementia is predicted to rise rapidly. A 2011 study commissioned by Alzheimer's Australia has estimated that by 2050, almost 950,000 Australians will be living with dementia,⁴³ representing a significant burden on the healthcare system, carer services and appropriate aged-care accommodation.⁴⁴

2.2 Type 2 diabetes

Type 2 diabetes,⁴⁵ is the fastest growing disease in Australia, projected to increase by 436 percent by 2033.⁴⁶ As in many developed countries today, it is considered to be at pandemic rates.⁴⁷ Around 275 Australians develop the disease daily, although many may remain undiagnosed.⁴⁸ Of the two types of diabetes, type 2 is now represented by 85 to 90 percent of those diagnosed.⁴⁹

⁴² Australian Institute of Health and Welfare 2011 *Health expenditure Australia 2009-10*, AIHW, Canberra, x.

⁴³ Alzheimer's Australia 2011 *Dementia Across Australia: 2011-2050*, report prepared by Deloitte Access Economics Pty Ltd, Canberra, 7.

⁴⁴ B Nepal et al, 'Modelling costs of dementia in Australia: evidence, gaps, and needs', *Australian Health Review*, August 2008, 32 (3): 479-487.

⁴⁵ N.B. Type 2 diabetes differs significantly from type 1 in aetiology (disease causation), treatment and prognosis, and the two should never be used interchangeably. References to 'diabetes' in this document relate only to type 2.

⁴⁶ J Goss, *Projection of Australian health care expenditure by disease, 2003 to 2033*, Australian Institute of Health and Welfare, 2008, Canberra, ix; see also House of Representatives Standing Committee on Health and Ageing 2009 *Weighing it up: Obesity in Australia*, Commonwealth of Australia, Canberra, 28.

⁴⁷ 'The diabetes pandemic', *The Lancet*, 9 July 2011, 378 (9786): 99; Baker IDI Heart and Diabetes Institute 2012 *Diabetes: the silent pandemic and its impact on Australia*, Baker IDI Heart and Diabetes Institute, Melbourne, 9; KMV Narayan, 'The Diabetes Pandemic: Looking for the Silver Lining', *Clinical Diabetes*, 2005, 23 (2): 51-52.

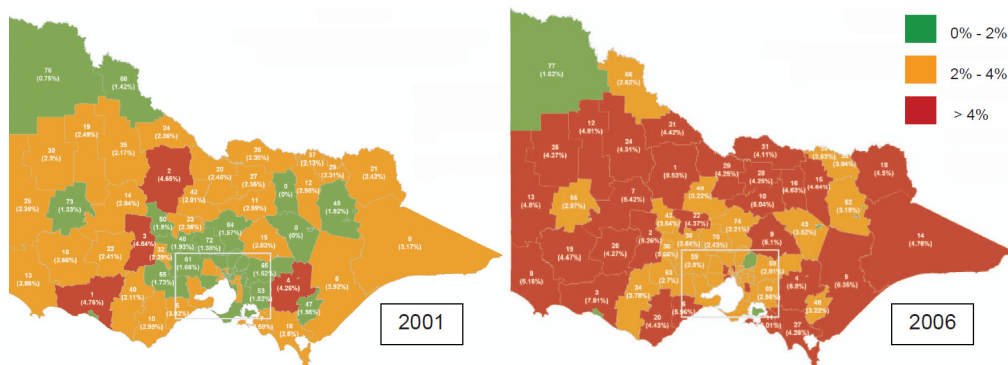
⁴⁸ 'Diabetes in Australia', Diabetes Australia, 2011, <http://bit.ly/wXo06C> accessed 12 October 2011; Planning Institute of Australia 2009 *Healthy Spaces and Places: A national guide to designing places for healthy living – An overview*, PIA, Australian Local Government Association and the National Heart Foundation of Australia, 3.

⁴⁹ 'What is type 2 diabetes?' Diabetes Australia – Vic, 2008, <http://bit.ly/HGVvij> accessed 12 October 2011.

Type 2 diabetes is linked to comorbidities such as heart and kidney disease, obesity and depression. It is particularly prevalent in Australia’s Indigenous population, and in 2009 was responsible for eight percent of deaths in the Indigenous community, compared with 2.9 percent of deaths of non-Indigenous people.⁵⁰ Diabetes Australia estimates the current annual cost of type 2 diabetes to healthcare and productivity at \$10.3 billion.⁵¹

In Victoria alone, type 2 diagnoses have doubled in the past decade, with outer suburban and regional areas seeing the highest numbers of cases.⁵² The Department of Health estimates that its prevalence is highest in the local government areas of Melton (9.3 percent), Hume (8.5 percent), Whittlesea (7.1 percent) and Frankston (7.0 percent), compared with the average Victorian rate of 4.8 percent.⁵³ Figure 3 shows the increase of the percentage of Victorians with type 2 diabetes between 2001 and 2006.

Figure 3: Percentage of Victorians diagnosed with type 2 diabetes 2001-2006



Source: Diabetes Australia – Victoria, 2007.

The development of type 2 diabetes is heavily influenced by behavioural and environmental factors such as poor diet, obesity and lack of exercise.⁵⁴ After diagnosis, mitigating the impact of the disease partially relies on a patient’s willingness to adopt particular diet and exercise regimes as part of a healthier lifestyle.⁵⁵

Considerable research links the incidence of type 2 diabetes with aspects of the built environment. For example, one study found that neighbourhood environments that supported physical activity (such as provision of sidewalks, parks and public transport) and access to healthy foods were associated with lower incidence of type 2 diabetes over a five year period. The authors suggested that ‘improving environmental features may be a viable population-level strategy for addressing this disease.’⁵⁶

⁵⁰ ‘Heart diseases decrease over a decade’, media release, Australian Bureau of Statistics, 20 March 2012, <http://bit.ly/lq3HqA> accessed 22 March 2012.

⁵¹ ‘Diabetes in Australia’, Diabetes Australia, 2012.

⁵² M Iaria, ‘Diabetes levels double in decade’, *The Age*, 8 November 2011, <http://bit.ly/sfO4Mz> accessed 9 November 2011.

⁵³ Department of Health, presentation to Committee at public hearing on 14 September 2011, slide 5.

⁵⁴ ‘What is type 2 diabetes?’ Diabetes Australia – Vic, 2008.

⁵⁵ ‘What is type 2 diabetes?’ Diabetes Australia – Vic, 2008.

⁵⁶ AH Auchincloss et al, ‘Neighborhood Resources for Physical Activity and Healthy Foods and Incidence of Type 2 Diabetes Mellitus: The Multi-Ethnic Study of Atherosclerosis’, *Archives of Internal Medicine*, 12 October 2009, 169 (18): 1698–1704.

Other studies have shown that physically active individuals have between 30 and 50 percent lower risk of developing type 2 diabetes than do sedentary persons, with as little as 30 minutes moderate to intense exercise a day.⁵⁷

2.3 Cardiovascular disease

While type 2 diabetes is Australia's fastest growing chronic disease, cardiovascular disease (CVD) is the nation's leading cause of death. CVD comprises a range of conditions including coronary heart disease, cerebrovascular disease (stroke), heart failure, rheumatic heart disease and hypertension (high blood pressure). Despite declining levels over the past few decades, in 2008 it was still the underlying cause of nearly 46,000, or 33 percent of deaths in Australia.⁵⁸ CVD is also responsible for one-third of the deaths in Australia's Indigenous community.⁵⁹

CVD is the most expensive group of diseases in terms of direct government healthcare expenditure, costing an estimated \$5.9 billion annually.⁶⁰ The three top cholesterol-lowering drugs alone cost \$1.1 billion nationally. Dr Margaret Beavis, a Victorian General Practitioner (GP) and senior examiner with the Royal Australian College of General Practitioners, discussed this figure with the Committee:

For a point of comparison, the Victorian health budget is \$13 billion, so this is a huge amount of money. That is just the drug costs; it does not include GP or specialist visits, it does not include hospitalisation and it does not include medications for other conditions or the general misery that the illness around this conveys.⁶¹

The Department of Health and Ageing estimates that 92 percent of Australian adults have at least one risk factor for CVD and almost 40 percent have three or more CVD risk factors.⁶² In Victoria, CVD is responsible for one-fifth of the total disease burden, and affects over 750,000 Victorians aged over 18.⁶³

As Australia's population ages, the impact of CVD will continue to increase.⁶⁴ Like many chronic diseases, it can largely be prevented: CVD's development and severity is influenced significantly by a person's lifestyle and environment, diet and alcohol choices, and opportunities to exercise.

⁵⁷SS Bassuk and JE Manson, 'Epidemiological evidence for the role of physical activity in reducing risk of type 2 diabetes and cardiovascular disease', *Journal of Applied Physiology*, 2005, 99: 1193.

⁵⁸'Data and Statistics', Heart Foundation, <http://bit.ly/l13RDs> accessed 9 November 2011.

⁵⁹ Australian Institute of Health & Welfare 2003 *Population Health Monitoring and Surveillance: Question Development Background Paper: Cardiovascular Disease in Australia*, CATI Technical Reference Group and National Public Health Partnership, Canberra, 6.

⁶⁰'Cardiovascular disease', National Health and Medical Research Council, 2011, <http://bit.ly/rrSNyC> accessed 14 October 2011.

⁶¹Dr M Beavis, *Transcript of Evidence*, 4 August 2011, 51.

⁶²'Cardiovascular disease', Department of Health and Ageing, 2011, <http://bit.ly/HyY3Tj> accessed 14 October 2011.

⁶³'Cardiovascular health: National Health Priority Areas background paper', Department of Health, 2006, <http://bit.ly/wgzEfw> accessed 14 October 2011.

⁶⁴'Heart, Stroke and Vascular Diseases – Australian Facts 2004', Heart Foundation, 2004, <http://bit.ly/A58PmZ> accessed 14 October 2011.

2.4 Mental illness

Today, mental illness is the leading cause of non-fatal disability in Australia.⁶⁵ In 2008–09, the national government spent \$2.2 billion on mental health-related services with an average annual increase of 7.5 percent in expenditure between 2004 and 2009.⁶⁶ It is also the largest contributor to the disability burden in Victoria, costing an estimated \$5.4 billion a year through healthcare costs and associated impacts on workforce participation and productivity.⁶⁷

One in three Australians will suffer from depression and/or an anxiety disorder at some point in their lives.⁶⁸ Such conditions can be extremely debilitating and impact on a sufferer's ability to engage with others, maintain steady employment and live a healthy, productive life. The national mental health initiative, *beyondblue*, estimates that depression in the workforce alone costs Australian society \$12.6 billion annually.⁶⁹

Many chronic illnesses lead to depression, and depression can aid the development of chronic disease, creating a vicious cycle of poor health.⁷⁰ Studies show that 28 percent of Australians with a chronic illness also have a mental disorder.⁷¹ People with depression, for example, are less likely to eat well, undertake regular exercise, seek medical treatment, or engage with family, friends and their community – all serving to exacerbate the impacts of chronic physical conditions.⁷² People living in rural areas can be even more isolated, 'due both to the difficulty of accessing the support needed for mental illness and to the greater visibility attached to mental health in a smaller community.'⁷³ Suicide rates in Australia's rural and remote areas are up to 2.4 times higher than those in major cities.⁷⁴

The development of some serious psychological conditions, such as schizophrenia, bipolar disorder and other psychoses, can rarely be prevented. Depression and anxiety disorders also often cannot be prevented, but their severity and duration can be helped by a variety of treatments and/or counselling. Aspects of the built environment, such as housing density and proximity to green public spaces, have been shown to have effects on those living with depression and anxiety. These are discussed further in Chapters 4 and 6.

⁶⁵ Department of Health and Ageing 2010 *National Mental Health Report 2010: Summary of 15 Years of reform in Australia's Mental Health Services under the National Mental Health Strategy 1993-2008*, Commonwealth of Australia, Canberra, i; Australian Institute of Health and Welfare 2011 *Mental health services – in brief 2011*, AIHW, Canberra, 1.

⁶⁶ Australian Institute of Health and Welfare 2011 *Mental health services – in brief*, 30.

⁶⁷ Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, 78.

⁶⁸ *beyondblue*, Submission No. 9, June 2011, 1.

⁶⁹ *beyondblue*, Submission No. 9, June 2011, 2.

⁷⁰ *beyondblue*, Submission No. 9, June 2011, 1; S Begg et al, *Burden of disease and injury in Australia 2003*, Australian Institute of Health and Welfare, Canberra, 2007, 3-4.

⁷¹ 'Chronic physical illness and depression, Fact sheet 23', *beyondblue*, 2012, 1; see also Department of Health 2011 *Improving the physical health of people with severe mental illness: No mental health without physical health*, Ministerial Advisory Committee on Mental Health, Victorian Government, Melbourne.

⁷² 'Chronic physical illness and depression, Fact sheet 23', *beyondblue*, 1.

⁷³ 'Fact Sheet 18: Mental health in rural Australia', National Rural Health Alliance, 2009, 1, <http://bit.ly/cbJnGH> accessed 14 October 2011; M Townsend and M Ebdon, *Feel Blue, Touch Green*, People and Parks Foundation and Deakin University, Melbourne, 2006, 5.

⁷⁴ 'Fact Sheet 18: Mental health in rural Australia', National Rural Health Alliance, 1.

2.5 Respiratory illness

There is substantial evidence that poor air quality has a direct impact on levels of chronic disease. These include several chronic respiratory conditions and infections, cardiovascular disease, lung cancer, birth defects, fatigue, headaches, eye irritation and premature mortality.⁷⁵ Children, the elderly and people with existing cardiovascular and respiratory diseases are the most vulnerable to the negative effects of air pollution.⁷⁶

Air pollution occurs when the air contains gases, dust, fumes or odour in amounts harmful to humans. This includes smog from urban concentrations of car exhaust, chemical industrial waste, dust, lead and hydrocarbons, and home heating system emissions such as smoke from wood heaters and fireplaces.⁷⁷

Exposure to air pollutants is related to more deaths in Australia annually than the road toll.⁷⁸ However this is not limited to outside air – the Commonwealth Scientific and Industrial Research Organisation estimates the annual economic cost of poor internal air quality (such as in offices and houses) may be as high as \$12 billion per year.⁷⁹ Climate change, discussed further in Chapter 3, is expected to contribute to a further decline in air quality,⁸⁰ making forward planning to mitigate it all the more important.

Asthma is characterised by a chronic inflammation and narrowing of the lungs, and Australia has the second highest rate in the world.⁸¹ One in four children, one in seven teenagers and one in ten adults has asthma,⁸² it is one of the most common causes of Australian children's hospital admissions⁸³ and is one of the top three causes of work absenteeism.⁸⁴ Asthma can be caused and exacerbated by several factors including: genetic background; tobacco smoke; allergens such as dust mites, pollen and animals; and diet and levels of exercise. However its prevalence and severity also often relates to air quality.⁸⁵

⁷⁵ M Dennekamp and M Carey, 'Air quality and chronic disease: why action on climate change is also good for health', *NSW Public Health Bulletin*, 2010, 21 (5–6): 116; M Younger et al, 'The Built Environment, Climate Change, and Health: Opportunities for Co-Benefits', *American Journal of Preventive Medicine*, 2008, 35: 518; Environment Defenders Office, *Submission No. 10*, 29 June 2011, 8; Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 7.

⁷⁶ Environment Protection Authority Victoria, *Submission No. 54*, 12 July 2011, 11.

⁷⁷ 'What Is Air Pollution?' Environment Protection Authority Victoria, <http://bit.ly/iHLeZF> accessed 10 November 2011; 'Asthma the Basics', Asthma Foundation of Victoria, 2012, <http://bit.ly/1d1j4> accessed 10 February 2012.

⁷⁸ Dr M Carey, Doctors for the Environment Australia Inc., *Transcript of Evidence*, 23 August 2011, 111; Prof A Capon, Australian National University, *Transcript of Evidence*, 4 August 2011, 35.

⁷⁹ Department of Sustainability, Environment, Water, Population and Communities 2001 *Air toxics and indoor air quality in Australia: State of knowledge report*, Environment Australia, Commonwealth of Australia, Canberra, <http://bit.ly/zWPHfu> accessed 10 October 2011.

⁸⁰ M Dennekamp and M Carey, 'Air quality and chronic disease', 115.

⁸¹ 'Ambient air pollution and hospital admissions', Environment Protection Authority Victoria, 2006, <http://bit.ly/HGW6lq> accessed 10 January 2012.

⁸² 'Asthma in children', Department of Health, 2008, <http://bit.ly/iDgZiN> accessed 10 January 2012.

⁸³ 'Children and asthma', Asthma Foundation, <http://bit.ly/liJB3F> accessed 10 January 2012.

⁸⁴ Australian Institute of Health and Welfare 2009, *Chronic disease and participation in work*, vii–viii.

⁸⁵ 'Causes of Asthma', Health Insite, 2012, <http://bit.ly/aWk9tu>; 'Causes', Asthma Foundation, <http://bit.ly/HNIawJ>, accessed 22 March 2012.

More than 600,000 Victorians live with asthma.⁸⁶ VicHealth informed the Committee that emergency department presentations for children with respiratory illness are notably higher in the urban growth areas of Victoria.⁸⁷ This is also true for growth area residents over the age of 65.⁸⁸

In 2000 and 2001, Environment Protection Authority Victoria conducted epidemiological studies in Melbourne which showed that approximately 300 deaths per year and 1,000 hospital admissions could be attributed to air pollution.⁸⁹ Another study investigating the relationship between air pollution and hospital emergency admissions showed that all pollutants studied were associated with increases in hospital admissions for respiratory and cardiovascular disease.⁹⁰

While Melbourne's air quality has improved significantly since the 1980s, carbon monoxide and nitrogen dioxide emissions continue to increase. In other words, cars are still the main source of air pollution.⁹¹ Urban expansion – discussed further in Chapter 4 of this report – exacerbates poor air quality as many people make long daily commutes to and from work by car.⁹²

⁸⁶ 'Asthma Facts', The Asthma Foundation of Victoria, 2012, <http://bit.ly/r4Eviw> accessed 10 January 2012.

⁸⁷ VicHealth, *Submission No. 47*, 11 July 2011, 8-9.

⁸⁸ VicHealth, *Submission No. 47*, 11 July 2011, 8.

⁸⁹ Environment Protection Authority Victoria, *Submission No. 54*, 12 July 2011, 4.

⁹⁰ 'Ambient air pollution and hospital admissions', Environment Protection Authority Victoria.

⁹¹ 'Melbourne's air quality', Environment Protection Authority Victoria, 2007, <http://bit.ly/HPsR1f> accessed January 10 2011.

⁹² H Frumkin, 'Urban Sprawl and Public Health', *Public Health Reports*, May-June 2002, 117: 203.

Chapter 3: Contributing factors to chronic disease

Many of the chronic diseases described in Chapter 2 can intersect; having one increases the chances of developing others. There are a range of common risk factors in the built environment that can increase the likelihood of developing chronic diseases and magnify their health impacts. These risk factors include: obesity; lack of physical activity; poor diet; high alcohol consumption; socio-economic disadvantage; an ageing population; climate change; or a combination of these.

As a submission to the Inquiry from Wyndham City Council notes, a range of environmental circumstances are combining in ways that compound harmful health outcomes:

Car dependence, poor walkability, inadequate public transport options, limited sporting and recreational infrastructure and lack of access to and availability of nutritious and affordable foods exacerbate preventable health conditions.⁹³

Many of these factors have been attributed to the prevalence of urban sprawl in highly populated cities and regions (explored further in Chapters 4 and 6). Whereas low density 'drivable suburbia' was the favoured mode of residential environment in post-Second World War Australia, recent years have seen medical professionals and urban planners increasingly promoting neighbourhoods that 'favour compact development, infill development, and walkable communities.'⁹⁴

This chapter examines international and Australian evidence that particular chronic disease risk factors can be influenced by aspects of the built environment.

3.1 Obesity

*This is a sleeping time bomb. So far the economic estimates for the costs of obesity to society ... are largely underestimated. The real impact is going to be in a few years time.*⁹⁵

Obesity is a growing health problem that not only significantly adds to the risk of developing chronic diseases, but also compounds their negative health effects. It is defined as an excess in body fat due to a surplus in energy intake (diet), insufficient energy expenditure (physical activity) or commonly, a combination of both.⁹⁶ The Australian Institute of Health and Welfare defines overweight and obesity through the Body Mass Index (BMI). Adult BMI is calculated by dividing a person's weight (in kilograms) by the square of their height (in metres). A BMI of 25 or higher is

⁹³ Wyndham City Council, *Submission No. 62*, 26 July 2011, 5.

⁹⁴ T Banerjee and A Loukaitou-Sideris (eds), *Companion to Urban Design*, Taylor & Francis, Oxon, 2011, 479.

⁹⁵ Prof C Gericke, quoted in House of Representatives Standing Committee on Health and Ageing 2009 *Weighing it up: Obesity in Australia*, Commonwealth of Australia, Canberra, 27.

⁹⁶ R Clark et al, *Local government and obesity prevention: An evidence resource. Interventions to prevent obesity in early years settings; tackling food insecurity and built environment changes to support physical activity*, CO-OPS Secretariat, Deakin University, Melbourne, 2010, 1.

considered overweight, and 30 or higher is classified as obese.⁹⁷ The higher an individual’s BMI, the more likely they will develop chronic disease (Table 1).

Table 1: Estimated probability of serious illness conditions (odds ratio) by BMI class in Australian adults (21 years or older)

	Normal	Overweight	Obese	Morbidly obese
Arthritis	1.0	1.5	2.0	3.7
Asthma	1.0	1.1	1.3	3.2
Cancer	1.0	1.4	1.5	1.3
Bronchitis/ emphysema	1.0	1.0	1.0	3.9
Type 2 diabetes	1.0	2.5	5.4	14.1
Depression/anxiety	1.0	1.1	1.4	1.9
Heart disease	1.0	1.7	2.1	2.1
High blood pressure	1.0	2.1	3.5	7.1

Source: R Wilkins et al, *Families, Incomes and Jobs, A Statistical Report on Waves 1 to 7 of the Household, Income and Labour Dynamics in Australia Survey*, University of Melbourne, 2010, 114.

The majority of Australians do not eat the recommended daily amounts of fruit and vegetables (at least two serves of fruit and five serves of vegetables), and many have diets high in fat, sugar and salt.⁹⁸ In 2003, obesity accounted for 7.5 percent of the burden of disease in Australia – only 0.3 percent less than tobacco.⁹⁹ By 2008, obesity cost Australia \$58.2 billion annually, including costs attributable to chronic diseases such as type 2 diabetes, cardiovascular disease, various cancers and osteoarthritis.¹⁰⁰ Table 2 shows the diseases commonly associated with obesity in Australian adults:

Table 2: Diseases associated with obesity by relative risk

Relative risk	Associated with metabolic consequences	Associated with weight
Greatly increased	Type 2 diabetes Gall bladder disease Hypertension (high blood pressure) Dyslipidaemia (high cholesterol) Insulin resistance Atherosclerosis (hardening of the arteries)	Sleep apnoea Breathlessness Asthma Social isolation/depression Daytime sleepiness/fatigue
Moderately increased	Coronary heart disease Stroke Gout/hyperuricaemia	Osteoarthritis Respiratory disease Hernia Psychological problems
Slightly increased	Cancer (breast, endometrial, colon) Reproductive abnormalities Impaired fertility Polycystic ovaries Skin complications Cataracts	Varicose veins Musculo-skeletal problems Back pain Incontinence Oedema/cellulitis

Source: ‘Promoting Healthy Weight: About Overweight and Obesity’, Department of Health and Ageing, 2009.

⁹⁷ ‘Overweight and obesity’, Australian Institute of Health and Welfare, 2011, <http://bit.ly/teaZiy>. The BMI of children under 18 years old is calculated on a scale based on age and gender.

⁹⁸ Department of Health and Ageing 2005 *Food for health: Dietary Guidelines for Australians – A guide to healthy eating*, Department of Health and Ageing and the National Health and Medical Research Council, Commonwealth of Australia, Canberra, 6-8; ‘Factsheet – Fruit and Vegetable Serves’, Department of Health and Ageing, 2008, <http://bit.ly/9Cg2O1> accessed 12 November 2011.

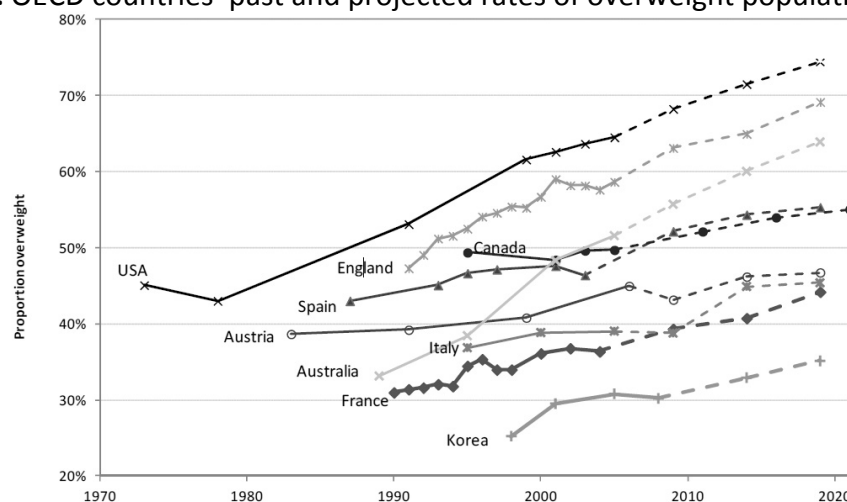
⁹⁹ R Clark et al, *Local government and obesity prevention*, 1.

¹⁰⁰ Planning Institute of Australia 2009 *Healthy Spaces and Places: A national guide to designing places for healthy living – An overview*, PIA, Australian Local Government Association and the National Heart Foundation of Australia, 3. (Financial cost \$8.28 billion, lost wellbeing cost \$49.9 billion.)

In recent decades, obesity has been on the rise worldwide and represents an increasing health crisis in Australia; currently, over 60 percent of the adult population and 25 percent of children are classified as overweight or obese.¹⁰¹ In 2008 the National Preventative Health Taskforce identified obesity as an area 'where urgent action is required'.¹⁰²

Obesity rates in Australia have increased faster than any other country in the Organisation for Economic Co-operation and Development (OECD) in the past 20 years, and the proportion of people overweight is projected to rise a further 15 percent over the next decade.¹⁰³ Figure 4 shows the past and projected rates of overweight populations across a group of OECD countries.

Figure 4: OECD countries' past and projected rates of overweight populations



Source: 'Obesity and the Economics of Prevention: Fit not Fat - Australia Key Facts', Organisation for Economic Co-operation and Development, <http://bit.ly/wQMx0n> accessed 21 October 2011.

If such trends continue, VicHealth estimates that by 2025, almost three-quarters of Australians will be classed as overweight or obese.¹⁰⁴ Obesity is not just a problem for Australian adults – rates among Australian children are also rising.¹⁰⁵

3.1.1 Obesity and the built environment: the evidence

Impacting on all aspects of health, obesity's causes are a complex mix, involving 'a wide range of individual, behavioural, social, environmental and political factors and a multitude of interactions between these factors'.¹⁰⁶ While individual choices such as diet and levels of exercise have a significant impact on obesity levels,

¹⁰¹ Department of Infrastructure and Transport 2011 *Our Cities – The challenge of change, Background and research paper*, Commonwealth of Australia, Canberra, 99.

¹⁰² R Clark et al, *Local government and obesity prevention*, 1.

¹⁰³ 'Obesity and the Economics of Prevention: Fit not Fat – Australia Key Facts', Organisation for Economic Co-operation and Development, <http://bit.ly/wQMx0n> accessed 21 October 2011.

¹⁰⁴ 'Overweight and obesity', VicHealth, <http://bit.ly/wzSQWO> accessed 29 November 2011.

¹⁰⁵ CB Ebbeling et al, 'Childhood obesity: public-health crisis, common sense cure', *The Lancet*, 2002, 360: 474.

¹⁰⁶ R Clark et al, *Local government and obesity prevention*, 1; J Garrard, *Taking action on obesogenic environments – Building a culture of active, connected communities*, National Preventative Health Taskforce, 2009, 4, <http://bit.ly/yWMYFq> accessed 20 October 2011.

research shows that responsibility also lies with ‘obesogenic environments’ – places that encourage both over-eating and under-exercising.¹⁰⁷

The 2009 report of the House of Representatives’ Standing Committee on Health and Ageing, *Weighing it up: Obesity in Australia*, determined:

Urban planning is a significant contributor to the high levels of obesity in Australia. As such, the Committee believes that urban planning guidelines and laws must be improved, with responsibility shared by federal, state, territory and local governments alike. Changes in this arena will result in significantly healthier environments being created for Australians to live and work in.¹⁰⁸

Other studies of obesity similarly state that ‘Understanding effective ways to influence these environmental determinants, and using this information to inform decision making are vital steps in slowing the obesity epidemic.’¹⁰⁹

International and Australian research links obesity to several aspects of environmental design and urban planning. A common factor blamed for the rise of obesity is low density urban expansion which reinforces sedentary lifestyles. These areas often lack environments such as green and other open recreational spaces to encourage physical activity and social interaction, lack active transport infrastructure such as cycling and walking paths, and feature poor street connectivity – all of which in turn encourage car dependency.¹¹⁰

Other factors in obesogenic environments include a high prevalence of fast food and packaged liquor outlets and/or a lack of places to buy fresh food.¹¹¹ Studies show that childhood obesity also can be linked to environmental factors such as lack of physical activity and the influence of food advertising.¹¹²

However other researchers contend that a positive correlation between urban sprawl and obesity ‘does not necessarily imply that sprawl causes obesity or that reducing sprawl will lead people to lose weight.’¹¹³ As with all studies that weigh

¹⁰⁷ R Clark et al, *Local government and obesity prevention*, 1; Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 5; J Robertson-Wilson and B Giles-Corti, ‘Walkability, Neighbourhood Design, and Obesity’, in A Lake et al (eds) *Obesogenic environments: Complexities, perceptions and objective measures*, Wiley-Blackwell, UK, 2010; LD Frank et al, ‘Obesity relationships with community design, physical activity, and time spent in cars’, *American Journal of Preventive Medicine*, 2004, 27 (2): 87-96.

¹⁰⁸ House of Representatives Standing Committee on Health and Ageing 2009 *Weighing it up: Obesity in Australia*, 88-89.

¹⁰⁹ R Clark et al, *Local government and obesity prevention*, 1-2.

¹¹⁰ R Trubka et al, ‘Gen 85: The cost of urban sprawl – physical activity links to health care costs and productivity’, *Environmental Design Guide*, April 2010, 1-8; P Newman and JR Kenworthy, *Sustainability and Cities: overcoming automobile dependence*, Island Press, Washington DC, 1999; P Newman and JR Kenworthy, ‘The Ten Myths of Automobile Dependence’, *World Transport Policy & Practice*, 2000, (6) 1: 15–25; LD Frank et al, ‘Obesity Relationships with Community Design’, 87-96; R Ewing et al, ‘Relationship between urban sprawl and physical activity, obesity, and morbidity’, *American Journal of Health Promotion*, September-October 2003, 18 (1): 47-57; R Lopez, ‘Urban Sprawl and Risk for Being Overweight or Obese’, *American Journal of Public Health*, September 2004, 94 (9): 1574–1579; FL Garden and BB Jalaludin, ‘Impact of Urban Sprawl on Overweight, Obesity, and Physical Activity in Sydney, Australia’, *Journal of Urban Health*, January 2009, 86 (1): 19–30; Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, Prevention and Population Health Branch, Victorian Government, Melbourne, 70-72, 94.

¹¹¹ B Giles-Corti et al, ‘Environmental and lifestyle factors associated with overweight and obesity in Perth, Australia’, *American Journal of Health Promotion*, September-October 2003, 18 (1): 93-102.

¹¹² W Maziak et al, ‘Childhood obesity: are we missing the big picture?’ *Obesity Reviews*, 2007, 9: 35–42.

¹¹³ J Eid et al, ‘Fat City: The Relationship between Urban Sprawl and Obesity’, Centre for Economic Performance Discussion Paper No 758, London School of Economics and Political Science, November 2006, 1; AC Kelly-Schwartz, ‘Is Sprawl Unhealthy? A Multilevel Analysis of the Relationship of Metropolitan Sprawl to the Health of Individuals’, *Journal of Planning Education and Research*, 2004, 24 (2): 184-196.

multiple and interrelated individual behavioural and cultural influences, the process of self-selection may play a part in these correlations: 'we may observe more obesity in sprawling neighborhoods because individuals who have a propensity to be obese choose to live in these neighbourhoods'.¹¹⁴

While the influences of environmental factors on obesity and chronic disease continue to be debated by academics, the majority of research supports the design of walkable neighbourhoods that encourage physical activity, provide attractive local green and open spaces, and feature local retail and community destinations.¹¹⁵ Road or street connectivity is often cited as an important part of an area's perceived walkability as 'neighbourhoods that are better connected reduce travel times by foot or cycle and offer a greater diversity of routes to local destinations without adding substantially to travel times.'¹¹⁶

Australians' awareness of the links between obesity, unhealthy eating and lack of physical activity is considered to be high. However, as Dr Jan Garrard has argued, 'raising societal awareness that urban environments are a key determinant of obesity is crucial for achieving the widespread support and action that is needed to build a culture of active living and healthy eating in Australia.'¹¹⁷ The Committee notes that the public policy response to obesity is complex. The food system, the built environment, government bodies and the medical community must all be part of a coordinated response.

3.2 Physical inactivity

At a public hearing on 4 August 2011, Victorian General Practitioner Dr Margaret Beavis began her presentation to the Committee:

I want to tell you about this new pill that has come along. It is a terrific pill. It reduces heart attacks and strokes ... It is called exercise. It improves mood and job satisfaction. It reduces absenteeism. It is interesting that there is a huge body of evidence saying that it is just as good as taking an antidepressant. It reduces the risk of premature death by 25 percent. Why is the entire population not taking this pill? VicHealth put out some data saying that 70 percent of Australians are inactive, so only 30 percent of people are actually getting their half an hour five times a week.¹¹⁸

Related to the increase of chronic disease and obesity in Australia is the concurrent decrease in physical activity. It is estimated that 70 percent of Australian adults (aged over 15) and two-thirds of children do little or no physical activity and these proportions are increasing in Victoria.¹¹⁹ After tobacco-related health impacts,

¹¹⁴ J Eid et al, 'Fat City: The Relationship between Urban Sprawl and Obesity', 1-2, 16.

¹¹⁵ W Maziak et al, 'Childhood obesity: are we missing the big picture?' 35-42; TJ Pikora et al, 'Neighborhood environmental factors correlated with walking near home: Using SPACES', *Medicine & Science in Sports & Exercise*, April 2006, 38 (4): 708-14; N Owen et al, 'Neighborhood walkability and the walking behavior of Australian adults', *American Journal of Preventive Medicine*, November 2007, 33 (5): 387-95.

¹¹⁶ A Timperio et al, 'Neighbourhood physical activity environments and adiposity in children and mothers: a three-year longitudinal study', *International Journal of Behavioral Nutrition and Physical Activity*, 2010, 7 (18): 6.

¹¹⁷ J Garrard, *Taking action on obesogenic environments*, 4.

¹¹⁸ Dr M Beavis, *Transcript of Evidence*, 4 August 2011, 50.

¹¹⁹ R Clark et al, *Local government and obesity prevention*, 1-2; Dr M Beavis, *Submission No. 11*, 27 June 2011, 2.

physical inactivity is the second highest risk factor that contributes to the burden of disease, morbidity and mortality in Australia, costing an estimated \$13 billion to the economy annually.¹²⁰

Compared to previous generations, on average, Australian adults today exercise less and use their cars more to travel, most employment requires less physical energy and 'Recreation is also more sedentary (watching television has replaced the cricket match in the backyard or the street)'.¹²¹ One Australian study showed positive correlations between obesity, 'lower educational status, higher television viewing time and lower physical activity time'.¹²²

Children's rates of physical activity in Australia have also declined at an estimated rate of four percent each decade since the 1970s.¹²³ There are significant potential long-term consequences for children who do not engage in regular physical activity. Lack of exercise not only impacts on children's physical health and rates of early chronic disease development, but also their mental health, self-development and self-esteem, and sense of community.¹²⁴

It has been estimated that just a five percent increase in the number of people doing 30 minutes of moderate daily activity could save around 600 Australian lives each year, with significant flow-on savings in healthcare costs.¹²⁵ People who undertake regular exercise, for example, are also more likely to make healthier dietary choices.¹²⁶

3.2.1 *Physical inactivity and the built environment: the evidence*

Comprehensive research suggests that urban design influences whether people have the opportunities and inclination to exercise regularly, and whether parents feel the environment is safe for children to be active outdoors. An international review of 33 studies of correlations between physical activity and the built environment showed that 'land use mix, connectivity and population density and overall neighbourhood design' were important factors.¹²⁷ Land use mix refers to the degree to which different uses of land and zone classifications are scattered through residential, commercial and open spaces. An example would be an area

¹²⁰ A Bauman et al, *Getting Australia active: towards better practice for the promotion of physical activity*, National Public Health Partnership, Melbourne, 2002, 4; AE Bauman and FC Bull, 'Environmental Correlates of Physical Activity And Walking in Adults and Children: A Review of Reviews', review undertaken for National Institute of Health and Clinical Excellence, London, 2007, 4-5; Australian Institute of Health and Welfare 2011 *Health and the environment: a compilation of evidence*, Canberra, 37; *An Australian vision for active transport*, Heart Foundation, 5, <http://bit.ly/yLD4lr> accessed January 12 2011.

¹²¹ AG Capon, 'The way we live in our cities', *Medical Journal of Australia*, 2007, 187: 658; Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, 22.

¹²² AJ Cameron et al, 'Overweight and obesity in Australia: the 1999–2000 Australian Diabetes, Obesity and Lifestyle Study (AusDiab)', *Medical Journal of Australia*, 2003, 178 (9): 427-432.

¹²³ S Zubrick et al, *Nothing but fear itself: parental fear as a determinant of child physical activity and independent mobility*, VicHealth, Melbourne, 2010, 5.

¹²⁴ Assoc Prof C Whitzman, *Transcript of Evidence*, 7 September 2011, 265-66 ; S Zubrick et al, *Nothing but fear itself*, 6.

¹²⁵ B Giles-Corti et al, 'The co-benefits for health of investing in active transportation', *NSW Public Health Bulletin*, 2010, 21 (5-6): 123.

¹²⁶ Planning Institute of Australia 2009 *Healthy Spaces and Places*, 4.

¹²⁷ GR McCormack and A Shiell, 'In search of causality: a systematic review of the relationship between the built environment and physical activity among adults', *International Journal of Behavioral Nutrition and Physical Activity*, 13 November 2011, 8: (125).

which features a combination of residences, shops, schools, offices, libraries and open spaces.¹²⁸

An Australian review similarly demonstrated that higher residential housing densities, proximity to non-residential destinations, land use mix, street connectivity and provision of infrastructure such as walking paths and aesthetics were the most significant factors determining whether people chose to walk for transport.¹²⁹

Another meta-analysis of more than 100 American and Australian studies examining the relationship between the built environment and physical activity found that 'There are reasonably consistent associations between access to physical activity facilities, convenient and proximate access to destinations, high residential density, land use and urban "walkability" scores and measures of physical activity.'¹³⁰ The authors identified some significant factors across the studies that showed people were more likely to walk if there was provision of footpaths and trails, mixed land use, pleasing aesthetics, and they lived near recreational and retail facilities.¹³¹

Researchers caution, however, that providing such features in a neighbourhood does not guarantee that residents will increase their physical activity levels, or that proven associations between aspects of the built environment and physical activity are causal:

It is clear that multiple determinants, from individual level factors, through to environmental factors, are important. More focused research will identify the specific settings and types of physical activity, and explore determinants of setting-specific behaviours ... environmental change alone may not be sufficient to influence population level physical activity prevalence, and caution should be exercised, tempering unbridled enthusiasm for environments as the 'great white hope' for public health approaches to physical activity.¹³²

Researchers at the University of New South Wales' Healthy Built Environments Program conducted a comprehensive review of studies measuring the influence of the built environment on levels of physical activity. They concluded that while there are several studies supporting the connection, 'it remains difficult to define exactly what it is about the built environment that gets people active and what form this environment might take in an Australian context.'¹³³

Other relevant studies contend that while it is difficult to definitively isolate the factors that improve levels of physical activity, any changes to the built

¹²⁸ City of Casey, *Submission No. 42*, 6 July 2011, 8.

¹²⁹ B Saelens and S Handy, 'Built environment correlates of walking: a review', *Medicine and Science in Sports and Exercise*, 2008, 40: S550–S566.

¹³⁰ AE Bauman and FC Bull, 'Environmental Correlates of Physical Activity and Walking', 33.

¹³¹ AE Bauman and FC Bull, 'Environmental Correlates of Physical Activity and Walking', 34.

¹³² AE Bauman and FC Bull, 'Environmental Correlates of Physical Activity and Walking', 39; see also B Saelens and S Handy, 'Built environment correlates of walking', S550–S566.

¹³³ *The Built Environment and Getting People Active*, Healthy Built Environments Program, University of New South Wales, Sydney, 2012, 47.

environment that seem likely to encourage it 'are still likely to be a vital component',¹³⁴ and current evidence 'is sufficient as a basis for advocating for changes in planning policies.'¹³⁵

Studies show that the reasons people do not walk or cycle often relate to considerations of time, personal and road safety, quality and amenity of active transport facilities, and distance to destinations. There are no easy conclusions to what works in a particular community, and 'comprehensive approaches to change physical activity levels need to consider interventions at multiple levels – the individual, social and environmental.'¹³⁶

Research has also focused on specific groups such as older people, women and children when investigating the influence of the built environment on physical activity levels. One evidence review shows that whether older people choose to undertake physical activity can be influenced by variables such as perceived safety, aesthetics, provision of walking paths and convenience of access to facilities.¹³⁷

Women's Health Victoria explained to the Committee that particular environmental design barriers can deter women from engaging in physical activity:

... good urban design needs to be gender sensitive — that is, it needs to take account of how urban design can impact differently on women than it does on men ... We know that for women the most popular form of physical activity is walking, but women face specific barriers to this and probably physical activity more broadly, which can have an impact in terms of its preventative health effects. The barriers can obviously be urban design and infrastructure, perceptions of safety in the community as well as other factors like caring responsibilities, issues associated with body image and lack of time.¹³⁸

Several factors have been cited for Australian children's decreasing fitness and participation in regular exercise. The trend towards smaller backyard sizes (or no backyards) has also limited the space available for children to play (discussed further in Chapters 4 and 6). Many studies focus on the pervasive influence of a risk-averse culture and fear of 'stranger danger' among parents, meaning that they are less likely to allow children to walk or ride to school, to play outside in their communities or go anywhere alone.¹³⁹

Despite such fears, recent VicHealth statistics show that 'There is no evidence to indicate any fundamental change over time of threats to children as measured by actual crimes of abduction, robbery, assault and homicide committed against them

¹³⁴ R Clark et al, *Local government and obesity prevention*, 21.

¹³⁵ B Saelens and S Handy, 'Built environment correlates of walking', S550–S566.

¹³⁶ *The Built Environment and Getting People Active*, Healthy Built Environments Program, 47.

¹³⁷ GO Cunningham and YL Michael, 'Concepts Guiding the Study of the Impact of the Built Environment on Physical Activity for Older Adults: A Review of the Literature', *American Journal of Health Promotion*, July-August 2004, 18 (6): 435–443.

¹³⁸ Ms R Butera, Women's Health Victoria, *Transcript of Evidence*, 7 September 2011, 248.

¹³⁹ S Zubrick et al, *Nothing but fear itself*, 3; Department of Transport 2010 *The Pedestrian Access Strategy – A strategy to increase walking for transport in Victoria*, Victorian Government, Melbourne, 21; D Tucker and J Stone, 'Active Transport To School: A Study Of Political Barriers In Glen Eira', Faculty of Architecture, Building and Planning, University of Melbourne, 2011, 1; VicHealth 2011 *Streets Ahead 2008–2011 Program evaluation report*, Victorian Government, Melbourne, 16-17.

by strangers.¹⁴⁰ Interestingly, the study also showed that while the majority of parents were willing to let their children walk or ride to a nearby park without an adult, they would not let them play there unsupervised.¹⁴¹

The study's authors argue that while 'initiatives put in place to address community and personal safety have had the unintended consequence of heightening parental caution and increasing vigilance', the reasons why children are engaging less with the outdoors is as much due to shifting sociological factors:

... the evidence shows there have been substantial changes in Australian family life linked to work, employment, the extension of the lifespan, the lowering of the age range for early childhood education and the need for care outside of the home. These factors, and exerting inexorable forces upon the shape of daily activity and routine, impart clear restrictions on where children can be left unsupervised, who can supervise them, the rules for transferring duty of care, and general tolerance for children having a 'freer range' of independent mobility.¹⁴²

Some researchers and commentators have referred to the 'bubble wrapping'¹⁴³ of children, where both real and perceived safety fears mean that parents are less likely to allow children to play alone or unsupervised. Professor Billie Giles-Corti and Professor Carolyn Whitzman both told the Committee of their concerns that some Australian children today are growing up with less independent mobility than previous generations.¹⁴⁴ Researcher Dr Michael Ungar has written, 'Too much risk and we endanger a child. Too little risk and we fail to provide a child with healthy opportunities for growth and psychological development.'¹⁴⁵ Similarly, Ms Rachel Carlisle of the Heart Foundation (Victoria) said to the Committee, 'in denying [children] the risks they need to grow and develop, we are actually risking them getting chronic diseases. Which risk is more prevalent?'¹⁴⁶

Dr Rob Grenfell, Strategic Health Adviser to Parks Victoria, further commented:

It is a sad reflection on Australia that we have reached a point where we have to write physical activity guidelines for children. How did we get to this? ... If we think of our own childhoods, for instance, it was hard enough for your mother to round you up to put you to bed at night.¹⁴⁷

¹⁴⁰ S Zubrick et al, *Nothing but fear itself*, 3. (Zubrick et al's emphasis.)

