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INVITATION TO COMMENT ON ‘HEALTHY SPACES AND PLACES’

Healthy Spaces and Places is a draft document for discussion purposes resulting from the project’s scoping stage. It is a work in progress.

The Australian Local Government Association, the National Heart Foundation of Australia and the Planning Institute of Australia, as partner organisations undertaking this project, are keen to hear your views, comments and suggestions concerning this discussion draft. This will assist in developing a more robust and practical national planning guide and suitable accompanying materials.

Consultation workshops
A series of consultation workshops is being held on Healthy Spaces and Places in mid 2008. It is currently intended to hold one in each state and territory, and in both metropolitan and regional locations. Information about the location and time of the consultation workshops is available at the project web address. Please check at www.planning.org.au to confirm details and register your interest.

You can also make comments directly to the project manager by emailing at healthyplaces@planning.org.au. Fact sheets are also available about the project.

Proposed program for project implementation
After considering the comments received, a final document will be prepared for adoption by the parties involved. Once the final Guide is released, training workshops are scheduled for practitioners, decision-makers, policy makers, community members and all other interested parties in 2009. A full evaluation of the Healthy Spaces and Places project is also planned.

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1. **INTRODUCTION TO HEALTHY SPACES AND PLACES**

This section provides an introduction to the *Healthy Spaces and Places* project.

1.1 **About the *Healthy Spaces and Places* project**

*Healthy Spaces and Places* is a landmark document demonstrating the importance of taking a national perspective on:

- managing our environments, particularly how the physical characteristics of where Australians live, work and play can influence their health and wellbeing
- investing in Australia’s future health and wellbeing
- reducing health costs
- fostering collaborative partnerships supporting preventative measures for disease and injury.

**A multi-dimensional approach**

Understanding the links between health and the urban environment crosses many different disciplines and intersecting agendas. It has equal importance whether approached from the point of view of considering sustainability, climate change, health, social capital, ageing population, child friendly cities, transport, injury prevention or urban management issues.

Any solutions will rely on equally cross-disciplinary, inter-sectoral and integrated approaches. Consideration must be given to the multiple bottom-lines of: economic, social, environmental, community, cultural, health and governance outcomes.

**Collaborative partnerships**

*Healthy Spaces and Places* has been prepared in partnership between the Australian Local Government Association, the National Heart Foundation of Australia and the Planning Institute of Australia together with funding assistance from the Australian Government Department of Health and Ageing.

This unique partnership illustrates the importance of planning and health professionals, as well as those working in local government, working together to develop solutions to health, wellbeing and injury prevention concerns and issues.
1. INTRODUCTION

Origins for this initiative
A key recommendation of the National Speaker Series entitled ‘A Community for All Ages – Building the Future’, conducted by the Australian Government Department of Health and Ageing in 2005–06, was to develop a national guide to help urban planners to design environments for health and wellbeing (Recommendation 6). It was recommended that this be undertaken in consultation with the Planning Institute of Australia. The scope of this work has been extended to include all Australians, not just older people.

1.2 Background to the Healthy Spaces and Places project

A future healthy Australia
A prosperous economic future is reliant on a healthy population. For Australia, this means being able to maximise the efficiencies and abilities of its ageing population.

The Australian Government is committed to reducing the burdens of disease and injury prevention that are crippling the nation’s productivity, sustainability and overall wellbeing.

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Physical inactivity is estimated to cost the Australian community around $10 billion nationally each year in direct health care costs; obesity is as high as $5 billion.

The proportion of overweight and obese Australians is