¹⁴¹ VicHealth 2011 *Towards active and independently mobile children – Survey review*, Victorian Government, Melbourne, 9.

¹⁴² S Zubrick et al, *Nothing but fear itself*, 3.

¹⁴³ K Malone, 'The bubble-wrap generation: children growing up in walled gardens', *Environmental Education Research*, September 2007, 13 (4): 513-527; M Ungar, *Too Safe For Their Own Good: How risk and responsibility help teens thrive*, Allen and Unwin, Sydney, 2008, 3; J Albrechtsen, 'Our kids are covered in bubble wrap', *The Australian*, December 28, 2011, <http://bit.ly/zc5Msa> accessed 23 March 2011.

¹⁴⁴ Prof B Giles-Corti, *Transcript of Evidence*, 4 August 2011, 13; Assoc Prof C Whitzman, *Transcript of Evidence*, 7 September 2011, 265.

¹⁴⁵ M Ungar, *Too Safe For Their Own Good*, 3.

¹⁴⁶ Ms R Carlisle, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 62.

¹⁴⁷ Dr R Grenfell, Parks Victoria, *Transcript of Evidence*, 7 September 2011, 237.

3.3 Healthy eating

*Only 10% of Victorians meet the healthy eating guidelines for fruit and vegetable intake, the average Australian adult eats out more than 4 times per week, and everyday 4.5 million Australians visit a fast food outlet.*¹⁴⁸

Eating fresh and nutritious food is a key component of health and wellbeing.¹⁴⁹ A poor diet is a key contributing factor to Australians' high rates of chronic disease and obesity. Many people eat more food than they physically need, and 'Food that used to be considered a special treat (chocolate, lollies, soft drink, potato chips) is part of the daily diet for many people.'¹⁵⁰ Long daily commutes and shifts in work and family patterns also have decreased the time many people have for cooking healthy food. As Associate Professor John Fitzgerald from VicHealth pointed out to the Committee, 'When it takes you six minutes to get a pizza delivered to your house but it takes you 45 minutes to cook a meal, you know which choice people are going to make'.¹⁵¹

Several studies suggest that unhealthy food choices can be influenced by a high concentration of fast food or take-away outlets in a neighbourhood.¹⁵² It is difficult to define what constitutes 'fast food' from a nutritional point of view. According to Food Standards Australia and New Zealand, one definition of a fast food restaurant is 'a franchise or a number of similar establishments under one ownership, or management with common branding, where foods such as chicken, chips, pizza, hamburgers etc. can be provided without significant time delay.'¹⁵³ Fast food meals are often cheap, quick to purchase and consume, and may provide a range of choices of varying nutritional quality. However they usually predominantly offer foods that are high in energy, saturated fats and sugar, and low in protein, vitamins and fibre essential for a healthy, nutritious diet.¹⁵⁴

The Committee heard that under current Victorian planning laws, councils can have a difficult time preventing a geographical oversupply of such businesses:

¹⁴⁸ J Donovan et al, *Food-sensitive planning and urban design: A conceptual framework for achieving a sustainable and healthy food system*, Heart Foundation (Victoria), Melbourne, 2011, 2; R Carey and K McConell, *A Resilient Fruit and Vegetable Supply for a Healthy Victoria: Working together to secure the future*, Food Alliance, Melbourne, 2011, 4.

¹⁴⁹ Municipal Association of Victoria, *Submission No. 61*, July 2011, 21-22.

¹⁵⁰ AG Capon, 'The way we live in our cities', 659.

¹⁵¹ Assoc Prof J Fitzgerald, VicHealth, *Transcript of Evidence*, 23 August 2011, 82; VicHealth, *Submission No. 47*, 11 July 2011, 6.

¹⁵² F Li et al, 'Obesity and the built environment: does the density of neighborhood fast-food outlets matter?' *American Journal of Health Promotion*, January-February 2009, 23 (3): 203-9; J Pearce et al, 'Neighborhood deprivation and access to fast-food retailing: a national study', *American Journal of Preventive Medicine*, May 2007, 32 (5): 375-82; LK Fraser et al, 'The geography of Fast Food outlets: a review', *International Journal of Environmental Research and Public Health*, May 2010, 7 (5): 2290-308; J Maddock, 'The relationship between obesity and the prevalence of fast food restaurants: state-level analysis', *American Journal of Health Promotion*, November-December 2004, 19 (2): 137-43; Deakin University's Centre for Physical Activity and Nutrition Research, *Submission No. 16*, 30 June 2011, 3; Obesity Policy Coalition, *Submission No. 32*, 30 June 2011, 2; House of Representatives Standing Committee on Health and Ageing 2009 *Weighing it up: Obesity in Australia*, 82-83, 126; VicHealth, *Submission No. 47*, 11 July 2011, 6; Victorian Council of Social Service, *Submission No. 49*, 8 July 2011, 2; Maribyrnong City Council, *Submission No. 52*, July 2011, 2; Heart Foundation (Victoria), *Submission No. 55*, July 2011, 34; K Wong, 'Fast Food Linked to Obesity, Diabetes', *Scientific American*, 3 January 2005, <http://bit.ly/91PHyH> accessed 20 February 20 2011.

¹⁵³ Food Standards Australia & New Zealand, 2012, <http://www.foodstandards.gov.au/> accessed 20 March 2012. Other definitions of fast food, such as that used by Fair Work Australia in determining award wages, include that food and beverages are sold primarily to be consumed away from the point of sale and are packaged accordingly.

¹⁵⁴ 'About the Guidelines', Eat for Health, National Health and Medical Research Council, 2012 <http://bit.ly/uPHrD9> accessed 4 April 2012; 'Limit Access to Fast Foods', Active Healthy Communities, Queensland Government and Heart Foundation, <http://bit.ly/JmbPF1> accessed 4 April 2012.

Limited grounds exist to oppose their development and concerns about overweight, obesity and chronic disease within the community is not relevant grounds for opposition. Further, councils can also be reluctant to pursue their concerns at the Victorian Civil and Administrative Tribunal given the extensive resources available to large fast food companies to fight these matters.¹⁵⁵

However a comprehensive Australian study argues that the correlation between fast food availability and community health is simplistic, and that it is more pertinent 'to understand the nature of what food is available in all food outlets, rather than to simply quantify the number of fast-food outlets in a neighbourhood.'¹⁵⁶ Another Victorian-based study of children's eating habits and neighbourhood fast food outlets also failed to establish a causal link, with the authors concluding that 'Such relationships appear to be complex and may not be adequately captured by the measures of access included in the current study.'¹⁵⁷ A study of six rural areas in Victoria determined that lack of physical activity was more relevant in a community's obesity rates than consumption of fast food or access to fast food outlets.¹⁵⁸

While a high concentration of fast food in an area may contribute to a community's poor dietary habits, research suggests that an important factor in people eating fresh, healthy food is proximity to stores that sell it.¹⁵⁹ Infrastructure barriers also can make healthy eating more difficult, such as inadequate public transport or poor street connectivity to shops that sell fresh food.

A comprehensive analysis of relevant studies from 1985-2008 showed that people who have better access to supermarkets (which usually sell a wide variety of fresh food) and less access to convenience stores and fast food outlets 'tend to have healthier diets and lower levels of obesity'.¹⁶⁰ A US-based study suggested that people who lived within 100 metres of a store that sold fresh vegetables were more likely to regularly eat them, and 'each additional metre of shelf space was associated with 0.35 servings per day of increased intake.'¹⁶¹

Food security refers to the ability to have regular access to adequate and nutritious food.¹⁶² The World Health Organization defines the 'three pillars' of food security as:

¹⁵⁵ Obesity Policy Coalition, *Submission No. 32*, 30 June 2011, 1.

¹⁵⁶ HBEP literature review – *The Built Environment and Providing Healthy Food Options*, Healthy Built Environments Program, University of New South Wales, Sydney, 2012, 87-88; see also JR Sharkey et al, 'Focusing on fast food restaurants alone underestimates the relationship between neighborhood deprivation and exposure to fast food in a large rural area', *Nutrition Journal*, 2011, 10: 10.

¹⁵⁷ AF Timperio et al, 'Children's takeaway and fast-food intakes: associations with the neighbourhood food environment', *Public Health Nutrition*, October 2009, 12 (10): 1960-1964.

¹⁵⁸ D Simmons et al, 'Choice and availability of takeaway and restaurant food is not related to the prevalence of adult obesity in rural communities in Australia', *International Journal of Obesity*, June 2005, 29 (6): 703-710.

¹⁵⁹ CD Zick et al, 'Running to the store? The relationship between neighborhood environments and the risk of obesity', *Social Science & Medicine*, November 2009; 69 (10): 1493-1500; NI Larson et al, 'Neighborhood environments: disparities in access to healthy foods in the U.S.' *American Journal of Preventive Medicine*, January 2009, 36 (1): 74-81.

¹⁶⁰ NI Larson et al, 'Neighborhood environments', 74-81.

¹⁶¹ JN Bodor et al, 'Neighbourhood fruit and vegetable availability and consumption: the role of small food stores in an urban environment', *Public Health Nutrition*, April 2008, 11 (4): 413-420.

¹⁶² A Kavanagh et al, *Place does matter for your health: A report of the Victorian Lifestyle and Neighbourhood Environment Study*, University of Melbourne, 2007, 65; see also 'Food security', VicHealth, <http://bit.ly/Hr8nKp> accessed 20 February 2012.

- food availability: sufficient quantities of food available on a consistent basis
- food access: having sufficient resources to obtain appropriate foods for a nutritious diet
- food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.¹⁶³

The Committee heard discussion that urban expansion into peri-urban areas (semi-agricultural areas that lie between metropolitan centres and rural land)¹⁶⁴ may pose a threat to food security. As well as supporting local employment, biodiversity, recreational activity and tourism, peri-urban areas are responsible for much of the fresh produce that feeds Melbourne and its surrounding areas. More than half of Melbourne's vegetables and about 17 percent of its fruit is grown within 100 kilometres of the city.¹⁶⁵ The Food Alliance argued that 'the protection of these peri-urban fruit and vegetable growing areas should be seen as a public health issue rather than only in terms of protecting the economic value of this production.'¹⁶⁶

A farmers' market support program launched by the Victorian government in 2007 and renewed in June 2011 aims to develop new and expand existing farmers markets across Victoria.¹⁶⁷ Research suggests that farmers' markets can maintain land in agricultural production by supporting the viability of small producers.¹⁶⁸ While there has been a recent boom in small, locally-based farmers' markets around Victoria, prices are often high and few are located in outer suburban or lower socio-economic areas. Community gardens are another response to food security, but many are oversubscribed and are also rarely found in new outer suburban housing developments.¹⁶⁹

Recommendation 1

That the Victorian Government:

- works with VicHealth to commission further Victorian research into the cumulative health and wellbeing impacts of the density of fast food outlets on a community
- assists local governments to map all food outlets within a local government area
- develops a planning mechanism that can be used by local councils to limit the oversupply of fast food outlets in communities
- develops a plan to facilitate the supply of healthy food choices to Victorians.

¹⁶³ 'Food Security', World Health Organization, 2012, <http://bit.ly/dzdsS4> accessed 20 October 2011.

¹⁶⁴ M Buxton et al, *Planning Sustainable Futures For Melbourne's Peri-Urban Region*, School of Global Studies, Social Science and Planning, Royal Melbourne Institute of Technology, 2008, i.

¹⁶⁵ Ms K McConell, Food Alliance, *Transcript of Evidence*, 23 August 2011, 100.

¹⁶⁶ Ms K McConell, Food Alliance, *Transcript of Evidence*, 23 August 2011, 101.

¹⁶⁷ P Walsh, 'Coalition delivers \$2 million to enhance Victoria's popular farmers' markets', media release, Minister for Agriculture and Food Security, 9 July 2011, <http://bit.ly/yXW0SE>; 'Regional Development Victoria, Application Guidelines – Farmers' Markets Support Program', Regional Development Victoria, <http://bit.ly/xpZGoF> accessed 20 October 2011.

¹⁶⁸ Outer Suburban/Interface Services and Development Committee 2010 *Inquiry into Sustainable Development of Agribusiness in Outer Suburban Melbourne*, Parliament of Victoria, Melbourne, 53.

¹⁶⁹ Outer Suburban/Interface Services and Development Committee 2010 *Inquiry into Sustainable Development*, 285-286; *HBEP literature review – Executive Summary*, Healthy Built Environments Program, University of New South Wales, Sydney, 2012, 14-15.

Recommendation 2

That the Victorian Government conducts a review into the economic, environmental and social importance of food production and distribution in Victoria and its consequences for public health.

Recommendation 3

That the Melbourne Metropolitan Strategy includes measures to identify and protect valuable agricultural land in peri-urban Melbourne.

3.4 Alcohol

Drinking alcohol socially is considered ‘intrinsic part of Australian culture’.¹⁷⁰ While the majority of Australians drink in moderation, it is estimated that one in five drink at ‘short-term risky/high-risk levels at least once a month.’¹⁷¹ While former¹⁷² and current¹⁷³ government programs have addressed this problem, the social and health-related costs of alcohol through death, accidents, lost work productivity, healthcare and crime are still estimated at over \$15 billion annually.¹⁷⁴ The National Drug Research Institute has estimated that between 1996 and 2005, over 32,000 Australians died from injury and disease attributable to risky and high-risk drinking.¹⁷⁵

In Victoria, the estimated annual cost of alcohol-related harm is almost \$4.3 billion, \$530 million of which relates solely to healthcare.¹⁷⁶ It is estimated that one-third of Victorian adults (aged 18 or over) ‘drink at risky or high-risk levels for short-term harm at least yearly’, and nine percent of Victorians drink at long-term risky or high-risk levels.¹⁷⁷

Substantial research links high alcohol consumption with several chronic diseases, and alcohol is a significant risk factor for the development of a range of cancers.¹⁷⁸ In 2005, long-term chronic alcohol consumption was linked to 5,070 new cases of

¹⁷⁰ National Public Health Partnership 2009 *Australia: The Healthiest Country By 2020, Technical Report 3: Preventing alcohol-related harm in Australia: a window of opportunity*, report prepared for the National Preventative Health Taskforce by the Alcohol Working Group, Commonwealth of Australia, Canberra, 2.

¹⁷¹ National Public Health Partnership 2009 *Australia: The Healthiest Country By 2020*, 2.

¹⁷² Examples include: the *National Alcohol Strategy 2006-2011*, Department of Health and Ageing, 2011, <http://bit.ly/J2VODO>; the 2007 establishment of the Victorian Ministerial Taskforce on Alcohol and Public Safety; and State of Victoria 2008 *Restoring the balance – Victoria’s alcohol action plan 2008–2013*, Melbourne, <http://bit.ly/Is6yQK> accessed 10 October 2011.

¹⁷³ See the current Victorian Government’s *Whole of Government Victorian Alcohol and Drug Strategy*, <http://bit.ly/xODaLg> accessed 10 October 2011.

¹⁷⁴ ‘Alcohol and Chronic Disease Prevention: Position Statement’, Australian Chronic Disease Prevention Alliance <http://bit.ly/IN7tXg>; ‘National Alcohol Strategy 2006-2011’, Department of Health and Ageing, 2011, <http://bit.ly/HzuReJ> accessed 14 October 2011.

¹⁷⁵ M Evans et al, *Responsible Takeaway Alcohol Hours Bill 2010 – A Submission by the National Drug Research Institute*, National Drug Research Institute, Curtin University of Technology, Perth, 2.

¹⁷⁶ Alcohol Policy Coalition, *Submission No. 33*, 30 June 2011, 1.

¹⁷⁷ Department of Health 2008 *Victoria’s Alcohol Action Plan 2008–2013*, Ministerial Taskforce on Alcohol and Public Safety, Victorian Government, Melbourne, 9.

¹⁷⁸ Australian Chronic Disease Prevention Alliance, *Submission to Senate Standing Committee on Community Affairs*, 2007, 2, <http://bit.ly/wRjrb2> accessed 20 January 2011; Alcohol Policy Coalition, *Submission No. 33*, 30 June 2011, 1; N Donnelly et al, ‘Liquor outlet concentrations and alcohol-related neighbourhood problems’, *Alcohol Studies Bulletin*, NSW Bureau of Crime Statistics and Research, April 2006, 8:1; *Alcohol Use and Harms in Australia (2009) – Information paper*, Australian Medical Association, 2009, <http://ama.com.au/node/4762> accessed 20 January 2011.

cancer (or five percent of all cancers) in Australia.¹⁷⁹ Alcohol can also be a factor in the development of type 2 diabetes and kidney disease, and can compound the effects of other major chronic disease risk factors such as obesity and physical inactivity.¹⁸⁰

In recent years, Australian states and territories have seen ‘a significant liberalisation of licensing laws’ and a corresponding increase in businesses selling alcohol.¹⁸¹ In Victoria alone, the number of liquor outlets has doubled over the last two decades.¹⁸² Several studies have shown correlations between alcohol outlet density in an area and a range of alcohol-related harms, including rates of assaults, domestic violence and drink-driving.¹⁸³ Some research suggests that the prevalence of packaged (take-away) liquor outlets in particular tends to lead to more alcohol-related harms compared to other licensed premises in an area (such as pubs or restaurants).¹⁸⁴

However it is more difficult to determine causal connections between liquor outlet density and chronic disease, as factors such as socio-economic disadvantage, smoking, diet and levels of exercise all contribute to patterns of consumption.¹⁸⁵ More research is needed, but current evidence suggests that limiting liquor outlet saturation in an area may have multiple beneficial flow-on effects on a community’s health and wellbeing.¹⁸⁶

Some Australian researchers also argue that measuring alcohol consumption through numbers of liquor outlets is an inherently flawed methodology. Another approach suggests measuring the volume of total alcohol consumption sold within a specific area or population.¹⁸⁷

As with concentrations of fast food outlets in an area, Victorian councils have reported difficulties in opposing packaged liquor outlets on public health grounds. Warrnambool City Council stated in their submission:

¹⁷⁹ Alcohol and Chronic Disease Prevention Position Statement, Australian Chronic Disease Prevention Alliance, 2.

¹⁸⁰ Alcohol and Chronic Disease Prevention Position Statement, Australian Chronic Disease Prevention Alliance, 2-4.

¹⁸¹ M Livingston, *Association between increased density of alcohol outlets and harmful outcomes*, presentation, Turning Point Alcohol and Drug Centre, University of Melbourne, <http://bit.ly/z23zqu> accessed 20 January 2011.

¹⁸² Alcohol Policy Coalition, *Submission No. 33*, 30 June 2011, 1.

¹⁸³ National Public Health Partnership 2009 *Australia: The Healthiest Country By 2020*, 20; T Chikritzhs et al, ‘Predicting alcohol-related harms from licensed outlet density: a feasibility study’, Monograph Series No. 28. National Drug Law Enforcement Research Fund, 2007, Hobart, xii, 18; M Livingston et al, ‘Diverging trends in alcohol consumption and alcohol-related harm in Victoria’, *Australian and New Zealand Journal of Public Health*, 2010, 34 (4): 368-373; M Livingston, *Using geocoded liquor licensing data in Victoria – The socioeconomic distribution of alcohol availability in Victoria*, VicHealth, Melbourne, 2011, 9; National Drug Research Institute 2007 *Restrictions on the Sale and Supply of Alcohol: Evidence and Outcomes*, National Drug Research Institute, Curtin University of Technology, Perth, 2007, 30; N Donnelly et al, ‘Liquor outlet concentrations and alcohol-related neighbourhood problems’, *Alcohol Studies Bulletin*, NSW Bureau of Crime Statistics and Research, April 2006, 8: 1-15.

¹⁸⁴ ‘Restrictions on the Sale and Supply of Alcohol: Evidence and Outcomes’, National Drug Research Institute, 31-32; PJ Gruenewald and L Remer, ‘Changes in Outlet Densities Affect Violence Rates’, *Alcoholism: Clinical and Experimental Research*, July 2006, 30 (7): 1184–1193; M Livingston, ‘Alcohol outlet density and harm: Comparing the impacts on violence and chronic harms’, *Drug and Alcohol Review*, September 2011, 30 (5): 515–523; N Donnelly et al, ‘Liquor outlet concentrations and alcohol-related neighbourhood problems’, 2.

¹⁸⁵ ‘Restrictions on the Sale and Supply of Alcohol: Evidence and Outcomes’, National Drug Research Institute, 190.

¹⁸⁶ M Livingston, *Association between increased density of alcohol outlets and harmful outcomes*; M Evans et al, *Responsible Takeaway Alcohol Hours Bill 2010*, 3.

¹⁸⁷ T Chikritzhs et al, ‘Predicting alcohol-related harms from licensed outlet density’, xiv; National Drug Research Institute 2007 *Restrictions on the Sale and Supply of Alcohol: Evidence and Outcomes*, 29-30.

As the City is growing the Council is receiving more applications for liquor licensing of new premises. Whilst it has power around planning applications, decision making criteria are open to interpretation. The definition of 'amenity' is very subjective and therefore open to interpretation.¹⁸⁸

There are some international precedents where government bodies have powers to limit liquor outlets in an area. In the USA, California's laws restricts liquor licences on a per-capita basis, and in the UK, the *Violent Crime Reduction Act 2006* (UK) includes provisions to make licensees contribute to the costs of alcohol-related crime in 'Alcohol Disorder Zones' where a concentration of premises have led to 'high rates of problems'.¹⁸⁹

A change was made to the Victoria Planning Provisions in April 2011. Previously, bottle shops were exempt from certain planning laws and were not required to apply for planning permits from local government before applying for a packaged liquor license. Clause 52.27 (Licensed premises) was altered 'to require a planning permit to use land to sell packaged liquor; clarify the circumstances when a planning permit is required under the Clause; and improve the readability of the Clause.'¹⁹⁰ This will now 'require bottle shops to justify their presence in the community in the same way as other licensed premises.'¹⁹¹

Recommendation 4

That the Victorian Government:

- works with VicHealth to commission further Victorian research into the cumulative health and wellbeing impacts of the density of packaged liquor outlets on a community
- strengthens planning mechanisms to allow local government to regulate the oversupply of packaged liquor outlets.

3.5 Socio-economic status

*So far as is possible, no one should be disadvantaged by their surroundings and no one group should be healthier than another, simply by virtue of where they live.*¹⁹²

Research shows that people living in lower socio-economic status (SES) areas can be more vulnerable to risk factors which can lead to or exacerbate chronic disease.¹⁹³ Many complex and interrelated factors must be taken into account when assessing the relationship between SES and health, such as gender, cultural, ethnic and linguistic background, and access to health services and education.

¹⁸⁸ Warrnambool City Council, *Submission No. 13*, 30 June 2011, 7.

¹⁸⁹ M Livingston, *Association between increased density of alcohol outlets and harmful outcomes*.

¹⁹⁰ 'Victoria Planning Provisions', Department of Planning and Community Development, 2010, <http://bit.ly/HLFsDt>; 'Planning approval now required for packaged liquor outlets', Department of Planning and Community Development, 12 April 2011, <http://bit.ly/vJNr2M> accessed 25 October 2011.

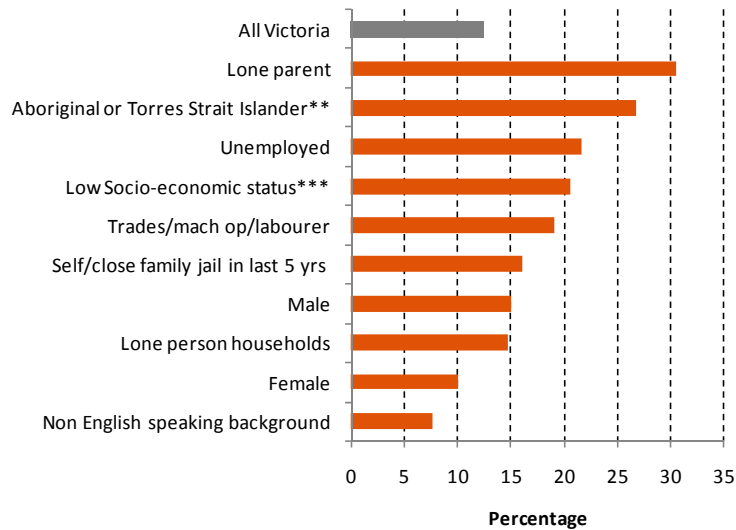
¹⁹¹ 'Coalition Government gives communities a say on bottle shops', media release, Department of Premier and Cabinet, 1 April 2011, <http://bit.ly/ACGOGm> accessed 25 October 2011.

¹⁹² 'Modernising Victoria's Planning Act – A discussion paper on opportunities to improve the Planning and Environment Act 1987', Obesity Policy Coalition, 2009, 2, <http://bit.ly/wUs0Ck> accessed 25 October 2011.

¹⁹³ *HBEF literature review – The Built Environment and Providing Healthy Food Options*, Healthy Built Environments Program, University of New South Wales, Sydney, 2012, 88; JD Glover et al, 'The socioeconomic gradient and chronic illness and associated risk factors in Australia', *Australia and New Zealand Health Policy*, 2004, 1 (8).

Figure 5 shows the relationship between social factors and the prevalence of chronic heart disease and type 2 diabetes risk factors. Around 20 percent of Victorians in the most socio-economically disadvantaged quintile have four or five of these risk factors.

Figure 5: Percentage of Victorians with four or five chronic heart disease or type 2 diabetes risk factors, by social factor



Source: Department of Health 2011 *Metropolitan Health Plan Technical Paper*, Victorian Government, Melbourne, 21. ** Australian figures *** Lowest Socio-Economic Indexes for Areas quintile

While obesity is found in young and old, in urban and rural populations and across ethnic groups in Australia,¹⁹⁴ it is ‘particularly prevalent among men and women in the most disadvantaged socio-economic groups’, such as people without post-secondary school qualifications, Indigenous Australians and those born overseas.¹⁹⁵ A US-based meta-analysis of several studies investigating obesity and the built environment in lower SES areas found that ‘disadvantaged groups were living in worse environments with respect to food stores, places to exercise, aesthetic problems, and traffic or crime-related safety.’¹⁹⁶ Another comprehensive review showed that residents of low SES areas had poorer access to supermarkets and healthy food, while having higher access to fast food outlets and sources of energy-dense food.¹⁹⁷

In their submission, the Municipal Association of Victoria similarly reported that low SES areas often contain ‘fewer supermarkets, and have a higher density of convenience stores offering fewer healthy choices, higher prices, and around 2.5 times more exposure to fast food outlets.’¹⁹⁸ As Ms Kellie-Ann Jolly, Director of Cardiovascular Health at the Heart Foundation (Victoria), told the Committee, ‘if

¹⁹⁴ J Garrard, *Taking action on obesogenic environments*, 5.

¹⁹⁵ National Preventative Health Taskforce 2009 *Technical Report 1 – Obesity in Australia: a need for urgent action*, report prepared by the Obesity Working Group, Commonwealth of Australia, Canberra, 1; see also Department of Health 2011 *Metropolitan Health Plan Technical Paper*, 25.

¹⁹⁶ GS Lovasi et al, ‘Built Environments and Obesity in Disadvantaged Populations’, *Epidemiologic Reviews*, 2009, 31: 7.

¹⁹⁷ NI Larson et al, ‘Neighborhood environments: disparities in access to healthy foods in the U.S.’ *American Journal of Preventive Medicine*, January 2009, 36 (1): 74.

¹⁹⁸ Municipal Association of Victoria, *Submission No. 61*, July 2011, 22; Ms K Jolly, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 59.

you only give people information and advice about healthy eating and exercise but parents cannot buy the food they need to prepare those meals because their only options for groceries are the gas station or the local mini mart, then all that is just talk.’¹⁹⁹

A Geelong-based study under Professor Evelyne de Leeuw of Deakin University discovered:

... there are neighbourhoods, even here in Melbourne, where people have a hard time getting access to nutritious foods. My students last year looked at different neighbourhoods in Geelong. In Norlane in Corio, which is in the lower end of the socio-economic spectrum, there are seven fast food outlets.²⁰⁰

As with fast food, VicHealth notes that there is a pattern that the more socio-economically disadvantaged an area, the more packaged liquor outlets there typically are, ‘potentially exacerbating already-existing health inequalities.’²⁰¹ A Victoria-based study demonstrated that in urban areas, both takeaway and licensed liquor outlets ‘were significantly more likely to be located in areas of socio-economic disadvantage’, while in rural and regional areas, all types of liquor outlets were more prevalent in low SES areas.²⁰²

The University of Melbourne’s Victorian Lifestyle and Neighbourhood Environment Study looked at the food, alcohol and exercise patterns of almost 5000 people across 50 areas in Melbourne. Among other findings, they discovered that residents in low SES areas were less likely to purchase fruit and groceries that are low in fat, salt and sugar, or to exercise at levels that are sufficient for health. People in low SES areas were also more likely to buy fast food, and men were more likely to consume alcohol at harmful levels.²⁰³ Low SES areas generally had more fast food and alcohol stores than higher SES areas and fewer walking paths.²⁰⁴ The authors concluded:

The lower level of healthy behaviours found in low SES areas occurs even after we statistically adjust for the socio-economic characteristics of people who are living in disadvantaged areas. This suggests that physical and other characteristics of low SES areas are impacting on people’s ability to engage in activities that promote good health.²⁰⁵

Other studies have shown a socio-economic influence in participation in physical activity: people living in low income areas are less likely to do regular exercise ‘partly because the environments in which they live are less conducive to it.’²⁰⁶

¹⁹⁹ Ms K Jolly, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 60.

²⁰⁰ Prof E de Leeuw, *Transcript of Evidence*, 7 September 2011, 225.

²⁰¹ VicHealth, *Submission No. 47*, 11 July 2011, 7.

²⁰² M Livingston, ‘The social gradient of alcohol availability in Victoria, Australia’, *Australian and New Zealand Journal of Public Health*, February 2012, 36 (1): 41–47; M Livingston, *Using geocoded liquor licensing data in Victoria*, 8.

²⁰³ A Kavanagh et al, *Place does matter for your health*, 6.

²⁰⁴ A Kavanagh et al, *Place does matter for your health*, 8.

²⁰⁵ A Kavanagh et al, *Place does matter for your health*, 6.

²⁰⁶ R Mitchell and F Popham, ‘Effect of exposure to natural environment on health inequalities’, *The Lancet*, 8 November 2008, 372 (9650): 1655; see also A Bauman et al, *Getting Australia active: towards better practice for the promotion of physical activity*, National Public Health Partnership, Melbourne, 2002, 20.

They are less likely to walk for exercise,²⁰⁷ and are less likely to use neighbourhood recreational facilities than those living in high SES areas.²⁰⁸ This perpetuates a cycle where poor health is maintained in the communities most vulnerable to it.

The 2007 *National Health Survey: Mental Health* showed that Australians of lower SES exhibit higher rates of mental illness, particularly depression and certain anxiety disorders.²⁰⁹ This is also true in Victoria: people from lower SES areas experience a disproportionate amount of mental illness compared to those from higher SES areas.²¹⁰

Residents of low SES areas also tend to have higher rates of respiratory infections from damp and mould. A Victorian Council of Social Service study of Melbourne rental properties found that 19 percent showed 'visible and extensive mould.'²¹¹

Poor health in low SES areas can be multi-generational, presenting challenges for local governments to break patterns of unhealthy behaviour. The City of Maribyrnong told the Committee of the difficulties of running health programs in areas of entrenched disadvantage: 'It has been Council's experience that trying to influence individual behaviour change through health promotion programs and health education without having a built environment to support these efforts will have only a marginal impact.'²¹² Mr Nick Matteo, Manager of Community Planning and Advocacy at the City of Maribyrnong, further described some of these frustrations in changing unhealthy patterns within their community:

One of the ongoing challenges we have at council is that we have intergenerational poor health in areas of disadvantage where you have got, based on planning decisions, concentrations of electronic gaming machines, packaged liquor and fast food outlets. All have a cumulative and exponential impact on communities without us having the capacity to balance with fresh food, supermarkets and other things.²¹³

3.6 Ageing population

As in many developed countries, decreasing fertility and increasing life expectancy rates have created a growing ageing population in Australia.²¹⁴ Victoria's ageing population will impact significantly on already-rising rates of chronic disease; the

²⁰⁷ CBM Kamphuis et al, 'Socioeconomic differences in lack of recreational walking among older adults: the role of neighbourhood and individual factors', *International Journal of Behavioral Nutrition and Physical Activity*, 2009, 6: 1-11.

²⁰⁸ B Giles-Corti and RJ Donovan, 'Socioeconomic status differences in recreational physical activity levels and real and perceived access to a supportive physical environment', *Preventive Medicine*, December 2002, 35 (6): 601-611.

²⁰⁹ *National Survey of Mental Health and Wellbeing: Summary of Results 2007*, Australian Bureau of Statistics, 2008, <http://bit.ly/rKPfA7> accessed 25 November 2011.

²¹⁰ Department of Human Services 2006 *Victorian Population Health Survey 2005 – Selected findings*, Victorian Government, Melbourne, 60; S Begg et al, *Burden of disease and injury in Australia 2003*, Australian Institute of Health and Welfare, Canberra, 2007, 3-4, 108-110.

²¹¹ Victorian Council of Social Service, *Submission No. 49*, 8 July 2011, 9.

²¹² Maribyrnong City Council, *Submission No. 52*, July 2011, 3.

²¹³ Mr N Matteo, Maribyrnong City Council, *Transcript of Evidence*, 6 September 2011, 166.

²¹⁴ 'Population by Age and Sex, Australian States and Territories, Jun. 2010' Australian Bureau of Statistics, 2010, <http://bit.ly/5XIX8o> accessed 25 November 2011.

longer people live, the more chronic disease and disability they are likely to experience.²¹⁵

In 2001, one in six Victorians were 'seniors', aged over 60 years. By 2010, this increased to one in four,²¹⁶ and by 2051, around 27 percent of the state's population will be aged over 65, equating to between 1.7 and 2.1 million people.²¹⁷ Over the past two decades, the number of older people aged 85 and over has increased by 170.6 percent, compared with a total population growth of 30.9 percent over the same period.²¹⁸

Apart from chronic disease, conditions that often correlate with age such as dementia (including Alzheimer's disease, vascular dementia and Parkinson's disease), are predicted to rise rapidly. The Department of Health and Ageing reports that after the age of 65, the likelihood of being diagnosed with dementia doubles every five years.²¹⁹ Alzheimer's disease – which affects between 50 and 70 percent of all dementia sufferers – can develop at any age, but is most common in Australians over 65.²²⁰ Dementia is currently the single greatest cause of disability in older Australians; 1,600 new cases are diagnosed nationally each week, a figure projected to rise to 7,400 new diagnoses each week by 2050.²²¹

This has considerable implications for future health service provision, labour force participation, adequate aged-care accommodation and the social and emotional health of older people and their families. On average, a person over the age of 75 will use five times as many healthcare services as a person under that age.²²² A recent Ambulance Victoria report warns that their services are struggling to keep up with the state's ageing and population growth, which now 'accounts for about 25 per cent of the increase in emergency demand.'²²³

Research suggests that the onset of dementia may be delayed by regular physical activity and dietary choices.²²⁴ Gardening activities, for example, often can have both physical and cognitive benefits for those living with dementia.²²⁵

²¹⁵ Planning Institute of Australia and VicHealth, 'Putting health at the centre of planning', 2, <http://bit.ly/IEfjmC> accessed 20 September 2011; Heart Foundation (Victoria), *Submission No. 55*, July 2011, 10; Ms K Jolly, Heart Foundation (Victoria), Transcript of Evidence, 4 August 2011, 63.

²¹⁶ Planning Institute of Australia and VicHealth, 'Putting health at the centre of planning', 2.

²¹⁷ Council on the Ageing (Victoria), *Submission No. 58*, 11 July 2011, 2.

²¹⁸ 'Population by Age and Sex, Australian States and Territories, Jun 2010', Australian Bureau of Statistics.

²¹⁹ 'Dementia', Department of Health and Ageing, 2011, <http://www.health.gov.au/dementia> accessed 22 March 2012; see also Productivity Commission 2005 *Economic Implications of an Ageing Australia*, Commonwealth of Australia, Canberra, 176-177.

²²⁰ 'Types of dementia', Alzheimer's Australia, <http://bit.ly/ImTbkj> accessed 22 March 2012.

²²¹ 'Statistics: National Facts and Figures 2012', Alzheimer's Australia, <http://bit.ly/HcPrQn> accessed 22 March 2012.

²²² Department of Health 2011 *Metropolitan Health Plan Technical Paper*, 46; see also 'Urgent reform needed so all Australians can Age Well', media release, Council on the Ageing, 22 December 2011, <http://bit.ly/wxM6ow> accessed 22 March 2012.

²²³ Ambulance Victoria 2009 *Ambulance Victoria Strategic Plan 2010 – 2012, Draft For Consultation*, Ambulance Victoria, Melbourne, 3; see also JA Lowthian et al, 'The challenges of population ageing: accelerating demand for emergency ambulance services by older patients, 1995–2015', *Medical Journal of Australia*, 2011, 194: 574–578.

²²⁴ Alzheimer's Australia 2004 *Dementia Research: A Vision for Australia*, Canberra, 11, <http://bit.ly/HLYpFa> accessed 22 March 2012.

²²⁵ 'Dementia-friendly environments – A guide for residential care: Gardens and outdoor spaces', VicHealth, 2011, <http://bit.ly/Ht1U1G>; 'Gardens – A Joy Forever', Dementia Care Australia, 2012, <http://bit.ly/HLYE30>; C Marshall, 'Flagship dementia care garden sets new standard in patient care', ABC News, 23 February 2011, <http://bit.ly/gIPgZh>; B Nogrady, 'Exercise keeps dementia at bay', ABC News, 3 September 2008, <http://bit.ly/Hzf14F> accessed 22 March 2012.

3.7 Climate change

*This is the critical decade. Decisions we make from now to 2020 will determine the severity of climate change our children and grandchildren experience.*²²⁶

In 2009, medical journal *The Lancet* devoted a special edition to investigating the negative health effects of climate change, and suggested strategies to mitigate them. A summary of the studies concluded:

The threat of climate change has generated a global flood of policy documents, suggested technical fixes, and lifestyle recommendations. One widely held view is that their implementation would, almost without exception, prove socially uncomfortable and economically painful. But as a series of new studies shows, in one domain at least – public health – such a view is ill founded. If properly chosen, action to combat climate change can, of itself, lead to improvements in health.²²⁷

Climate change is thought to have contributed to several recent global weather events, including heatwaves.²²⁸ During a Victorian heatwave from 26 January to 1 February 2009, maximum temperatures were 12-15°C above normal. According to the subsequent official report, Ambulance Victoria recorded:

- a 25 percent increase in total emergency cases and a 46 percent increase over the three hottest days
- a 34-fold increase in cases with direct heat-related conditions
- a 2.8-fold increase in cardiac arrest cases.²²⁹

Of the 374 Victorians who died as a result of the heatwave, the majority were over 75 years old.²³⁰ The Victorian government subsequently launched a health initiative *Staying healthy in the heat*, to educate Victorians about how to avoid heat-related illness, and provided strategies to prepare for, and mitigate against, the health impacts of heatwaves.²³¹

The 2009 official government report on the heatwave concluded that the threat of climate change ‘has demonstrated that prolonged extremely high temperatures are a major hazard for Victorians that we must now expect and continue to

²²⁶ ‘The Critical Decade: key messages’, Climate Commission, 2011, <http://bit.ly/jxvyyx>; see also Department of Health 2011 *Victorian Public Health and Wellbeing Plan 2011–2015*, 23; Attorney-General’s Department 2010 *Australia to 2050: future challenges*, Commonwealth of Australia, Canberra, vii-xxvi; Victorian Climate Change Act 2010, *Preamble*, <http://bit.ly/HLZiNU> accessed 4 November 2011.

²²⁷ ‘The health benefits of tackling climate change’, *The Lancet*, 2009, 1-8, <http://bit.ly/zsco48> accessed 4 November 2011.

²²⁸ ‘Sustainable cities and coasts’, Commonwealth Scientific and Industrial Research Organisation, 2011, <http://bit.ly/l4QOKj> accessed 4 November 2011; Department of Human Services 2009 *January 2009 Heatwave in Victoria: an Assessment of Health Impacts*, Victorian Government, Melbourne, 15; Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 8; Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 13; Australian Institute of Landscape Architects, ‘National Policy Statement: Retrofitting Urban Environments’, AILA, Canberra, 2011, 2; A Capon, ‘The view from the city’, *World Health Design*, July 2011, 8; Heart Foundation (Victoria), *Submission No. 55*, July 2011, 13; Ms D Parnell, Council on the Ageing (Victoria), *Transcript of Evidence*, 23 August 2011, 91-92; S Rahmstorf, ‘Climate Change – State of the Science’, Potsdam Institute for Climate Impact Research, Germany, 2010, <http://bit.ly/HCSgAP> accessed 3 December 2012; JA Patz et al, ‘Impact of regional climate change on human health’, *Nature*, 17 November 2005, 438: 310-317; D Campbell-Lendrum and C Corvalan, ‘Climate Change and Developing-Country Cities: Implications For Environmental Health and Equity’, *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 2007, 84 (1): i110-i111.

²²⁹ Department of Human Services 2009 *January 2009 Heatwave in Victoria*, iv.

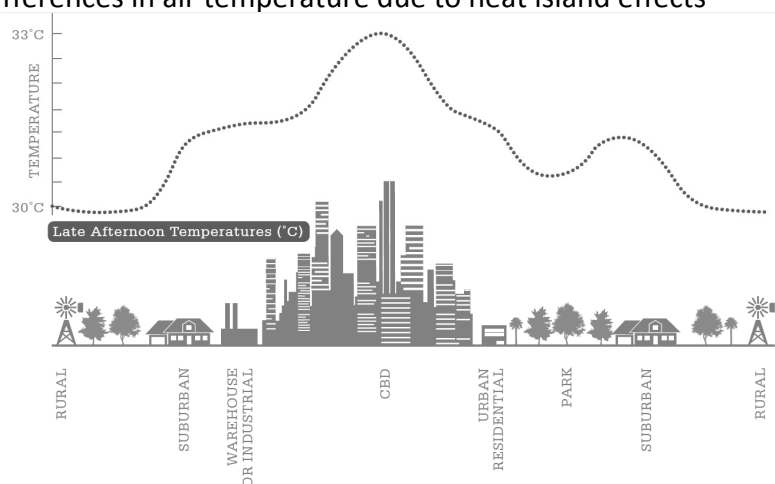
²³⁰ Department of Human Services 2009 *January 2009 Heatwave in Victoria*, iv; Department of Climate Change and Energy Efficiency 2011 *The Critical Decade: Climate Change and Health*, Climate Commission Secretariat, Commonwealth of Australia, Canberra, 11. This number represents the excess deaths over what would be expected for that time of year.

²³¹ ‘Staying healthy in the heat’ Department of Health, 2010, <http://bit.ly/x3n1AL> accessed 4 November 2011.

prepare for in order to reduce harm.²³² The Commonwealth Scientific and Industrial Research Organisation similarly predicts that the ‘duration, intensity and frequency’ of heatwaves will continue to increase over the next century.²³³

Compounding the potential health dangers of rising temperatures in urban areas is the ‘heat island’ effect. Figure 6 shows a typical heat island effect on temperature between urban and rural environments.

Figure 6: Differences in air temperature due to heat island effects



Source: Department of Climate Change and Energy Efficiency 2011 *The Critical Decade: Climate Change and Health*, Climate Commission Secretariat, Commonwealth of Australia, Canberra, 12.

Urban heat islands have four main contributory factors: lack of green spaces; roads and dark building materials like asphalt and concrete that absorb and trap heat; combustive processes from vehicles and industry; and ironically, the artificial heat created from air conditioning outflow.²³⁴

Heatwaves can negatively affect health in three main ways: heat cramps, heat exhaustion and heat strokes, the last of which can be fatal.²³⁵ Most heat-related illness is preventable. Those most vulnerable are people over 65, young children, those with chronic diseases such as type 2 diabetes, kidney disease or mental illness, and people with disabilities or mobility issues.²³⁶

Higher temperatures also increase the risk of sunburn and ultimately, skin cancer. SunSmart (the skin cancer control program of Cancer Council Victoria) estimates that each 1°C rise in temperature increases the incidence of basal cell carcinoma and squamous cell carcinoma by three percent and six percent, respectively.²³⁷

Areas that have experienced rapid urbanisation and population growth, such as Sao Paolo in Brazil, have reported heat island effects that raise the temperature in

²³² Department of Human Services 2009 *January 2009 Heatwave in Victoria*, 2.

²³³ Cancer Council Victoria (SunSmart), *Submission No. 30*, 30 June 2011, 7.

²³⁴ CJG Morris, ‘Urban Heat Islands and Climate Change – Melbourne, Australia’, School of Earth Sciences, University of Melbourne, <http://bit.ly/l74bxh> accessed 4 November 2011.

²³⁵ Department of Climate Change and Energy Efficiency 2011 *The Critical Decade*, 11.

²³⁶ ‘Staying healthy in the heat’ Department of Health, 2.

²³⁷ Cancer Council Victoria (SunSmart), *Submission No. 30*, 30 June 2011, 4.

inner city areas by as much as 12°C compared to the city’s edge.²³⁸ Similarly, the US Environmental Protection Agency has determined that the annual mean air temperature of American inner cities with 1 million people or more can be between 1-12°C warmer than outer urban areas.²³⁹ New York City has seen an average increase of 3-4°C above normal temperatures in summer months.²⁴⁰

Studies of inner Melbourne demonstrate a heat island effect of between 2-7°C higher than non-urban areas, depending on location and time of year.²⁴¹ Research shows that an increase in mortality of up to 21 percent over the expected death rate can occur when minimum daily temperatures exceed 24°C.²⁴² With a report by the Department of Climate Change and Energy Efficiency predicting that Australians living in urban centres may face increased temperatures more often in the future (Table 3), the health implications are evident.²⁴³

Table 3: Past and projected number of days over 35°C in Australian capital cities

CITY	2008	2030	2070
Sydney	3.3	4.4	9
Melbourne	9	12	21
Brisbane	0.9	1.7	8
Adelaide	17	22	34
Perth	27	35	56
Canberra	5	8	21
Darwin	9	36	221
Hobart	1.4	1.7	2.5

Source: Department of Climate Change and Energy Efficiency 2011 *The Critical Decade: Climate Change and Health*, Climate Commission Secretariat, Commonwealth of Australia, Canberra, 13.

Heat islands are a particular risk in outer suburban areas where new residential developments often lack green spaces and trees that act as natural cooling mechanisms. In evidence to the Committee, Wyndham City Council recorded their concern over the creation of heat islands in new housing developments, due to a combination of reduced lot sizes and shrinking backyards.²⁴⁴

The Council showed the Committee an aerial photo of typical recent low density housing developments in the Point Cook area, demonstrating the sprawl of large houses on small blocks and a concomitant lack of open and green spaces (Figure 7).

²³⁸ Mr J Ginivan, Department of Planning and Community Development, *Transcript of Evidence*, 31 August 2011, 137.

²³⁹ ‘Heat Island Effect’, United States Environmental Protection Agency, 10 March 2012, <http://www.epa.gov/heatislands/> accessed 29 March 2012.

²⁴⁰ C Rosenzweig et al, *Mitigating New York City’s Heat Island with Urban Forestry, Living Roofs, and Light Surfaces*, report prepared for the New York State Energy Research and Development Authority by the Columbia University Center For Climate Systems Research & NASA/Goddard Institute For Space Studies, 2006, 6, <http://1.usa.gov/yHyr4s> accessed 29 March 2012; P Lynch, ‘Bright Is The New Black: New York Roofs Go Cool’, 7 March 2012, National Aeronautics and Space Administration, <http://1.usa.gov/l74BUn> accessed 29 March 2012.

²⁴¹ AM Coutts et al, ‘The urban heat island in Melbourne: drivers, spatial and temporal variability, and the vital role of stormwater’, Monash University, Melbourne, 2009, 1-2, <http://bit.ly/Ht5FUJ> accessed 28 March 2012.

²⁴² AM Coutts et al, ‘The urban heat island in Melbourne’, 2.

²⁴³ Department of Climate Change and Energy Efficiency 2011 *The Critical Decade*, 12-13.

²⁴⁴ Wyndham City Council, *Submission No. 62*, 26 July 2011, 16-17.

Figure 7: Aerial view of housing developments in Point Cook, City of Wyndham

Source: Wyndham City Council

A 2011 Victorian Environmental Assessment Council report noted that ‘the urban heat island effect is likely to increase as urban densification increases in Melbourne and the climate warms’, increasing the need for adequate green spaces in urban areas.²⁴⁵

While the potential health impact of poor air quality was outlined in Chapter 2, there is also a negative synergistic effect between climate change and air pollution. Greenhouse gas emissions in particular can exacerbate the effects of climate change. The main causes of this are lack of green spaces and car exhaust. One study showed that car-related emissions are responsible for an estimated 80 percent of carbon monoxide, 60 percent of nitrogen oxides, 40 percent of volatile organic compounds and 30 percent of particulate matter in Melbourne’s air.²⁴⁶ Any transport modes that reduce car use will slow the impact of climate change, improve air quality and by extension, reduce chronic disease.²⁴⁷

Car exhaust releases carbon monoxide, carbon dioxide, particulate matter, nitrogen oxides and hydrocarbons into the atmosphere.²⁴⁸ When exposed to sunlight and high temperatures, nitrogen oxides and hydrocarbons create surface ozone, which can contribute to cardiovascular and respiratory illnesses such as asthma.²⁴⁹ The heatwave experienced in Europe during the summer of 2003, which the World Health Organization estimates was responsible for 70,000 excess deaths, was associated with very high ozone levels.²⁵⁰ A 2011 report by the Climate

²⁴⁵ Victorian Environmental Assessment Council 2011, *Metropolitan Melbourne Investigation, Final Report*, Victorian Government, Melbourne, 26.

²⁴⁶ M Dennekamp and M Carey, ‘Air quality and chronic disease: why action on climate change is also good for health’, *NSW Public Health Bulletin*, 2010, 21 (5–6): 118.

²⁴⁷ M Dennekamp and M Carey, ‘Air quality and chronic disease’, 115.

²⁴⁸ H Frumkin, ‘Urban Sprawl and Public Health’, *Public Health Reports*, May-June 2002, 117: 202.

²⁴⁹ H Frumkin, ‘Urban Sprawl and Public Health’, 202; Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 7; ‘Climate change and health’, World Health Organization, 2010, <http://bit.ly/vYagd> accessed 4 November 2011.

²⁵⁰ DJ Jacob and DA Winner, ‘Effect of climate change on air quality’, *Atmospheric Environment*, 2009, 43 (1): 51-63; see also PA Stott et al, ‘Human contribution to the European heatwave of 2003’, *Nature*, 2 December 2004, 432: 610-614; E Black et al, ‘Factors contributing to the summer 2003 European heatwave’, *Weather*, 2004, 59: 217-223; ‘Climate change and health’, World Health Organization; D Campbell-Lendrum and C Corvalan, ‘Climate Change and Developing-Country Cities’, i111.

Commission states that levels of both ozone and airborne allergens (such as pollen which is also increased by high temperatures)²⁵¹ are likely to rise in the future.²⁵²

One study of the European heatwave concluded that ‘Because of climate change, such heat waves may occur more frequently in the future and may gradually overshadow the effect of reduced emissions from anthropogenic [human-generated] sources’.²⁵³ Another similarly determined that ‘the observed correlation between surface ozone and temperature in polluted regions’ means that ‘climate change alone will increase summertime surface ozone in polluted regions by 1–10 ppb [parts-per-billion] over the coming decades, with the largest effects in urban areas and during pollution episodes.’²⁵⁴

Urban planners and developers have an opportunity to play an important role in mitigating the potential future effects of climate change, such as encouraging environments that reduce car use and greenhouse gas emissions, installing and retrofitting energy-efficient heating and cooling systems in houses, and investing in more green public spaces to improve air quality and mitigate urban heat islands. For asthma sufferers, for example, living in an area where there are trees has been shown to have positive effects by reducing the particulate matter in the air.²⁵⁵ Researchers have argued that a cross-sectoral approach to health promotion in the built environment is crucial to mitigating the future effects of climate change on public health.²⁵⁶

While Victoria has recently experienced a variety of extreme weather events that impacted on the built environment and public health, such as bushfires, floods and storms, the Committee did not receive evidence on these particular areas.²⁵⁷

Recommendation 5

That the Victorian Government urgently develops a whole-of-government response to the emerging health problems stemming from poor air quality and the urban heat island effect in Melbourne. As part of this, the design of residential communities should prioritise tree planting and green spaces to provide shade, improve respiratory health and to lower ambient temperatures in summer months.

²⁵¹ ‘Climate change and health’, World Health Organization.

²⁵² Department of Climate Change and Energy Efficiency 2011 *The Critical Decade*, 17-19.

²⁵³ S Solberg et al, ‘European surface ozone in the extreme summer 2003’, *Journal of Geophysical Research*, 2008, 113 (D7).

²⁵⁴ DJ Jacob and DA Winner, ‘Effect of climate change on air quality’, 51–63.

²⁵⁵ Assoc Prof J Fitzgerald, VicHealth, *Transcript of Evidence*, 23 August 2011, 84-85.

²⁵⁶ M Younger et al, ‘The Built Environment, Climate Change, and Health Opportunities for Co-Benefits’, *American Journal of Preventive Medicine*, 2008, 35 (5): 517.

²⁵⁷ For further information on such events, see Victorian Floods Review 2011 *Review of the 2010–11 Flood Warnings & Response: Final Report*, Victorian Government, Melbourne; 2009 Victorian Bushfires Royal Commission 2010 *Victorian Bushfires Royal Commission – Final Report Summary*, Parliament of Victoria, Melbourne; House of Representatives Standing Committee on Social Policy and Legal Affairs 2012 *In the Wake of Disasters: Volume One: The operation of the insurance industry during disaster events*, Commonwealth of Australia, Canberra. The Parliament of Victoria’s Environment and Natural Resources Committee is currently undertaking an *Inquiry into Flood Mitigation Infrastructure in Victoria*, and is due to report in late 2012.

Chapter 4: Urban growth and public health

The United Nations reported in 2007 that for the first time in global history, more people lived in cities than in rural areas.²⁵⁸ Rapid and increasing urbanisation is creating ‘mega-cities’ of over ten million people, with the world’s population expected to reach nine billion by the mid-twenty-first century.

Victoria’s population is growing at a rate of around 1.8 percent annually, with Melbourne accounting for 79.6 percent of this growth in 2009-10.²⁵⁹ According to the Australian Bureau of Statistics, some of the fastest population growth in Australia is taking place in the outer suburban fringes of Melbourne.²⁶⁰ These areas are under increasing pressure to provide adequate land, housing and infrastructure for new residential communities.

Dr Howard Frumkin, a leading US researcher on the built environment and public health, defines the principal features of urban sprawl as:

... low residential and employment density; separation of distinct land uses such as housing, employment, and retail sales; low connectivity among destinations; weak and dispersed activity centers and downtowns; and heavy reliance on automobiles with few available transportation alternatives.²⁶¹

Frumkin and others have contributed to an emerging body of literature that links low density suburban development with poor public health, particularly chronic disease and obesity.²⁶²

This chapter discusses several issues relating to urban development in Victoria, including the role of housing density in promoting healthier communities; the challenges of service delivery in rapidly growing outer suburban communities; how environmental design can reinforce sedentary lifestyles through car dependence and long commuting times; and the specific health challenges of urban renewal developments.

4.1 Urban population growth

Melbourne will have a predicted population of five million residents in less than two decades.²⁶³ Figure 8 shows the areas of Victoria experiencing the fastest population growth, with many in the outer suburban areas of Melbourne. The City

²⁵⁸ AG Capon, ‘The way we live in our cities’, *Medical Journal of Australia*, 2007, 187: 658.

²⁵⁹ ‘Regional Population Growth, Australia, 2009-10’, Australian Bureau of Statistics, 2012, <http://bit.ly/HAs6IG> accessed 20 February 2012.

²⁶⁰ ‘Regional Population Growth, Australia, 2009-10’, Australian Bureau of Statistics, 2012.

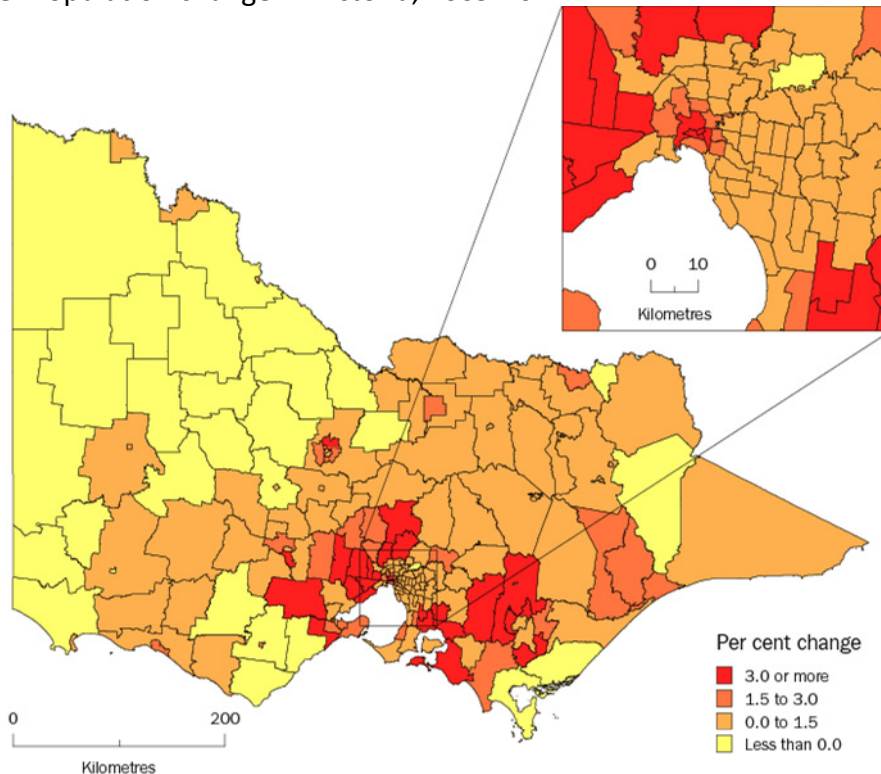
²⁶¹ H Frumkin, ‘Healthy Places: Exploring the Evidence’, *American Journal of Public Health*, September 2003, 93 (9): 1454.

²⁶² Heart Foundation (Victoria), *Submission No. 55*, July 2011, 15; Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 9-10; Dr M Beavis, *Submission No. 11*, 27 June 2011, 2-3; UWA Centre for the Built Environment and Health, *Submission No. 27*, 29 June 2011, 1-2; City of Casey, *Submission No. 42*, 6 July 2011, 4; Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 5-6; Prof B Giles-Corti *Transcript of Evidence*, 4 August 2011, 12; Ms K Jolly, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 59; Dr M Carey, Doctors for the Environment Australia Inc., *Transcript of Evidence*, 23 August 2011, 111; Prof E de Leeuw, *Transcript of Evidence*, 7 September 2011, 225; Assoc Prof C Whitzman, *Transcript of Evidence*, 7 September 2011, 266.

²⁶³ Department of Planning and Community Development 2008 *Melbourne 2030: A planning update: Melbourne @ 5 million*, Victorian Government, Melbourne, 2.

of Casey, for example, is expecting its population to double by 2036.²⁶⁴ Every week Wyndham City Council receives 60 birth notifications, 120 requests for a garbage service (from new households), and issues 100 building permits.²⁶⁵

Figure 8: Population change in Victoria, 2009-10



Source: 'Regional Population Growth, Australia, 2009-10', Australian Bureau of Statistics, 2012, <http://bit.ly/HAs6IG> accessed 20 February 2012.

The City of Whittlesea is the fourth fastest growing municipality in Australia and second fastest in Victoria after Wyndham, growing between 10,000 and 15,000 people a year.²⁶⁶ As the City expressed in its submission, 'The rapidity of growth and change in the municipality's established and growth areas means that there is a critical phase for infrastructure delivery over the next fifteen years, one that will directly impact upon the health and wellbeing of our communities.'²⁶⁷

Many Victorian regional cities are also predicting significant population growth in the coming decades.²⁶⁸ Warrnambool's population, for example, grew by 7,578 people between 1989 and 2009.²⁶⁹ Geelong expects a 1.8 percent population growth per year to 2026, an estimated increase of 65,010 people from 2010.²⁷⁰

²⁶⁴ City of Casey, *Submission No. 42*, 6 July 2011, 7.

²⁶⁵ Wyndham City Council, *Submission No. 62*, 26 July 2011, 4.

²⁶⁶ 'Regional Population Growth, Australia, 2009-10', Australian Bureau of Statistics, 2012; City of Whittlesea, *Submission No. 26*, 30 June 2011, 6.

²⁶⁷ City of Whittlesea, *Submission No. 26*, 30 June 2011, 15.

²⁶⁸ 'Regional Population Growth, Australia, 2009-10', Australian Bureau of Statistics, 2012.

²⁶⁹ Warrnambool City Council, *Submission No. 13*, 30 June 2011, 1.

²⁷⁰ 'City statistics', City of Greater Geelong, 2011, <http://bit.ly/HIOBfc> accessed 20 February 2011.

4.2 Service delivery

The Committee heard that Victoria's population growth has put significant pressure on the provision of accommodation, health and community services, active transport, childcare, schools and other necessary infrastructure. The Victorian Council of Social Service noted in their submission that housing in outer suburban regions 'often is concentrated in areas already struggling with fewer amenities and employment opportunities, and less public transport provision and other services.'²⁷¹

In a public hearing, Mr Griff Davis, General Manager – Advocacy and Communications at the City of Whittlesea, further elaborated on the challenges of delivering services in their fast-growing community:

Some of the social trends that are coming out of our new growth areas are very similar to the trends that we have in some of our existing areas. Things like low retention rates at school, family violence, high gambling, all of that sort of stuff is emerging in those newer areas where effectively you have double income families trying to accommodate those mortgages. So just because they have two incomes as a family and they are moving into the outer suburban areas does not mean they are able to cope any more than those who are on welfare or other low income type support ...

The other growth area is over in the western part of our municipality, which is Epping North, and the major development there is the VicUrban Aurora development. That area is a bit slower and is likely to be completely filled with residents in about ten years. We are looking at around 65,000 people in that area as well. Then we have the growth area on top of that where we are expecting another 90,000 people at some point in time, and when we get to around 2030, based on what we know at the moment, those areas will be completed as well, so we will end up with that 300,000 odd population in our municipality. What that means in terms of the community, though, is that without the commensurate increase in service provision and infrastructure provision those people are going to suffer gaps in the ability to access things. Even the basic access requirements for retail shopping, medical services and so forth are going to be very difficult for those people when they are struggling with all of the economic issues of their households, trying to run one or two cars, trying to use roads that effectively are rural roads, not built for the sorts of demands that we are experiencing and, as a consequence, we will find that they will become isolated in terms of what they can do. Instead of being connected and healthy and those sorts of things, they are going to go the other way.²⁷²

Geographical isolation and poor public transport provision limit employment options for many people living in outer suburban and regional areas. The City of Casey observed that their public transport infrastructure is lagging behind demand, with residents experiencing long work commutes by car, doing less physical activity, feeling more socially isolated, and perceiving long distances between their homes and community and recreational facilities:

²⁷¹ Victorian Council of Social Service, *Submission No. 49*, 8 July 2011, 8.

²⁷² Mr G Davis, City of Whittlesea, *Transcript of Evidence*, 6 September 2011, 212.

... if a resident wants to travel to a destination outside their precinct they will more than likely need to drive. Firstly, fixed rail services are either not connected to new PSP [Precinct Structure Plan] areas, or in one case are delivered so long after development is complete that initial residents and their families will likely have to wait the best part of a generation to see such services.²⁷³

For parents who stay at home to raise children in outer suburban areas and who may not have access to a car or nearby public transport, the potential social isolation can have significant impacts on their physical and mental wellbeing.²⁷⁴ As Ms Rose Durey, Policy and Health Promotion Manager at Women's Health Victoria, told the Committee, this can also exacerbate gender divisions of labour:

The separation of residential areas from centres of work, such as the CBD [Central Business District], perpetuates gender stereotypes, with many highly educated and skilled women forced to work in lower skilled jobs closer to home in order to be available to their children. At the same time, men are forced to trade time with their children and families for long commutes and long working hours.²⁷⁵

4.3 Housing density and mixed land use

While there are several definitions of density in urban planning,²⁷⁶ for the purposes of this report, residential density refers to 'the number of dwellings per hectare on land devoted solely to residential development.'²⁷⁷ Many contributors to the Inquiry observed that housing density is increasingly relevant to whether residents in a community live in an environment that encourages health and wellbeing.²⁷⁸ Literature reviews confirm this observation, while also suggesting that density alone does not influence physical activity – rather, density seems to work in combination with a variety of other factors, such as mixed land use developments and particular design elements of the built form.²⁷⁹

In Melbourne, the high density residential patterns of the nineteenth century inner city created an urban environment that was walkable and connected by public transport. However from the mid-twentieth century in Australia, the trend has

²⁷³ City of Casey, *Submission No. 42*, 6 July 2011, 10-11.

²⁷⁴ City of Casey, *Submission No. 42*, 6 July 2011, 3; Dr M Beavis, *Transcript of Evidence*, 4 August 2011, 52-53; Women's Health Victoria, *Submission No. 4*, 27 June 2011, 2.

²⁷⁵ Ms R Durey, Women's Health Victoria, *Transcript of Evidence*, 7 September 2011, 249.

²⁷⁶ A Forsyth, *Measuring Density: Working Definitions for Residential Density and Building Intensity*, Design Center for American Urban Landscape, College of Architecture and Landscape Architecture, University of Minnesota, 2-5.

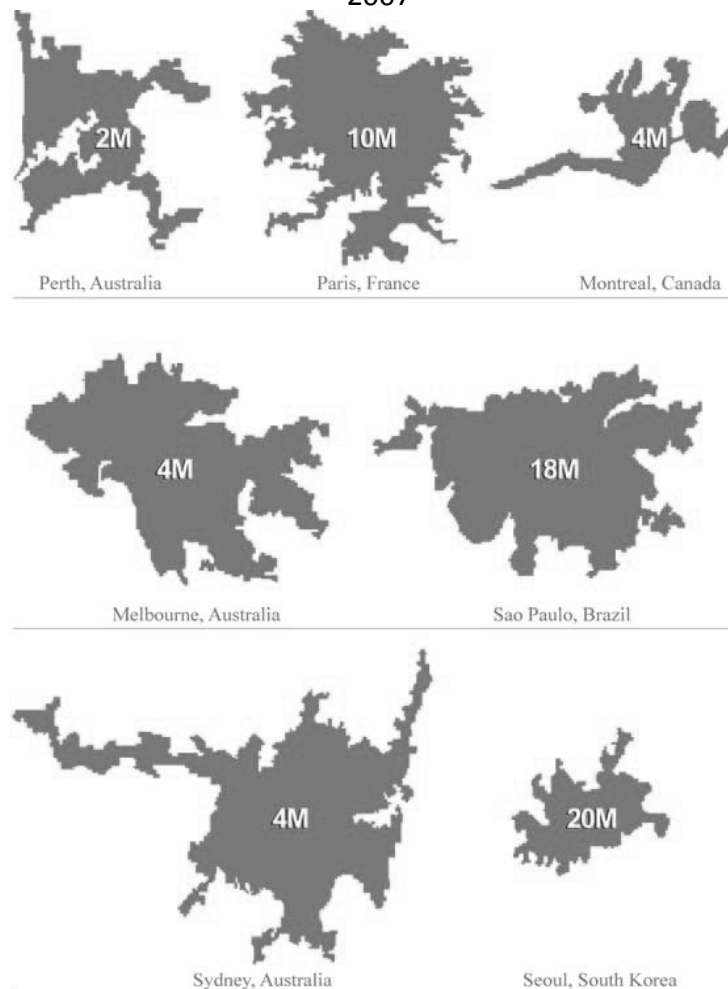
²⁷⁷ *Understanding Residential Densities: A Pictorial Handbook of Adelaide Examples*, Government of South Australia, 2006, 5, <http://bit.ly/wGOyo2> accessed 20 January 2011.

²⁷⁸ UWA Centre for the Built Environment and Health, *Submission No. 27*, 29 June 2011, 1-3; Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 5-7; Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 8-9; Dr M Beavis, *Submission No. 11*, 27 June 2011, 2-3; Australian Institute of Landscape Architects, *Submission No. 12*, 27 June 2011, 7; SJB Urban, *Submission No. 20*, 30 June 2011, 3; Parks Victoria, *Submission No. 29*, June 2011, 6, 12; City of Boroondara, *Submission No. 31*, 27 June 2011, 8-9, 16; City of Casey, *Submission No. 42*, 6 July 2011, 8, 14-15; Yarra City Council, *Submission No. 45*, June 2011, 6; Victorian Council of Social Service, *Submission No. 49*, 8 July 2011, 4; C McNaughton, *Submission No. 53*, 11 July 2011, 2; Heart Foundation (Victoria), *Submission No. 55*, July 2011, 16, 25; Victorian Local Governance Association, *Submission No. 56*, 13 July 2011, 36; Planning Institute Australia (Victorian Division), Cancer Council Victoria (SunSmart), City of Port Phillip, Physical Activity Australia, Victorian Council of Social Service and Victorian Local Governance Association, *Submission No. 59*, 13 July 2011, 12, 20-21; Municipal Association of Victoria, *Submission No. 61*, July 2011, 13-14; Wyndham City Council, *Submission No. 62*, 26 July 2011, 18; Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 9; City of Melbourne, *Submission No. 44*, 7 July 2011, 5-6; City of Ballarat *Submission No. 19*, 30 June 2011, 2, 5.

²⁷⁹ J Kent et al, *Healthy Built Environments: A review of the literature*, Healthy Built Environments Program, University of New South Wales, Sydney, 2011, 50-51.

shifted to cities that are low density and/or decentralised, with separated land uses and arterial and cul-de-sac based street designs.²⁸⁰ Consumer preferences and wide private car ownership since the 1950s 'allowed developers to omit walkability and public transport from the equation'.²⁸¹ Many residential developments in Melbourne's outer suburbs and Victoria's regional areas are continuing patterns of low urban density, with rows of large, detached houses.²⁸² Figure 9 shows how Australian cities have sprawled over large areas of land in comparison with other international cities with higher populations.

Figure 9: Scale map of various international and Australian cities' urban land use, 2007



Source: Grattan Institute 2010 *The Cities We Need*, Grattan Institute, Melbourne, 9.

The Environment Defenders Office (Victoria) Ltd stated in their submission:

The sprawling low-density development that has characterised urban growth in Victoria for the last 50 years or more is a serious problem for sustainability and

²⁸⁰ P Newman, 'Re-imagining the Australian Suburb Seminar', presentation to Royal Melbourne Institute of Technology, Melbourne, 18 October 2005, 3-4; see also Grattan Institute 2010 *The Cities We Need*, Grattan Institute, Melbourne, 8-10; B Giles-Corti, 'The impact of urban form on public health', paper prepared for the 2006 Australian State of the Environment Committee, Department of the Environment and Heritage, Canberra, 2006, 2.

²⁸¹ Australian Institute of Landscape Architects, *Submission No. 12*, 27 June 2011, 12.

²⁸² On average, Australia now has the largest houses in the world; at over 200 square metres, they are double the average size of 1950s houses: 'Inner city housing more energy efficient than 7 star suburban homes: study', *The Melbourne Newsroom*, University of Melbourne, <http://newsroom.melbourne.edu/print/10086>; D Miletic, 'Welcome to Victoria, home to super-sized houses', *The Age*, 30 November 2009, <http://bit.ly/87dW7r> accessed 6 December 2011; see also Grattan Institute 2010 *The Cities We Need*, 8-11.

public health. It perpetuates our dependency on private motor vehicle transport, extending the time and distance that Victorians must spend in cars. It also reduces the green wedges and open spaces on the urban fringe, which are important for their biodiversity values and the contribution they can make to public health.²⁸³

Discussions of residential density can elicit strong emotions from both the planning and wider communities. Increasing density 'is feared by those who imagine ugly buildings, overshadowed open space, parking problems, and irresponsible residents', while those who support it emphasise 'urbane streetscapes, efficient infrastructure supply, walkable neighborhoods, and increased housing options.'²⁸⁴

The Committee was informed by the Department of Planning and Community Development (DPCD) that 'The density that we aspire to in the growth areas now is about 15 lots per hectare.'²⁸⁵ However several of the Inquiry's submissions and witnesses advocated for housing densities of between 25 and 30 dwellings per hectare 'to develop sustainable, walkable neighbourhoods'.²⁸⁶ Urban design company SJB Urban argued in their submission:

... it is much less expensive, and more efficient, to provide infrastructure for compact, diverse urban areas, than dispersed, low-density areas. More compact development also results in more efficient usage of infrastructure, including utilities, streets, community spaces, parks and so on.²⁸⁷

Similarly, Professor Billie Giles-Corti stated to the Committee:

... research shows that we need at least 35 houses per hectare to be able to achieve good mixed-use development that is supported by public transport. We need more of this sort of housing — that is, the sort of thing you get in inner-city Melbourne, and much less of this (lower density housing). We talk about affordable housing on the fringe, but the problem with that is that you cannot get enough public transport out there because the densities are low. I notice, looking at the new growth area, that we are trying to get about 15 houses per hectare out there; it will not be enough to support good public transport, which means that people will still be having to drive, while fuel prices are increasing. The estimates by CSIRO are that they could go up to \$8 a litre. That is going to put enormous pressure on people living on the fringe in terms of affordable living, not just affordable housing.²⁸⁸

Dr Margaret Beavis observed:

I believe that building sprawling, largely single use, poorly serviced suburbs is indefensible from a public health perspective. We need developments with density of around 26 dwellings per hectare, with mixed use and good provision for active transport – walking, cycling and public transport. Building car dependent suburbs in the name of cheap housing is very false economy – and will create massive liabilities both in health and economic terms for decades to come.²⁸⁹

²⁸³ Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 9.

²⁸⁴ A Forsyth, *Measuring Density: Working Definitions*, 2.

²⁸⁵ Mr D Hodge, Department of Planning and Community Development, *Transcript of Evidence*, 31 August 2011, 135.

²⁸⁶ Dr M Beavis, *Submission No. 11*, 27 June 2011, 2; Warrnambool City Council, *Submission No. 13*, 30 June 2011, 2.

²⁸⁷ SJB Urban, *Submission No. 20*, 30 June 2011, 3.

²⁸⁸ Prof B Giles-Corti, *Transcript of Evidence*, 4 August 2011, 13.

²⁸⁹ Dr M Beavis, *Submission No. 11*, 27 June 2011, 3.

As points of comparison, the *Metropolitan Plan for Sydney 2036* released in 2010 recommended higher general housing densities in urban areas, but at a density of 25 to 60 dwellings per hectare, over 60 dwellings around larger centres and less than 25 dwellings only in heritage or physically constrained areas.²⁹⁰ The South East Queensland Regional Plan 2009-2031 aims to achieve a minimum net dwelling yield of 15 dwellings per hectare for new residential development in 'development areas', and densities in principal regional activity centres (outside the Brisbane CBD) of around 40-120 dwellings per hectare (net) or greater.²⁹¹

The low density of housing in many outer Melbourne suburbs is often blamed for making public transport not viable in these areas. However some commentators argue that the quality of public transport services is more critical than density in determining demand, and that strategic planning of public transport networks can establish it as a competitive alternative to private cars.²⁹² Others suggest that it is the density and walkability of a precinct immediately around a transport point (such as a railway station) that makes the most difference to the viability of public transport, rather than the overall density of a suburb or area.²⁹³

The Heart Foundation lists other positive health and environmental benefits to higher density development in urban areas:

- increasing the use of active modes of transport and public transport
- improving air quality and reducing traffic congestion
- providing more affordable housing closer to amenity
- reducing the ecological footprint of cities by decreasing the amount of space required for each person.²⁹⁴

The Committee received evidence that when developed well, higher density can attract buyers in outer suburban locations.²⁹⁵ Higher density can lead to the development of local shopping areas, both encouraging a local economy and providing opportunities for physical activity and social interaction when residents walk or cycle there.²⁹⁶ The City of Stonnington noted the importance of local retail areas that 'function as a true social, economic and physical neighbourhood centres.'²⁹⁷

²⁹⁰ NSW Department of Planning 2010 *Metropolitan Plan for Sydney 2036*, NSW Government, Sydney, 106-107.

²⁹¹ Department of Infrastructure and Planning 2009 *South East Queensland Regional Plan 2009-2031*, Queensland Government, Brisbane, 97.

²⁹² J Dodson et al, 'The Principles of Public Transport Network Planning: A review of the emerging literature with select examples', Urban Research Program, Issues Paper 15, Griffith University, Queensland, March 2011, 3; see also Cr G Goodfellow, Wyndham City Council, *Transcript of Evidence*, 23 August 2011, 123. The Outer Suburban/Interface Services Development Committee is currently undertaking an inquiry on *Growing the Suburbs: Infrastructure and Business Development in Outer Suburban Melbourne*, and is due to report in late 2012.

²⁹³ J Walker, 'The perils of average density', *Human Transit*, 26 September 2010, <http://bit.ly/d2Mtaw> accessed 6 December 2011.

²⁹⁴ 'Density and health', Heart Foundation, <http://bit.ly/IEHDoO> accessed 6 December 2011.

²⁹⁵ S McPherson, SJB Urban, *Transcript of Evidence*, 6 September 2011, 153; Prof M Buxton, *Transcript of Evidence*, 4 October 2011, 307-308.

²⁹⁶ Municipal Association of Victoria, *Submission No. 61*, July 2011, 14.

²⁹⁷ City of Stonnington, *Submission No. 40*, 14 July 2011, 8.

Professor Michael Buxton explained to the Committee that higher residential density does not always mean high rise buildings.²⁹⁸ He cited the example of a recent inner city development in East Perth:

It is not high rise. As Jan Gehl and others say, high rise is the lazy way to get density; that is a much more interesting way to get density. There are 35 lots per hectare, and it is very, very liveable. I guess what I am saying here is that when we look at wellbeing we really have to look at amenity, and I do not think this argument has been developed properly in the literature. Amenity is critical to wellbeing. If we build high rise and the undifferentiated, terrible consolidation models that we are building now without any rhyme or reason or rules or sense to it and on the other hand only build the opposite on the fringe, we are building very poor amenity places.²⁹⁹

Research suggests that residential areas offering a range of accommodation options – from detached homes to medium-high apartment complexes and aged care facilities – help create a diverse mix of people, ages, professions and consumer behaviours that drive growth and promote positive public health outcomes.³⁰⁰ This is particularly relevant for Australia's ageing population as a diversity of accommodation options allows 'ageing in place', where older people can remain in their neighbourhoods as their needs change.³⁰¹

Studies show that residents are more likely to walk or cycle for transport when living in areas of high density, mixed land use, street connectivity and access to a range of nearby destinations.³⁰² Such destinations might include food stores, schools, pharmacies, medical centres, childcare facilities, parks, senior citizens centres and cafés, providing:

... local focal points for people to walk or cycle to within their neighbourhood. Local destinations support mixed use, walkable neighbourhoods and reduce dependence on the car for local short journeys. These destinations also naturally attract a range of people of all ages into the community.³⁰³

Psychological health is as important as physical, and studies suggest that higher density communities are more likely to experience better mental health outcomes: 'Integrated, mixed and vibrant urban areas provide plentiful opportunity for informal, interpersonal engagement in the public environment, which is vital for mental health, and combats social isolation.'³⁰⁴ *beyondblue* states that health and wellbeing relates as much to community cohesion as it does to provision of necessary medical services.³⁰⁵

²⁹⁸ Prof M Buxton, *Transcript of Evidence*, 4 October 2011, 309.

²⁹⁹ Prof M Buxton, *Transcript of Evidence*, 4 October 2011, 309.

³⁰⁰ City of Stonnington, *Submission No. 40*, 14 July 2011, 8; S McPherson, *SJB Urban Transcript of Evidence*, 6 September 2011, 153.

³⁰¹ Productivity Commission 2011 *Caring for Older Australians*, Commonwealth of Australia, Canberra, xvi; Municipal Association of Victoria, *Submission No. 61*, July 2011, 25.

³⁰² UWA Centre for the Built Environment and Health, *Submission No. 27*, 29 June 2011, 1; 'Built Environment', Heart Foundation, <http://bit.ly/z010YL> accessed 6 December 2011.

³⁰³ Heart Foundation (Victoria), *Submission No. 55*, July 2011, 16.

³⁰⁴ SJB Urban, *Submission No. 20*, 30 June 2011, 2.

³⁰⁵ M Townsend and M Ebdon, *Feel Blue, Touch Green*, People and Parks Foundation and Deakin University, Melbourne, 2006, 5.

A range of studies including a 2012 Heart Foundation report point out that the impact of high density housing on mental health often relates to environmental stressors provided by the housing's location, design, and construction. These include: high noise levels; poor indoor air quality and light; area crime levels; governance and maintenance of facilities; lack of privacy; enforced or insufficient social interactions; the floor level upon which people live; and the quality of, and access to, neighbourhood resources and amenities such as green and other public open spaces.³⁰⁶

Low quality public housing has been linked with poorer physical and mental health outcomes for its residents than those in non-public housing.³⁰⁷ However it is difficult to prove similar definitive correlations between public housing *density* and poor health, as there are several other socio-economic, cultural and environmental variables to consider.³⁰⁸

The Committee notes that while housing density appears to be important, there are many other variables in developing healthy communities. The University of Western Australia's Centre for the Built Environment and Health's submission states:

In short, there appears to be a threshold: insufficient density is detrimental to health; however, too much density and insufficient attention to building design, the residents, governance and maintenance, its location and the amenity of the local neighbourhood (including public transport, access to public open space, and access to shops and services and recreational opportunities), may also be detrimental to health.³⁰⁹

The Committee heard evidence that as land becomes more valuable, designing for mixed land use is the best utilisation of public spaces in local neighbourhoods. Mixed use activity centres provide 'co-location of jobs, people and facilities',³¹⁰ but also require a 'critical mass' of people within close proximity to patronise them.³¹¹ Higher numbers of people using public spaces also increases the feeling of safety in a community, as well as encouraging feelings of community ownership.³¹²

Recommendation 6

That the Victorian Government, in partnership with universities and relevant community groups, commissions ongoing research to further develop the evidence

³⁰⁶ A Waters, 'Do housing conditions impact on health inequalities between Australia's rich and poor?' Australian Housing and Urban Research Institute, ANU Research Centre, Canberra, 2001, 16; 'Affordable Housing & Homelessness', McAuley Community Services for Women, Melbourne, 2010, 6, <http://bit.ly/Hyvt0H> accessed 26 March 2011; B Giles-Corti et al, *Increasing density in Australia: maximising the health benefits and minimising harm*, National Heart Foundation of Australia, 2012, 7-16, 53-55.

³⁰⁷ B Giles-Corti et al, *Increasing density in Australia*, 49.

³⁰⁸ A Waters, 'Do housing conditions impact on health inequalities?' 2-3; 'Health and socioeconomic disadvantage', Australian Bureau of Statistics, 2010, 1-5; *Guidelines for health housing*, World Health Organization, Copenhagen, 1988, 5, <http://bit.ly/HMDyHj> accessed 26 March 2012.

³⁰⁹ UWA Centre for the Built Environment and Health, *Submission No. 27*, 29 June 2011, 2.

³¹⁰ Department of Infrastructure and Transport 2011 *Our Cities, Our Future: A national urban policy for a productive, sustainable and liveable future*, Commonwealth of Australia, Canberra, 63; see also Australian Institute of Landscape Architects, *Submission No. 12*, 27 June 2011, 5.

³¹¹ SJB Urban, *Submission No. 20*, 30 June 2011, 2.

³¹² SJB Urban, *Submission No. 20*, 30 June 2011, 2-3.

base for the impact of the built environment and urban design on public health and wellbeing.

Recommendation 7

That the Victorian Government amends the Victoria Planning Provisions to encourage greater housing density and minimum requirements of open space, while maintaining choice in the market.

4.4 'Affordable housing' and car dependency

New outer urban housing developments are often marketed in terms of their 'affordability'. The Committee heard evidence, however, that the affordability calculation often does not include costs associated with transport or the difficulties in accessing the necessary amenities to support good community health. Professor Giles-Corti described such a scenario to the Committee, where people 'move into a house where there is nothing and suddenly realise that to live there is actually quite expensive because they do need to get the extra car and they do have to drive their children everywhere. In terms of the cost of living it is actually quite high.'³¹³

Similarly, Professor Anthony Capon of the Australian National University's National Centre for Epidemiology and Population Health, stated at a public hearing:

... at the moment we are principally focusing on the cost of getting the housing ready for market. We are not thinking about the long-term cost of living in that house and the transport task and all of the additional costs that are imposed on the people who will live in those places long-term.³¹⁴

Urban expansion can place 'the economies of the city in one place and the residential areas in another'.³¹⁵ An estimated 93 percent of the more than 300,000 people who work in the City of Melbourne come from other municipalities, with the CBD responsible for employing 57 percent of the working population.³¹⁶

In growing areas like the City of Wyndham, the majority of its residents must still travel outside the area for employment. According to a submission from the Council, inadequate public transport means that residents predominantly use cars to travel, worsening traffic congestion, air pollution and time poverty.³¹⁷

Long work commutes can impact on the free time individuals have for health-promoting activities such as regular exercise, outdoor recreation, and accessing and cooking healthy food.³¹⁸ One study of people who bought property further from metropolitan areas and their employment noted that 'Men and women, with

³¹³ Prof B Giles-Corti, *Transcript of Evidence*, 4 August 2011, 19; see also Outer Suburban Interface Services & Development Committee, *Inquiry into liveability options in outer suburban Melbourne*, corrected transcripts, Parliament of Victoria, Melbourne, 2011, 189.

³¹⁴ Prof A Capon, ANU National Centre for Epidemiology and Population Health, *Transcript of Evidence*, 4 August 2011, 33.

³¹⁵ Prof A Capon, ANU National Centre for Epidemiology and Population Health, *Transcript of Evidence*, 4 August 2011, 34.

³¹⁶ '2006 City of Melbourne Workers Census Demographic Profile', City of Melbourne, 2008, 3-5, <http://bit.ly/AmAIZE> accessed 5 January 2012.

³¹⁷ Wyndham City Council, *Submission No. 62*, 26 July 2011, 10.

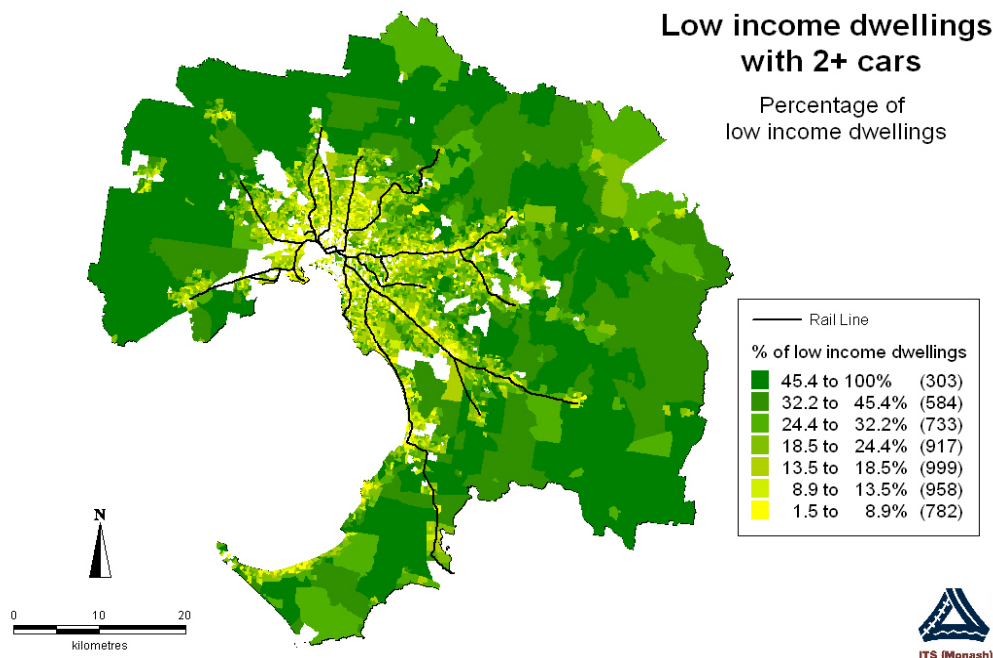
³¹⁸ Assoc Prof J Fitzgerald, VicHealth, *Transcript of Evidence*, 81-82.

and without children were looking for ways to “manage” work; many were struggling to reconcile their suburban dream with their exhausted reality.³¹⁹

The typically low density housing developments in outer suburban areas tend to go hand in hand with high car dependency for their residents. In some outer Melbourne areas with little or no public transport provision, residents are in a situation of ‘forced car ownership’, having to travel long distances to work and community activity centres.³²⁰ The cost of owning and running cars often mitigates the perceived savings of living further from inner city areas. The RACV has estimated that a Holden Commodore, one of the most popular cars in Victoria, costs about \$12,000 a year to run.³²¹ As Dr Beavis observed, ‘If you put that on your mortgage, it means that those houses are no longer affordable.’³²²

In Victoria’s rural regions too, there is often forced car ownership. Cars are owned at lower-income levels, yet due to the lack of other transport options are seen as vital.³²³ In one study for example, for low income households with a net income of less than \$500 per week, running two cars can represent as much as 50 percent of earned income. Figure 10 shows the percentage of low income dwellings with two or more cars, demonstrating that the further the area from the city, the more reliance on cars for transport.

Figure 10: Percentage of low income dwellings with two or more cars in Melbourne



Source: G Currie and Z Senbergs, ‘Exploring forced car ownership in metropolitan Melbourne’, *Australasian Transport Research Forum*, 2007, 7.

³¹⁹ P Williams et al, *Linked up Lives: Putting Together Work, Home and Community in Ten Australian Suburbs, Overview Report*, Centre for Work and Life, University of South Australia, Adelaide, 2009, 13.

³²⁰ G Currie and Z Senbergs, ‘Exploring forced car ownership in metropolitan Melbourne’, *Australasian Transport Research Forum*, 2007, 1.

³²¹ D Wood, ‘Pay as you go’, *Royalauto*, RACV, July 2010, 60-66.

³²² Dr M Beavis, *Transcript of Evidence*, 4 August 2011, 54.

³²³ G Currie and Z Senbergs, ‘Exploring forced car ownership’, 4.

Car dependency can contribute to the creation of obesogenic environments.³²⁴ Several studies suggest that people living in areas of urban expansion and high car dependency are likely to be overweight or obese.³²⁵ One US study showed that each daily hour spent in a car was associated with a six percent increase in the likelihood of obesity, while each additional kilometre walked per day was associated with an almost five percent decrease.³²⁶ Increased car use means less time for physical activity or the incidental exercise people receive when using public transport. Long commutes lead many parents to combine trips and drive their children to school on the way to and from their work,³²⁷ also decreasing children's opportunities for daily exercise through walking or cycling to school.

However, car dependency is not always necessarily linked to long distances caused by urban expansion. Of all trips taken by Victorians across all transport modes, 55 percent are less than five kilometres and 74 percent are less than ten kilometres.³²⁸ Walking or cycling could replace many such short trips taken by car and provide much-needed physical activity. However, encouraging people to leave the car at home and walk or cycle is dependent on providing the necessary walking and cycling paths and networks. Chapter 7 discusses this in more detail.

4.5 Urban renewal

There are currently several large urban renewal projects planned for inner Melbourne on brownfield sites (areas of former industrial and commercial facilities), including Fishermans Bend and E-Gate. There are also ongoing developments (such as Docklands) and smaller renewal projects such as the Bradmill site in the City of Maribyrnong (see case study in Chapter 8).

Victorian governments have invested in several urban renewal and regeneration projects in recent years. The *Neighbourhood Renewal* initiative, for example, aimed to redress social disadvantage in areas of public housing around Melbourne and regional Victoria. The program included building and improving accommodation and community infrastructure, and incorporated several health and wellbeing objectives.³²⁹

Soil and groundwater contamination, air and noise pollution, dust and odour are some of the potential health challenges that come with residential development on brownfield sites. Adverse health outcomes and conflicts arising from

³²⁴ Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 6; R Trubka et al, 'Gen 85: The cost of urban sprawl – physical activity links to health care costs and productivity', *Environmental Design Guide*, April 2010, 2.

³²⁵ Planning Institute of Australia 2009 *Healthy Spaces and Places: A national guide to designing places for healthy living – An overview*, PIA, Australian Local Government Association and the National Heart Foundation of Australia, 1; Planning Institute of Australia 2011 *Healthy Spaces and Places, Design Principle – Connectivity and Permeability*, PIA, Canberra, 4; see also H Frumkin, 'Urban Sprawl and Public Health', 205.

³²⁶ LD Frank et al, 'Obesity relationships with community design, physical activity, and time spent in cars', *American Journal of Preventive Medicine*, 2004, 27: 87-96; H Frumkin, 'Urban Sprawl and Public Health', 205.

³²⁷ Mr M Hopkins, Department of Transport, *Transcript of Evidence*, 6 September 2011, 199.

³²⁸ Mr M Hopkins, Department of Transport, *Transcript of Evidence*, 6 September 2011, 198.

³²⁹ 'About Neighbourhood Renewal', State Government of Victoria, 2010, <http://bit.ly/lZdKQn> accessed 5 January 2012.

incompatible land uses can often be foreseen and mitigated by ensuring that environmental issues are fully investigated early in the planning process.

The Committee heard there is considerable scope for Victoria to improve in this regard. A 2011 Victorian Auditor-General's Report estimated that there are around 10,000 contaminated sites in Victoria, any of which 'may pose imminent or long-term risks to human health and the environment.'³³⁰ It concluded that a fragmented, ambiguous planning system and ad hoc applications of a 'complex regulatory framework that has evolved to deal with contaminated sites has significant gaps, and key elements lack clarity. In many cases, this has led to a lack of accountability and responsibility, and subsequent inaction.'³³¹ The report noted that the majority of contaminated site issues are dealt with by local councils, who lack the technical expertise to adequately assess both short- and long-term health risks, and lack funding to undertake recommended land contamination assessments and audits.³³²

One of the report's case studies illustrated the serious potential health risks of building residential developments on contaminated land:

Site A is a residential area within the City of Maribyrnong. It includes 22 properties that are known to be built on contaminated land. Maribyrnong City Council first identified the contamination in 1994, but did not report it to the EPA until 1998. Furthermore, 12 of these properties pose a potential health risk to children as contaminant levels exceeded recommended criteria, and a further four pose an actual risk due to children residing at these properties. The remaining six properties are potentially contaminated, with potential health risks.³³³

The Environment Defenders Office (Victoria) Ltd concurred that the legal and planning framework for dealing with contaminated land needs significant reform:

This will be crucial if the Government's policy of urban renewal in places like Fishermans Bend and E-Gate is to remain safe and successful. At present, the laws that regulate development on potentially contaminated land are complex and fragmented, making it difficult for councils to know with confidence that they are not permitting development on contaminated land. The standards of assessment and remediation that previous industrial land must meet before they can be approved for development must be significantly strengthened, such that councils cannot fail to heed them.³³⁴

The Committee also received evidence from Environment Protection Authority Victoria (EPA (Vic)), advocating for its involvement in a wider range of planning issues. While EPA (Vic) is a mandatory referral authority for some developments, it noted that significant health gains could come from involving it in up-front strategic planning and design:

³³⁰ Victorian Auditor-General 2011 *Managing Contaminated Sites*, VAGO, Melbourne, vii. The Victorian Auditor-General defines contaminated sites as areas of land and groundwater 'where chemical and metal concentrations exceed those specified in policies and regulations' (1).

³³¹ Victorian Auditor-General 2011 *Managing Contaminated Sites*, vii-viii.

³³² Victorian Auditor-General 2011 *Managing Contaminated Sites*, xi-xii.

³³³ Victorian Auditor-General 2011 *Managing Contaminated Sites*, 21.

³³⁴ Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 11.

In terms of the kinds of input that we really think is most valuable, it is both at the strategic planning stage and at the specific proposal stage, because it is often in the broad layout of land uses and compatibility of adjoining land uses and thinking through those issues where some gains can be made in terms of avoiding land uses which by their nature are going to always be somewhat difficult where you have a significant industry separated from residents simply by a road, and in some cases that is always going to be difficult and there are opportunities to deal with that at the strategic planning stage and also when we are considering specific development proposals. At this stage there is a portion of those for which EPA is mandated, or the planning system is mandated to refer to EPA for advice, but it is only a small portion of the development proposals, and there is the opportunity for us to look at what is the range of proposals that should come to EPA for advice to assist in making more informed planning decisions.³³⁵

The Committee notes that there are specific potential health issues with brownfield land that must be taken in to consideration when scoping for future development and that EPA (Vic) should be consulted early in the planning process.

Recommendation 8

As part of its response to the Victorian Auditor-General's reports in relation to contaminated sites, the Victorian Government, together with local government:

- undertakes a systematic and coordinated review of its contaminated land sites audit and considers its implications for health and wellbeing
- reviews the current legislative framework for developing contaminated land with a view to making it clearer and more consistent.

Recommendation 9

That Environment Protection Authority Victoria plays an increased strategic role at an early stage in major land use planning decisions.

4.6 Design for older people and the disabled

Several groups gave evidence to the Committee of the importance of considering the particular needs of older people and the disabled in urban planning and design – both in the community and at home.³³⁶ Urban design that allows all people to safely move around and engage with neighbourhood public spaces is important for creating community spirit and diversity, and ensuring that no group is marginalised or isolated by their environment.³³⁷ The Municipal Association of Victoria brought

³³⁵ Mr S McConnell, Environment Protection Authority Victoria, *Transcript of Evidence*, 6 September 2011, 185.

³³⁶ Council on the Ageing (Victoria), *Submission No. 58*, 11 July 2011, 4-6; Victorian Council of Social Service, *Submission No. 49*, 8 July 2011, 4, 8-9; Ms D Parnell, Council on the Ageing (Victoria), *Transcript of Evidence*, 23 August 2011, 93; City of Boroondara, *Submission No. 31*, 27 June 2011, 15-17; City of Stonnington, *Submission No. 40*, 14 July 2011, 8; VicHealth, *Submission No. 47*, 11 July 2011, 6-7; City of Casey, *Submission No. 42*, 6 July 2011, 14; Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 8; Planning Institute Australia (Victorian Division), Cancer Council Victoria (SunSmart), City of Port Phillip, Physical Activity Australia, Victorian Council of Social Service and Victorian Local Governance Association, *Submission No. 59*, 13 July 2011, 2; Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 13; Deakin University's Centre for Physical Activity and Nutrition Research, *Submission No. 16*, 30 June 2011, 3; SJB Urban, *Submission No. 20*, 30 June 2011, 3; I Butterworth, *The Relationship Between the Built Environment and Wellbeing: a Literature Review*, VicHealth, Melbourne, 2000, ii; Productivity Commission 2011 *Caring for Older Australians*, xix.

³³⁷ Deakin University's Centre for Physical Activity and Nutrition Research, *Submission No. 16*, 30 June 2011, 3.

attention to the fact that people living with physical disabilities face significant challenges relating to urban design, particularly in outer suburban areas.³³⁸

Chronic disease – and particularly in the case of older people, osteoarthritis³³⁹ – often limits mobility. Ageing populations will increasingly rely on public transport as ‘a generation of car lovers forego their private vehicles due to health, environment or economic reasons.’³⁴⁰ If older people are not living within walking distance of an accessible and safe public transport system, it may be difficult for them to shop, join in community activities and maintain an active lifestyle which would promote health and wellbeing. Research suggests that regular physical activity can help to delay the onset of dementia in older people.³⁴¹

The Committee observes that under the previous Victorian government a process was started to introduce minimum standards for ‘universal design’ features in new housing. The Victorian Council of Social Service defines these as:

... housing designed to be used by all people to the greatest extent possible. Homes designed to a universal standard are liveable for the majority of the population and accommodate whatever comes along in life easily and inexpensively.³⁴²

In 2009, a VISIBLE and ADAPTABLE Housing Regulatory Impact Statement (RIS) issued by DPCD proposed four of these features as minimum requirements for accessible and adaptable housing:

- a clear path from the street to a level entry
- wider doorways and passages
- an entry-level toilet suitable for people with limited mobility
- reinforced bathroom walls to allow grab rails to be fitted inexpensively if needed.³⁴³

The RIS noted that 96 percent of new homes built in Victoria lack these basic accessibility features.³⁴⁴ Taking into account unquantified benefits (such as reduced hospital stays, better quality homes and ageing in place) and unquantifiable participation and equity benefits, the RIS claimed that the financial benefits of mandating these features would outweigh the costs.³⁴⁵

In evidence at a public hearing, Council on the Ageing (Victoria) (COTA (Vic)) informed the Committee that this work was not completed prior to the change of government, despite bipartisan support. Ms Debra Parnell from COTA (Vic) stated

³³⁸ Municipal Association of Victoria, *Submission No. 61*, July 2011, 19.

³³⁹ Dr J Carnie, Department of Health, *Transcript of Evidence*, 14 September 2011, 283.

³⁴⁰ Municipal Association of Victoria, *Submission No. 61*, July 2011, 19.

³⁴¹ EB Larson et al, ‘Exercise Is Associated with Reduced Risk for Incident Dementia among Persons 65 Years of Age and Older’, *Annals of Internal Medicine*, January 17, 2006, 144 (2): 73-81.

³⁴² R Nissim, *Universal Housing, Universal Benefits: A Victorian Council of Social Service discussion paper on universal housing regulation in Victoria*, Victorian Council of Social Service, Melbourne, 2008, 3.

³⁴³ Department of Planning and Community Development 2009 *Visible and Adaptable Features in Housing: Regulatory Impact Statement*, Victorian Government, Melbourne, 6.

³⁴⁴ Department of Planning and Community Development 2009 *Visible and Adaptable Features in Housing*, 8.

³⁴⁵ Department of Planning and Community Development 2009 *Visible and Adaptable Features in Housing*, 15.

that the health of older Victorians and those with disabilities and impaired mobility would benefit from renewed action on housing standards:

The things that we particularly want to see in place around universal housing is a clear path from the street to a level entry for access to a house, wider doorways and passageways, as you have identified, and that they not be just minimal standards, because we are recognising that wheelchairs, for example, and scooters are becoming larger to accommodate and be more useful for people. So that really needs to be considered — not only how people can get in but how they can manoeuvre around the house. We want a toilet suitable for people with limited mobility and that that be on the entry level so that people visiting the house can also access a suitable toilet. We also want to see reinforced bathroom walls so that houses can be retrofitted at minimal cost later on when people decide they need to have rails or they need other facilities in the house.

At the moment we know that retrofitting houses when people develop mobility issues is so costly that it is prohibitive, which means that people either have to struggle with living in a house that is no longer appropriate or they need to leave that house, which has a whole lot of impacts on them socially and in terms of their health. The other issue, when that happens or when the house becomes no longer appropriate for them, is we know that is one of the reasons that people go into residential care. Because the house is not appropriate, people cannot come in to give them the appropriate services. Often it is not feasible for them to move to a new house because of the value of the asset, how much it costs to move and all those sorts of issues. The other thing that we would also ask for is that there be a provision of an entry-level shower.

A lot of work was done in relation to these issues. Under the previous government there was, we believe, bipartisan support for these things, and they were just very unfortunate circumstances that these regulations that were proposed were not passed and put into action. We feel it is something that could be done very easily at very minimal cost. I think for new houses it was brought down to be about \$500 per new dwelling to put these provisions in. We see this is something that would have a significant impact for a lot of people. It is a very small and easy thing to do but would really impact on thousands of people and their ability to stay in their home and stay connected to their communities.³⁴⁶

The Victorian Universal Housing Alliance argue that retrofitting existing housing and community facilities to ensure accessibility by all sectors of the community is more expensive than including it in initial planning, costing ‘government – and taxpayers – millions of dollars each year in hospital admissions, home care, early aged care admissions and expensive modifications’.³⁴⁷ For example, one study showed that providing appropriate and supported housing for older people delayed their entry into residential care by an average of six years.³⁴⁸

³⁴⁶ Ms D Parnell, Council on the Ageing (Victoria), *Transcript of Evidence*, 23 August 2011, 93.

³⁴⁷ ‘Victorian Universal Housing Alliance Platform’, Victorian Universal Housing Alliance, 2008, 1, <http://bit.ly/AsIMzp> accessed 30 November 2011. The Victorian Universal Housing Alliance includes Victorian Council of Social Service, the Victorian Local Governance Association, Council on the Ageing (Victoria), the Chronic Illness Alliance, the Housing Resource and Support Service, Cities of Melbourne, Port Phillip and Yarra, Planning Institute of Australia (Victorian Division), and the Wyndham City Council.

³⁴⁸ Council on the Ageing (Victoria), *Submission No. 58*, 11 July 2011, 5.

Recommendation 10

That the Victorian Government supports the introduction of design standards for new housing to ensure access for seniors and people with limited mobility.

Recommendation 11

That the Victorian Government works with local government, developers, the building industry and community groups to ensure that universal design principles that improve accessibility are applied to all aspects of the built environment, including the maintenance and retrofitting of existing building stock, roadways, cycling and pedestrian paths, and public transport infrastructure.

The Committee further recommends that the Department of Planning and Community Development assesses progress and reports back to the Parliament annually on measures taken to improve the accessibility of the built environment in Victoria.

Chapter 5: Health in planning: legislation, guidelines and policy approaches

*By creating a planning system that is health-focused, and fair and equitable, all people can be influenced to make healthier decisions and improve their quality of life.*³⁴⁹

This chapter discusses the evidence received on Victoria's planning system, including planning legislation and subordinate instruments, guidelines and associated planning policy approaches.

As outlined in previous chapters, there is a well established body of literature linking the built environment and public health. The principles of creating healthy urban places are also increasingly well understood and documented; over the last decade, various practical checklists, toolkits and voluntary guides have become available for those involved in developing land in Victoria. Examples include the Heart Foundation's *Healthy by Design*³⁵⁰ and the Victorian Government's *Environments for Health* framework.³⁵¹ Around Australia and overseas, governments and others are producing similar resources, such as the Department of Health and Ageing's *Healthy Spaces and Places*,³⁵² the New South Wales Department of Health's *Healthy Urban Development Checklist*,³⁵³ and the City of New York's *Active Design Guidelines*.³⁵⁴

However the overarching message from participants in this Inquiry is that voluntary checklists and resources are not enough. Public health must be made a priority throughout Victorian planning legislation, subordinate instruments and policy, as part of the state's response to the health challenges facing Victorians. The Committee has identified readily achievable opportunities for this in order to drive 'on the ground' change in the way the environment is built or renewed.

5.1 Planning and Environment Act 1987

The *Planning and Environment Act 1987* ('the Act') articulates the high level objectives and legislative framework governing the operation of Victoria's planning schemes. The stated purpose of the Act is 'to establish a framework for planning the use, development and protection of land in Victoria in the present and long-term interests of all Victorians.'³⁵⁵

³⁴⁹ *Modernising Victoria's Planning Act – A discussion paper on opportunities to improve the Planning and Environment Act 1987*, Obesity Policy Coalition, 2009, 3, <http://bit.ly/wUs0Ck> accessed 30 November 2011.

³⁵⁰ 'Healthy by Design, Victoria', Heart Foundation, <http://bit.ly/zYXWwA> accessed 30 November 2011

³⁵¹ Department of Human Services 2001 *Environments for Health – Promoting Health and Wellbeing through Built, Social, Economic and Natural Environments, Municipal Public Health Planning Framework*, Victorian Government, Melbourne, 2001.

³⁵² 'Healthy Spaces and Places', Department of Health and Ageing, <http://bit.ly/bjFixD> accessed 12 October 2011.

³⁵³ NSW Department of Health 2009 *Healthy Urban Development Checklist: A guide for health services when commenting on development policies, plans and proposals*, NSW Government, Sydney.

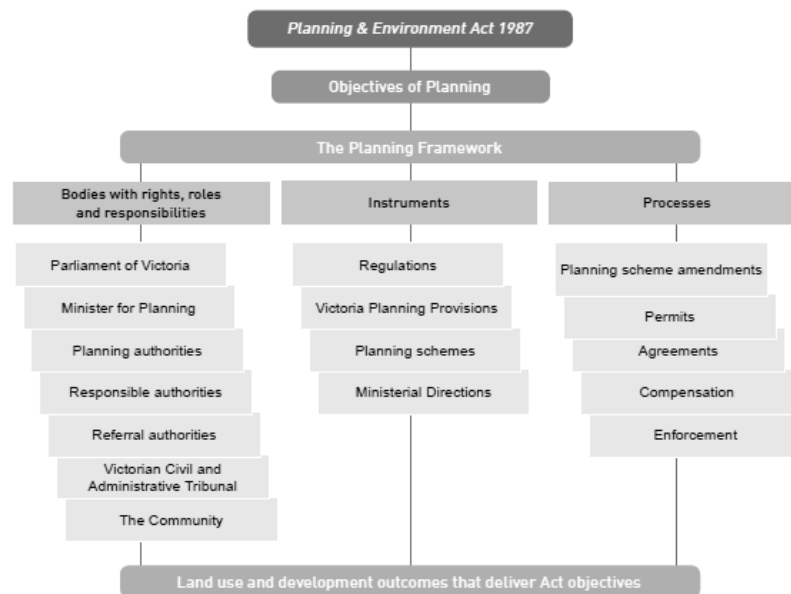
³⁵⁴ *Active Design Guidelines: Promoting Physical Activity and Health in Design*, City of New York, 2010, <http://bit.ly/9d3pQ7> accessed 30 November 2011.

³⁵⁵ Victorian Government, *Planning and Environment Act 1987*, s. 1.

The Act is ‘enabling legislation’; it does not precisely define the scope of planning, how it should be done, or the detailed rules that apply to land use and development. These and other more detailed matters are dealt with by subordinate instruments under the Act, such as the Victoria Planning Provisions (discussed below), local planning schemes, regulations and Ministerial Directions.³⁵⁶

Victoria’s planning system is notably complex. Figure 11 depicts the Act within the overall context of the Victorian planning system.

Figure 11: The role of the *Planning and Environment Act 1987* within the Victorian planning system (as at 2009)



Source: Department of Planning and Community Development, ‘Modernising Victoria’s Planning Act: A discussion paper on opportunities to improve the Planning and Environment Act 1987’, Victorian Government, Melbourne, 2009, 11.

Review of the Victorian Planning System

In July 2011, the Minister for Planning, Mr Matthew Guy, called for public submissions to a review of the Victorian planning system. This is the latest in a series of reviews initiated under the previous Victorian government.

The Department of Planning and Community Development (DPCD) advised the Committee that the Victorian Planning System Ministerial Advisory Committee is carrying out the latest investigation. The Advisory Committee will consider all parts of the planning system including the provisions of the Act and how it works; the state and local policy provisions; the operation of zones and overlays; the use of incorporated and reference documents; and the way permit applications and rezoning requests are handled.³⁵⁷

³⁵⁶ Department of Planning and Community Development 2009 *Modernising Victoria’s Planning Act: A discussion paper on opportunities to improve the Planning and Environment Act 1987*, Victorian Government, Melbourne, 10.

³⁵⁷ Department of Planning and Community Development, *Submission No. 63, Attachment One: Background information to support the DPCD submission to the Environment and Planning References Committee Inquiry into Environmental Design and Public Health*, 31 August 2011.

According to the Department's website (February 2012), the Minister received an initial summary report and was due to issue a public response by early 2012.³⁵⁸ Due to this timing, the Committee was unable to consider the summary report or the Minister's response. The Committee notes that outcomes from the review are likely to have an important bearing on many of the matters discussed in this chapter.

Objectives of planning

Section 4(1) of the Act sets out the objectives of planning in Victoria:

- a) to provide for the fair, orderly, economic and sustainable use, and development of land;
- b) to provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;
- c) to secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria;
- d) to conserve and enhance those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value;
- e) to protect public utilities and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community;
- f) to facilitate development in accordance with the objectives set out in paragraphs (a), (b), (c), (d) and (e);
- g) to balance the present and future interests of all Victorians.

These planning objectives are mandatory considerations in most planning decisions and processes under the Act: the making and amendment of planning schemes; the grant or refusal of permits; and the conduct of planning authorities and responsible authorities.³⁵⁹

5.1.1 Health and wellbeing in the Planning and Environment Act 1987

In a submission to the Committee, DPCD summarised the overall function of planning in relation to public health and wellbeing:

Planning can play an influential role in land use and development to achieve improved wellbeing for the community. However, its main function is to set the conditions for sustainable development, with a proscribed role with respect to levels of private and public investment, operational and service delivery matters.

For example, in relation to supporting good neighbourhood amenity, planning processes can set the expected outcomes for greenfield suburb development through setting development standards and separating incompatible land uses.

³⁵⁸ 'Victorian Planning System Ministerial Advisory Committee', Department of Planning and Community Development, 2012, <http://bit.ly/zxFUKI> accessed 5 January 2012.

³⁵⁹ Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 6.

However the other investments in facilities and influences on behaviour are generally outside the purview of planning.³⁶⁰

Evidence put to the Committee was strongly of the opinion that public health and wellbeing is an increasingly relevant matter for planning. Submissions and witnesses concurred that the objectives of planning in Victoria (as stated in the Act) do not reflect the growing evidence for the links between urban design and public health and wellbeing.³⁶¹ It was contended that this leads to planning outcomes which do not consistently advance public health and wellbeing.

Further on the topic of whether public health should receive attention within the Act, Hansard recorded the following discussion between Committee Member Mr Johan Scheffer and Mr John Ginivan from DPCD:

Mr SCHEFFER — Other witnesses have indicated to us that what they would desire would be to have health as an objective in the *Planning and Environment Act*. They have been pretty clear about that ... The Act is being reviewed. Could you tell us about where that review process is up to and whether a health objective is under consideration for inclusion as an objective in the legislation.

Mr GINIVAN — There is not a specific health objective, in the sense that the objectives of the Act talk more broadly around good social outcomes, good environmental outcomes and good economic outcomes. One of the things that is often interesting in the planning space is, at the end of the day, how does a decision-maker, a planner in a local government or otherwise, know what it is they are expected to do to deliver the right answer? One of the things that is a challenge in framing a planning Act is keeping it as specific as possible in terms of what are the things that it is actually seeking to do. My sense at the moment is that the Act is very broad in its interpretation. It can be very broad in terms of what it addresses already in the sense of driving the creation of communities, driving the planning for communities. A simple objective that also sorts out health — well, that is part of a social outcome already.

Mr SCHEFFER — I do not think the witnesses have been talking about a simple objective. They have been talking about it being an objective and obviously various subsets or various sections of the legislation stipulating how a health component or a health consideration is built into the legislation. That is what has been put to us, and, really, I think you have probably answered the question that the direction the review is going is of a more general nature, and I will draw from what you have said that health in the ways that I have described it, reflecting what I think other witnesses are telling us, has not thus far been built into the review of the legislation.

Mr GINIVAN — When you look at the planning system more broadly I guess you could say it is generally in the various other policy statements that occur through the Victoria Planning Provisions where you can start to get some greater articulation of what might a health objective actually mean, and it is in there where we have things like we ought to be trying to design communities so that walkability is possible. We could design them so that you can only go everywhere by car, or we can consciously say that if you have at least got the option to walk, there is more of a chance that people will walk, with a consequential benefit. Equally in terms of open space provision, it is in the Victoria Planning Provisions in

³⁶⁰ Department of Planning and Community Development, *Submission No. 63, Attachment One*, 3.

³⁶¹ The word 'health' appears once in the Act (at s.201 VB (b)).

particular where it articulates that open space ought to be usable and accessible, not simply an afterthought.³⁶²

The Committee found strong support for amending the objectives of the Act to include ‘public health and wellbeing’ (or similar wording).³⁶³ From a planning industry perspective, the Committee heard from Mr Jason Black from the Planning Institute of Australia (Victorian Division) (PIA (Vic)) on how the formal objectives set out in the Act influence the decision-making process:

When the chips are down and we are looking at what we need to do, our starting point is going to be the planning schemes. What does the planning scheme say to us about whatever it is that we are proposing to do in a new community? If our planning schemes are not telling us that the forefront consideration is the community’s health and wellbeing and it is something else, then how can planners and developers be expected to read into it that the community’s health and wellbeing is a priority?

...

People will say, ‘What would a few words in an Act mean to you anyway?’ Put simply, it is amazing how many times we go to VCAT [Victorian Civil and Administrative Tribunal] and a barrister or a QC [Queen’s Counsel] wants to start with, ‘Let’s talk about the objectives of planning’. Maybe they are paid to make the song and dance about that, but that is a really important point, because if the community’s health and wellbeing is the starting point of the objectives of planning, then it is natural that it will flow down to the other elements.³⁶⁴

In 2006 VicHealth and PIA (Vic) conducted research which found that although most planners felt they had a role in creating a healthier community, only 26 percent considered health and wellbeing issues frequently in their work. Barriers to considering health and wellbeing issues in planning included that health outcomes are not specifically included in legislation or highlighted in the planning scheme.³⁶⁵

The Committee supports the view that an amendment to the objectives of planning, as set out in the *Planning and Environment Act 1987*, is a necessary step to ensuring that health and wellbeing is embedded as a priority within the planning system.

Recommendation 12

That the Victorian Government amends section 4(1) of the *Planning and Environment Act 1987* to include ‘the promotion of environments that protect and encourage public health and wellbeing’ (or similar wording) as an objective of planning in Victoria.

³⁶² Mr J Scheffer and Mr J Ginivan, Department of Planning and Community Development, *Transcript of Evidence*, 31 August 2011, 143.

³⁶³ City of Boroondara, *Submission No. 31*, 27 June 2011, 18; City of Whitehorse, *Submission No. 6*, 24 June 2011, 1; City of Stonnington, *Submission No. 40*, 14 July 2011, 11; City of Casey, *Submission No. 42*, 6 July 2011, 25; City of Melbourne, *Submission No. 44*, 7 July 2011, 7-8; Yarra Ranges Council, *Submission No. 41*, 20 June 2011, 3.

³⁶⁴ Mr J Black, Planning Institute of Australia (Victorian Division), *Transcript of Evidence*, 4 October 2011, 292.

³⁶⁵ T Harper, *Melbourne 2030 Implementation Audit VicHealth Submission*, VicHealth, Melbourne, 2007, 11.

5.2 Victoria Planning Provisions

The Victoria Planning Provisions (VPP) is a subordinate instrument under Part 1A of the Act. DPCD describes the VPP as a state-wide reference document or template from which all Victorian planning schemes are sourced and constructed. It is not a planning scheme and does not apply to any land.³⁶⁶

The VPP provides the framework, standard provisions and state planning policy. The planning authority (usually the local council) must provide the local planning policy content, including a Municipal Strategic Statement (MSS) and select the appropriate zones and overlays from the VPP, for inclusion in their planning scheme.

An amendment to the provisions of the VPP will amend specified planning schemes which include those provisions. Only the Minister for Planning or any other Minister, public authority or local council authorised by the Minister, may prepare an amendment to the VPP. Only the Minister for Planning can approve an amendment to the VPP.³⁶⁷

5.2.1 Health and wellbeing in the Victoria Planning Provisions

Statements relating to health and wellbeing are fragmented across a range of different parts of the VPP, including the State Planning Policy Framework (SPPF) and Clause 56 which deals with 'Residential Subdivisions', known as 'ResCode'.³⁶⁸

The SPPF contains strategic issues of state importance which must be considered when decisions are made.³⁶⁹ Clause 10.01 emphasises that the SPPF is 'dynamic and will be built upon as the government develops and refines policy, and changed as the needs of the community change'.³⁷⁰

'Public health' is not one of the ten themes around which the SPPF is structured and the word 'health' itself appears rarely. However, in a submission, DPCD noted that each of the themes covers a range of matters which could be directly or indirectly relevant:

- Settlement policy (including open space, and regional settlement development policy)
- Environmental and Landscape Values (landscapes and coastal area protection objectives significant open spaces)
- Environmental Risks (objectives covering noise abatement, air quality, contaminated and potentially contaminated land, floodplain and wildfire management and water quality)

³⁶⁶ 'The Framework for Planning Schemes: Victoria Planning Provisions' Department of Planning and Community Development, 2012, <http://bit.ly/sBQCZR> accessed 12 October 2011.

³⁶⁷ 'The Framework for Planning Schemes: Victoria Planning Provisions', Department of Planning and Community Development.

³⁶⁸ Wyndham City Council, *Submission No. 62*, 26 July 2011, 21; Mr J Black, Planning Institute of Australia (Victorian Division), *Transcript of Evidence*, 4 October 2011, 291; Yarra Ranges Council, *Submission No. 41*, 20 June 2011, 3.

³⁶⁹ 'The Framework for Planning Schemes: Victoria Planning Provisions', Department of Planning and Community Development.

³⁷⁰ *Victoria Planning Provisions*, Clause 10.01.

- Natural Resource Management (protection of productive farmland)
- Built Environment and Heritage (urban design, neighbourhood and subdivision design, design for safety, cultural identity, neighbourhood character and heritage conservation)
- Housing (objectives concerning location of residential development, and housing affordability)
- Economic Development (industrial land development, covering appropriate buffer areas between the proposed industrial land and nearby sensitive land uses)
- Transport (land use and transport planning and movement networks such as walking and cycling)
- Infrastructure (planning for integration of health and education facilities with local and regional communities).³⁷¹

The Committee notes that there are mentions of health (and goals related to health such as walkability and liveability) within the SPPF. Clause 15 of the SPPF (Built Environment and Heritage) contains more detailed directions on matters such as Urban Design and Urban Design Principles (15.01-1; 15.01-2), Neighbourhood and Subdivision Design (15.01-3) and Design for Safety (15.01-4). The latter sub-clause directs planning authorities to have regard to the Safer Design Guidelines, which discuss design features to promote walking, cycling and more active and accessible public spaces. However, there is no comparable section in the VPP which addresses public health and wellbeing.

ResCode includes standards relating to Compact and Walkable Neighbourhoods ('easy walking distance to activity centres, schools and community facilities, public open space and public transport' – 56.03-1) and Integrated Mobility Objectives ('an urban structure where compact and walkable neighbourhoods are clustered to support larger activity centres on the Principal Public Transport Network in Metropolitan Melbourne and on the regional public transport network outside Metropolitan Melbourne' – 56.06-1).³⁷²

The Australian Institute of Landscape Architects submitted that ResCode does not provide clear guidance on how urban design could promote health and wellbeing outcomes:

[Clause 56] was brought in to improve the design of new residential areas. However, its provisions do not actually mention health, and it only infers, which is unacceptable when discussing the planning and design for health needs. A clearer policy mandate will be required if a holistic approach to healthy built environment is to be achieved.³⁷³

³⁷¹ Department of Planning and Community Development, *Submission No. 63, Attachment One*, 3.

³⁷² *Victoria Planning Provisions*, Clause 56.

³⁷³ Australian Institute of Landscape Architects, *Submission No. 12*, 27 June 2011, 12.

In relation to the diffuse references to health spread across the VPP, several submissions argued that it would be appropriate for the SPPF to address health and wellbeing in a comprehensive manner.³⁷⁴ Wyndham City Council stated:

There certainly is scope to give these different references a firmer basis by having them refer back to one section within the SPPF. This would assist greatly in organising and crystallising objectives and mechanisms relevant to planning for health within Victorian Planning Schemes. We therefore recommend that any action to improve planning for health include advocacy for a Clause within the SPPF dedicated to Planning for Health. A Planning Policy on Health could come into the Planning Scheme after the Design for Safety Policy (Clause 15.01-4) and could be structured similarly to the safety policy.³⁷⁵

Commenting further on the VPP, Mr Jason Black noted at a public hearing:

... if we were to take a well-let's-have-a-look at what we have got scenario, there are areas within the Victoria Planning Provisions that do have references to community health and wellbeing and to notions of some of these key priority areas, but it is done almost in an isolated way. It is not embedded in the objectives of planners; it is not embedded in state planning policy and then flowing down. There are elements of ResCode — clause 56, as we call it — that have picked up these themes. There are elements of the precinct structure planning guidelines that have picked up on these themes, but the community's health and wellbeing is not actually embedded in the starting point to planning in our communities. Our fundamental, real main point is: why is it so?³⁷⁶

The Committee considers that the VPP should provide clear guidance on health and wellbeing, and further notes that this is in keeping with the Committee's key recommendation (above) to amend the objectives of planning within the Act.

Recommendation 13

That the Victorian Government amends the State Planning Policy Framework within the Victoria Planning Provisions to include a policy on planning for health and wellbeing. Following from this, clauses throughout the Victoria Planning Provisions which relate to health and wellbeing should be amended as is necessary to provide clear and coherent direction for the planning system.

5.3 Health Impact Assessment

Health Impact Assessment (HIA) is a systematic way of identifying the potential health impacts of a proposed policy, strategy, plan, project or program. It offers methods and tools to evaluate a proposal's anticipated effects on the health of a population and the distribution of those effects within a population.³⁷⁷ Where appropriate, it will also recommend alternative policy directions and strategies to mitigate detrimental health impacts.

³⁷⁴ City of Ballarat, *Submission No. 19*, 30 June 2011, 6; Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 6; City of Boroondara, *Submission No. 31*, 27 June 2011, 19; Nillumbik Shire Council, *Submission No. 60*, 13 July 2011, 5.

³⁷⁵ Wyndham City Council, *Submission No. 62*, 26 July 2011, 21.

³⁷⁶ Mr J Black, Planning Institute of Australia (Victorian Division), *Transcript of Evidence*, 4 October 2011, 291.

³⁷⁷ Public Health Advisory Committee 2005 *A Guide to Health Impact Assessment: A Policy Tool for New Zealand*, 2nd edition, National Health Committee, Wellington (NZ), 7.

HIA is currently part of Victorian health legislation. Section 53 of the *Public Health and Wellbeing Act 2008* empowers the Minister for Health to order a Health Impact Assessment of the 'public health and wellbeing impact of a matter.'³⁷⁸ The Committee was not made aware of the provision having been used, however it would allow a Minister to require an assessment of, for example, the health impacts of an outer urban residential development or an urban renewal project.

While the HIA provision of the *Health and Wellbeing Act 2008* has not been used, HIAs have already been conducted in other settings in Victoria, such as in the previous government's Neighbourhood Renewal project, in assessing a waste policy in the Shire of East Gippsland, and to analyse the impact of a walking path in the community of Leopold near Geelong.³⁷⁹

Internationally, HIA is most commonly employed in environmental, transport and land use planning decision-making.³⁸⁰ In a planning context, HIA is a means of measuring both the qualitative and quantitative impacts of a planning proposal on society and of ensuring that the long-term effects of development decisions are considered.³⁸¹ A recent review of the use of HIA in the European Union and the US underscored its applicability to urban planning.³⁸² Similarly, a survey of HIAs conducted in New Zealand found that of 45 either completed or in progress at the time of the survey, 16 assessed the impacts of an urban planning or growth proposal.³⁸³

During this Inquiry, the Committee heard strong support from local government and professionals in the planning and public health fields for mandating HIA in the *Planning and Environment Act 1987*.³⁸⁴ Dr Margaret Beavis informed the Committee that 'we need health impact assessments. The advantage of health impact assessments is that developers will start to design for health. They will realise there are a set of parameters that they need to design within, and they will realise that this is a priority at government level.'³⁸⁵

Responding to a question from the Chair, Ms Gayle Tierney, on whether HIA would lead to better development proposals, representatives from the Department of Health stated:

Dr CARNIE — To my mind any development proposal really should consider what the effects are, whether it is done as a formal health assessment or not. Clearly these are areas that we consider ourselves in terms of what impact various changes in the environment have on health, so it would be something that we would encourage. People should always look at what effect any kinds of

³⁷⁸ *Public Health and Wellbeing Act 2008*, s.53.

³⁷⁹ C Boyce and V Shelton, *Leopold Strategic Footpath Network: Health Impact Assessment*, City of Greater Geelong, 2008.

³⁸⁰ R Bhatia, *Health Impact Assessment: A Guide for Practice*, Human Impact Partners, Oakland CA, 2011.

³⁸¹ Heart Foundation (Victoria), *Submission No. 55*, July 2011, 35.

³⁸² National Research Council of the National Academies, *Improving Health in the United States: The Role of Health Impact Assessment*, National Academies Press, Washington DC, 2011, 92.

³⁸³ R Quigley, *Presentation to Health in All Policies Conference*, Adelaide, April 2010.

³⁸⁴ City of Ballarat, *Submission No. 19*, 30 June 2011, 5; City of Monash, *Submission No. 24*, 28 June 2011, 2; City of Whittlesea, *Submission No. 26*, 30 June 2011, 15; City of Whitehorse, *Submission No. 6*, 24 June 2011, 2.

³⁸⁵ Dr M Beavis, *Transcript of Evidence*, 4 August 2011, 51-52.

development or any kinds of changes have on health. Do you want to expand on that in terms of health impacts per se?

Mr SINDALL — Graeme may wish to comment on this, but health impact assessment can obviously be quite technically demanding to get right. While we may absolutely want to look at the potential health effects, benefits and others, of development, formal health impact assessment is not something that one goes into lightly.

Mr GILLESPIE — Yes, I think it needs to be pretty well planned and resourced. It would require a trained resource. It also needs to be in the context of a full health impact assessment across all of the determinants of health, rather than the more traditional hazard impact assessment.³⁸⁶

Evidence put to the Committee in support of HIA also expressed two main qualifications. Firstly, HIAs would be most appropriate for key planning decisions and larger scale developments where a major population increase is proposed, such as in growth areas: 'it would be quite possible to identify the types of development applications or land use proposals that are likely to have some higher potential impact on community health and wellbeing outcomes, whether it is a positive or a negative.'³⁸⁷

Secondly, the tools or methodology used to conduct the assessment need to be easy to use, fit within existing planning activities and be supported by appropriate resources and training.³⁸⁸ A variety of HIA tools exist both in Australia and internationally. The Committee notes that the Heart Foundation's 'Design for Health' suite is considered by planners to be an excellent example of planning-appropriate HIA tools.³⁸⁹ A small number of local governments may already be adapting existing resources to prepare health or social impact assessments. East Gippsland Shire Council noted that in the absence of detailed mechanisms for considering the impacts of planning in the Act, it is developing its own Social Impact Assessment process.³⁹⁰ HIA need not be a lengthy and drawn out process; the Committee heard that very effective rapid assessment tools have been developed in Australia.³⁹¹

While advocating for the use of HIA, Mr Jason Black cautioned:

... we do not necessarily need to make health impact assessment a new industry in its own right. I think this is where planning over the last few years has got it wrong — that is, we now require social work practice assessments, economic impact assessments and this, that and the other thing, which has effectively bred a new industry that runs side by side with the planning industry where it becomes an anchor to the planning decision-making process, because it is time consuming and it costs a lot... It does not have to be a whole new industry of people who now do health impact assessments, because that is where we feel that we will start to get

³⁸⁶ Dr J Carnie, Mr C Sindall and Mr G Gillespie, Department of Health, *Transcript of Evidence*, 14 September 2011, 278.

³⁸⁷ Mr J Black, Planning Institute of Australia (Victorian Division), *Transcript of Evidence*, 4 October 2011, 293.

³⁸⁸ City of Whitehorse, *Submission No. 6*, 24 June 2011, 2.

³⁸⁹ Planning Institute Australia (Victorian Division), Cancer Council Victoria (SunSmart), City of Port Phillip, Physical Activity Australia, Victorian Council of Social Service and Victorian Local Governance Association, *Submission No. 59*, 13 July 2011, 19.

³⁹⁰ East Gippsland Shire Council, *Submission No. 57*, 15 July 2011, 2.

³⁹¹ Prof E de Leeuw, *Transcript of Evidence*, 7 September 2011, 228.

a lot of resistance from not just planners but others within the planning and development industry, so we think it is important to make that distinguishing point.³⁹²

The Committee is mindful that HIA is a relatively new form of assessment. There are few published studies evaluating its use for assessing urban development in Australia.³⁹³ However, interest is increasing and Australian researchers have contributed substantially to the international body of knowledge on the topic. The New South Wales Health Impact Assessment Project ran from 2003 to 2009 and was funded and supported by NSW Health. The project undertook more than 20 HIAs and sought to build the capacity of NSW Health to use the assessment tool.³⁹⁴

In keeping with recommendations made elsewhere in this report, and noting the existing provision for HIA in the *Public Health and Wellbeing Act 2008*, the Committee considers that the inclusion of HIA in the *Planning and Environment Act 1987* has the potential to lead to healthier planning outcomes if supported by appropriate resources.

Recommendation 14

That the Victorian Government amends section 12 of the *Planning and Environment Act 1987* to require planning authorities to conduct a Health Impact Assessment for key planning decisions, such as major urban developments or making or amending a planning scheme. The Committee further recommends that:

- a suitable and easy to use Health Impact Assessment tool be developed by the Department of Health and the Department of Planning and Community Development, in consultation with the planning industry and local governments
- the Department of Health and the Department of Planning and Community Development provide resources and support to local governments to conduct Health Impact Assessments.

5.4 Precinct Structure Plans and Guidelines

Precinct Structure Plans (PSPs) are masterplans or ‘blueprints’ for whole communities (usually catering for between 10,000 and 30,000 people). PSPs lay out roads, transport routes, open space networks (including walking and bicycle paths), shopping centres, schools, local employment provision and housing. They indicate how issues of biodiversity, cultural heritage, infrastructure provision and council charges will be managed within a precinct. PSPs are also intended to engage with a wider context, by providing ‘an up to date approach to address current global issues such as adapting to climate change, reducing carbon emissions, rising living costs and pressures of increasing travel distances as our cities grow.’³⁹⁵

³⁹² Mr J Black, Planning Institute of Australia (Victorian Division), *Transcript of Evidence*, 4 October 2011, 293.

³⁹³ S Furber et al, ‘The Use of Health Impact Assessment to Determine the Potential Impact of an Australian Urban Development Proposal on Health and Well-being’, *Urban Policy & Research*, June 2009, 29 (2): 125-139.

³⁹⁴ ‘New South Wales HIA Project’, HIA Connect, <http://bit.ly/roTFe3> accessed 10 October 2011.

³⁹⁵ ‘Precinct Structure Plans’, Growth Areas Authority, <http://bit.ly/sYpwDH> accessed 10 October 2011.

The Growth Areas Authority (GAA) is responsible for overseeing the preparation of all PSPs in Melbourne's growth areas and advising the Minister for Planning on their approval.³⁹⁶ PSP are incorporated into the local planning scheme to guide the use and development of land in the precinct over the long-term.

In October 2009 the GAA issued guidelines for preparing the various aspects of PSPs. The PSP Guidelines 'set out the critical issues to be examined by planners, developers, service providers and government in the planning for new communities.'³⁹⁷ PSP Guidelines practice notes also have been published to give additional direction on the following topics:

- contents of PSP
- biodiversity
- engagement
- heritage
- roads.

5.4.1 Growth Corridor Plans

In November 2011 the GAA released draft Growth Corridor Plans. These are intended to be higher level, strategic documents identifying areas for housing, jobs, transport, town centres, open space and infrastructure. The Plans will provide direction for PSP and will also be a major input for the forthcoming Melbourne Metropolitan Strategy (see Section 5.7).³⁹⁸

Due to the timing of their release during the Inquiry, the Committee did not receive evidence on these draft plans.

5.4.2 Evidence received on PSPs

In submissions to the Inquiry, councils commented on the precinct structure planning process in general and the PSP Guidelines specifically.³⁹⁹ Wyndham City Council called for the PSP Guidelines to include a section on 'Planning for Health'. This would articulate the major 'public health infrastructure' to be shown on a PSP and assist councils to assess PSP proposals against public health objectives.⁴⁰⁰

Wyndham City Council and several other submitters also argued that the voluntary Guidelines contain a list of goals related to health and wellbeing that are 'nice to have' but often watered down or absent in the final development outcomes.⁴⁰¹ To illustrate this, Wyndham City Council's submission gave the example of the

³⁹⁶ 'Precinct Structure Plans', Growth Areas Authority.

³⁹⁷ Growth Areas Authority 2009 *Precinct Structure Planning Guidelines – Part One: Overview of Growth Area Planning*, Melbourne, 2.

³⁹⁸ 'Precinct Structure Plans', Growth Areas Authority.

³⁹⁹ City of Casey, *Submission No. 42*, 6 July 2011, 10; Wyndham City Council, *Submission No. 62*, 26 July 2011.

⁴⁰⁰ Wyndham City Council, *Submission No. 62*, 26 July 2011, 23.

⁴⁰¹ Prof M Buxton, *Transcript of Evidence*, 4 October 2011, 311; Assoc Prof C Whitzman, *Transcript of Evidence*, 7 September 2011, 270; Mr J Black, Planning Institute of Australia (Victorian Division), *Transcript of Evidence*, 4 October 2011, 291.

guidelines relating to pedestrians and cyclists, noting the use of several ‘qualifiers’ (underlined):

In areas of anticipated high pedestrian/cyclist demand and where necessary and appropriate, crossings for these users should be provided across barriers such as railway lines, service easements and watercourses. These should be at a maximum spacing of 400m. Road bridges should be constructed at regular intervals (ideally at about 800 metres spacing and up to a maximum of 1600m spacing) over these barriers.⁴⁰²

In a submission comprehensively reviewing health and wellbeing elements in the PSP Guidelines, the City of Casey, another growth area council, argued that while open space and active transport receives attention within the Guidelines, once again ‘the degree of connectivity delivered, the timing of delivery and the quality of the services are yet to transpire’.⁴⁰³ In regard to the PSP Guidelines stating that 95 percent of dwellings should be within 400 metres of a local park, the submission noted:

... the 400 metre walkable catchment is applied purely as a mapping exercise with no consideration given to the impediment to access and safety (such as main road crossings, waterways without bridge connections etc.). Greater consideration is required to ensure these spaces are appropriately planned with local environmental factors given consideration.⁴⁰⁴

The City of Casey further argued that the provisions in the Guidelines for open space provision were not consistent with the aspiration for higher population densities in new growth area communities:

The Precinct Structure Planning Guidelines apply a 10 per cent ratio of open space provision as part of the net developable area of a Precinct Structure Plan. This does not account for localised sporting demand, housing densities and ultimate population numbers which drive demand and usage of these spaces.⁴⁰⁵

At a public hearing, Mr John Ginivan, representing DPCD, stated that it may be premature to assess the effectiveness of the guidelines and the Precinct Structure Planning process. In answer to a question from Committee Member Mr Brian Tee, referring to the evidence received above on PSP by the Committee, Mr Ginivan replied:

One of the other things that is going to be interesting in terms of whether councils’ desired plans actually appear on the ground will be to see within five to six years whether the effect of what is in current precinct structure planning rules and guidelines does appear on the ground. It is interesting that in work DPCD has done looking at the density of development delivered on the ground, where the rules changed five or six years ago, it is only in roughly the past 12 months that you start to see the effect of those rule changes coming through in what is being put down as current subdivisions because of the lag.

⁴⁰² Wyndham City Council, *Submission No. 62*, 26 July 2011, 6. (Council’s emphasis.)

⁴⁰³ City of Casey, *Submission No. 42*, 6 July 2011, 10.

⁴⁰⁴ City of Casey, *Submission No. 42*, 6 July 2011, 23.

⁴⁰⁵ City of Casey, *Submission No. 42*, 6 July 2011, 23.

I think the expectation we would have is that the precinct structure planning guidelines are quite firm and clear. We would have an expectation that if a precinct structure plan or growth area framework plan is approved, then the fundamental skeleton of what should be on the ground will appear on the ground. We would expect to be starting to see that flow through when the development of that subdivision actually occurs, which might be in three, four, five, six or seven years time from now when it actually hits the ground.⁴⁰⁶

Monitoring and review of PSPs is addressed in Part 2, Section 5.4 of the Guidelines. Responsibility for monitoring and reviewing sits with individual councils 'in consultation with the GAA and other agencies.' There is no detail given of how the monitoring and review is to be conducted nor what, if any, benchmarking is to occur.⁴⁰⁷ The GAA has not released any information to suggest it has reviewed PSP to date (although it should be noted that the first PSPs were approved only in 2006-07). However, Planning Panels Victoria did conduct a review of PSPs in August 2010. The interim report noted that the PSP process was still a new model of growth area planning and concluded:

It is important therefore, that there is consistency in the preparation and implementation of PSPs and associated documentation to ensure that there is certainty in growth area planning. The PSP Guidelines facilitate this consistency. It is important, however, that all stakeholders in the process keep abreast of the issues to ensure that this consistency is achieved all the way through to the final implementation of a PSP.⁴⁰⁸

The Committee believes it would be timely for the Government to examine whether the PSP Guidelines appropriately promote health and wellbeing outcomes in new communities, and whether those plans that have been completed are in fact achieving the expected development outcomes on the ground.

Recommendation 15

That a review of the effectiveness of Precinct Structure Plans be undertaken, with a particular emphasis on whether expected outcomes for green and other public spaces, and walking, cycling and public transport infrastructure, are being delivered.

Recommendation 16

That the Victorian Government revises the Precinct Structure Planning Guidelines to:

- identify public health and wellbeing as a priority matter for Precinct Structure Plans
- provide clear direction on how public health and wellbeing should be advanced within Precinct Structure Plans.

⁴⁰⁶ Mr J Ginivan, Department of Planning and Community Development, *Transcript of Evidence*, 31 August 2011, 145.

⁴⁰⁷ City of Casey, *Submission No. 42*, 6 July 2011, 23.

⁴⁰⁸ Planning Panels Victoria 2010 *Review of Precinct Structure Plans: 2009-2010 – Interim Report on Issues Emerging From the PSP Process*, Department of Planning and Community Development, Victorian Government, Melbourne, 69.

5.5 Urban Design Charter

In a submission to the Committee, DPCD noted that good practice in Victorian urban design was supported by the Urban Design Charter. The Charter was developed by DPCD and launched in 2009 as a commitment by the previous Victorian Government and others to make cities and towns in Victoria more liveable through good urban design. The stated purpose of the Charter is 'to embed good urban design in development processes across metropolitan and regional Victoria.'⁴⁰⁹

The Charter puts forward 12 principles of good urban design:

- 1) Structure: organise places so their parts relate well to each other
- 2) Accessibility: provide ease, safety and choice of access for all people
- 3) Legibility: help people to understand how places work and to find their way around
- 4) Animation: stimulate activity and a sense of vitality in public places
- 5) Fit and function: support the intended uses of spaces while also allowing for their adaptability
- 6) Complementary mixed uses: integrate complementary activities to promote synergies between them
- 7) Sense of place: recognise and enhance the qualities that give places a valued identity
- 8) Consistency and variety: balance order and diversity in the interests of appreciating both
- 9) Continuity and change: maintain a sense of place and time by embracing change yet respecting heritage values
- 10) Safety: design spaces that minimise risks of personal harm and support safe behaviour
- 11) Sensory pleasure: create spaces that engage the senses and delight the mind
- 12) Inclusiveness and interaction: create places where all people are free to encounter each other as equals.

An attachment to the Charter gives further guidance on each of these principles. The Committee notes that the Charter is voluntary and it may suggest something about its lack of prominence that local governments in this Inquiry did not cite the Charter as a reference document for those involved in the planning process.

A submission from the Heart Foundation (Victoria) criticised the absence of health and wellbeing considerations in the Charter, noting that it is a document which specifically intends to promote liveability. The submission suggested the Charter be re-written to clearly articulate the need for provision of urban environments that support health and wellbeing and to outline the design principles to realise

⁴⁰⁹ Department of Planning and Community Development, *Submission No. 63, Attachment One, 7.*

this objective.⁴¹⁰ The Committee supports this approach, but also believes further consultation with local government, developers, the Office of the Victorian Government Architect and the planning industry would be beneficial in clarifying the Charter's ongoing role and function.

Recommendation 17

That the Victorian Government reviews the Urban Design Charter to:

- strengthen the role and function of the Charter in guiding Victorian urban design
- ensure that design objectives which promote health and wellbeing are included in the Charter.

5.6 Planning panels

Under Part 8 of the Act, the Minister may appoint a panel to hear submissions made about amendments to planning schemes and to make recommendations or provide advice about whether or not amendments should proceed.⁴¹¹ Planning panels are administered by Planning Panels Victoria (part of DPCD).

Planning Panels Victoria consists of the Chief Panel Member, six senior panel members and approximately eighty sessional panel members who 'provide a source of expertise on planning, architecture, urban design, engineering, environment and social planning.'⁴¹²

The Committee heard discussion on whether planning panels should have access to public health expertise, particularly where growth area developments are being assessed. At a public hearing, Mr David Hodge, Acting Deputy Secretary, Planning and Local Government (representing DPCD), commented on this proposal:

I think that is a good idea. We have professionals in relation to heritage, transport, traffic engineering, open space, architecture and design. There is absolutely no reason why that should not occur, particularly in matters that would relate to public health outcomes.⁴¹³

Associate Professor John Fitzgerald, Acting Chief Executive Officer of VicHealth, also confirmed the value of including public health experts in the planning process:

When we go to the Planning Institute of Australia and work with them on collaborative projects at the moment we say to them, 'Listen, can we get you to put the health into the design on this master planned community down in Cranbourne. Wouldn't it be good to put in some particular things that make healthy food choices better?' But then we say, 'Hang on a minute. We're going to get a push back from the planners in this place and the planners over there'. Then we say, 'Hang on. Why are planners making decisions around health?'. And they say, 'Well, that's who we've got'. And I ask, 'Why haven't we got health people on

⁴¹⁰ Heart Foundation (Victoria), *Submission No. 55*, July 2011, 28.

⁴¹¹ Victorian Government, *Planning and Environment Act 1987*, s.153.

⁴¹² 'Planning Panels Victoria', Department of Planning and Community Development, 2012, <http://bit.ly/HMJ185> accessed 10 October 2011.

⁴¹³ Mr D Hodge, Department of Planning and Community Development, *Transcript of Evidence*, 31 August 2011, 143.

the technical panels? 'It's not part of the guidelines'. So it is a pretty easy fix just to get the conversation up at what is a critical stage in the precinct structure planning process. At a critical point you actually have a conversation between health planners and statutory planners.⁴¹⁴

The need to foster the 'conversation' between health professionals and town planners is identified in the literature⁴¹⁵ and confirmed in survey evidence presented by PIA (Vic), which showed that the planning profession currently does not prioritise public health in the planning process. For their part, health professionals need to be able to communicate the emerging evidence base to the planning profession and others involved in land development who will ultimately execute urban design changes.⁴¹⁶ The Australian Medical Association Victoria stated in a submission that 'health professionals can make a significant contribution to the planning processes for built environments.'⁴¹⁷

The Committee believes that ensuring a public health perspective is represented on panels in the planning of growth area communities is a practical suggestion to improve the analytical rigour of PSPs and to foster the conversation between health professionals and planning. Further, growth area planning would benefit from the involvement of health specialists at the strategic level.

Recommendation 18

That Planning Panels Victoria ensures that all panels established as part of the growth areas Precinct Structure Planning process have a public health specialist as part of their membership.

Recommendation 19

That the Victorian Government appoints public health specialists (or persons with appropriate health expertise) to the Boards of the Growth Areas Authority and Urban Renewal Authority.

5.7 Melbourne Metropolitan Strategy

During the course of this Inquiry the Victorian Government began preparing a new metropolitan strategy for Melbourne. The 30-40 year strategy will replace strategic plans prepared by the previous government (*Melbourne 2030* and its successive iterations). While limited information is available, statements by the Minister and information on the DPCD website suggest that the new strategy will have a focus on integrating transport infrastructure with urban growth.⁴¹⁸

Released in 2002, *Melbourne 2030* was developed through a comprehensive consultation process, attracting over 1500 public submissions. A major objective of

⁴¹⁴ Assoc Prof J Fitzgerald, VicHealth, *Transcript of Evidence*, 23 August 2011, 81.

⁴¹⁵ H Frumkin, 'Urban Sprawl and Public Health', *Public Health Reports*, May-June 2002, 117: 212.

⁴¹⁶ C Hoehner et al, 'Opportunities for Integrating Public Health and Urban Planning Approaches to Promote Active Community Environments', *American Journal of Health Promotion*, 2003, 18 (1): 14-20.

⁴¹⁷ Australian Medical Association Victoria, *Submission No. 23*, 30 June 2011, 3.

⁴¹⁸ 'A New Melbourne Metropolitan Strategy', Department of Planning and Community Development, 2011, <http://bit.ly/rPPMJv> accessed 10 October 2011.

the plan was to channel a proportion of residential development away from the fringe of the city and into existing suburban ‘activity centres.’ The plan called for ‘attractive, walkable and diverse communities.’⁴¹⁹ Neighbourhoods were to be designed around public transport and higher density mixed land use centres, and supported with permeable street layouts and initiatives to promote walking and cycling to facilities and services.⁴²⁰

Changed population projections led to an update to *Melbourne 2030* entitled *Melbourne 2030: A Planning Update – Melbourne @ 5 million*, released in December 2008. Known as ‘*Melbourne @ 5 million*’, this update contained policy settings that complemented the earlier plan, including: the commitment to a more compact city through activity centres and employment corridors; the management of growth through extensions to the growth areas and a density target of 15 dwellings per hectare; and enhanced links between Melbourne and regional centres. As a submission from the Heart Foundation (Victoria) pointed out:

These initiatives all have direct impact on determinants for the health and wellbeing of current and future Victorians. However, like *Melbourne 2030*, *Melbourne @ 5 million* does not mention the relationship between these interventions and health impacts (positive or otherwise) on people. Words and phrases such as ‘vibrant’, ‘liveable’, ‘environmental consequences’, ‘sustainable options’, ‘landscape and economic values’, ‘resolution of biodiversity and settlement issues’, ‘social objectives’, and ‘lifestyle’ must be framed in the context of their impact on people’s health and wellbeing.⁴²¹

The Committee believes that the preparation of a new ‘masterplan’ for the city provides an important opportunity to include public health and wellbeing considerations at the highest level of planning policy.

Recommendation 20

That the Victorian Government ensures the Melbourne Metropolitan Strategy includes public health and wellbeing as a key goal supported by measurable initiatives, such as the provision of walking and cycling infrastructure, public transport and public open space. The Committee further recommends that the Strategy provides for a review of implementation every five years.

5.7.1 Case Study: Health in All Policies

The terms of reference ask the Committee to examine the ‘consistency of policy approaches across the Victorian Government in promoting health through evidence based environmental planning and design measures.’ In this chapter, the Committee has outlined several opportunities for achieving a coordinated approach across the planning and health policy areas.

Health in All Policies (HiAP) is a whole-of-government approach to embedding considerations of health and wellbeing across all South Australian (SA) government

⁴¹⁹ Department of Infrastructure 2002 *Melbourne 2030 – Planning for sustainable growth*, Victorian Government, Melbourne, 3.

⁴²⁰ Department of Infrastructure 2002 *Melbourne 2030 – Planning for sustainable growth*.

⁴²¹ Heart Foundation (Victoria), *Submission No. 55*, July 2011, 39.

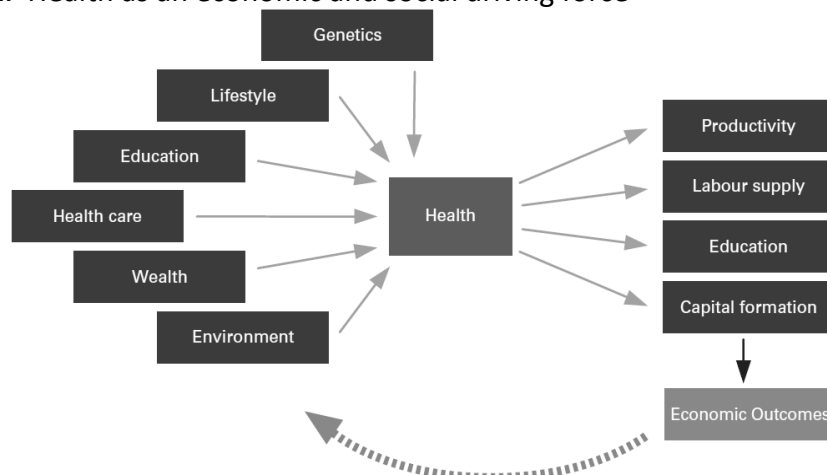
departments and policies. The SA Government’s current annual expenditure on health comprises 30 percent of its overall budget. If current health trends continue – particularly the rising rates of preventable chronic disease – the Government estimates that ‘health will consume the entire state government budget in less than 25 years’.⁴²²

HiAP recognises that health and wellbeing is largely influenced by programs and policy settings managed by government agencies other than the Department of Health:

... the health and wellbeing of the population is shaped by the broad social, economic and physical factors – collectively called the social determinants of health – most of which are outside the control of the health sector. Housing, transport, education and the environment are all examples of factors that affect health and wellbeing which lie outside of the core function of health systems. The most significant improvements in health and life expectancy over the past 150 years are due to changes in these broader areas, and are not directly attributed to improvements in health care.

The HiAP literature emphasises that health has a major impact on the economy. Figure 12 illustrates how the social determinants of health are interconnected with factors leading to economic prosperity.

Figure 12: Health as an economic and social driving force



Source: Department of Health 2010 *The South Australian approach to Health in All Policies: background and practical guide*, Government of South Australia, Adelaide, 8.

The SA Department of Health has appointed a HiAP Officer to work with the Department of Planning and Local Government ‘to develop greater integration of best practice health principles into planning policies, programs and protocols.’⁴²³ Early assessments of the program have been positive and the government is currently refining the program’s evaluation processes.

⁴²² Department of Health 2010 *The South Australian approach to Health in All Policies: background and practical guide*, Health in All Policies Unit, Government of South Australia, Adelaide, 9.

⁴²³ ‘Health in All Policies, South Australia’, Healthy Spaces and Places, Department of Health and Ageing, 2009, <http://bit.ly/HDNCeW> accessed 8 December 2011.

Recommendation 21

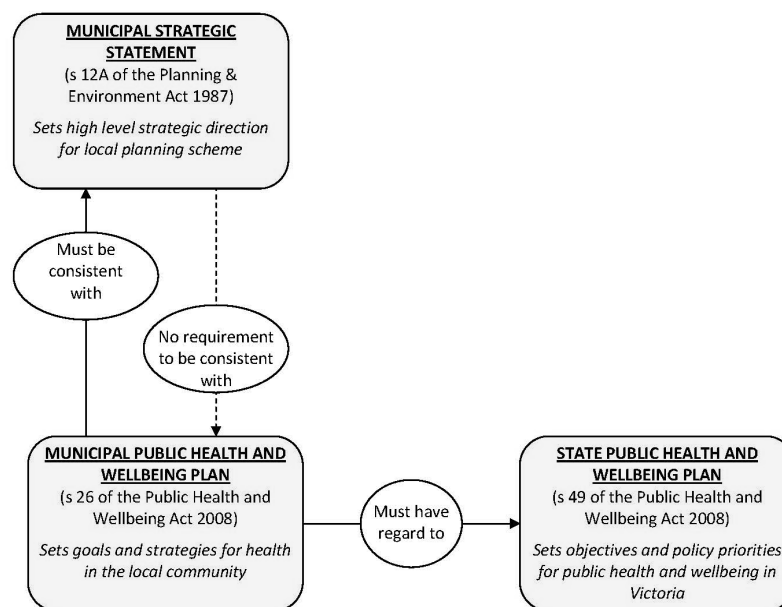
That the Victorian Government, recognising that the work of all government agencies influence health and wellbeing, adopts a whole-of-government approach to health policy-making, such as the ‘Health in All Policies’ model used by the South Australian Government and the European Union.

5.8 Municipal Public Health and Wellbeing Plans

Under section 26 of the *Public Health and Wellbeing Act 2008*, Victorian councils are required to prepare and annually review Municipal Public Health and Wellbeing Plans (MPHWPs).⁴²⁴ These plans identify a municipality’s public health and wellbeing needs based on its health status and social determinants of health. The plans set out objectives and policy priorities for the promotion and protection of health and wellbeing.⁴²⁵

The *Public Health and Wellbeing Act 2008* requires MPHWPs to be consistent with both the council plan (prepared under section 125 of the *Local Government Act 1989*) and the Municipal Strategic Statement (MSS) (prepared under section 12A of the *Planning and Environment Act 1987*).⁴²⁶ A council must also have regard to the State Public Health and Wellbeing Plan when preparing the MPHWP.⁴²⁷ Figure 13 illustrates this:

Figure 13: Relationship between Municipal Strategic Statements and Municipal Public Health and Wellbeing Plans



The MSS plays an important overarching role in the land use planning function of local governments. It sets the high level strategic direction for all the controls in a

⁴²⁴ *Public Health and Wellbeing Act 2008*, s. 26.

⁴²⁵ Municipal Association of Victoria, *Submission No. 61*, 25 July 2011, 9.

⁴²⁶ *Public Health and Wellbeing Act 2008*, s. 26 (2)(e).

⁴²⁷ *Public Health and Wellbeing Act 2008*, s. 26 (3).

local planning scheme. Once signed off by the Minister, the MSS informs decision-making at a local level by statutory planners and, if necessary, at VCAT.⁴²⁸

The *Planning and Environment Act 1987* requires that a MSS must contain (in part):

- a) the strategic planning, land use and development objectives of the planning authority; and
- b) the strategies for achieving the objectives; and
- c) a general explanation of the relationship between those objectives and strategies and the controls on the use and development of land in the planning scheme.⁴²⁹

Several participants in the Inquiry pointed out that there is no requirement for a council's MSS – its key planning statement – to be consistent with or take into account its own Public Health and Wellbeing Plan.⁴³⁰ The MPHWP often stands alone, and a council's public health and wellbeing needs, objectives and policies (as articulated in the MPHWP) are unable to directly influence the local land use planning system.⁴³¹ Warrnambool City Council noted that the MPHWP has 'little power in ensuring action for health and wellbeing at the local level except through the goodwill of Council', whereas 'the MSS has significant power as the guiding policy document for urban planning.'⁴³²

In practice, very few council MSSs refer to health and wellbeing.⁴³³ Mr Jason Black told the Committee:

... health and wellbeing needs should be included in the visions of all Municipal Strategic Statements which are contained in planning schemes. That is local government's statement about what is important and what is envisaged within their community. We run these training courses, and we look at a lot of MSSs, or municipal strategic statements, and it is amazing how few of them actually speak about people and the outcome they envisage for people.⁴³⁴

Commenting on the need to strengthen the links between the MSS and the MPHWP, and therefore between the *Planning and Environment Act 1987* and the *Public Health and Wellbeing Act 2008*, the City of Casey stated in a submission that this would benefit planning decision-making:

Improving in particular, the relationship between the [two Acts] would considerably enhance Council's ability to apply health and wellbeing objectives in planning. Decision-making in relation to health and wellbeing outcomes would be

⁴²⁸ Warrnambool City Council, *Submission No. 13*, 30 June 2011, 3.

⁴²⁹ Victorian Government, *Planning and Environment Act 1987*, s. 12A.

⁴³⁰ Victoria Council of Social Service, *Submission No. 49*, 8 July 2011, 3; Heart Foundation (Victoria), *Submission No. 55*, July 2011, 27; Mr J Black, Planning Institute of Australia (Victorian Division), *Transcript of Evidence*, 4 October 2011, 292. Note s.27 of the *Public Health and Wellbeing Act 2008* allows a Council to apply to the Secretary of the Department to include their public health and wellbeing plan in their Council Plan or a strategic plan.

⁴³¹ City of Ballarat, *Submission No. 19*, 30 June 2011, 5; Planning Institute Australia (Victorian Division), Cancer Council Victoria (SunSmart), City of Port Phillip, Physical Activity Australia, Victorian Council of Social Service and Victorian Local Governance Association, *Submission No. 59*, 13 July 2011, 17; City of Whitehorse, *Submission No. 6*, 24 June 2011, 1; Yarra Ranges Council, *Submission No. 41*, 20 June 2011, 4.

⁴³² Warrnambool City Council, *Submission No. 13*, 30 June 2011, 3-4.

⁴³³ Planning Institute of Australia et al, *Submission No. 59*, July 2011, 16.

⁴³⁴ Mr J Black, Planning Institute of Australia (Victorian Division), *Transcript of Evidence*, 4 October 2011, 292.

significantly improved as the integration of the two Acts would provide Council the statutory weight required to formally refuse planning applications that provide poor health and wellbeing outcomes. Council has been limited in this area thus far as its own policies do not have the statutory weight required to withhold appeal of an application to the Victorian Civil and Administrative Tribunal, nor have the provisions under the planning scheme had enough strength to guide decision making in relation to health and wellbeing. Integration of these two Acts would also ensure that health and wellbeing is considered in more depth during the planning scheme amendment and PSP process.⁴³⁵

The Committee agrees that the links between the two Acts are strengthened by aligning MPHWP and MSSs, in order to improve the ability of a council's public health agenda to influence local government planning decisions.

Recommendation 22

That the Victorian Government amends section 12A(4) of the *Planning and Environment Act 1987* to require Municipal Strategic Statements to be consistent with Municipal Public Health and Wellbeing Plans. Following this, the Government should conduct an audit of Municipal Strategic Statements annually to monitor compliance with the amendment.

5.9 Environments for Health Municipal Public Health Planning Framework

The Environments for Health Municipal Public Health Planning Framework (known as 'Environments for Health') was introduced in 2001 as a standard reference for local governments preparing MPHWP. It was reprinted in 2009 and supplemented with a range of guides for health planners.

The Framework encourages councils to consider four environments that have an impact on health: the social, built/physical, economic and natural environments.

Section 4.4.2 of the Framework discusses urban planning:

Physical and social environments play major roles in the health of communities. Since a principal focus of the planning profession is the design and creation of sound places for people, planning and public health professionals are intrinsically linked. Urban planning is a form of primary prevention and a contributor to health outcomes.⁴³⁶

A 2009 supplement to the Framework, *Urban Design and Health*, identifies aspects of the built environment that influence population health and wellbeing and suggests resources for local planners.

The Committee received consistent evidence on the effectiveness of Environments for Health. In general, local government has found it a coherent and useful tool for

⁴³⁵ City of Casey, *Submission No. 42*, 6 July 2011, 20.

⁴³⁶ 'Municipal Public Health Planning Framework – Part A', Department of Health, 2009, <http://bit.ly/uEhQ0G> accessed 8 December 2011.

undertaking the MPHWP process.⁴³⁷ While many factors within the four health environments are not solely within the ambit of local government, the Framework's 'systems approach' to public health is widely seen as a useful way to conceptualise the issues and discuss them internally (within council) and with external stakeholders.⁴³⁸

As an example, the City of Boroondara has structured the *Boroondara Public Health and Wellbeing Plan 2009-13* around the Framework's four health environments and has also used the Framework to inform other projects and plans, such as *Creating an Age Friendly Boroondara* and the Boroondara Mental Health and Wellbeing research project.⁴³⁹

Local governments may also choose to build on the Framework by combining it with other approaches. For example, the Shire of Nillumbik employs a Community Resilience framework, which it describes as particularly relevant for communities affected by bushfire and for the ageing community.⁴⁴⁰

The Committee heard discussion around the level of guidance and support provided to councils to use Environments for Health. In particular, rural and regional councils may lack the internal capacity for health and social planning and may struggle to develop a health and wellbeing agenda, especially as it relates to urban planning.⁴⁴¹

The Committee also notes that a continuing shortage of professional planners in Victoria is an area of concern. The PIA (Vic)'s 2004 *National Inquiry into Planning Education and Employment* found that cities, regional and rural areas are all suffering from the shortage, and that 'Local government, as the largest employer of planners, faces the biggest challenge with recruiting and retaining planners.'⁴⁴² A 2011 Victorian analysis by the Department of Education, Employment and Workplace Relations shows that there is still a significant shortage in the planning profession.⁴⁴³

The Department of Health is able to assist local government with health and wellbeing planning (the Committee received positive feedback on one such program).⁴⁴⁴ In evidence to the Committee, the Department of Health stated:

We have worked closely with the MAV [Municipal Association of Victoria], with councils and through our regional offices with local government. We are

⁴³⁷ City of Whittlesea, *Submission No. 26*, 30 June 2011, 14; City of Boroondara, *Submission No. 31*, 27 June 2011, 17-18; Ms C Hargreaves, Municipal Association of Victoria, *Transcript of Evidence*, 4 August 2011, 23; Wyndham City Council, *Submission No. 62*, 26 July 2011, 23; Yarra Ranges Council, *Submission No. 41*, 20 June 2011, 4; City of Melbourne, *Submission*, Number 44, 7 July 2011, 4.

⁴³⁸ City of Greater Bendigo, *Submission No. 3*, 22 June 2011, 5-6; Wyndham City Council, *Submission No. 62*, 26 July 2011 23.

⁴³⁹ City of Boroondara, *Submission No. 31*, 27 June 2011, 17-18.

⁴⁴⁰ Nillumbik Shire Council, *Submission No. 60*, 13 July 2011, 6.

⁴⁴¹ Warrnambool City Council, *Submission No. 13*, 30 June 2011, 4.

⁴⁴² Planning Institute of Australia 2004 *Findings and Recommendations: National Inquiry Into Planning Education and Employment*, PIA, Canberra, i; see also Victorian Local Governance Association 2011 *Review of Victoria's Overall Planning System Submission*, VLGA, Melbourne, 2, 21, 23.

⁴⁴³ 'Skill Shortage List Victoria', Department of Education, Employment and Workplace Relations, 2011, <http://bit.ly/l5dGQO> accessed 15 March 2012.

⁴⁴⁴ City of Stonnington, *Submission No. 40*, 14 July 2011, 11.

strengthening our ability to build the evidence base and evaluation that can support activities in local councils; for example, by increasing the survey sample size of the Victorian population health survey to enable disaggregation by local government area. We have also established a new centre called CEIPS, which is the Centre of Excellence in Intervention and Prevention Science. It has been created as an independent organisation to provide evaluation and research support for community action on public health and wellbeing. There are a number of other measures in terms of the frameworks and tools we have provided and some workforce development programs. Examples of the resources and guides that have been prepared are available on the website.⁴⁴⁵

However, Inquiry participants were clear on the need to expand and continually reinforce this support at the local government level.⁴⁴⁶ One of the authors of a 2006 evaluation of the Environments for Health Framework informed the Committee:

One of the things we found was that giving guidance once does not work. You have to keep giving guidance all the time. You have to keep supporting people in doing this. Capacity building really should not be just a one off, a brochure or a book or something that has been given; it should be continuous.⁴⁴⁷

The Committee heard discussion on the evaluation phase of the health planning process, with some councils commenting that while the *Public Health and Wellbeing Act 2008* asks for annual evaluations of the MPHWP, there is little direction on what the evaluation should entail.⁴⁴⁸ The City of Boroondara, for example, called for continued support and resources to use indicators to measure community outcomes in the social, built, economic and natural environments.

In further evidence to the Committee at a public hearing, the Department of Health confirmed the need to assist councils with the Framework, in particular the evaluation process:

We have started, in conjunction with one of our regions, to develop some tools to support councils in reviewing. The Act does require that municipal public health and wellbeing plans are reviewed annually, and we are developing some tools to assist councils to do that. I would certainly take on board that there is a lot more to be done, and we need to really know what is being achieved through that process and where it may be necessary to adjust or take stock of what is being achieved so that we can ensure that we are really getting the outcomes that we need.⁴⁴⁹

The Committee finds that Environments for Health is well regarded and should be retained. However, it would be timely to re-evaluate and revise the Framework as part of ongoing improvement and development.

⁴⁴⁵ Mr C Sindall, Department of Health, *Transcript of Evidence*, 14 September 2011, 276.

⁴⁴⁶ Victorian Healthcare Association, *Submission No. 22*, 29 June 2011, 5; Yarra Ranges Council, *Submission No. 41*, 20 June 2011, 4; Prof E de Leeuw, *Transcript of Evidence*, 7 September 2011, 226.

⁴⁴⁷ Prof E de Leeuw, *Transcript of Evidence*, 7 September 2011, 226.

⁴⁴⁸ City of Boroondara, *Submission No. 31*, 27 June 2011, 18; East Gippsland Shire Council, *Submission No. 57*, 15 July 2011, 3.

⁴⁴⁹ Mr C Sindall, Department of Health, *Transcript of Evidence*, 14 September 2011, 280.

Recommendation 23

That the Department of Health reviews and updates *Environments for Health* and provides ongoing assistance to local government to use the framework in preparing Municipal Public Health and Wellbeing Plans.

Recommendation 24

That the Department of Health provides guidance to local governments to evaluate Municipal Public Health and Wellbeing Plans and to benchmark with other municipalities.

5.9.1 Shade

The Committee received evidence from SunSmart (the skin cancer control program of Cancer Council Victoria) focusing on the provision of shade as a means of preventing skin cancer. More than 40,000 cases of skin cancer are diagnosed in Victoria each year. The cost to the Australian health system is estimated at over \$300 million annually – the most costly burden on the health system of all cancers.⁴⁵⁰

In 2009 SunSmart commissioned an audit of MPHWP. The audit found that fewer than 20 percent mentioned shade, sun protection or skin cancer. Only 12 of 62 MPHWP had an action that involved explicit mention of shade, sun or skin cancer, usually in the background document rather than the Plan.⁴⁵¹ Around 45 percent of people report that finding shade at their local park or playground is difficult and, according to SunSmart, there is evidence that people in lower socio-economic areas have less access to shade.⁴⁵²

The Committee heard that building design and orientation and the layout of streetscapes can all make a contribution to creating shade and a more attractive environment for physical activity:

Mr SCHEFFER — You mentioned a range of locations where people are particularly susceptible to —

Ms HEWARD — Getting sunburnt.

Mr SCHEFFER — At parks and sports fixtures and so forth. I want to just come to the urban environment — the streetscape. This is a conversation we have had here previously. We ask for setbacks in upper storeys, which lets more light into the street, and then we put in trees or we put in umbrellas or whatever it is. The options would be not to have setbacks and to use awnings over footpaths like in earlier times, or cantilevered buildings where the upper storeys go in to protect the street and the walking areas from hot sun. Have you had any conversations around alternative streetscape design like that that might make people's shade access and amenity a bit better?

⁴⁵⁰ Cancer Council Victoria (SunSmart), *Submission No. 30*, 30 June 2011, 2.

⁴⁵¹ Cancer Council Victoria (SunSmart), *Submission No. 30*, 30 June 2011, 4.

⁴⁵² Mr J Scheffer and Ms S Heward, Cancer Council Victoria (SunSmart), *Transcript of Evidence*, 6 September 2011, 161.

Ms HEWARD — It is probably fair to say that trying to have a conversation about shade goes nowhere at this point because there is no obligation for shade to even be thought about. If you asking which one we think would be better, really what we know is that aesthetically people will be more physically active where there is shade. They like the look and feel of shade. They know it is not going to be too hot even though it is actually not the heat that burns you; it is UV. But we struggle to even get shade talked about at any point; it is just not a consideration. It is so far down the track that it does not even get discussed.⁴⁵³

The Committee notes that SunSmart has recently developed resources to assist local government, including a shade policy framework, a statement and set of actions for incorporation into MPHWP, and a shade audit tool for assessing shade provision.

The Committee found the case made by SunSmart to be compelling. The lack of consideration of shade in MPHWP is concerning and an issue of direct relevance to this Inquiry. In urban areas the provision of shade – whether from tree canopies or purposes built structures – is likely to lead to a streetscape that is more inviting and conducive to physical activity. School premises, parks and sporting facilities are other locations where shade provision is important in creating a comfortable environment for recreation and exercise.

Recommendation 25

That the Department of Health works with SunSmart and local governments to ensure that UV protective shade measures are included in Municipal Public Health and Wellbeing Plans. This should be followed with regular audits of the Plans to monitor compliance with the measures.

⁴⁵³ Ms S Heward, Cancer Council Victoria (SunSmart), *Transcript of Evidence*, 6 September 2011, 162-163.

Chapter 6: Parks and open spaces

... well-designed, planned and managed urban green spaces provide significant aesthetic, social, psychological and environmental benefits for all people. It is important that health and wellbeing is enhanced and supported, through providing accessible green spaces in all neighbourhoods.⁴⁵⁴

Chapters 2 to 4 reviewed the literature linking aspects of urban design to impacts on public health. This chapter will examine the evidence that one of the most significant aspects of the built environment to impact positively on health is provision of parks and other public spaces.⁴⁵⁵

Since the mid-nineteenth century, Victorian governments have reserved public land for parks.⁴⁵⁶ Melbourne City Council recorded in 1844, 'It is of vital importance to the health of the inhabitants that there should be parks [where] the kindest feelings of human nature are cherished'.⁴⁵⁷ The 1954 Melbourne Metropolitan Planning Scheme stated:

It is now universally recognised that facilities for relaxation and exercise outdoors are an essential part of urban living, and that the provision of these facilities is a responsibility of civic administration.⁴⁵⁸

Today's estimated 67,000 hectares of public open space in the Melbourne metropolitan area are recognised as a key contributor to the city's popularity and liveability.⁴⁵⁹

There is considerable evidence that contact with nature and green spaces can have multiple positive impacts on a community's physical, mental and social health.⁴⁶⁰ One meta-analysis of more than 120 international studies examining the effect of outdoor environments on physical and mental health concluded:

Landscapes have the potential to promote mental well-being through attention restoration, stress reduction, and the evocation of positive emotions; physical well-being through the promotion of physical activity in daily life as well as leisure time and through walkable environments; and social well-being through social integration, social engagement and participation, and through social support and security.⁴⁶¹

⁴⁵⁴ *beyondblue*, Submission No. 9, June 2011, 4.

⁴⁵⁵ H Frumkin, 'Healthy Places: Exploring the Evidence', *American Journal of Public Health*, September 2003, 93 (9): 1452-1453.

⁴⁵⁶ Victorian Environmental Assessment Council 2009 *The Contribution of Public Land to Melbourne's Liveability*, Victorian Government, Melbourne, 99.

⁴⁵⁷ 'A Garden City', Public Record Office Victoria, 2012, <http://bit.ly/HtxPyN> accessed 1 February 2012.

⁴⁵⁸ Melbourne and Metropolitan Board of Works 1954 *Melbourne Metropolitan Planning Scheme 1954: Report*, Melbourne, 77, <http://bit.ly/HEhD2t> accessed 12 October 2011.

⁴⁵⁹ Victorian Environmental Assessment Council 2011 *Metropolitan Melbourne Investigation Final Report*, 5.

⁴⁶⁰ M Townsend and M Ebdon, *Feel Blue, Touch Green*, People and Parks Foundation and Deakin University, Melbourne, 2006, 3; Australian Institute of Landscape Architects, Submission No. 12, 27 June 2011; Parks Victoria, Submission No. 29, June 2011, 5; Australian Institute of Health and Welfare 2011 *Health and the environment: a compilation of evidence*, AIHW, Canberra, vii-1; *beyondblue*, Submission No. 9, June 2011, 4; C Maller et al, *Healthy parks, healthy people – The health benefits of contact with nature in a park context, A review of relevant literature*, Deakin University and Parks Victoria, Melbourne, 2008, 1.

⁴⁶¹ A Abraham et al, 'Landscape and well-being: a scoping study on the health-promoting impact of outdoor environments', *International Journal of Public Health*, February 2010, 55(1): 59-69.

Parks and open spaces provide places to exercise, to relax away from the pace and noise of urban living, to build a sense of community, to protect and encourage biodiversity, and to mitigate the impacts of climate change. Parks Victoria's strategy *Healthy parks, healthy people* states that green spaces:

... can reduce crime, foster psychological wellbeing, reduce stress, boost immunity, enhance productivity, and promote healing. In fact, the positive effects on human health, particularly in urban environments, cannot be over-stated ... contrary to popular thinking, humans may be dependent on nature for psychological, emotional, and spiritual needs that are difficult to satisfy by other means. Findings so far demonstrate that access to nature plays a vital role in human health, wellbeing, and development that has not been fully recognised.⁴⁶²

The Committee received evidence that both public and private open space in Victoria is decreasing.⁴⁶³ The trend towards smaller suburban backyards was noted in the Inquiry; as Counsellor Glenn Goodfellow of the City of Wyndham expressed, 'I can remember as a kid that you would go out into the backyard, climb up a tree and have fun. That has all gone.'⁴⁶⁴ This is attributed by many in the development industry to consumer preference for using outdoor space as an extension of the house's living and entertaining areas, larger housing sizes and smaller lots.⁴⁶⁵

While the average size of new houses in Australia increased substantially from the mid-1980s to the mid-1990s, industry analysis and recent data suggest this may be reversing. According to CommSec research, the average size of a new house may have peaked in 2008-9 at a record 248 square metres; this fell back to around 214 square metres in March 2011.⁴⁶⁶ Consistent with this, Australia's biggest listed new home builder, Stockland, has cut the average size of house and land package plots by almost 20 percent over the past three years (to 481 square metres).⁴⁶⁷ Reflecting on the implications for private space of smaller houses and smaller lots, the Managing Director of Peet Pty Ltd, a leading property group and estate developer, states that many consumers 'now don't want a large backyard which requires time-consuming maintenance, but would like landscaped parks and open spaces nearby.'⁴⁶⁸

In July 2011 the Minister for Planning, Matthew Guy, announced that single dwellings on lots smaller than 300 square metres would now be exempt from the requirement to obtain a planning permit.⁴⁶⁹ The change aims to make it faster and

⁴⁶² C Maller et al, *Healthy parks, healthy people*, 1.

⁴⁶³ Victorian Environmental Assessment Council 2011 *Metropolitan Melbourne Investigation Final Report*, 1; see also Prof A Capon, ANU National Centre for Epidemiology and Population Health, *Transcript of Evidence*, 4 August 2011, 35.

⁴⁶⁴ Cr G Goodfellow, Wyndham City Council, *Transcript of Evidence*, 23 August 2011, 126.

⁴⁶⁵ M Kelly, 'How big is my castle?' *The Australian*, 20 November 2010, <http://bit.ly/lnz5He> accessed 24 November 2011.

⁴⁶⁶ S Parker, 'Australian home size looks set to fall', *Real Estate Business*, 22 August 2011, <http://bit.ly/lnzcCG> accessed 14 September 2011.

⁴⁶⁷ M Yardney, 'The Great Australian Dream is Shrinking', *Property Update*, 29 February 2012, <http://bit.ly/lnzlpu> accessed 1 March 2012.

⁴⁶⁸ M Yardney, 'The Great Australian Dream is Shrinking'.

⁴⁶⁹ M Guy, 'Red tape reduction to help housing affordability', media release, Growth Areas Authority, Victorian Government, 14 July 2011, <http://bit.ly/HCOD99> accessed 20 March 2011.

simpler for smaller and more diverse housing types to be constructed in certain areas.⁴⁷⁰

A 2011 report by the Victorian Environmental Assessment Council warned that 'Melbourne's increasing urban density and expansion will negatively impact on the quantity and quality of Melbourne's public open space and its remaining biodiversity values.'⁴⁷¹ For many adults and children living and working in highly-developed urban areas, public parks may well be the only spaces they have for contact with nature.⁴⁷²

6.1 Physical benefits

*... natural environments offer low-cost preventative and remedial opportunities for public health.*⁴⁷³

As discussed in this report, encouraging more Victorians to engage in physical activity will be a critical part of the state's response to the challenges of chronic disease and obesity.

Parks and public spaces provide opportunities for physical exercise, whether walking, cycling, jogging or participating in organised sport. Research consistently associates living near to parks and other recreational spaces with higher physical activity levels for both adults and young people.⁴⁷⁴ A study of the impact of urban form on public health by Professor Billie Giles-Corti showed that the annual prevalence for 15 out of 24 diseases was lower for populations living in environments with nearby areas of green space.⁴⁷⁵ Another study showed that people are more likely to walk for exercise if they live near attractive, large public open spaces that encourage a diversity of uses and users.⁴⁷⁶

Interaction with nature has been shown to help reduce blood pressure and stress levels,⁴⁷⁷ and can promote healing in patients suffering from severe trauma, cancer⁴⁷⁸ and surgery.⁴⁷⁹ Trees improve air quality by capturing particulate matter and air pollutants⁴⁸⁰ and intercept up to 90 percent of direct sun heat on

⁴⁷⁰ 'Small Lot Housing Code: Info Sheet', Growth Areas Authority, 2011, 1, <http://bit.ly/HF29Yv> accessed 12 October 2011.

⁴⁷¹ Victorian Environmental Assessment Council 2011 *Metropolitan Melbourne Investigation Final Report*, 1.

⁴⁷² C Maller et al, *Healthy parks, healthy people*, 1; M Townsend and R Weerasuriya, *Beyond Blue to Green: The benefits of contact with nature for mental health and well-being, beyondblue*, Melbourne, 2010, 18; Victorian Environmental Assessment Council 2009 *The Contribution of Public Land to Melbourne's Liveability*, Victorian Government, Melbourne, 98; Parks Victoria, *Submission No. 29*, June 2011, 12.

⁴⁷³ *The Value of Parks*, Parks Forum, 2008, 9.

⁴⁷⁴ L Shoup and R Ewing, 'The Economic Benefits of Open Space, Recreation Facilities and Walkable Community Design', *Active Living Research*, March 2010, 1-28.

⁴⁷⁵ B Giles-Corti, 'The impact of urban form on public health', paper prepared for the 2006 Australian State of the Environment Committee, Department of the Environment and Heritage, Canberra, 2006, 6.

⁴⁷⁶ B Giles-Corti et al, 'Increasing Walking: How Important Is Distance To, Attractiveness, and Size of Public Open Space?' *American Journal of Preventive Medicine*, 2005, 28 (2S2): 169.

⁴⁷⁷ R Mitchell and F Popham, 'Effect of exposure to natural environment on health inequalities', *The Lancet*, 8 November 2008, 372 (9650): 1655.

⁴⁷⁸ Parks Victoria, *Submission No. 29*, June 2011, 6.

⁴⁷⁹ R Mitchell and F Popham, 'Effect of exposure to natural environment on health inequalities', 1655.

⁴⁸⁰ VicHealth, *Submission No. 47*, 11 July 2011, 9.

buildings.⁴⁸¹ Through its evaporative cooling qualities, a single tree can have the same impact on reducing ambient temperatures as five room air conditioners, running 20 hours a day.⁴⁸² The Australian Institute of Landscape Architects (AILA) noted in their submission that investing in 'green infrastructure' in urban environments, such as planting gardens on buildings' roofs, will further help to reduce heat island effects.⁴⁸³

6.1.1 Case study: Active in Parks program

Under the auspices of Parks Victoria, a unique pilot study promoting the links between parks and physical wellbeing has begun in Geelong. The *Active in Parks* program is the first of its kind in Victoria and involves partnerships between over 20 local and national community, government, education and medical groups. These include People and Parks Foundation, the General Practitioners Association of Geelong, the Departments of Health and Planning and Community Development, Deakin University, the Heart Foundation, the YMCA, the G21 organisation and the Geelong Regional Library Corporation.⁴⁸⁴ Private health insurer Medibank Private is the principal sponsor of the program.

The program aims to use the health benefits of parks as a preventative health tool.⁴⁸⁵ A range of health professionals including doctors, maternal health nurses and social workers will 'prescribe' park visits to improve the health and wellbeing of their patients and clients.⁴⁸⁶

The program features a calendar of community-wide activities and events, such as developing community gardens, discovery walks, horse and bike-riding trails, sports competitions and outdoor reading programs.⁴⁸⁷ Parks Victoria hopes this project will be the model for future similar state-based programs.

An update in January 2012 suggests that the program has met with some success among diverse groups such as at-risk youth, refugees and recent immigrants, schoolchildren and people suffering from mental illness.⁴⁸⁸ According to a survey of 173 participants who were referred to the program by General Practitioners:

- 85 percent stated they will participate in physical activity independently now
- participants reported a range of benefits including fresh air, friendship, trying new activities, getting out of the house, getting active and improved mood

⁴⁸¹ Australian Institute of Landscape Architects, 'National Policy Statement: School Landscapes', AILA, Canberra, 2010, 1.

⁴⁸² Australian Institute of Landscape Architects, 'National Policy Statement: School Landscapes', 1.

⁴⁸³ Australian Institute of Landscape Architects, *Submission No. 12*, 27 June 2011, 10; City of Stonnington *Submission No. 40*, 14 July 2011, 4; Deakin University's Centre for Physical Activity and Nutrition Research, *Submission No. 16*, 30 June 2011, 1-3; Northern Alliance for Greenhouse Action, *Submission No. 18*, 30 June 2011, 2.

⁴⁸⁴ 'Geelong's Active in Parks – A Healthy Parks Healthy People program', Geelong's Active in Parks, 2012, <http://activeinparks.org/> accessed 12 December 2011.

⁴⁸⁵ Parks Victoria, *Submission No. 29*, June 2011, 14.

⁴⁸⁶ 'Nature the best medicine for Geelong region: innovative trial to prescribe parks for better health', Geelong's Active in Parks, 2012, <http://activeinparks.org/?p=1274> accessed 10 January 2012.

⁴⁸⁷ 'Geelong's Active in Parks – A Healthy Parks Healthy People program', Geelong's Active in Parks.

⁴⁸⁸ 'Case Studies HPHP active in parks January 2012', Active in Parks pamphlet, 2012.

- participants' feedback included feelings of increased confidence and enthusiasm; comments included 'tried things I would never have tried' and 'good to take time to exercise, will walk more often'.⁴⁸⁹

The Committee believes this program provides an innovative model for encouraging various forms of physical activity in communities around the state. The use of corporate sponsorship and the engagement with primary health providers and community groups is particularly noteworthy.

Recommendation 26

That the Victorian Government takes note of the outcomes of Parks Victoria's innovative Active in Parks program and identifies opportunities to develop similar partnerships involving Parks Victoria, the public and private health sectors, local government and community groups.

6.2 Psychological benefits

While the physical benefits of parks and contact with nature are evident, the psychological benefits are equally important. Some psychologists believe that increasing rates of mental illness in Western society can be partially attributed to people's increasing alienation from nature through mass urbanisation.⁴⁹⁰ As *beyondblue's* report *Beyond Blue to Green* details, recent research has focused on 'health effects of environmental degradation, with little attention paid to environmental deprivation.'⁴⁹¹ Studies show that 'ecotherapy' – interaction with nature – can aid in alleviating depression and anxiety disorders,⁴⁹² including postnatal depression which affects around 15 percent of Australian childbearing women.⁴⁹³

Parks Victoria gave evidence to the Committee that 'contact with nature helps reduce stress and build resilience, enabling people to cope with and recover from stressful episodes'.⁴⁹⁴ Some of these benefits include:

[A] place to escape from school, university or workplace stressors or concerns; it provides a refreshing change of scenery; it helps to lift and improve the mood; it lowers levels of anxiety; it lowers levels of stress; there are improvements in the symptoms of depression; and it also promotes endorphins through increased physical activity.⁴⁹⁵

A comprehensive study conducted by *beyondblue* and Deakin University showed that in conjunction with appropriate medical treatment, participants with depressive or anxiety disorders greatly benefited from exposure to natural environments in a range of nature-based community activities, including 'skill development, improving social networks, and developing an affinity with the

⁴⁸⁹ 'Case Studies HPHP active in parks January 2012', Active in Parks pamphlet, 2012, 2.

⁴⁹⁰ B Walsh, "'Eco-Therapy" for Environmental Depression', *Time*, 28 July 2009, <http://ti.me/1vBrm4> accessed 4 October 2011.

⁴⁹¹ M Townsend and R Weerasuriya, *Beyond Blue to Green*, 2.

⁴⁹² *beyondblue*, *Submission No. 9*, June 2011, 2.

⁴⁹³ *The Value of Parks*, Parks Forum, 2008, 9.

⁴⁹⁴ Parks Victoria, *Submission No. 29*, June 2011, 6.

⁴⁹⁵ Ms S Pope, *beyondblue*, *Transcript of Evidence*, 7 September 2011, 256.

natural environment'.⁴⁹⁶ In another study of people suffering from mental illness, 90 percent of subjects who spent time in outdoor environments 'indicated that green exercise activities had benefited their mental health, they had greater self esteem, focus of mind, were more relaxed, more motivated, enjoyed an improved quality of life, and felt "refreshed and alive"'.⁴⁹⁷

These findings underpin the popular 'care-farming' initiatives in Europe and the UK, in which vulnerable groups such as those with mental illness, adults and children with learning difficulties, at-risk youth and recovering addicts spend time on farms and contribute to their daily running.⁴⁹⁸ Care farming has had limited implementation in Australia with groups such as at-risk youth and elderly dementia sufferers, but has the potential to expand considerably as early pilot programs have met with success.⁴⁹⁹

The Committee heard that parks and public spaces also build social capital by providing opportunities for people to interact, decreasing the social isolation experienced by many people suffering from mental illness.⁵⁰⁰ Parks and green spaces provide opportunities for social gatherings like picnics and barbecues, and for regular group programs such as environmental education, sports and conservation activities.⁵⁰¹

6.3 Children's development

*Contact with nature is vitally important in children's physical and mental development, and integrated outdoor educational areas can measurably enhance learning opportunities.*⁵⁰²

Apart from the physical activity it can provide, research has demonstrated that contact with nature helps develop an essential range of children's cognitive functions,⁵⁰³ including a sense of identity and autonomy, psychological resilience, and developing a sense of empathy.⁵⁰⁴ Daily exposure to green environments can also help reduce children's stress, increase their ability to focus and 'the more plants, green views and access to natural play areas, the more positive the

⁴⁹⁶ M Townsend and M Ebdon, *Feel Blue, Touch Green*, 47-48.

⁴⁹⁷ *The Value of Parks*, Parks Forum, 25.

⁴⁹⁸ K Brown, 'Care Farms – an overview', University of Brighton, <http://bit.ly/viAWUx>; 'What is Care Farming?' Care Farming UK, <http://www.carefarminguk.org/> accessed 5 January 2012.

⁴⁹⁹ 'Triple Care Farm', Sir David Martin Foundation, Sydney, 2006, <http://bit.ly/Q6AXb>; 'Triple Care Farm graduates celebrate fresh start', Mission Australia, 2011, <http://bit.ly/uwlH5x>; J Elliott, 'Australian First Solely Dedicated Care Farm to Assist People with Dementia', media release, Department of Health, Victorian Government, 8 December 2008, <http://bit.ly/xCClWQ>; 'St Laurence – Our history', St Laurence, Lara, <http://bit.ly/l812gy>; 'Dementia-friendly environments – a guide for care', Department of Health, Melbourne, 2011, <http://bit.ly/AxRfK8> accessed 5 January 2012; see also Outer Suburban/Interface Services and Development Committee 2010 *Inquiry into Sustainable Development of Agribusiness in Outer Suburban Melbourne*, Parliament of Victoria, Melbourne, 258-260.

⁵⁰⁰ Victorian Council of Social Service, *Submission No. 49*, 8 July 2011, 6; Victorian Environmental Assessment Council 2009 *The Contribution of Public Land to Melbourne's Liveability*, 98.

⁵⁰¹ *The Value of Parks*, Parks Forum, 11.

⁵⁰² Australian Institute of Landscape Architects, 'National Policy Statement: School Landscapes', 1.

⁵⁰³ *beyondblue*, *Submission No. 9*, June 2011, 3.

⁵⁰⁴ Ms S Pope, *beyondblue*, *Transcript of Evidence*, 7 September 2011, 256.

results'.⁵⁰⁵ Conversely, a lack of exposure to nature has been linked to the development of attention deficit disorders and depression in children.⁵⁰⁶

This has significant implications for designing children's educational and childcare settings:

Children who experience school grounds with well designed, diverse, natural play areas are significantly more physically active, more aware of nutrition, more civil to one another, and more creative. High-quality landscaping in school grounds is also closely correlated with increased involvement by adults and members of the nearby community.⁵⁰⁷

AILA has suggested maximising children's health benefits by building 'intelligent school landscapes' which:

- consider outdoor spaces to be as important as the indoors in overall school development
- respect the capacity of the school grounds to function as a learning environment as well as a setting for social and recreational activity
- maximise opportunities for connection between indoor and outdoor spaces, to enhance learning outcomes
- creatively accommodate a broad range of learning and recreational activities, to support a diversity of physical and social needs
- are ecologically sustainable, linked to the curriculum and integrated into the school planning processes
- employ collaborative, inclusive strategies to allow students, teachers and the local community to participate in the planning, design and management of the school landscape
- respect the value of interaction with the natural environment for human health and well-being
- provide a resource for the local community – recreation, sports and social events.⁵⁰⁸

Even if a child's home environment does not provide green space, studies show that children who live near a park are more likely to be active outside school.⁵⁰⁹ A US study showed that children who lived near green spaces over a two-year period had lower Body Mass Indexes than children who did not, leading the authors to suggest that 'Greenness may present a target for environmental approaches to preventing child obesity.'⁵¹⁰

⁵⁰⁵ Australian Institute of Landscape Architects, 'National Policy Statement: School Landscapes', 2.

⁵⁰⁶ Victorian Environmental Assessment Council 2009 *The Contribution of Public Land to Melbourne's Liveability*, 98; Australian Institute of Landscape Architects, 'National Policy Statement: School Landscapes', 1.

⁵⁰⁷ Australian Institute of Landscape Architects, 'National Policy Statement: School Landscapes', 2; see also VM Romero, "'I will be not a nerd": Children's Development, the Built Environment and School Travel', paper presented at State of Australian Cities Conference, Adelaide, 29 November 2007, 1003.

⁵⁰⁸ Australian Institute of Landscape Architects, 'National Policy Statement: School Landscapes', 1-2.

⁵⁰⁹ B Giles-Corti, *Transcript of Evidence*, 4 August 2011, 13.

⁵¹⁰ JF Bell et al, 'Neighborhood greenness and 2-year changes in body mass index of children and youth', *American Journal of Preventive Medicine*, December 2008, 35 (6): 547-553.

Unfortunately, there has developed a pervasive ‘culture of fear’ among many Australian parents in allowing their children to play in outdoor areas.⁵¹¹ A VicHealth study suggested that this stems from a mix of changing social and cultural factors:

There is certainly a range of qualitative evidence and circumstantial detail suggesting a real restriction to children’s geographical or area-based range of independent mobility. There is also a reasonable case to be made that initiatives put in place to address community and personal safety have had the unintended consequence of heightening parental caution and increasing vigilance, if not actual fear and anxiety. By far though, the evidence shows there have been substantial changes in Australian family life linked to work, employment, the extension of the lifespan, the lowering of the age range for early childhood education and the need for care outside of the home. These factors, and exerting inexorable forces upon the shape of daily activity and routine, impart clear restrictions on where children can be left unsupervised, who can supervise them, the rules for transferring duty of care, and general tolerance for children having a ‘freer range’ of independent mobility.⁵¹²

American author Richard Louv coined the phrase ‘nature deficit disorder’ to describe a phenomenon suffered by children who do not having adequate contact with the outdoor world, particularly in being prevented from unstructured independent play:

For this generation, nature is more of an abstraction than a physical reality. Kids today can tell you about the Amazon rainforest, but not about the last time they went into a wood alone. Nature is something to watch from a distance, something to consume. Something very profound has happened in children's relationship to nature ... What we're doing instead is instilling in kids a kind of ecophobia. We're overloading them with scenarios of fear and disaster – worry about the ‘environment’ is crushing kids’ relationship with nature.⁵¹³

6.4 Quality of green and public spaces

While it is important to provide areas of green open space for communities, their inherent health and wellbeing benefits ‘are largely determined by the quality, quantity, and accessibility of these green spaces.’⁵¹⁴ Studies show that there is often a relationship between income status and green spaces – in general, the higher socio-economic level an area, the better quality parks there will be. A UK study showed that ‘Populations that are exposed to the greenest environments also have lowest levels of health inequality related to income deprivation.’⁵¹⁵ The same is true of green space’s positive effects on mental health, where the quality of the space has more influence than its size.⁵¹⁶

⁵¹¹ Australian Medical Association Victoria, *Submission No. 23*, 30 June 2011, 2; S Zubrick et al, *Nothing but fear itself: parental fear as a determinant of child physical activity and independent mobility*, VicHealth, Melbourne, 2010, 3-4.

⁵¹² S Zubrick et al, *Nothing but fear itself*, 3.

⁵¹³ J Henley, ‘Richard Louv: Let them climb trees’, *The Guardian*, 5 June 2010, <http://bit.ly/96ufdD> accessed 10 December 2011; see also Sustainable Population Australia (Victorian branch), *Submission No. 48*, 1.

⁵¹⁴ *beyondblue*, *Submission No. 9*, June 2011, 4; Prof B Giles-Corti, *Transcript of Evidence*, 4 August 2011, 13-14.

⁵¹⁵ R Mitchell and F Popham, ‘Effect of exposure to natural environment on health inequalities’, 1655.

⁵¹⁶ UWA Centre for the Built Environment and Health, *Submission No. 27*, 29 June 2011, 2.

In Victoria, the amount of open space between low income and high income areas differs little, but the quality of the spaces and parks in disadvantaged neighbourhoods is often worse.⁵¹⁷ *beyondblue* informed the Committee that mental health is better for people from low income groups that have access to green spaces than those that do not.⁵¹⁸

However public spaces do not necessarily have to be ‘green’ to have physical and psychological benefits – any well-designed public open space (such as a piazza or public square) provides a destination to walk or cycle to and provides opportunities to gather for recreation and build social capital.⁵¹⁹ Several contributors to the Inquiry mentioned the value of non-traditional spaces facilitating social interaction, such as urban art installations or interactive play spaces.⁵²⁰

Quality parks also need not be large, or even permanent. Small ‘pocket parks’ can be created between built-up inner urban areas, providing ‘much needed green space and amenity in areas where open space is limited.’⁵²¹ Another recent trend is ‘pop-up parks’, where local councils set up temporary community ‘green’ spaces. For example, Maribyrnong City Council developed a pop-up park on Ballarat St, Yarraville, for the period of February to April 2012. It consisted of ‘large planters, synthetic turf, tables, chairs and umbrellas to create a stimulating space in the heart of Yarraville Village for people to come together, relax and enjoy village life.’⁵²² In another example, San Francisco city permits allow ‘mobile gardens’ housed in large containers to temporarily take over car park spaces and other urban areas, ‘intended as a shot of mobile nature offering passers-by visual relief from asphalt and concrete.’⁵²³

The Committee heard evidence that the best quality public green spaces are those that have multiple uses, providing ‘diversified amenities to cater across ages, abilities, and time usage to increase participation and promote “affordable recreation” – where everybody gets to play’.⁵²⁴ Mixed use spaces can benefit a community in many ways, from providing parks and passive recreation areas to sports and other community activities, all contributing to ‘building cultural identity at a local, regional and metropolitan level.’⁵²⁵

⁵¹⁷ Deakin University’s Centre for Physical Activity and Nutrition Research, *Submission No. 16*, 30 June 2011, 2; Centre of the Built Environment and Health, *Submission*, 3.

⁵¹⁸ Ms S Pope, *beyondblue*, *Transcript of Evidence*, 7 September 2011, 256.

⁵¹⁹ Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 9; Ms S Pope, *beyondblue*, *Transcript of Evidence*, 7 September 2011, 257.

⁵²⁰ Ms S Pope, *beyondblue*, *Transcript of Evidence*, 7 September 2011, 257; Australian Institute of Landscape Architects, ‘National Policy Statement: Public Art and Landscape’, AILA, Canberra, 2010, 1-2; City of Boroondara, *Submission No. 31*, 27 June 2011, 8; City of Stonnington, *Submission No. 40*, 14 July 2011, 3, 5.

⁵²¹ City of Stonnington, *Submission No. 40*, 14 July 2011, 3, 7; see also Heart Foundation (Victoria), *Submission No. 55*, July 2011, 19.

⁵²² ‘Pop-Up Park for Yarraville’, Maribyrnong City Council, 26 March 2012, <http://bit.ly/xn3gPH> accessed 29 March 2012.

⁵²³ J King, ‘“Parkmobiles” bring taste of nature to urban S.F.’, *San Francisco Chronicle*, 2 August 2011, <http://bit.ly/nHj3Uy> accessed 29 March 2012.

⁵²⁴ Australian Institute of Landscape Architects, *Submission No. 12*, 27 June 2011, 9.

⁵²⁵ Victorian Environmental Assessment Council 2009 *The Contribution of Public Land to Melbourne’s Liveability*, 99.

In their submission, AILA discussed the challenge of providing adequate open spaces within the current Victorian planning system. The minimum requirements for facilities such as walking paths, play equipment, seating, shade and trees 'is largely discretionary', resulting in public open spaces that have 'minimal recreation opportunities'.⁵²⁶

At a public hearing, Ms Kellie-Ann Jolly of the Heart Foundation (Victoria) talked further about the importance of tailoring public spaces to the particular needs of each community:

The other thing we could do sometimes is to actually ask the community there what they would like from their park. We forget to find out what the community wants, and there are demographic changes over time in suburbs, as we all know.

I live in the City of Boroondara, where we have lots of open green space, but sometimes when you go to our local oval nobody is there. It is a wonderful open green space, but nobody is there. I went to a place in Carlton, a small park, but it was packed with people. I was trying to work out what it was that was different about the park we have at the end of our street and the park in Carlton ... There is a bocce rink at the Carlton park, and there was a group of Italian people playing bocce. There were children, a barbecue area, kicking a football and a variety of activities and recreational opportunities in that park. The ovals are much the same. You can do things around the edge of the park, and you can provide a variety of different playgrounds and equipment. For older people there are opportunities for them to do things like that, such as croquet, bocce or any of those sorts of things ... it is about trying to build that sense of community so that people have a sense that it is their park and not the council's park.⁵²⁷

Recommendation 27

That the Victorian government establishes targets for the provision of green and open public spaces.

Recommendation 28

That the Victorian Government takes the following steps to ensure high quality open spaces are available:

- amends the Precinct Structure Planning Guidelines to establish minimum requirements for open space, including features such as walking paths, play equipment, adult exercise equipment, seating and shade
- provides guidance to local government on appropriate rating tools for assessing the quality of public open space
- supports the ongoing maintenance of existing open space and the establishment of green and other public spaces in new residential developments, particularly in high density areas.

⁵²⁶ Australian Institute of Landscape Architects, *Submission No. 12*, 27 June 2011, 11.

⁵²⁷ Ms K Jolly, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 61.

6.5 Building community

Open public areas, green spaces and sporting facilities are important for building community and creating opportunities for social connection. As Parks Forum wrote in their submission, ‘Parks provide settings where families and friends come together to have fun, celebrate important occasions or just to relax and take time out. This has immense social value and is part of the “glue” of a healthy society.’⁵²⁸ Dr Rob Grenfell of Parks Victoria similarly commented on the value of open space in building community spirit:

... just consider the weekend activities in your own local parks from markets, sporting and cultural events, the casual kick of a ball to just simply laying on a rug and looking at the clouds. The essence of a community is the connection with your neighbours, friends and family, and you need open space to do that in.⁵²⁹

The benefits of community-building in open spaces can be enhanced:

... by urban planning that encourages visual coherence, diversity and attractiveness of houses and other buildings; affords sufficient privacy; ensures residents have easy access to amenities, parks, recreation facilities and a town or neighbourhood centre; offers pedestrian-friendly spaces; provides streetscapes so that houses have views of the surrounding neighbourhood; encourages open verandas and low fences in order to encourage social interaction; and restricts motor traffic.⁵³⁰

Community gardens are an increasingly popular way to facilitate social interaction, as well as providing a local source of fresh food.⁵³¹ Several participants in the Inquiry argued that master-planned communities should provide spaces for shared gardens to build community, increase the physical activity of residents and shore against food insecurity.⁵³² A comprehensive US study showed:

... community gardens and nearby green space in cities are an important response to needs for nutritious and affordable food, psychological and physiological health, social cohesion, crime prevention, recreation, and life satisfaction, particularly in low-income communities.⁵³³

Mr Nick Matteo, Manager of Community Planning and Advocacy at the Maribyrnong City Council, commented to the Committee that even small-scale community garden projects have value:

Council has now committed to an urban agriculture strategy; we have identified 15 sites across the municipality to develop community gardens. It is really in response to people in high rise developments who do not have a garden who actually want their hands in the soil. It provides a subsidy to low income people. It

⁵²⁸ Parks Forum, *Submission No. 7*, 30 June 2011, 2.

⁵²⁹ Dr R Grenfell, Parks Victoria, *Transcript of Evidence*, 7 September 2011, 233.

⁵³⁰ I Butterworth, *The Relationship between the Built Environment and Wellbeing: a Literature Review*, VicHealth, Melbourne, 2000, iii.

⁵³¹ Prof E de Leeuw, *Transcript of Evidence*, 7 September 2011, 225; see also J Kingsley and M Townsend, ‘“Dig In” to Social Capital: Community Gardens as Mechanisms for Growing Urban Social Connectedness’, *Urban Policy and Research*, 2006, 24 (4): 525-537.

⁵³² Food Alliance, *Submission No. 21*, 30 June 2011, 5; Victorian Local Governance Association, *Submission No. 56*, 13 July 2011, 28; Ms K Jolly, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 60; City of Boroondara, *Submission No. 31*, 27 June 2011, 11; City of Stonnington, *Submission No. 40*, 14 July 2011, 4; Yarra City Ranges Council, *Submission No. 41*, 7.

⁵³³ HP Hynes and G Howe, ‘Urban Horticulture in the Contemporary United States: Personal and Community Benefits’, *Acta Horticulturae*, 2004, 643: 171-181.

is not a lot — we cannot have big gardens — but it does contribute to their community development.⁵³⁴

Recommendation 29

That the Victorian Government requires Precinct Structure Plans to ensure the provision of community space, such as community gardens, in new housing developments.

6.6 The built environment and crime

*... by its very nature a street can be a place of extreme exposure, victimisation and danger or, by contrast, can be a place of shelter, refuge and safe passage.*⁵³⁵

Evidence shows that the built environment can influence rates of crime by both deterring criminal activity and encouraging social interaction by making residents feel safe in public spaces. As Professor Giles-Corti stated to the Committee, 'People behave better when they live in better environments.'⁵³⁶

Environments that promote social interaction and higher numbers of pedestrians are more likely to reduce crime. Research shows, for example, that communities with public green spaces and vegetation experience lower crime than areas without green spaces.⁵³⁷ One study showed that the more walkable a neighbourhood, the safer residents feel, 'endorsing a shift away from low density, curvilinear suburban developments towards more walkable communities with access to shops, parks and transit'.⁵³⁸

Although studies suggest that women's perceived fear of violence can influence their behaviour more than actual rates of violence, personal safety concerns often 'limit their ability to fully participate in society in the same way men do.'⁵³⁹ The 2010 Australian Bureau of Statistics General Social Survey showed that only 29 percent of women reported feeling safe walking alone in their local area at night compared to 68 percent of men, and that for both genders, feelings of safety decreased with age.⁵⁴⁰ Safety concerns in using active transport modes are also more prevalent for 'women from lower socio-economic groups and CALD [culturally and linguistically diverse] backgrounds who tend to live in higher crime neighbourhoods, work during non-business hours and typically have fewer transport options.'⁵⁴¹

⁵³⁴ Maribyrnong City Council, *Transcript of Evidence*, 6 September 2011, 171; see also Victorian Local Governance Association, *Submission No. 56*, 13 July 2011, 28.

⁵³⁵ Mr J Shinkfield, Australian Institute of Landscape Architects, *Transcript of Evidence*, 4 August 2011, 3.

⁵³⁶ Prof B Giles Corti, *Transcript of Evidence*, 4 August 2011, 14.

⁵³⁷ Australian Medical Association Victoria, *Submission No. 23*, 30 June 2011, 2; Kevin Heinze Centre, *Submission No. 5*, 23 June 2011, 1-2; Parks Victoria, *Submission No. 29*, June 2011, 6.

⁵³⁸ S Foster et al, 'Neighbourhood design and fear of crime: a social-ecological examination of the correlates of residents' fear in new suburban housing developments', *Health Place*, November 2010, 16 (6): 1156-1165.

⁵³⁹ Ms R Durey, Women's Health Victoria, *Transcript of Evidence*, 7 September 2011, 248; Women's Health Victoria, *Submission No. 4*, 27 June 2011, 3.

⁵⁴⁰ 'General Social Survey: Summary Results, Australia, 2010: Feelings of Safety', Australian Bureau of Statistics, 2011, <http://bit.ly/xhLXpa> accessed 14 September 2012.

⁵⁴¹ Women's Health Victoria, *Submission No. 4*, 27 June 2011, 3.

Women's Health Victoria informed the Committee of some environmental design features that could increase women's feelings of safety in public, such as 'locating bus stops in centres of activity rather than more isolated locations, ensuring adequate lighting on train platforms, bus stops and streets, and ensuring that waiting areas are visible to those in the surrounding area rather than blocked by advertising.'⁵⁴²

⁵⁴² Women's Health Victoria, *Submission No. 4*, 27 June 2011, 3.

Chapter 7: Active transport

*More active transport trips mean more health, cleaner air, less traffic congestion and more liveable cities; and, with appropriate road safety policies, fewer road traffic injuries.*⁵⁴³

Central to improving the health of all Victorians is encouraging physical activity, within built environments that support active lifestyles. Employing active transport modes (defined as walking, cycling and public transport) to move between places is an important way to increase exercise levels within a community. Apart from their positive impacts on health, active transport modes have many co-benefits, including:

- less car use which decreases traffic congestion, lowers greenhouse gas emissions and decreases the use of fossil-fuel energy sources
- reduced air, noise and visual pollution
- increased social interaction on streets and within neighbourhoods which builds social capital and a sense of community
- improved community safety, as ‘peopled’ places are safer places.⁵⁴⁴

This chapter examines several aspects of active transport: the different modes and their potential impacts on health and wellbeing; the influence of the built environment in encouraging or discouraging people to use active transport in daily travel, such as trips to work and school; and the challenge of providing adequate active transport networks in Victoria’s rapidly growing outer suburban and regional areas. It also examines current strategies to increase active transport, particularly through investment into infrastructure and improving road safety.

7.1 Walking

*The relationship between transport and liveability needs to include recognition of the importance of shifting towards increased walking and cycling.*⁵⁴⁵

Walking is the most popular physical activity in Australia.⁵⁴⁶ While a walking trip begins with an origin and a destination, the Committee heard that whether people choose to walk ‘depends on those two things being relatively close together, the environment between them, the walking environment, and whether you have somewhere pleasant that offers a pleasant experience to walk through.’⁵⁴⁷ Here the connection between urban planning facilitating or being an obstacle to walking becomes crucial.

‘Walkability’ is a term used to gauge how comfortable and easy an environment is to walk in. It includes the provision of footpaths, safe traffic conditions, land use patterns and aesthetics. The Heart Foundation has devised a checklist that

⁵⁴³ J Garrard, *Submission to the 2011 Victorian Speed Limit Review On behalf of the Safe Speed Interest Group*, Safe Speed Interest Group, Melbourne, 2011, 6. The Safe Speed Interest Group (SSIG) comprises a group of bodies including Heart Foundation (Victoria), the Cities of Yarra, Port Phillip, Darebin and Baw Baw Shires, Victoria Walks and Deakin University.

⁵⁴⁴ J Garrard, *Safe speed: promoting safe walking and cycling by reducing traffic speed*, Safe Speed Interest Group, Melbourne, 2008, 4; J Garrard, *Active transport: Children and young people: An overview of recent evidence*, VicHealth, Melbourne, 2009, 8.

⁵⁴⁵ Parks Victoria, *Submission No. 29*, June 2011, 14.

⁵⁴⁶ Ms K Jolly, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 58.

⁵⁴⁷ Mr M Hopkins, Department of Transport, *Transcript of Evidence*, 6 September 2011, 200.

assesses the walkability of an environment based on four main areas: walker friendliness; comfort; safety; and convenience and connectedness.⁵⁴⁸ Studies undertaken by the Heart Foundation have shown that there are three particular elements of the built environment that encourage people to walk for both transport and recreation. They are:

- mixed-use land planning to provide a variety of, and proximity to, local destinations, including public transport
- higher residential densities to encourage the building of local shops, services and public transport
- open street connectivity and pedestrian-friendly street layouts between homes, shops and workplaces, focusing on grid-based street patterns and avoiding crossing major roads.⁵⁴⁹

Similarly, a comprehensive review of studies examining neighbourhood environmental characteristics and physical activity among children concluded that the strongest correlations were walkability, traffic speed/volume, access/proximity to recreational facilities, land use mix, and residential density. For adolescents the most important associations were land use mix and residential density.⁵⁵⁰

Incidental unstructured exercise is just as beneficial as planned physical activity, such as walking to local shops rather than driving, or taking one's dog to the park.⁵⁵¹ Walking for recreation is also associated with the attractiveness or aesthetics of the neighbourhood environment, and the convenience of facilities.⁵⁵² The Department of Transport informed the Committee that while infrastructure is most important for increasing rates of cycling, community design is more significant for walking: 'In other words, if I am cycling, what I care about most is what is under the wheels; if I am walking, what I care about more is what is around me — do I feel safe and is this a pleasant environment to walk in?'⁵⁵³

At a public hearing, Dr Margaret Beavis explained to the Committee that local destinations are integral in encouraging people to walk within their neighbourhood. One Sydney-based study found that people were more likely to walk if there was a bus stop, a milk bar, a newsagent or a postbox within 400 metres. They were more likely to walk up to 1500 metres for schools, train stations and shopping centres. There was also a cumulative effect – each separate feature within 400 metres added around 12 minutes of personal exercise a fortnight, while each additional feature within 1500 metres added 11 minutes a fortnight.⁵⁵⁴

⁵⁴⁸ 'Neighbourhood Walkability Checklist – How walkable is your community?' Heart Foundation, 2011, 4, <http://bit.ly/Ai33NN> accessed 9 January 2012.

⁵⁴⁹ K Jolly, 'Environmental Design and Public Health, A Heart Foundation Perspective', Heart Foundation (Victoria) presentation, 2011, slide 5, <http://www.planning.org.au/documents/item/2956> accessed 22 October 2011.

⁵⁵⁰ D Ding et al, 'Neighborhood environment and physical activity among youth: a review', *American Journal of Preventive Medicine*, October 2011, 41 (4): 442-455.

⁵⁵¹ National Heart Foundation of Australia 2011 *Creating Healthy Neighbourhoods – Consumer preferences for healthy development*, National Heart Foundation, 2.

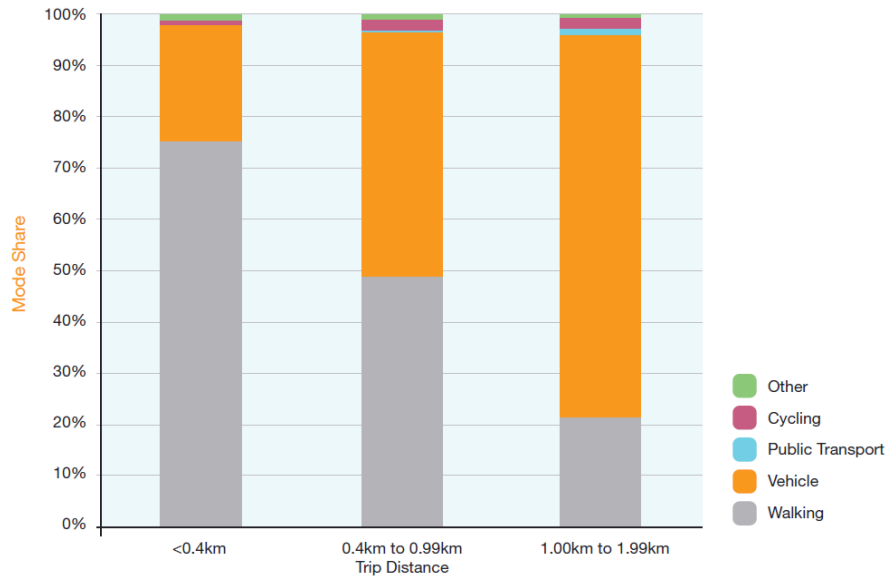
⁵⁵² K Jolly, 'Environmental Design and Public Health, A Heart Foundation Perspective', slide 5.

⁵⁵³ Mr M Hopkins, Department of Transport, *Transcript of Evidence*, 6 September 2011, 203.

⁵⁵⁴ Dr M Beavis, *Transcript of Evidence*, 4 August 2011, 51.

Recent Victorian statistics by the Department of Transport (Figure 14) show that as distances approach two kilometres, people are less likely to walk and more likely to use a car.

Figure 14: Proportion of people walking for all trips less than two kilometres in metropolitan Melbourne



Source: Department of Transport 2010 *The Pedestrian Access Strategy – A strategy to increase walking for transport in Victoria*, Victorian Government, Melbourne, 19.

There has been considerable research conducted on which street layouts are most conducive to neighbourhood walking. While cul-de-sacs are often valued for their perceived protection from busy traffic and crime,⁵⁵⁵ they can inhibit an area's walkability by restricting street connectivity and therefore increasing travel times. At a public hearing, Ms Kellie-Ann Jolly of the Heart Foundation (Victoria) discussed the importance of street connectivity for promoting active transport:

Ms JOLLY — Some of our older residential — what do you call them? — estates, I suppose, have very much the cul-de-sac look and feel about them with no connectivity. That was very much not thinking about being able to make a walking or cycling trip easier; it was more about it being okay for the car ... We have to flip it a bit and look at it from a walking and cycling perspective first and then perhaps from a car perspective second. I think that is the issue.

In some of the European countries we were talking about it is far more difficult to get in the car, whereas here it is actually easier for a lot of people. There are more barriers and obstacles to walking and cycling than there are to getting in the car ... We are probably talking about these short trips being the things we can work on first, not the long trips from home to work. It is more about the local trips.⁵⁵⁶

Other submissions to the Committee recommended a grid layout as the optimum design for walkability and connectivity: 'A grid layout is really important. All these

⁵⁵⁵ M Ingram, *The Grid versus the Cul-de-sac: An Evaluation of the Satisfaction of Residents with Street Patterns in Recent Cairns City Residential Subdivisions*, unpublished Honours thesis, School of Earth and Environmental Sciences, James Cook University, October 2010, ii.

⁵⁵⁶ Ms K Jolly, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 68.

dead end streets make it very hard to walk from point A to point B.⁵⁵⁷ In one Cairns-based study comparing three types of street designs (grid, cul-de-sac or loops), those living in streets within a grid pattern 'displayed the highest levels of overall satisfaction with their street pattern as well as pedestrian walkability/connectivity and safety for pedestrians and children at play.'⁵⁵⁸

Several contributors to the Inquiry emphasised the importance of planning for well-connected pedestrian and cycling networks to encourage physical activity, decrease car dependence and link local destinations such as shops, schools and homes. In Figure 15, Wyndham City Council provides an example of a poorly connected pathway terminating on a road shoulder.

Figure 15: An example of a lack of pathway connectivity in Wyndham



Source: Wyndham City Council

The Committee notes that the Department of Transport developed a Pedestrian Access Strategy (2010) under the previous state government. The strategy aimed to increase walking through investment in infrastructure, planning and design, safety and behaviour change programs.⁵⁵⁹ Evidence presented by the Heart Foundation (Victoria) stated that the strategy recognised the value of encouraging more people to walk (particularly for short trips) and it could be adopted and supported by the current government with appropriate investment.⁵⁶⁰ The Committee further notes that a Pedestrian Access Strategy could provide guidance to local governments in developing local active transport plans.

Recommendation 30

That the Victorian Government implements the Victorian Pedestrian Access Strategy 2010.

⁵⁵⁷ Dr M Beavis, *Transcript of Evidence*, 4 August 2011, 51; see also Heart Foundation (Victoria), *Submission No. 55*, July 2011, 17, 42; Municipal Association of Victoria, *Submission No. 61*, July 2011, 24; City of Whittlesea, *Submission No. 26*, 30 June 2011, 9.

⁵⁵⁸ M Ingram, *The Grid versus the Cul-de-sac*, ii.

⁵⁵⁹ Department of Transport 2010 *The Pedestrian Access Strategy – A strategy to increase walking for transport in Victoria*, Victorian Government, Melbourne, 5.

⁵⁶⁰ Heart Foundation (Victoria), *Submission No. 55*, July 2011, 27-28.

7.2 Cycling

*The key to increasing bike riding is better bicycle infrastructure.*⁵⁶¹

Research shows that cycling for transport benefits health and wellbeing through increased physical activity and social interaction, and helps the environment by decreasing car use and air and noise pollution.⁵⁶² On average, rates of cycling for transport have increased in Melbourne over recent years.⁵⁶³ Plans have been in place to accommodate more metropolitan and regional arterial cycling infrastructure such as the former VicRoads strategies *Principal Bicycle Network* and *Municipal Bicycle Networks*.⁵⁶⁴

However there is considerable scope for increasing cycling rates in Victoria. Despite 60 percent of Melbourne's residents having access to a bicycle, only 20 percent ride a bicycle weekly, and only 40 percent ride yearly.⁵⁶⁵ International meta-analyses of relevant research suggest, for example, that when distances to access high frequency public transport services are under ten kilometres, many people are willing to cycle rather than use a car.⁵⁶⁶ One study's authors concluded:

... almost all cities adopting comprehensive packages of interventions experienced large increases in the number of bicycle trips and share of people bicycling ... Substantial increases in bicycling require an integrated package of many different, complementary interventions, including infrastructure provision and pro-bicycle programs, supportive land use planning, and restrictions on car use.⁵⁶⁷

Like many aspects of the built environment, early planning and investment in infrastructure are key to creating environments that encourage cycling. It is much more expensive to retrofit cycling facilities into existing suburbs, yet cycling is a cost effective preventative health measure, and 'can bring about a widespread increase in physical activity and social inclusion at a relatively low cost compared to the cost of a hospital bed.'⁵⁶⁸

⁵⁶¹ Bicycle Network Victoria 2011 *BiXE 2011, The Bicycle Expenditure Index for Local Government, 2011-2012 Financial Year*, BNV, Melbourne, 7.

⁵⁶² A Bauman et al, 'Getting Australia moving: Barriers, facilitators and interventions to get more Australians physically active through cycling', Department of Health and Ageing and Cycling Promotion Fund, Melbourne, 2008, i-iv; Dr M Beavis, *Submission No. 11*, 27 June 2011, 1; UWA Centre for the Built Environment and Health, *Submission No. 27*, 29 June 2011, 1; City of Boroondara, *Submission No. 31*, 27 June 2011, 6; Obesity Policy Coalition, *Submission No. 32*, 30 June 2011, 1; B Giles-Corti et al, 'The co-benefits for health of investing in active transportation', *NSW Public Health Bulletin*, 2010, 21 (5-6): 123; Yarra Ranges Council, *Submission No. 41*, 20 June 2011, 2-3; C Maller et al, *Healthy parks, healthy people – The health benefits of contact with nature in a park context, A review of relevant literature*, Deakin University and Parks Victoria, Melbourne, 2008, 18; M Dennekamp and M Carey, 'Air quality and chronic disease: why action on climate change is also good for health', *NSW Public Health Bulletin*, 2010, 21 (5-6): 115-119; A Bauman et al, *Getting Australia active: towards better practice for the promotion of physical activity*, National Public Health Partnership, Melbourne, 2002, 15; B Giles-Corti, 'The impact of urban form on public health', paper prepared for the 2006 Australian State of the Environment Committee, Department of the Environment and Heritage, Canberra, 2006, 1, 4; Environment Defenders Office (Victoria) Ltd, *Submission No. 10*, 29 June 2011, 8-9, 12.

⁵⁶³ Infrastructure Australia, 'Cycling Infrastructure for Australian Cities, Background Paper', 2009, 14, <http://bit.ly/wBnlz0> accessed 3 November 2011.

⁵⁶⁴ 'Principal Bicycle Network (PBN)', VicRoads, 2011, <http://bit.ly/xRh4vU>; 'Municipal Bicycle Networks (MBNs)', VicRoads, 2010, <http://bit.ly/zkElf2> accessed 14 March 2012.

⁵⁶⁵ Bicycle Victoria, *Submission No. 46*, 6 July 2011, 1-2.

⁵⁶⁶ J Pucher et al, 'Infrastructure, programs, and policies to increase bicycling: An international review', *Preventive Medicine*, 2010, 50: S106-S125.

⁵⁶⁷ J Pucher et al, 'Infrastructure, programs, and policies to increase bicycling', S106.

⁵⁶⁸ Bicycle Victoria, *Submission No. 46*, 6 July 2011, 3.

In some western European countries, up to 30 percent of journeys are made by bicycle, compared to Australian rates of less than two percent.⁵⁶⁹ Research shows that countries within the Organisation for Economic Co-operation and Development with high cycling participation rates also have lower levels of adult obesity.⁵⁷⁰

Mr Garry Brennan, head of Public Affairs at Bicycle Victoria (now Bicycle Network Victoria), told the Committee that historically in urban planning, ‘Bike infrastructure was an add on; it was an option ... Infrastructure gets you riders, but where does the infrastructure come from? It comes from commitment and the investment.’⁵⁷¹

Bicycle Victoria also observed that while government commitment to building cycling infrastructure has increased over time, it is still insufficient to retrofit adequate networks in established suburbs. Other planning obstacles can prevent the establishment of cycling networks, such as:

... the difficulty in providing cycle routes along disused railway land. Another is the lack or clarity about management of public land along rivers or other corridors along which cycling routes can pass. And in new suburbs there is a lack of consistent planning guidance that would allow provision of a cycling network that would allow everyone to ride and enjoy the health benefits that come with it.⁵⁷²

They stated, ‘If we don’t provide places to ride then efforts to encourage riding will be fruitless – it’s a bit like encouraging people to swim and providing swimming lessons but not providing a pool’.⁵⁷³

A 2011 report studying the cycling infrastructure expenditure of 98 Australian local government area councils, the Bicycle Expenditure Index (BiXE), showed that Melbourne ranked comparatively poorly among Australia’s eight state capitals (Table 4).

Table 4: Average local government area council expenditure on cycling infrastructure per resident, by Australian capital city

City	Average expenditure on cycling infrastructure per resident
1. Sydney	\$62.34
2. Perth	\$46.63
3. Adelaide	\$34.21
4. Canberra	\$26.77
5. Brisbane	\$19.78
6. Melbourne	\$12.43
7. Darwin	\$4.04
8. Hobart	\$1.00

Source: Bicycle Network Victoria 2011 *BiXE 2011, The Bicycle Expenditure Index for Local Government, 2011-2012 Financial Year*, BNV, Melbourne, 51.

⁵⁶⁹ Infrastructure Australia 2009 *Cycling Infrastructure for Australian Cities*, 4.

⁵⁷⁰ Infrastructure Australia 2009 *Cycling Infrastructure for Australian Cities*, 7.

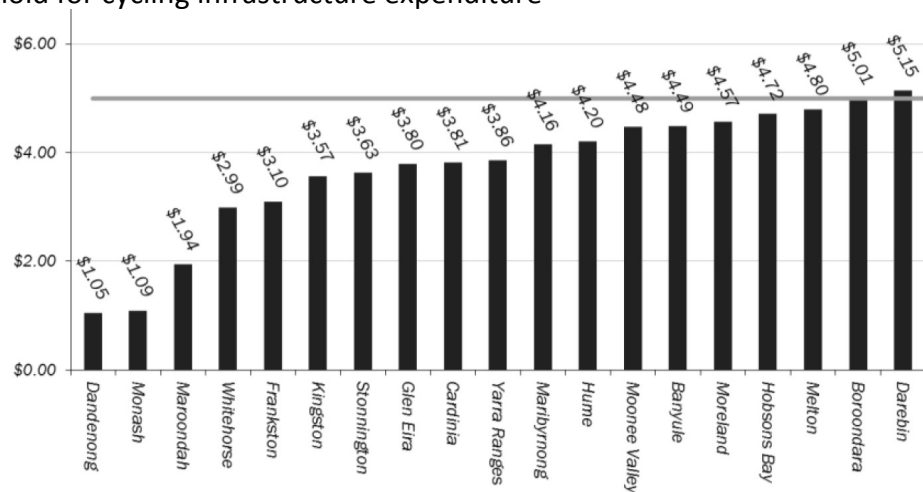
⁵⁷¹ Mr G Brennan, Bicycle Victoria, *Transcript of Evidence*, 4 August 2011, 41.

⁵⁷² Bicycle Victoria, *Submission No. 46*, 6 July 2011, 3 (of cover letter).

⁵⁷³ Bicycle Victoria, *Submission No. 46*, 6 July 2011, 1.

There was also variation within Melbourne: in 2011, 54 percent of 79 councils met or exceeded the recommended threshold of \$5 per resident, an improvement from 2010 (52 percent), but less than 2009 (62 percent).⁵⁷⁴ Figure 16 shows the councils whose cycling infrastructure expenditure is below the \$5 per resident threshold. Several are in Melbourne's outer suburban areas, a notable exception being the City of Wyndham, whose BiXE rating for 2011 was \$14.92 per resident.⁵⁷⁵ As an international comparison, the report noted that in Copenhagen, known as a bicycle-friendly city, the government spends approximately \$A100 per resident on cycling infrastructure.⁵⁷⁶

Figure 16: Local council areas of Melbourne which fall below the \$5 per resident threshold for cycling infrastructure expenditure



Source: Bicycle Network Victoria 2011 *BiXE 2011, The Bicycle Expenditure Index for Local Government, 2011-2012 Financial Year*, BNV, Melbourne, 13.

A contemporary example of successful urban planning for cycling is in Bogota, Colombia, a city with a population of approximately nine million people.⁵⁷⁷ The *CicloRuta* program aims 'to establish a more sustainable and healthy transport system'; a shift away from cars to cycling as the preferred method of transport, complemented by improved bus systems.⁵⁷⁸ Completed between 1998 and 2007, 300 kilometres of bicycle lanes were built to crisscross the city, arranged into hierarchical networks to maximise connectivity.⁵⁷⁹ Coupled with measures to limit vehicles during peak times, bicycle use has increased an estimated five-fold and car use has decreased by 40 percent.⁵⁸⁰

⁵⁷⁴ BiXE', Bicycle Network Victoria, 17 November 2011; *BiXE 2011, The Bicycle Expenditure Index for Local Government, 2011-2012*, 6.

⁵⁷⁵ *BiXE 2011, The Bicycle Expenditure Index for Local Government, 2011-2012*, 34.

⁵⁷⁶ *BiXE 2011, The Bicycle Expenditure Index for Local Government, 2011-2012*, 10.

⁵⁷⁷ Planning Institute Australia (Victorian Division), Cancer Council Victoria (SunSmart), City of Port Phillip, Physical Activity Australia, Victorian Council of Social Service and Victorian Local Governance Association, *Submission No. 59*, 13 July 2011, 5, 19; 'Colombia', Departamento Administrativo Nacional de Estadística (National Bureau of Statistics), Republica de Columbia, 2011, <http://bit.ly/HCl6Gu> accessed 3 December 2011.

⁵⁷⁸ Infrastructure Australia 2009 *Cycling Infrastructure for Australian Cities*, 4.

⁵⁷⁹ Infrastructure Australia 2009 *Cycling Infrastructure for Australian Cities*, 17.

⁵⁸⁰ Planning Institute of Australia (Victorian Division) et al, *Submission No. 59*, 13 July 2011, 19.

Recommendation 31

That the Victorian Government:

- reviews cycling infrastructure, with a particular focus on improving provision for Melbourne’s outer suburbs and Victoria’s regional cities
- sets measurable targets and promotes activities such as the Ride2School Program to increase cycling participation, and reviews targets on an annual basis.

7.3 Public transport

*Mass transit is good for people, good for the environment and good for business.*⁵⁸¹

Using public transport increases incidental exercise in a community and there is also a synergistic effect: ‘high levels of public transport generate active transport, which means people actually walk more.’⁵⁸² There is an increasing body of evidence related to public transport and physical activity, and which environmental interventions can help to increase it. Research shows that elements of the built environment that promote transport-related physical activity include housing density levels, street connectivity and mixed land use.⁵⁸³

Victorians who use public transport are likely to have spent around 30 minutes or more walking each day.⁵⁸⁴ Table 5 shows the results of a Bus Association Victoria study which found that people travelling by private transport only receive an average of eight minutes exercise per day.

Table 5: Average daily minutes of walking and cycling for transport by transport mode

Transport modes used	Average daily minutes of walking and cycling for transport
Public transport (all users)	41 minutes
Public transport, no private transport	47 minutes
Private transport only (cars, taxis and/or motorcycle)	8 minutes
Overall Melbourne average	15 minutes

Source: ‘Public Transport Use a Ticket to Health’, Bus Association Victoria, Melbourne, 2010, 1.

As with walking and cycling, there are co-benefits when people use public transport to travel, including less car-based pollution and thus better air quality, less traffic congestion and increased opportunities for social interaction.

The Heart Foundation (Victoria) commented on the disparity in public transport provision in outer suburbs compared to inner metropolitan areas:

⁵⁸¹ AG Capon, ‘The way we live in our cities’, *Medical Journal of Australia*, 2007, 187: 659.

⁵⁸² Mr B Forrest, Wyndham City Council, *Transcript of Evidence*, 23 August 2011, 122; ‘Public Transport Use a Ticket to Health’, Bus Association Victoria, Melbourne, 2010, 1, <http://bit.ly/AmwSjP> accessed 4 October 2011; House of Representatives Standing Committee on Health and Ageing 2009 *Weighing it up: Obesity in Australia*, Commonwealth of Australia, Canberra, 82; Cycling Promotion Fund 2011 *Riding a Bike for Transport – 2011 Survey Findings*, Cycling Promotion Fund and the National Heart Foundation, Melbourne, 6; Department of Transport 2009 *Victorian Cycling Strategy*, Melbourne, 5; M Younger et al, ‘The Built Environment, Climate Change, and Health – Opportunities for Co-Benefits’, *American Journal of Preventive Medicine* 2008; 35 (5): 518-20.

⁵⁸³ HM Badland and GM Schofield, ‘Transport, urban design, and physical activity: an evidence-based update’, *Transportation Research Part D: Transport and Environment*, 2005, 10 (3): 177-196.

⁵⁸⁴ Mr M Hopkins, Department of Transport *Transcript of Evidence*, 6 September 2011, 200.

The difference in access to trains, trams and buses for residents in the outer suburbs of Melbourne compared to residents in middle and inner suburbs has been described as not so much a tale of two cities as an encounter between different planets ... Car dependency and poor access to infrastructure and services are characteristics of many new growth area suburbs where housing estates have been developed and public transport has not followed.⁵⁸⁵

The Committee heard that a lack of communication between various public and private stakeholders can be a common problem in providing active transport infrastructure in new housing developments. In a public hearing, Mr Nigel Higgins, General Manager of Sustainable Development at Maribyrnong City Council, discussed this problem with Committee member Mr Brian Tee:

Mr HIGGINS — I think in terms of bringing together public transport walkability and access, we might have the development before us, but if VicRoads or the Department of Transport have not got their program aligned, then it means that public transport and those walkability issues cannot go in at the same time. If there are 200 houses coming in now, there may be no network except for immediately going to a private car-based transport solution when you are away from the existing public transport network. In helping broker a transport solution then, whilst you are trying to consider a growth corridor or something at the same time, that is probably where the state government could assist in giving a direction — that is, before we say yes and green-light all of that development out there. I think that is an age-old issue; there is nothing new about that.

Mr TEE — It is about bringing infrastructure to the table as part of the development process, rather than afterwards as an afterthought, so it is an up-front issue rather than a back-end issue?

Mr HIGGINS — That is right. You might have a likely five year program, so that developers can be aware of it and be forewarned about how they can link into that.⁵⁸⁶

In outer suburbs where residents often commute long distances to their workplace, planning a system based on people driving short distances to reach public transport networks often does not work. One study showed that ‘Once in the car, many do not want to leave it, and they do not like the time and effort it takes to put together multiple forms of transport that often involve parking a car and retrieving it.’⁵⁸⁷

A recent example of the lack of public transport provision in a new planned community is the Aurora housing development at Epping North, marketed by VicUrban (now Places Victoria) as ‘an award winning master planned community designed for a better lifestyle in a well connected location and environment’.⁵⁸⁸ Original plans provided for public transport stops to be placed within 400 metres of 80 percent of houses in the development. Five years on, several bus stops have been built, but only one is currently used. The Department of Transport has said

⁵⁸⁵ Heart Foundation (Victoria), *Submission No. 55*, July 2011, 15.

⁵⁸⁶ Mr N Higgins, Maribyrnong City Council, *Transcript of Evidence*, 6 September 2011, 172.

⁵⁸⁷ P Williams et al, *Linked up Lives: Putting Together Work, Home and Community in Ten Australian Suburbs, Overview Report*, Centre for Work and Life, University of South Australia, 2009, 16.

⁵⁸⁸ ‘Features and Benefits of Aurora’, Places Victoria, 2012, <http://bit.ly/rL6UNN> accessed 10 January 2012.

there is no funding for public transport in this area and blamed the developers, claiming that 'New shelters in Epping North were installed without consultation with the Department of Transport and don't necessarily reflect future public transport routes.'⁵⁸⁹ Places Victoria countered that the Department agreed to the original plans. A promised rail link extension on the Epping line also has failed to materialise, meaning that residents are forced to use cars for much of their travel.⁵⁹⁰ This somewhat belies Aurora's current claim of being Places Victoria's 8,000 house 'flagship sustainable housing development' and that 'Most amenities, infrastructure and community services will be available within a walkable catchment of 200-800 m[etres]'.⁵⁹¹

Research also shows that the quality and speed of public transport influences travel mode choice.⁵⁹² People will walk further to faster and more frequent transport, particularly train services. In Melbourne, half of train travellers walk more than 800 metres to a train station. This may also be influenced by the fact that rail services might be the only viable transport mode for those commuting to the city.⁵⁹³

Inadequate provision of public transport impacts on those in the community who are less mobile, such as Victoria's increasing ageing population. The Council on the Ageing (Victoria) told the Committee that as many older people rely solely on public transport to move around, its provision is essential to ensuring older people's ongoing social inclusion in the community.⁵⁹⁴

Parents with young children also can face barriers in accessing public transport. Women's Health Victoria noted that 'This is the situation for many women living in new outer suburban communities as the growth of these areas has not been matched by the provision of public transport infrastructure.' Current public transport infrastructure often does not allow for pram accessibility, resulting 'in women being less physically active, limiting their access to services, social networks and community participation.'⁵⁹⁵

⁵⁸⁹ A Carey, 'Epping hell: estate residents "betrayed" by promises', *Sydney Morning Herald*, 15 December 2011, <http://bit.ly/vZTBYP> accessed 10 January 2012.

⁵⁹⁰ A Carey, 'Epping hell: estate residents "betrayed"'.
⁵⁹¹ Aurora, VicUrban's Urban Growth Development in Epping North', Places Victoria, 2012, <http://bit.ly/xQN0iu> accessed 10 January 2012.

⁵⁹² J Walker, 'Basics: walking to transit', *Human Transit*, 24 April 2011, <http://bit.ly/hq2WJu> accessed 10 January 2012.

⁵⁹³ A Davies, 'How Far Do We Walk to the Station?' *The Urbanist*, 2 November 2011, <http://bit.ly/H2Qgnx> accessed 10 January 2012.

⁵⁹⁴ Council on the Ageing (Victoria), *Submission No. 58*, 11 July 2011, 7.

⁵⁹⁵ Women's Health Victoria, *Submission No. 4*, 27 June 2011, 2.

Recommendation 32

That the Victorian Government recognises that public transport is a key component of a healthy community, and:

- audits current public transport provision, with an emphasis on outer suburban and regional areas
- establishes minimum standards and targets for public transport in new outer suburban residential developments, linking important destinations such as schools, shops, places of work, community facilities and green and open public spaces
- commits to a program of long-term investment to improve public transport infrastructure for Melbourne's outer suburbs and regional metropolitan areas.

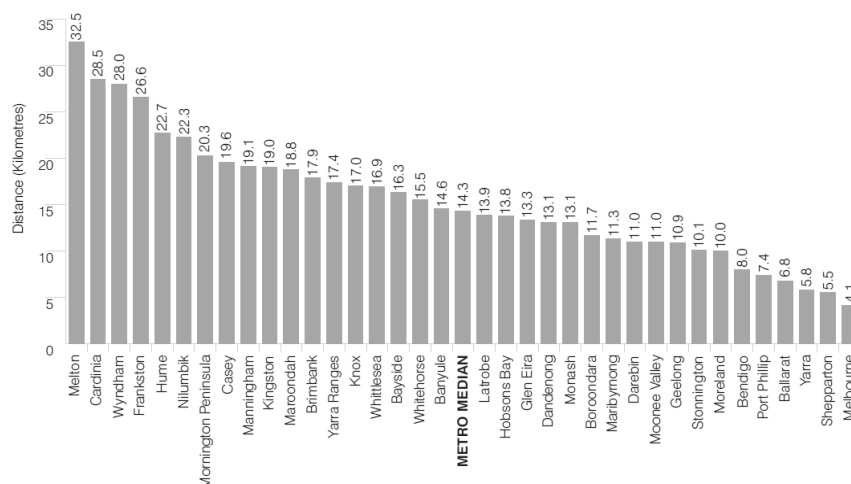
Recommendation 33

That the State Government's transport objectives give priority to connectivity, safety, accessibility and reliability.

7.4 Trips to work and school

If people live or study within five kilometres of their workplaces, they are more likely to choose to commute by walking or cycling.⁵⁹⁶ However, 77 percent of Melburnians travelled to work by car in 2006.⁵⁹⁷ Almost half of journeys to work for Melbourne residents are over 15 kilometres long, and within Melbourne there is significant variation.⁵⁹⁸ Figure 17 shows that residents of Yarra, for example, travel an average distance of 5.8 kilometres to their workplaces, while for residents of Melton, this jumps to an average trip length of 32.5 kilometres.

Figure 17: Average distance travelled for residents' journeys to work across Melbourne



Source: Department of Transport 2009 *Victorian Integrated Survey of Travel and Activity 2007*, Victorian Government, Melbourne, 9.

⁵⁹⁶ Department of Infrastructure and Transport 2011, *Our Cities, Our Future: A national urban policy for a productive, sustainable and liveable future*, Commonwealth of Australia, Canberra, 63.

⁵⁹⁷ Bureau of Infrastructure, Transport and Regional Economics 2011 *Population growth, jobs growth and commuting flows in Melbourne – Report 125*, Commonwealth of Australia, Canberra, 5.

⁵⁹⁸ Department of Transport 2009 *Victorian Integrated Survey of Travel and Activity 2007*, Victorian Government, Melbourne, 8.

The number of people in Melbourne commuting over 30 kilometres to and from work is predicted to increase.⁵⁹⁹ A recent report from the Bureau of Infrastructure, Transport and Regional Economics found Melbourne's urban sprawl has continued while employment continues to be concentrated in the inner suburbs, and that the costs of congestion will double by 2020.⁶⁰⁰ Accordingly, planning and implementing strategies to both increase active transport and decrease cars on Melbourne's roads is vital.

One way for children and teenagers to get daily exercise is by walking or cycling to school. Studies show that countries with high rates of active travel also have children who are generally more active than Australian children,⁶⁰¹ and that children who walk or cycle to school are also more likely to use active travel modes to other neighbourhood destinations.⁶⁰² However in Victoria, 'transport policy is dominated by a focus on the fast and efficient movement of motorised vehicles.'⁶⁰³

At a public hearing, Dr Vivian Romero told the Committee that walking to and from school is an important way for children to gain first hand experience and knowledge of the neighbourhood in which they live.⁶⁰⁴ Encouraging children to use active transport is also 'a more equitable and inclusive form of physical activity promotion than organised sport and exercise programs.'⁶⁰⁵

Almost 80 percent of Australian families live within five kilometres of their children's schools.⁶⁰⁶ However, rates of children walking or cycling to school have decreased dramatically in recent decades.⁶⁰⁷ In 1970, over 55 percent of children and young people walked or cycled to school or university. By 1994, this dropped to 22.2 percent, while journeys to educational institutions by car increased from 14.3 percent to 55.3 percent. A similar shift occurred in Victoria over this time period: walking to school fell from 35.4 percent to 15.9 percent, cycling to school from 20.3 percent to 7.9 percent, and car travel increased from 16.5 percent to 43.9 percent.⁶⁰⁸ A 2012 study by the Heart Foundation and Cycling Promotion Fund showed that 60 percent of surveyed Australian parents drive their children to school.⁶⁰⁹ The most common reason for this is concerns over road safety, discussed further at 7.5 below.

⁵⁹⁹ Bureau of Infrastructure, Transport and Regional Economics 2011 *Population growth, jobs growth*, 9, 319, 333, 340.

⁶⁰⁰ J Dowling and R Sexton, 'Jobs lose pace with city sprawl', *The Age*, 10 November 2011, <http://bit.ly/vPhQKk> accessed 11 November 2011.

⁶⁰¹ J Garrard, *Active transport: Children and young people*, 3.

⁶⁰² J Garrard, *Active transport: Children and young people*, 4.

⁶⁰³ D Tucker and J Stone, 'Active Transport To School: A Study Of Political Barriers In Glen Eira', Faculty of Architecture, Building and Planning, University of Melbourne, 2011, 1.

⁶⁰⁴ VM Romero, "'I will be not a nerd": Children's Development, the Built Environment and School Travel', paper presented at State of Australian Cities Conference, Adelaide, 29 November 2007, 997.

⁶⁰⁵ J Garrard, *Active transport: Children and young people*, 2.

⁶⁰⁶ J Garrard, *Active transport: Children and young people*, 16.

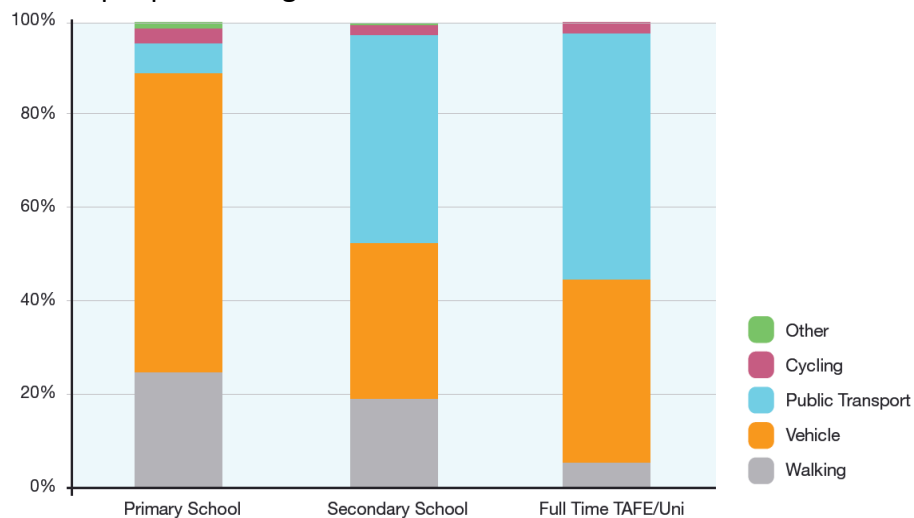
⁶⁰⁷ VM Romero, "'I will be not a nerd"', 997.

⁶⁰⁸ J Garrard, *Active transport: Children and young people*, 9.

⁶⁰⁹ Heart Foundation 2012 *Active Travel to School: 2012 Survey Findings*, Heart Foundation and Cycling Promotion Fund, 2.

During the morning peak period, approximately 17 percent of all car trips in Melbourne are made by parents driving children to school.⁶¹⁰ According to the Department of Transport, around 70 percent of Victorian primary school children are driven to school, in both metropolitan and regional areas.⁶¹¹ Figure 18 shows walking trips to Victorian primary, secondary and tertiary institutions by proportion of people walking.

Figure 18: Walking trips to Victorian primary, secondary and tertiary institutions by proportion of people walking



Source: Department of Transport 2010 *The Pedestrian Access Strategy – A strategy to increase walking for transport in Victoria*, Victorian Government, Melbourne, 21.

Within Melbourne, recent data shows that over 60 percent of primary school students are driven to school even though 44 percent of these trips are less than two kilometres.⁶¹² In one example in Essendon, studies showed that in 1974, 25 percent of children were driven to school. By 2005, this figure had jumped to 89 percent.⁶¹³

Apart from increasing children's physical activity, reducing these car trips would also greatly improve traffic congestion, commuting times and air quality.⁶¹⁴

Recommendation 34

That the Victorian Government continues to support initiatives which aim to increase the number of children walking and cycling to school, particularly in outer suburban and regional Victoria, and calls on the State Government to reinstate the Walking School Bus Program.

⁶¹⁰ J Garrard, *Active transport: Children and young people*, 8.

⁶¹¹ Department of Transport 2009 *Victorian Integrated Survey of Travel and Activity 2007*, 9.

⁶¹² Department of Transport 2010 *The Pedestrian Access Strategy*, 21.

⁶¹³ B Peddie and C Somerville, 'Travel Behaviour Change through School Travel Planning: Mode Shift and Community Engagement – Results from 33 Schools in Victoria', Department of Infrastructure, Victorian Government, Melbourne, 2005, 1.

⁶¹⁴ J Garrard, *Active transport: Children and young people*, 8.

7.5 Road safety

*In spite of the multi-modal nature of personal mobility in Victoria, there is a tendency for transport and road safety policies to focus on the needs of motorists and to overlook the needs of other road user groups for safe, convenient, non-motorised personal mobility.*⁶¹⁵

The Committee noted that Victorians' negative perceptions of road safety were often given as an explanation for why more people did not use active transport for travel. Several contributors to the Inquiry discussed the potential benefits of 'traffic calming' measures to increase both walking and cycling in a community, particularly in terms of physical safety.⁶¹⁶ In their submission, Deakin University's Centre for Physical Activity and Nutrition Research reported that their research discovered:

... physical infrastructure designed to calm traffic is important for children's and adolescents' physical activity. In particular the presence of speed humps, traffic/pedestrian lights and intersections is associated with increased physical activity.⁶¹⁷

A recent national survey by the Cycling Promotion Fund and the National Heart Foundation found that while more than 62 percent of Australians want to cycle more in their daily lives, there are several perceived barriers, including:

- unsafe road conditions (46 percent)
- speed/volume of traffic (42 percent)
- feel unsafe riding (41 percent)
- lack of bicycle lanes/trails (35 percent).⁶¹⁸

Bicycle Victoria similarly told the Committee that concerns over road safety were a major deterrent to more Victorians taking up cycling: '[Cycling] would benefit public health and congestion and the greenhouse effect — all those sorts of things — if people were able to. They are unable to because they are scared.'⁶¹⁹

There are statistics to support such concerns: Victorian data shows that 'pedestrians and cyclists are increasingly over-represented in road transport serious casualties' and rates of fatalities and serious injuries are increasing.⁶²⁰

⁶¹⁵ J Garrard, *Submission to the 2011 Victorian Speed Limit Review*, 6.

⁶¹⁶ Deakin University's Centre for Physical Activity and Nutrition Research, *Submission No. 16*, 30 June 2011, 1-3; J Garrard, *Active transport: Children and young people*, 16; VicHealth 2011 *Streets Ahead 2008–2011, Program evaluation report*, Victorian Government, Melbourne, 2; Assoc Prof C Whitzman, *Transcript of Evidence*, 7 September 2011, 266; Ms R Carlisle, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 67; VicHealth, *Submission No. 47*, 11 July 2011, 13; Heart Foundation (Victoria), *Submission No. 55*, July 2011, 17; Municipal Association of Victoria, *Submission No. 61*, July 2011, 24; C McNaughton, *Submission No. 53*, 11 July 2011, 3; City of Boroondara, *Submission No. 31*, 27 June 2011, 15; City of Ballarat *Submission No. 19*, 30 June 2011, 2; see also R Ewing and E Dumbaugh, 'The Built Environment and Traffic Safety – A Review of Empirical Evidence', *Journal of Planning Literature*, May 2009, 23 (4): 347-367.

⁶¹⁷ Deakin University's Centre for Physical Activity and Nutrition Research, *Submission No. 16*, 30 June 2011, 1.

⁶¹⁸ 'Two in three blame unsafe roads for staying off their bikes', media release, Cycling Promotion Fund, 1 June 2011, <http://bit.ly/Aw35v4> accessed 10 November 2011.

⁶¹⁹ Mr B Sbeghen, Bicycle Victoria, *Transcript of Evidence*, 4 August 2011, 46; see also Infrastructure Australia 2009 *Cycling Infrastructure for Australian Cities*, 12; Department of Infrastructure and Transport 2011, *Our Cities, Our Future: A national urban policy*, 63.

⁶²⁰ J Garrard, *Submission to the 2011 Victorian Speed Limit Review*, 5, 8.

Table 6 shows the average cyclist injury rates in Melbourne (per ten million kilometres) in comparison with other countries:

Table 6: Cyclist injury rates per ten million kilometres travelled, Melbourne and internationally

Country/city	Cyclist injury rates (per ten million km travelled)
The Netherlands	1.4
Denmark	1.7
Germany	4.7
UK	6.0
Melbourne	12.4 (police data), 31.5 (hospital data)
USA	37.5

Source: J Garrard, *Submission to the 2011 Victorian Speed Limit Review On behalf of the Safe Speed Interest Group*, Safe Speed Interest Group, Melbourne, 2011, 8.

Research shows that the more bicycles there are on the road, the safer it becomes for cyclists.⁶²¹ An Australian study showed that if rates of cycling doubled, the risk of injury for cyclists falls by about 34 percent per kilometre, while if cycling rates halve, the risk per kilometre increases by about 52 percent.⁶²²

There may be merit in local councils encouraging cyclists to ride on minor roads away from busy thoroughfares and arterial routes. However, at a public hearing, Mr Bart Sbeghen from Bicycle Victoria commented that while this is a good option for cyclists who are wary of joining heavy traffic flows, cyclists still want the shortest trip possible and using minor roads can often represent travelling a longer distance.⁶²³

As well, since 1999, both the annual numbers of pedestrian deaths and serious injuries in Victoria have decreased significantly. This has been partially attributed to the reduction of the default residential speed limit from 60 to 50 kilometres per hour in 2001.⁶²⁴ Around many Victorian schools today there are 40 kilometres per hour speed zones.⁶²⁵

Yet among other groups, the Heart Foundation has argued that speed limits in certain residential areas such as schools and hospitals should be reduced further to 30 kilometres per hour – the highest speed at which if a person is hit by a car, they are likely to survive:

High levels of safe walking and cycling for transport are incompatible with high vehicle speed as, for many trips or parts of trips, pedestrians and cyclists are required to share the road space with motor vehicles. International experience

⁶²¹ P Jacobsen, 'Safety in numbers: more walkers and bicyclists, safer walking and bicycling', *Injury Prevention*, 2003, 9: 208; see also J Pucher et al, 'Infrastructure, programs, and policies to increase bicycling: An international review', *Preventive Medicine*, 2010, 50: S106; R Elvik, 'The non-linearity of risk and the promotion of environmentally sustainable transport', *Accident Analysis and Prevention*, July 2009, 41 (4): 849-55; DL Robinson, 'Safety in numbers in Australia: More walkers and bicyclists, safer walking and cycling', *Health Promotion Journal of Australia*, 2005, 16: 47-51.

⁶²² DL Robinson, 'Safety in numbers in Australia: More walkers and bicyclists', 47-51.

⁶²³ Mr B Sbeghen, Bicycle Victoria, *Transcript of Evidence*, 4 August 2011, 42.

⁶²⁴ Road Safety Committee 2006 *Review of the Inquiry into the Incidence and Prevention of Pedestrian Accidents*, Parliament of Victoria, Melbourne, 2006, ix.

⁶²⁵ 'Types of school speed limits', *Arrive Alive 2008 – 2017*, VicRoads, 2010, <http://bit.ly/xZokuO> accessed 11 November 2011.

suggests that speed reduction is not the only change needed to increase safe active transport, but it is a key component.⁶²⁶

In a submission to the 2011 Victorian Speed Limit Review, the Safe Speed Interest Group (SSIG) argued that a 30 kilometres per hour speed limit is optimal for mixed road use and to encourage more walking and cycling.⁶²⁷ The SSIG criticised the Australian Transport Council’s *National Road Safety Strategy 2011-2020* on several points, including:

- The strategy is based on the assumption that road safety primarily revolves around vehicles, and does not place firm emphasis on the equitable distribution of road safety for all road users, particularly pedestrians and cyclists.
- There is little or no mention of health and wellbeing in the consideration, development or suggested application of safety contingencies. Accident, injury and fatality are very important considerations, but so too is the health benefit of increased levels of active transport which can be stifled by unsafe roads. Road safety must include concern for community health and wellbeing in regard to speed, vehicle emissions, safe and amenable urban design, strategic traffic calming and transport planning which includes infrastructure considerations and safety provisions for pedestrians, cyclists and connectivity to public transport.⁶²⁸

The SSIG state that the main public resistance to speed reductions – higher commuting times – is ‘perceived rather than actual’ and not borne out by studies:

Evidence indicates that increases in vehicle travel time due to lower speed limits and the associated costs, are substantially overstated. Small travel time benefits e.g. 9 seconds/km, come at a substantial cost in terms of the health and wellbeing of individuals and communities.⁶²⁹

As shown in Table 7, contrary to popular public opinion, Australia’s average speed limits are higher than many others in the developed world.

Table 7: European and Australasian speed limits by road type

Road type	Europe (mainly)	Australasia (mainly)
School areas	30 km/h	40 km/h
Residential areas	30 km/h	50-60 km/h
Built-up areas	60 km/h	70-80 km/h
Urban roads	60-70 km/h	80 km/h or higher
Rural roads	80-90 km/h	100 km/h
Motor roads	100 km/h	100 km/h
Motorways	120 km/h	110 km/h

Source: J Garrard, *Safe speed: promoting safe walking and cycling by reducing traffic speed*, Safe Speed Interest Group, Melbourne, 2008, 21.

A number of European and Asian cities have successfully prioritised active transport over car use through urban planning in residential areas and activity

⁶²⁶ J Garrard, ‘Safe speed: promoting safe walking and cycling by reducing traffic speed’, 4; see also Ms R Carlisle, Heart Foundation (Victoria), *Transcript of Evidence*, 4 August 2011, 67; C McNaughton, *Submission No. 53*, 11 July 2011, 3.

⁶²⁷ ‘Promoting safe walking and cycling by reducing traffic speed – Summary of the Safe Speed Interest Group research review’, Healthy Spaces and Places, 2008, 1, <http://bit.ly/wBCNwJ> accessed 11 November 2011.

⁶²⁸ ‘Promoting safe walking and cycling by reducing traffic speed’, 3.

⁶²⁹ ‘Promoting safe walking and cycling by reducing traffic speed’, 4.

centres. Reduced speed limits of 30 kilometres per hour or less have been considered a key factor in reducing crash injury rates.⁶³⁰

In principle, many Victorian parents and children support the idea of walking or cycling to school.⁶³¹ However, one of the main reason parents drive their children to school is due to increasing concerns over traffic conditions and road safety.⁶³² Conversely, one study showed that walking to school was more common for children in neighbourhoods with high walkability characteristics such as high street connectivity and low traffic volume, and less likely in neighbourhoods with high connectivity but high traffic volume.⁶³³

VicHealth's 2009 report *Towards active and independently mobile children* reported that the majority of primary school parents saw 'road safety as a barrier to their children's physical activity in the community.'⁶³⁴ A 2012 survey similarly showed that 80 of surveyed parents feared for the safety of their children in traffic when travelling to school, and felt that there were too few bike paths.⁶³⁵

Perversely, this has created a situation where due to the resulting increase in traffic around school areas, 'parents drive their children to school to protect them from the adverse traffic conditions created by other parents driving their children to school.'⁶³⁶ This is contrary to research that shows Australian children are nearly twice as likely to be killed as a car passenger than as a pedestrian, and over four times more likely to be killed as a car passenger than as a cyclist.⁶³⁷

The VicHealth report also revealed that only 29 percent of parents thought speed limits in their local communities should be reduced to 30 kilometres per hour to make the environment safer for children.⁶³⁸ The Committee notes that further Australian research needs to be done to understand the effects of lowering speed limits on encouraging active transport.⁶³⁹

Recommendation 35

That the case for the lowering of speed limits to 30 kilometres per hour for school, residential and other appropriate areas be considered by current or future speed limit reviews undertaken by VicRoads, in consultation with the Victoria Police and other stakeholders.

⁶³⁰ J Garrard, *Submission to the 2011 Victorian Speed Limit Review*, 6.

⁶³¹ J Garrard, *Submission to the 2011 Victorian Speed Limit Review*, 6.

⁶³² A Timperio et al, 'Perceptions of local neighbourhood environments and their relationship to childhood overweight and obesity', *International Journal of Obesity*, February 2005, 29 (2): 170-175; Department of Transport 2010 *The Pedestrian Access Strategy*, 21; A Timperio et al, 'Personal, Family, Social, and Environmental Correlates of Active Commuting to School', *American Journal of Preventive Medicine*, January 2006, 30 (1): 45-51.

⁶³³ B Giles-Corti et al, 'School site and the potential to walk to school: the impact of street connectivity and traffic exposure in school neighborhoods', *Health Place*, March 2011, 17 (2): 545-50.

⁶³⁴ VicHealth 2011 *Towards active and independently mobile children*, 10; see also UWA Centre for the Built Environment and Health, *Submission No. 27*, 29 June 2011.

⁶³⁵ Heart Foundation 2012 *Active Travel To School: 2012 Survey Findings*, 2.

⁶³⁶ J Garrard, *Taking action on obesogenic environments*, 12.

⁶³⁷ J Garrard, *Active transport: Children and young people*, 4.

⁶³⁸ VicHealth 2011 *Towards active and independently mobile children*, 11.

⁶³⁹ J Garrard, 'Safe speed: promoting safe walking and cycling by reducing traffic speed', 6; J Garrard, *Submission to the 2011 Victorian Speed Limit Review*, 2.

7.6 Active transport and outer suburban and regional areas

Previous chapters have outlined some of the potential problems relating to the built environment and public health in outer suburban and regional areas. These include: higher rates of chronic disease and population growth than inner metropolitan areas; sprawling low density housing; fewer locally-based economic and employment opportunities; fewer active transport networks and high car dependency; fewer green and open public spaces; less access to fresh and nutritious food; and social isolation.

The Committee also heard that the areas of Victoria that are growing fastest in both population and rates of chronic disease are those least likely to have adequate active transport infrastructure. The Municipal Association of Victoria noted in its submission that a number of municipalities in Melbourne's urban fringe:

... sustain a legacy of poor planning decisions made 30 to 40 years ago and a lack of infrastructure investment which have rendered their communities without access to reliable public transport, and walking proximity to local parks, shops or services which are typically enjoyed by inner suburbs and more urban areas.⁶⁴⁰

Similarly, the City of Casey discussed their 'history of infrastructure lag', resulting in 'the lack of an integrated public transport network which resulted in our community becoming largely car dependent.'⁶⁴¹ Several contributors to the Inquiry recommended more government funding to build or upgrade safe and accessible public transport networks, pedestrian- and child-friendly walkable environments, and comprehensive cycling infrastructure.⁶⁴²

While urban expansion is often blamed for Victorians' decreasing physical activity levels, research shows that it is more complicated. An analysis of the relevant literature by researchers at the University of New South Wales' Healthy Built Environments Program concluded that 'it is the poor accessibility and increased distances between land uses characteristic of "sprawl", rather than sprawl as a tangible concept, that discourages physical activity.'⁶⁴³

The further residents live from inner metropolitan areas, the less likely they are to use active transport for travel. Figure 19 shows the relationship between distance

⁶⁴⁰ Municipal Association of Victoria, *Submission No. 61*, July 2011, 7.

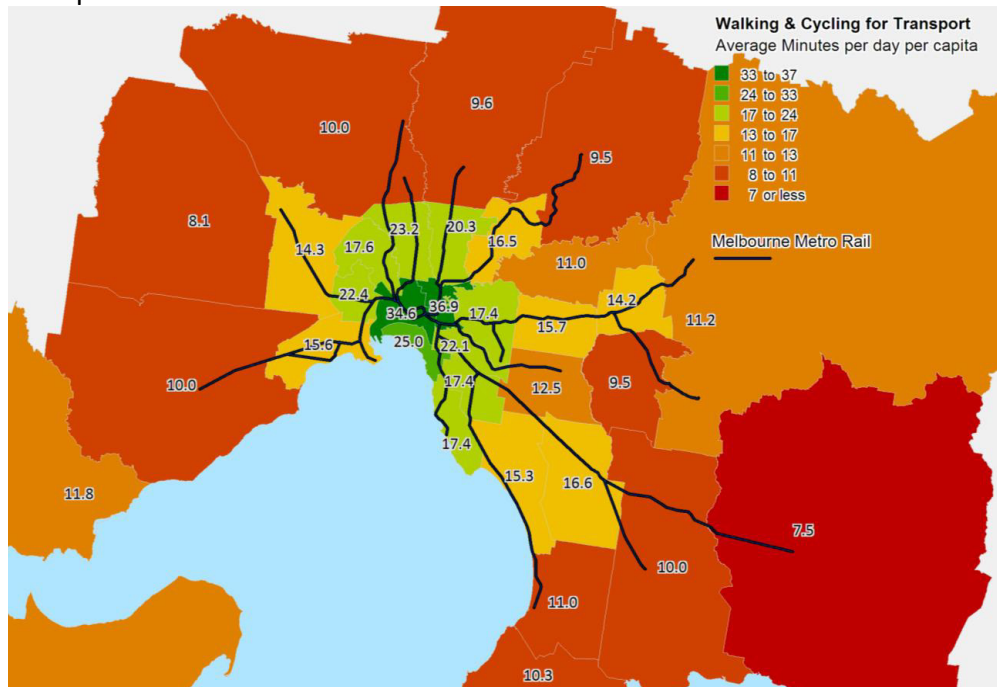
⁶⁴¹ City of Casey, *Submission No. 42*, 6 July 2011, 3.

⁶⁴² Deakin University's Centre for Physical Activity and Nutrition Research, *Submission No. 16*, 30 June 2011, 3; Prof E de Leeuw *Submission No. 1*, 6 June 2011, 2; Women's Health Victoria *Submission No. 4*, 27 June 2011, 2; Whitehorse City Council, *Submission No. 6*, 24 June 2011, 2; Dr M Beavis, *Submission No. 11*, 27 June 2011, 1-2; City of Whittlesea, *Submission No. 26*, 30 June 2011, 13; UWA Centre for the Built Environment and Health, *Submission No. 27*, 29 June 2011, 1; City of Boroondara, *Submission No. 31*, 27 June 2011, 14; City of Stonnington, *Submission No. 40*, 14 July 2011, 7-8; City of Casey, *Submission No. 42*, 6 July 2011, 3, 8, 10-11; Yarra City Council, *Submission No. 45*, June 2011, 3; Victorian Council of Social Service, *Submission No. 49*, 8 July 2011, 4, 6; Doctors for the Environment Australia Inc., *Submission No. 51*, 11 July 2011, 7; Heart Foundation (Victoria), *Submission No. 55*, July 2011, 14-16; Planning Institute Australia (Victorian Division), Cancer Council Victoria (SunSmart), City of Port Phillip, Physical Activity Australia, Victorian Council of Social Service and Victorian Local Governance Association, *Submission No. 59*, 13 July 2011, 12; Municipal Association of Victoria, *Submission No. 61*, July 2011, 24; Wyndham City Council, *Submission No. 62*, 26 July 2011, 4; City of Ballarat *Submission No. 19*, 30 June 2011, 7; City of Greater Bendigo, *Submission No. 3*, 22 June 2011, 8.

⁶⁴³ *The Built Environment and Getting People Active*, Healthy Built Environments Program, University of New South Wales, Sydney 2012, 49.

from the Central Business District and the average minutes per day residents walk or cycle for transport.

Figure 19: Average minutes per day Melbourne residents spend walking or cycling for transport



Source: 'Public Transport Use a Ticket to Health', Bus Association Victoria, Melbourne, 2010, 2.

Bicycle Victoria detailed their concerns with the lack of cycling provision in Melbourne's outer suburbs, where 'cycling for transport is nearly non-existent',⁶⁴⁴ and in regional Victoria where there is poor network connectivity between homes, schools and community centres.⁶⁴⁵ Cycling rates in these areas are accordingly low – less than one percent of all trips.⁶⁴⁶ As well, the increased distances many people living in outer suburban areas have to travel combined with 'Complex daily routines and schedules mean that non-car modes of transport, such as walking and cycling, are less practical.'⁶⁴⁷

Bicycle Victoria's BiXE research among regional councils showed great variation in cycling infrastructure expenditure. In 2011, the council with the highest BiXE was the Shire of Surf Coast (\$26.32 per resident) and the City of Wangaratta (\$15.83 per resident), while the lowest were the Shires of South Gippsland (\$5.74 per resident) and East Gippsland (\$5.42 per resident).⁶⁴⁸

The Committee notes that there is scope for substantial increases in walking and cycling participation in regional cities. Associate Professor Trevor Budge told the Committee that far from being ill-equipped for active transport provision, regional centres are often ideally suited to it:

⁶⁴⁴ Bicycle Victoria, *Submission No. 46*, 6 July 2011, 1.

⁶⁴⁵ Bicycle Victoria, *Submission No. 46*, 6 July 2011, 1.

⁶⁴⁶ Bicycle Victoria, *Submission to Outer Suburban/Interface Services & Development Committee*, 13 May 2011, 1, <http://bit.ly/HDWKvP> accessed 13 October 2011.

⁶⁴⁷ VicHealth, *Submission No. 47*, 11 July 2011, 5.

⁶⁴⁸ *BiXE 2011, The Bicycle Expenditure Index for Local Government, 2011-2012*, 43-46.

What is happening in our regional centres? ... The distances between community facilities and where people live and their places of employment are getting larger ... I will use the example of where I live, in Bendigo. I can jump in the car at my place in Bendigo and drive to just about anywhere else in the city in 10 minutes ... [The] problem is that with populations of 50,000 to 100,000 people, the car is incredibly convenient. We have public transport usage rates in our regional cities of between about 0.5 percent and three percent. The idea of people walking is almost an anathema. I will use an anecdote to illustrate this. A colleague of mine who works at the Mildura campus of La Trobe University lives about 20 minutes walk from the campus. Recently he has taken to walking every morning. He has had a number of comments from other people he knows in the city of Mildura, who have said to him, 'Have you lost your licence?' This is reflective of the situation in these regional cities, which by the way are almost all dead flat. They are absolutely set up for walking and cycling, and yet the levels of walking and cycling are lower.⁶⁴⁹

7.6.1 Case study: Corio Norlane

The Committee received a presentation from the Corio Norlane Development Advisory Board (CNDAB), comprising a group of government, community and private sector stakeholders.

The Corio Norlane area is six kilometres north of central Geelong and divided into four sections: Central Norlane, Cloverdale, Norlane and Rosewall. In the past, the Corio Norlane community has experienced 'high levels of disadvantage across many of the commonly used socio-economic indices'.⁶⁵⁰ The community has high rates of obesity, type 2 diabetes (6.76 percent incidence compared to the Victorian rate of 4.04 percent)⁶⁵¹ and high unemployment.⁶⁵²

Recent community and local government efforts have identified several opportunities for urban redevelopment and renewal in the area, articulated in CNDAB's *Healthy Community Plan 2009-2013*.⁶⁵³ The Plan was guided by the World Health Organization's *Healthy Cities* framework, part of a worldwide project which 'promotes local authorities as key stakeholders to deliver planning objectives based on health and wellbeing outcomes'.⁶⁵⁴

The Plan 'provides a long term strategy for the continued and coordinated whole of government and community approach to reduce the level of disadvantage that exists in Corio Norlane'.⁶⁵⁵ Much of this involves increasing areas of park and public open space, improving street connectivity and increasing provision of active transport.

⁶⁴⁹ Assoc Prof T Budge, *Transcript of Evidence*, 4 October 2011, 301.

⁶⁵⁰ Corio Norlane Development Advisory Board 2009 *Healthy Community Plan 2009-2013*, ii, <http://bit.ly/yP676c> accessed 6 December 2011.

⁶⁵¹ 'Analysis of Health Priorities – Health & Wellbeing', Corio Norlane Development Advisory Board, 2009, <http://bit.ly/HY6J1f> accessed 6 December 2011.

⁶⁵² J McGovern, Corio Norlane Development Advisory Board, *Transcript of Evidence*, 7 September 2011, 244.

⁶⁵³ Corio Norlane Development Advisory Board 2009 *Healthy Community Plan*, ii.

⁶⁵⁴ City of Casey, *Submission No. 42*, 6 July 2011, 25; Corio Norlane Development Advisory Board 2009 *Healthy Community Plan*, 2-3.

⁶⁵⁵ 'Healthy Community Plan', Corio Norlane Development Advisory Board, 2009, <http://bit.ly/ILJrIB> accessed 6 December 2011.

Ms Gabrielle Nagle, a CNDAB representative, told the Committee that in order to start redressing the 'longstanding intergenerational disadvantage' of the area:

... the community has advised that transport access and appropriate open space is definitely necessary to improve community wellbeing as well as to enhance public health in that particular area ... there needs to be an increased connection of walking and cycling paths throughout Corio Norlane ... There is only transport that goes north and south, not east and west, so there are some significant physical barriers and safety issues for the community to travel around in that particular area.⁶⁵⁶

At a public hearing, Mr David Hodge of the Department of Planning and Community Development, referred to the area as an example of poor urban planning regarding street connectivity:

... there are reasonably good guidelines that talk about connectivity, about the distance that people should be able to walk from a major transport route and about how they should be able to walk in a direct line ... The best or worst example in Victoria would probably be in Geelong or Corio, where you have to go and buy a carton of milk, and as the crow flies it is about 300 metres, but you actually have to drive 2.5 kilometres to get around there.⁶⁵⁷

Professor Evelyn de Leeuw, a resident of Geelong, commented on the lack of open spaces in the area:

You see in parts of Melbourne that the management of environments and health issues is done really well. On the other hand if you look at Norlane in Corio, Geelong, for instance, which is where I live, in spite of massive investment over the years it does not seem to manage this really well. There are all sorts of issues that drive that problem and the failure to actually do something about it ... in the suburbs of, say, Norlane and Corio, we have to take people out of their suburb to find the spaces for them to interact with because they are just not there.⁶⁵⁸

⁶⁵⁶ Ms G Nagle, Corio Norlane Development Advisory Board, *Transcript of Evidence*, 7 September 2011, 240.

⁶⁵⁷ Mr D Hodge, Department of Planning and Community Development, *Transcript of Evidence*, 31 August 2011, 145-146; see also Prof E de Leeuw, *Transcript of Evidence*, 7 September 2011, 224.

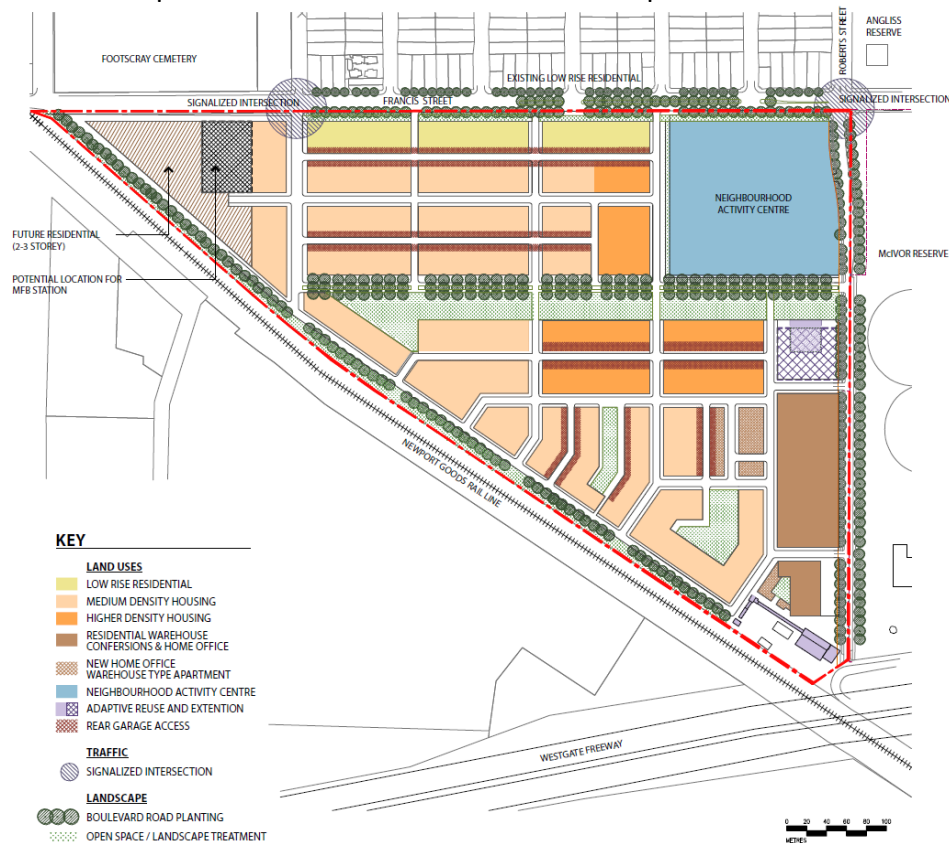
⁶⁵⁸ Prof E de Leeuw, *Transcript of Evidence*, 7 September 2011, 224, 235-236.

Chapter 8: Case studies

8.1 Bradmill

The former site of several textile factories from the 1920s in West Yarraville, the Bradmill precinct measures 26 hectares, is located eight kilometres from the Melbourne Central Business District, and is bounded by Francis Street, Mclvor Reserve, the Westgate freeway and the Newport Goods Rail Line. A 2009 Department of Planning and Community Development report supported the Maribyrnong City Council's proposal to redevelop the Bradmill precinct for residential housing. The development will feature 1000 dwellings of low, medium and high density (Figure 20), is projected to cost \$1 billion and will take ten years to complete.

Figure 20: Concept Plan for Bradmill residential development



Source: 'Bradmill Precinct West Yarraville', Concept Plan, MGS Architects and Tract Consultants Pty Ltd, Melbourne.

The Bradmill site presents a different set of challenges for urban planners, as land that has been previously used for industry or waste services brings with it particular concerns for the health of future residents of that area. An Environmental Audit Overlay was proposed to address possible contamination issues associated with past industrial uses.

As part of the plan for Bradmill, the Maribyrnong City Council completed an Ecological Sustainable Design Strategy and Action Plan containing the following principles: energy and water conservation; planning which encourages walking, cycling and use of public transport; infrastructure to improve air quality;

encouraging recycling of waste materials; and landscaping which provides for natural habitat and green spaces.⁶⁵⁹

On 4 October 2011, members of the Committee visited the Bradmill development, and learned of health-related issues that have been raised. In a submission to council, the Department of Innovation, Industry and Regional Development expressed concerns about the loss of employment opportunities, increased traffic congestion, and the potential noise pollution caused by the Newport freight rail track, used by trains all night.⁶⁶⁰ Residents' concerns focused on potential traffic congestion, particularly on Francis Street, and pollution and noise from trucks.⁶⁶¹

Environment Protection Authority Victoria noted that the development's close proximity to the Brooklyn Industrial Estate had the potential to cause odour, dust and noise problems, which have been the sources of previous complaints from Yarraville residents.⁶⁶²

8.2 Armstrong Creek

Armstrong Creek, a new residential development in the City of Greater Geelong, is the largest contiguous urban development in Victoria. The development is expected to take 25 years to complete and will provide approximately 22,000 residential homes for 55,000 people. A target of creating 22,000 new local jobs also has been set, with a focus on high technology industries and developing links with Deakin University.⁶⁶³ According to the project's scoping documents, achieving this will require a 'quality urban offer' to attract and retain skilled workers.⁶⁶⁴

On 18 October 2011, members of the Committee undertook a visit with the assistance of the City of Geelong to the site of the planned 'Warralily' residential community at Armstrong Creek (Figure 21).⁶⁶⁵ The Committee was informed that Warralily emphasises integrating sustainable eco-friendly housing with green spaces, local community shopping and recreational facilities, and provision of active transport networks.⁶⁶⁶

⁶⁵⁹ 'Schedule 7 To The Development Plan Overlay', Maribyrnong Planning Scheme, in A Robertson, *Maribyrnong Planning Scheme Amendment C63: Bradmill Precinct, Report of the Panel*, Tract Consultants Pty Ltd, 2009, Melbourne, 7.

⁶⁶⁰ B Ryan, 'Fears for development of Yarraville's Bradmill site', *Maribyrnong Leader*, 2 June 2009, <http://bit.ly/w7GRe3> accessed 14 September 2011; A Robertson, *Maribyrnong Planning Scheme Amendment C63*, 9, 20.

⁶⁶¹ A Robertson, *Maribyrnong Planning Scheme Amendment C63*, 5.

⁶⁶² B Ryan, 'Fears for development of Yarraville's Bradmill site'; A Robertson, *Maribyrnong Planning Scheme Amendment C63*, 29-30.

⁶⁶³ 'About Armstrong Creek', City of Greater Geelong, 2011, <http://bit.ly/xbfgpr> accessed 20 November 2011.

⁶⁶⁴ City of Greater Geelong 2010 *Armstrong Creek Urban Growth Plan, Volume 1*, City of Greater Geelong, 2010, 64.

⁶⁶⁵ 'Greater Geelong Planning Scheme Amendment C214 East Precinct Development Contributions Plan Exhibition', City of Greater Geelong, 2011, <http://bit.ly/lrPLxc> accessed 2 October 2011.

⁶⁶⁶ 'About the Warralily Armstrong Creek Development', Warralily Armstrong Creek, 2010, <http://bit.ly/HMG8ut> accessed 2 October 2011.

Figure 21: Warralily development (Armstrong Creek site visit)

Source: Rosalind Harder

Members of the Committee observed Warralily will have several features which, if delivered, will promote healthy lifestyles for its residents, including: a focus on energy efficient building design; mixed density housing; interconnected leisure trails and paths to encourage walking/cycling for local trips less than 5 kilometres; two public transport interchanges; infrastructure including schools, a library, medical centres, retail space, parks, playing fields, playgrounds and bike paths; an Integrated Open Space Network of 82 hectares, including active and passive open space, waterways, wetlands and bushland; and 30 kilometres of dedicated walking trails and cycling paths.

8.3 Kingston Green Wedge

On 9 December 2011, members of the Committee undertook a site visit to the City of Kingston to tour the Kingston Green Wedge (KGW). In the 1960s, Melbourne's 12 green wedge areas were identified to safeguard them for agriculture, biodiversity, recreation, open space, natural resources, heritage and landscape conservation, and to preserve locations for service industries and infrastructure away from urban centres. While green wedges include environmental and recreational uses, they also have 'assets such as airports, sewage plants, quarries and waste disposal sites – uses that support urban activity but which cannot be located among normal urban development'.⁶⁶⁷

The KGW is approximately 20 kilometres long, comprises 9,675 hectares and has 35 land use zones including agriculture, recreational open space, heavy industry and mining (Figure 22).

⁶⁶⁷ Department of Infrastructure 2002 *Melbourne 2030: Planning for sustainable growth*, Victorian Government, Melbourne, 66.

Figure 22: An aerial view of the Kingston Green Wedge area



Source: Department of Planning and Community Development 2010 *Creating a Shared Vision for a Sustainable Kingston Green Wedge*, Victorian Government, Melbourne, 6.

On their tour, members of the Committee observed current uses of the KGW (such as landfill and waste management services, and other private and industrial land uses) and were alerted to the potential for transferring some of these uses into public open space. This includes creating a ‘Chain of Parks’ by linking walking and cycling trails through the KGW from Karkorook Park to Braeside Park.⁶⁶⁸ The Chain of Parks concept aims to ‘create a series of connected parks that will provide high quality open space and a wide range of passive and active recreation facilities for both the local community and the wider south-east region.’⁶⁶⁹

8.4 Selandra Rise

Selandra Rise is a housing development demonstration project between industry, government and the private sector, represented by the Planning Institute of Australia (Victorian Division) (PIA (Vic)), the Growth Areas Authority, the City of Casey, VicHealth and developer Stockland. A 115-hectare location in Melbourne’s south-eastern suburbs (in the City of Casey), Selandra Rise is the first urban development of its kind to incorporate health considerations at each stage of planning: ‘a greenfield development which has been specifically planned to enhance the health and wellbeing of its residents.’⁶⁷⁰

Apart from a range of accommodation options, plans feature provision of a retail town centre, primary and secondary schools, health and childcare services, an aged care facility, interconnected walking tracks, bike paths and streets, 13 hectares of open space, a proposed community garden, parklands within 300 metres of every home, a sporting district and playgrounds.⁶⁷¹ Construction will

⁶⁶⁸ City of Kingston 2011 *Kingston Green Wedge Plan, Draft Plan for Consultation*, Melbourne, vi-ix.

⁶⁶⁹ Department of Planning and Community Development 2010 *Creating A Shared Vision For A Sustainable Kingston Green Wedge*, Victorian Government, Melbourne, 4.

⁶⁷⁰ Planning Institute of Australia (Victorian Division), *Submission No. 39*, 4 July 2011, 4.

⁶⁷¹ ‘About Selandra Rise’, Stockland Corporation Limited, 2012, <http://bit.ly/At6mY5> accessed 16 January 2012.

begin in 2012 and the suburb will house approximately 4000 residents when completed.⁶⁷²

According to PIA (Vic), the project highlights the fact that in current planning processes, considerations of health and wellbeing are an optional extra.⁶⁷³ Six key planning priorities have been identified: social inclusion, physical activity, food, childhood health, safety and mental health.⁶⁷⁴

Monitoring and evaluation will have an important role in the project. VicHealth has appointed a Research Practice Fellow to 'track those latent, emergent, planned and accidental living health outcomes, from the first stages of community development to the time of community establishment.'⁶⁷⁵

PIA (Vic) informed the Committee that the Selandra Rise project has many objectives in terms of embedding health principles in urban design:

It particularly undertakes to include some important and specific health design features such as accessibility to food and children's play, which are not legislated for or included in the PSP guidelines ... The envisaged benefits of such a project are numerous. The first is the opportunity for planners and developers to observe any improved health outcomes for residents. The second is the opportunity to undertake research to provide quantifiable evidence that such planning initiatives result in positive health outcomes ... Another important outcome of this project is the anticipated market demand for 'healthy-planned' communities. This demand will create a financial incentive for the private sector to incorporate health and wellbeing when planning and developing new communities, and demonstrates how planning for health can be integrated into a viable business model.⁶⁷⁶

The Committee looks forward to the evaluation of the Selandra Rise project in terms of its health and wellbeing outcomes.

Recommendation 36

That the Victorian Government takes note of the Selandra Rise project with a view to:

- ensuring key lessons and quantifiable evidence arising from the project regarding health and wellbeing are widely disseminated and inform policy development
- encouraging collaborations in residential development between community, private and government bodies.

Committee Room
3 May 2012

⁶⁷² VicHealth 2011 *VicHealth year in review 2010-2011*, Victorian Government, Melbourne, 38.

⁶⁷³ Planning Institute of Australia (Victorian Division), *Submission No. 39*, 4 July 2011, 6.

⁶⁷⁴ Planning Institute of Australia (Victorian Division), *Submission No. 39*, 4 July 2011, 5.

⁶⁷⁵ VicHealth, *Submission No. 47*, 11 July 2011, 14-15; see also 'Rise and shine: Selandra Rise development breaks new ground', media release, Growth Areas Authority, 19 September 2011, <http://bit.ly/w5wQCM> accessed 16 January 2012; VicHealth 2011 *VicHealth year in review 2010-2011*, 39.

⁶⁷⁶ Planning Institute Australia (Victorian Division), Cancer Council Victoria (SunSmart), City of Port Phillip, Physical Activity Australia, Victorian Council of Social Service and Victorian Local Governance Association, *Submission No. 59*, 13 July 2011, 13-14.

Appendix A: Submissions received

1. Professor Evelyne de Leeuw
2. Dr Vivian Romero
3. City of Greater Bendigo
4. Women's Health Victoria
5. The Kevin Heinze Centre
6. City of Whitehorse
7. Parks Forum
8. Commonwealth Scientific and Industrial Research Organisation
9. *beyondblue*
10. Environment Defenders Office (Victoria) Ltd
11. Dr Margaret Beavis
12. Australian Institute of Landscape Architects
13. City of Warrnambool
14. Healthy Built Environments Program, University of New South Wales
15. Australian Department of Infrastructure and Transport
16. School of Exercise and Nutrition Sciences, Deakin University
17. Faculty of Health, Deakin University Medical School
18. Northern Alliance for Greenhouse Action
19. City of Ballarat
20. SJB Urban
21. Food Alliance
22. Victorian Healthcare Association
23. Australian Medical Association Victoria
24. City of Monash
25. Arup
26. City of Whittlesea
27. Centre of the Built Environment and Health, University of Western Australia
28. Professor Anthony Capon
29. Parks Victoria
30. Cancer Council Victoria (SunSmart)
31. City of Boroondara
32. Obesity Policy Coalition
33. Alcohol Policy Coalition
34. Mr Alex MacLeod
35. Astronomical Society of Victoria
36. Cardinia Ratepayers Association
37. City of Moreland
38. Ms Angela Williams
39. Planning Institute of Australia (Victorian Division)
40. City of Stonnington
41. Shire of Yarra Ranges
42. City of Casey
43. Dental Health Services Victoria

44. City of Melbourne
45. City of Yarra
46. Bicycle Victoria (now Bicycle Network Victoria)
47. VicHealth (Victorian Health Promotion Foundation)
48. Sustainable Population Australia
49. Victorian Council of Social Service
50. Protectors of Public Land Victoria Inc.
51. Doctors for the Environment
52. City of Maribyrnong
53. Ms Catherine McNaughton
54. Environment Protection Authority Victoria
55. Heart Foundation (Victoria)
56. Victorian Local Governance Association
57. Shire of East Gippsland
58. Council on the Ageing (Victoria)
59. Joint Submission by Cancer Council Victoria (SunSmart), City of Port Phillip, Planning Institute of Australia (Victorian Division), Physical Activity Australia, Victorian Council of Social Service and Victorian Local Governance Association
60. Nillumbik Shire Council
61. Municipal Association of Victoria
62. Wyndham City Council
63. Department of Planning and Community Development

Appendix B: List of witnesses

Thursday 4 August 2011

Australian Institute of Landscape Architects
Mr Scott Graham, President
Ms Pru Smith, Chair, Environment Committee
Mr Robert Cooper, National Councillor
Ms Deborah Kuh, Environment Committee
Mr Jon Shinkfield, Advocacy and Urban Design Committee

McCaughey Centre, University of Melbourne
Professor Billie Giles-Corti, Director

Municipal Association of Victoria
Ms Clare Hargreaves, Manager, Social Policy
Ms Jan Black, Policy Adviser

Professor Anthony Capon

Bicycle Victoria (now Bicycle Network Victoria)
Mr Bart Sbeghen, Manager, Healthy Suburbs
Mr Garry Brennan, Public Affairs

Dr Margaret Beavis

Heart Foundation (Victoria)
Ms Kellie-Ann Jolly, Director, Cardiovascular Health Programs
Ms Rachel Carlisle, Active Living Manager

Tuesday 23 August 2011

Environment Defenders Office (Victoria) Ltd
Ms Nicola Rivers, Law Reform Director
Mr Michael Power, Law Reform

VicHealth (Victorian Health Promotion Foundation)
Associate Professor John Fitzgerald, Acting Chief Executive Officer

Council on the Ageing (Victoria)
Ms Janet Wood, President
Ms Debra Parnell, Manager, Policy

Food Alliance
Dr Rachel Carey, Research Fellow
Ms Kathy McConell, Coordinator

Doctors for the Environment
Dr Eugenie Kayak, Victorian Chair
Dr Marion Carey, Senior Research Fellow, Monash Sustainability Institute,
Monash University

City of Wyndham
Cr Glenn Goodfellow
Cr Marcel Mahfoud
Mr Bill Forrest, Director of Advocacy
Ms Lucy Midolo, Social Planning Coordinator

Wednesday 31 August 2011

Department of Planning and Community Development
Mr David Hodge, Acting Deputy Secretary, Planning and Local Government
Mr John Ginivan, Acting Executive Director, Planning Policy and Reform

Tuesday 6 September 2011

SJB Urban

Mr Simon McPherson, Director

Cancer Council Victoria (SunSmart)

Ms Sue Heward, Manager

Ms Dimity Gannon, Community and Sports Coordinator

City of Maribyrnong

Mr Nigel Higgins, General Manager, Sustainable Development

Mr Nick Matteo, Manager, Community Planning and Advocacy

Dr Vivian Romero

Environment Protection Authority Victoria

Mr John Merritt, Chief Executive Officer

Mr Stuart McConnell, Director, Future Focus

Department of Transport

Mr Robert Pearce, Deputy General Counsel, Commercial Branch

Mr Michael Hopkins, Executive Director, Policy and Communications

Division

Ms Fiona Calvert, Director, Strategy and Resource Efficiency, Policy Branch

City of Whittlesea

Mr Russell Hopkins, Director, Community Services

Mr Griff Davis, General Manager, Advocacy and Communications

Mr Frank Hanson, Team Leader, Urban Design

Wednesday 7 September 2011

Professor Evelyne de Leeuw

Parks Victoria

Ms Fiona Horsley, Manager, Livability Strategy

Dr Rob Grenfell, Strategic Health Adviser

Corio Norlane Development Advisory Board

Ms Gabrielle Nagle, Executive

Ms Joan McGovern, Executive

Women's Health Victoria

Ms Rita Butera, Executive Director

Ms Rose Durey, Policy and Health Promotion Manager

beyondblue

Ms Suzanne Pope, Director, Research and Planning

Ms Carolyn Nikoloski, Policy and Projects Officer

Associate Professor Carolyn Whitzman, Urban Planning, University of Melbourne

Wednesday 14 September 2011

Department of Health

Mr Colin Sindall, Acting Director, Prevention and Population Health

Dr John Carnie, Chief Health Officer

Mr Graeme Gillespie, Manager, Environmental Health

Tuesday 4 October 2011

Planning Institute of Australia (Victorian Division)

Mr Stuart Worn, Executive Officer

Ms Simone Stevenson, Senior Policy and Project Officer

Mr Jason Black, Project Director, Planning for Health and Wellbeing Project

Associate Professor Trevor Budge

Professor Michael Buxton

Appendix C: List of site visits

4 October 2011

City of Maribyrnong

City of Melbourne

18 October 2011

City of Wyndham

City of Greater Geelong

9 December 2011

City of Kingston

Appendix D: Extracts of the proceedings

Legislative Council Standing Order 23.27(5) requires the Committee to include in its report all divisions on a question relating to the adoption of the draft report. All Members have a deliberative vote. In the event of an equality of votes, the Chair also has a casting vote.

The Committee divided on the following questions during consideration of this Report, with the result of the divisions detailed below. Questions agreed to without division are not recorded in these extracts.

18 April 2012

Recommendation 12

That the Victorian Government amends section 4(1) of the *Planning and Environment Act 1987* to include 'the promotion of environments that protect and encourage public health and wellbeing' (or similar wording) as an objective of planning in Victoria.

Mrs Peulich moved, That the word 'amends' be omitted with the view of inserting in its place 'considers amending' and that after '1987' the following words be inserted 'or other appropriate mechanisms'.

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negatived.

Mr Scheffer moved, That Recommendation 12 stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Recommendation agreed to.

Recommendation 14

That the Victorian Government amends section 12 of the *Planning and Environment Act 1987* to require planning authorities to conduct a Health Impact Assessment for key planning decisions, such as major urban developments or making or amending a planning scheme. The Committee further recommends that:

- a suitable and easy to use Health Impact Assessment tool be developed by the Department of Health and the Department of Planning and Community Development, in consultation with the planning industry and local governments

- the Department of Health provide resources and support to local governments to conduct Health Impact Assessments.

Ms Pennicuik moved, That in the second dot point, after the word 'Health' the following words be inserted 'and the Department of Planning and Community Development'.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Amendment agreed to.

Mrs Peulich moved, That the word 'amends' be omitted with the view of inserting in its place 'considers amending', and that the words 'or making or amending a planning scheme' and the second dot point be omitted.

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negatived.

Ms Pennicuik moved, That Recommendation 14 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Recommendation agreed to.

Recommendation 22

That the Victorian Government amends section 12A(4) of the *Planning and Environment Act 1987* to require Municipal Strategic Statements to be consistent with Municipal Public Health and Wellbeing Plans. Following this, the Government should audit Municipal Strategic Statements within the next 12 months to monitor compliance with the amendment.

Ms Pennicuik moved, That the last sentence be omitted with the view of inserting in its place 'Following this, the Government should conduct an audit of Municipal Strategic Statements annually to monitor compliance with the amendment'.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Amendment agreed to.

Mr Elsbury moved, That Recommendation 22 be omitted with the view of inserting in its place the following 'That the Victorian Government encourage local governments to develop Municipal Strategic Statements which are consistent with Municipal Public Health and Wellbeing Plans by working with local governments to develop synergy.'

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negated.

Mrs Peulich moved, That the last sentence be omitted.

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negated.

Mr Scheffer moved, That Recommendation 22 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Recommendation agreed to.

Recommendation 24

That the Department of Health provides guidance to local governments to evaluate Municipal Public Health and Wellbeing Plans and to benchmark with other municipalities.

Mrs Peulich moved, That the words 'and to benchmark with other municipalities' be omitted.

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negated.

Recommendation 25

That the Department of Health works with SunSmart and local governments to ensure that UV protective shade measures are included in Municipal Public Health

and Wellbeing Plans. This should be followed with regular audits of the Plans to monitor compliance.

Mr Elsbury moved, That the last sentence be omitted.

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negated.

Ms Pennicuik moved, That after the word 'compliance' the following be inserted 'with the measures'.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Amendment agreed to.

Recommendation 7

That the Victorian Government amends the Victoria Planning Provisions to require growth area residential developments to achieve housing densities substantially higher than the current average density minimum of 15 dwellings per net developable hectare.

Mrs Peulich moved, That the word 'amends' be omitted with the view of inserting in its place 'considers amending' and that all words after 'housing' be omitted with the view of inserting in its place 'sizes and densities to meet the needs of population growth and diverse community needs'.

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negated.

Mr Elsbury moved, That all words after 'Provisions' be omitted with the view of inserting in their place 'to encourage greater housing density and minimum requirements of open space, while maintaining choice in the market'.

The Committee divided.

Ayes 5

Mr Elsbury
Mr Ondarchie
Mr Scheffer
Mr Tee
Ms Tierney

Noes 2

Ms Pennicuik
Mrs Peulich

Amendment agreed to.

Ms Pennicuik moved, That Recommendation 7 be omitted with the view of inserting in its place the following 'That the Victorian Government amends the Victoria Planning Provisions to require growth area residential developments to achieve housing densities substantially higher than the current average density minimum of 15 dwellings per net developable hectare along with minimum requirements for public open space.'

The Committee divided.

Ayes 1

Ms Pennicuik

Noes 6

Mr Elsbury
Mr Ondarchie
Mrs Peulich
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negatived.

Mr Elsbury moved, That Recommendation 7 as amended stand part of the Report.

The Committee divided.

Ayes 5

Mr Elsbury
Mr Ondarchie
Mr Scheffer
Mr Tee
Ms Tierney

Noes 2

Ms Pennicuik
Mrs Peulich

Recommendation agreed to.

Recommendation 16

That the Victorian Government revises the Precinct Structure Planning Guidelines to:

- identify public health and wellbeing as a priority matter for Precinct Structure Plans
- provide clear direction on how public health and wellbeing should be advanced within Precinct Structure Plans.

Mr Elsbury moved, That Recommendation 17 stand part of the Report.

The Committee divided.

Ayes 6

Mr Elsbury
Mr Scheffer
Ms Pennicuik
Mrs Peulich
Mr Tee
Ms Tierney

Noes 1

Mr Ondarchie

Recommendation agreed to.

Recommendation 18

That Planning Panels Victoria ensures that all panels established as part of the growth areas Precinct Structure Planning process have a public health specialist as part of their membership.

Mrs Peulich moved, That the after the word 'have' the following be inserted 'access to the expert knowledge of'.

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negatived.

Ms Pennicuik moved, That Recommendation 18 stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Recommendation agreed to.

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Recommendation 21

That the Victorian Government, recognising that the work of all government agencies influence health and wellbeing, adopts a 'whole-of-government' approach to health policy-making, such as the 'Health in All Policies' model used by the South Australian Government and the European Union.

Mr Elsbury moved, That all words after 'policy-making' be omitted.

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negatived.

Mr Scheffer moved, That Recommendation 21 stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Recommendation agreed to.

Recommendation 9

That Environment Protection Authority Victoria is given a strategic role at an early stage in major land use planning decisions.

Mrs Kronberg moved, That Recommendation 9 stand part of the Report.

The Committee divided.

Ayes 6

Mr Elsbury
Ms Pennicuik
Mrs Peulich
Mr Scheffer
Mr Tee
Ms Tierney

Noes 2

Mrs Kronberg
Mr Ondarchie

Recommendation agreed to.

Recommendation 17

That the Victorian Government reviews the Urban Design Charter to:

- strengthen the role and function of the Charter in guiding Victorian urban design
- ensure that design objectives which promote health and wellbeing are included in the Charter.

Mr Elsbury moved, That the first dot point be omitted.

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negatived.

Mrs Peulich moved, That the second dot point be omitted with a view of inserting in its place 'ensure the inclusion in the Charter design objectives which promote health and wellbeing.'

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negatived.

Ms Pennicuik moved, That Recommendation 17 stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.
Recommendation agreed to.

Recommendation 19

That the Victorian Government appoints public health specialists (or persons with appropriate health expertise) to the Boards of the Growth Areas Authority and Urban Renewal Authority.

Mrs Peulich moved, That the word 'appoints' be omitted with a view of inserting in its place 'considers appointing' and that the words 'specialists (or persons)' be omitted with a view of inserting in its place 'specialist (or person)'.

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.
Amendment negatived.

Ms Pennicuik moved, That Recommendation 19 stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.
Recommendation agreed to.

Recommendation 8

That the Victorian Government:

- undertakes a systematic and coordinated audit of contaminated land sites and reviews the implications for health and wellbeing
- reviews the current legislative framework for developing contaminated land with a view to making it clearer and more consistent.

Ms Pennicuik moved, That after the word 'Government' the following be inserted 'as part of its response to the Victorian Auditor-General's reports in relation to contaminated sites'.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Amendment agreed to.

Mrs Peulich moved, That the amended paragraph be omitted with a view of inserting in its place 'As part of its response to the Victorian Auditor-General's reports in relation to contaminated sites, the Victorian Government, together with local government' and that in the first dot point the word 'audit' be omitted with a view of inserting in its place the word 'review' and the words 'and reviews' be omitted with a view of inserting in their place 'audit and considers'.

The Committee divided.

Ayes 5

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Ms Pennicuik
Mrs Peulich

Noes 3

Mr Scheffer
Mr Tee
Ms Tierney

Amendment agreed to.

Recommendation 5

That the Department of Planning and Community Development and the Department of Health urgently develop a joint response to the emerging health problems stemming from poor air quality and the urban heat island effect in Melbourne. As part of this, the design of residential communities should prioritise tree planting and green spaces to provide shade, improve respiratory health and to lower ambient temperatures in summer months.

Mrs Peulich moved, That all words after 'Melbourne' be omitted with a view to inserting in their place 'As part of this, the design of residential communities and commercial precincts should place importance on tree planting, the provision of shade structures (such as awnings and shade sails) and green spaces to improve respiratory health and to lower ambient temperatures in summer months.'

Furthermore, State Government planning policies recognise the need for a balance between housing density and exacerbating the urban heat island effect.'

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negated.

Ms Pennicuik moved, That the words 'That the Department of Planning and Community Development and the Department of Health urgently develop a joint response to the' be omitted with a view of inserting in their place 'That the Victorian Government urgently develops a whole-of-government response to the'.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Amendment agreed to.

Ms Pennicuik moved, That Recommendation 5 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Recommendation agreed to.

Recommendation 1

That the Victorian Government:

- commissions further research into the cumulative health and wellbeing impacts of the density of fast food outlets on a community
- assists local governments to map all food outlets within a local government area
- develops a local government planning mechanism that can be used to limit the oversupply of fast food outlets in communities.

Mr Elsbury moved, That the following be inserted after dot point 1 as a new dot point 'That the same research be carried out in supermarkets to assess the high fat, high sugar and high salt foods, which are made available as a comparison to fresh food and healthy easy meal options.'

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negatived.

Ms Pennicuik moved, That in the first dot point the words 'commissions further' be omitted with a view of inserting in their place 'works with VicHealth to commission further Victorian'.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Amendment agreed to.

Mr Tee moved, That the third dot point be omitted with a view of inserting in its place 'develops a planning mechanism that can be used by local councils to limit the oversupply of fast food outlets in communities.'

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Amendment agreed to.

Mrs Peulich moved, That the amended dot point three be omitted with a view of inserting in its place 'develops a plan to facilitate the supply of healthy food choices to its community.'

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negated.

Mrs Peulich moved, That Recommendation 1 be broken into four parts numbered Recommendation 1.1, 1.2, 1.3 and 1.4, and that each one will be put separately.

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Procedural motion negated.

Ms Pennicuik moved, That Recommendation 1 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.
Recommendation agreed to.

Recommendation 2

That the Victorian Government conducts a review into the economic, environmental and social importance of the food system and its consequences for public health.

Ms Pennicuik moved, That the words ‘food system’ be omitted with a view of inserting in their place ‘food production and distribution in Victoria’.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.
Amendment agreed to.

Ms Pennicuik moved, That Recommendation 2 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.
Recommendation agreed to.

Recommendation 4

That the Victorian Government:

- commissions further research into the cumulative health and wellbeing impacts of the density of packaged liquor outlets on a community
- continues to strengthen planning mechanisms to allow local government to regulate the number of packaged liquor outlets in particular areas.

Ms Pennicuik moved, That in the first dot point before the word ‘commissions’ the following be inserted ‘works with VicHealth to’ and that after the word ‘further’ the following be inserted ‘Victorian’.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Amendment agreed to.

Mr Tee moved, That in the second dot point the words ‘continues to strengthen’ be omitted with a view of inserting in their place ‘strengthens’ and that the word ‘number’ be omitted with a view of inserting in its place ‘oversupply’.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Amendment agreed to.

Mrs Peulich moved, That the amended Recommendation be omitted with a view of inserting in its place the following: ‘That the Victorian Government:

- commissions further research into the cumulative health and wellbeing impacts of the density of packaged liquor outlets on a community and volume of liquor sold with a view to developing policies which reduce alcohol related harm
- be congratulated for strengthening the planning mechanisms to allow local government to regulate the number of packaged liquor outlets in particular areas, especially given that Labor did not act on this over its 11 years in office.’

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negatived.

Ms Pennicuik moved, That Recommendation 4 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Recommendation agreed to.

Recommendation 10

That the Victorian Government supports the introduction of visitable and adaptable design standards for new housing to ensure access for seniors and people with limited mobility.

Mr Tee moved, That the words ‘visitable and adaptable’ be omitted.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Amendment agreed to.

Mrs Peulich moved, That the recommendation be omitted with a view of inserting in its place the following 'That the Victorian Government supports the introduction of visitable and adaptable design standards for a portion of new housing estates to ensure access for seniors and people with limited mobility.'

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negated.

Mr Tee moved, That Recommendation 10 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Recommendation agreed to.

Recommendation 11

That the Victorian Government works with local government, developers, the building industry and community groups to ensure that universal design principles that improve accessibility are applied to all aspects of the built environment, including the maintenance and retrofitting of existing building stock, roadways, cycling and pedestrian paths, and public transport infrastructure.

The Committee further recommends that, within 12 months, the Department of Planning and Community Development assesses progress and reports back to the Parliament annually on measures taken to improve the accessibility of the built environment in Victoria.

Mr Tee moved, That in the second paragraph the words 'within 12 months' be omitted.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Amendment agreed to.

Mr Peulich moved, That in the first paragraph the words 'to ensure that' be omitted with a view of inserting in their place 'to examine the appropriate application of'.

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negated.

Mr Scheffer moved, That Recommendation 11 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Recommendation agreed to.

Recommendation 28

That the Victorian Government takes the following steps to ensure high quality open spaces are available:

- amends the Precinct Structure Planning Guidelines to establish minimum requirements for open space, including features such as walking paths, play equipment, adult exercise equipment, seating and shade
- provides guidance to local government on appropriate rating tools for assessing the quality of public open space
- supports the ongoing maintenance of existing open space and funds green and other public spaces in new residential developments, particularly in high density areas.

Mrs Peulich moved, That in the first dot point the word 'new' be added before 'Precinct', and the words 'minimum requirements' be omitted with a view of inserting in their place 'targets', and in the third dot point the word 'funds' be omitted with a view of inserting in its place 'the establishment of'.

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negatived.

Mr Tee moved, That the third dot point be omitted with a view of inserting the following in its place 'supports the ongoing maintenance of existing open space and the establishment of green and other public spaces in new residential developments, particularly in high density areas'.

The Committee divided.

Ayes 7

Mr Elsbury
Mr Ondarchie
Ms Pennicuik
Mrs Peulich
Mr Scheffer
Mr Tee
Ms Tierney

Noes 1

Mrs Kronberg

Recommendation agreed to.

Mr Tee moved, That Recommendation 28 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Recommendation agreed to.

Recommendation 32

That the Victorian Government recognises that public transport is a key component of a healthy community, and:

- audits current public transport provision, with an emphasis on outer suburban and regional areas
- establishes minimum standards and targets for public transport in new outer suburban residential developments, linking important destinations such as schools, shops, places of work, community facilities and green and open public spaces
- commits to a program of long-term investment to improve public transport infrastructure for Melbourne's outer suburbs and regional metropolitan areas.

Mrs Peulich moved, That the first paragraph be omitted with a view of inserting in its place the following 'That the recently tabled Victorian Auditor General's report *Public Transport Performance* (February 2012) on the failure of the previous government to provide necessary public transport infrastructure to meet Victoria's population growth be noted.' And in the second dot point the

words 'minimum standards and targets' be omitted with a view of inserting in their place 'objectives' and that the following be added at the end of the third dot point 'as recently recommended by the Victorian Auditor General following adverse findings of the Victorian Labor government's failure to adequately invest in public transport to keep pace with population growth.'

The Committee divided.

Ayes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negated.

Mr Scheffer moved, That Recommendation 32 as amended stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Recommendation agreed to.

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Recommendation 35

That the Victorian Government considers introducing 30 kilometres per hour speed limits in school and residential areas.

Mrs Peulich moved, That Recommendation 35 be omitted with the view of inserting in its place: 'That the case for the lowering of speed limits for school and other areas be considered by current or future speed limit reviews undertaken by VicRoads in consultation with the Victoria Police and other stakeholders.'

The Committee divided.

Ayes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

Noes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

There being an equality of votes, the Chair gave her casting vote for the Noes.

Amendment negated.

Mr Tee moved, That Recommendation 35 be omitted with the view of inserting in its place: 'That the case for the lowering of speed limits to 30 kilometres per hour for school, residential and other appropriate areas be considered by current or future speed limit reviews undertaken by VicRoads in consultation with the Victoria Police and other stakeholders.'

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 4

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich

There being an equality of votes, the Chair gave her casting vote for the Ayes.

Recommendation agreed to.

Recommendation 33

That the Department of Transport ensures that public transport networks are safe and accessible for all sections of the community.

Ms Pennicuik moved, That Recommendation 33 be omitted with the view of inserting in its place: 'That the Department of Transport ensures that public transport networks are connected, safe, reliable and accessible for all sections of the community.'

The Committee divided.

Ayes 1

Ms Pennicuik

Noes 7

Mr Elsbury
Mrs Kronberg
Mr Ondarchie
Mrs Peulich
Mr Scheffer
Mr Tee
Ms Tierney

Amendment negatived.

Chapter 3

Mr Tee moved, That Chapter 3, including recommendations 1 to 5, stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Question agreed to.

Chapter 4

Mr Scheffer moved, That Chapter 4, including recommendations 6 to 11, stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Question agreed to.

Chapter 5

Mr Tee moved, That Chapter 5, including recommendations 12 to 25, stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Question agreed to.

Chapter 6

Ms Pennicuik moved, That Chapter 6, including recommendations 26 to 29, stand part of the Report.

The Committee divided.

Ayes 6

Mr Elsbury
Ms Pennicuik
Mrs Peulich
Mr Scheffer
Mr Tee
Ms Tierney

Noes 1

Mr Ondarchie

Question agreed to.

Chapter 7

Ms Pennicuik moved, That Chapter 7, including recommendations 30 to 35, stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Question agreed to.

Chapter 8

Mr Scheffer moved, That Chapter 8, including recommendation 36, stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik
Mr Scheffer
Mr Tee
Ms Tierney

Noes 3

Mr Elsbury
Mr Ondarchie
Mrs Peulich

Question agreed to.

Executive Summary

Mr Tee moved, That the Executive Summary stand part of the Report.

The Committee divided.

Ayes 4

Ms Pennicuik

Mr Scheffer

Mr Tee

Ms Tierney

Question agreed to.

Noes 2

Mr Elsbury

Mr Ondarchie

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Minority Report

Planning and Environment References Committee of the Legislative Council

Minority Report – 15 May 2012

Submitted By:

Mrs Inga Peulich, MLC for South Eastern Metropolitan Region (Deputy Chair)

Mr Andrew Elsbury, MLC for Western Metropolitan Region

Mr Craig Ondarchie, MLC for Northern Metropolitan Region

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This Minority Report for this exceptionally important inquiry into Environmental Design and Public Health policies in Victoria was inspired by what can only be described as a frustrating experience where more than half of the recommendations of the majority report, either in whole or in part, were passed on the casting vote of the Labor Chair, Ms Gayle Tierney.

Notwithstanding the merit of most of the ideas brought to the committee by Government MPs who frequently expressed concern about loosely worded and or imprecise motions, or recommendations which have not been fully considered in terms of their cost impacts or shifts of resources, or the practical implications for the government of the day, non-Government Members were uncompromising even where compromise may have generated better quality motions supported in a bi partisan spirit.

“Appendix D: Extracts of Proceedings” shows evidence of more than 50 divisions over recommendations with more than 50% of the motions carried on the casting vote of the Labor Chair, Ms Gayle Tierney. The non-Government MPs’ strong disregard for any bipartisanship and unyielding focus on a not to be missed opportunity to pursue a narrow and ideological agenda and to embed political trip wires into recommendations, rather than pursue good policy and beneficial outcomes, was a very significant cause for concern and food for thought when considering about the future of our Upper House committee system.

This was most evident in recommendations relevant to the Planning and the Transport portfolios , policy areas where Labor’s own policies and performance were widely criticised and ultimately rejected at the 2010 state election, in part reflecting the composition of the committee which included the Labor Shadow Minister for Planning, Mr Brian Tee and Greens MP, Ms Sue Pennicuik.

Of greatest concern to the authors of this Minority Report were the following:

- Opposition and non-Government MPs support for recommendations and initiatives which their previous Labor Government failed to deliver or fund when in Government;

- Labor MPs , supported by Greens MP Ms Sue Pennicuik, were prepared to adopt and pursue, in an uncompromising fashion, specific recommendations which are neither costed and nor tested with key stakeholders on whom they would have a substantial negative impact. Given the blow out in the costs of Labor’s major projects and program implementation (which have been reported on by various Victorian Auditor General reports since the 2010 State election) the authors of this Minority Report were surprised that Labor MPs in particular had not been more cautious to learn from past mistakes.
- Many of the recommendations on which the committee divided would see substantial increase in central regulation, adding significantly to costs and shifting precious taxpayer funds away from delivering good policy, programs and outcomes to recommendations which would need to be supported by a burgeoning bureaucracy more focussed on central control for its own sake. This is best exemplified by the number of annual audits called for in a number of the recommendations contained in the majority report. It is regrettable that this is more a reflection of the obsession by Labor MPs’ objective to embed political trip wires into government processes rather than producing recommendations that can deliver beneficial outcomes for Victorians and Victorian communities.
- Several of the recommendations of the Majority report are evidently more inspired by a narrow ideology rather than logic or genuine interest in better health outcomes for the community. The recommendations about fast food and liquor are cases in point.
- Difficult political issues, such as those confronted the committee following a visit to the so called “Kingston Green Wedge” were conveniently sanitised and simply left without any meaningful comment or recommendation. This silence is a matter of concern given that previous 10 years of Labor inaction on this issue which continues to see thousands of affected residents still suffering negative impact on their health and amenity. Labor and Greens MPs, who were initially reluctant to visit the site, were unmoved by the consequences of Labor’s Green Wedge legislation imposed over an atypical and non-conforming area which suffers from land use conflicts locked into place by Labor’s legislation.

In closing, Government MPs have been prepared to support good recommendations which are sensible, and have high likelihood of generating beneficial outcomes. It is, however a disappointment that such an important inquiry has been so compromised by the narrow ideological and political interests of the Labor/Green members of this committee, and that there was such reluctance to find middle ground to ensure that the recommendations were supported by all political parties. It is regrettable that many of the recommendations demonstrate poor policy making, resulting from inadequately considered and politically motivated recommendations which would undoubtedly result in many negative consequences for Victorians and Victorians families.

Lastly, Government MPs would also like to thank the committee staff for their work and all of the submitters and witnesses to what should have been an important blue print for Environmental Design and Public Health policies in Victoria.

Mrs Inga Peulich (Deputy Chair)
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Mr Andrew Elsbury
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Mr Craig Ondarchie
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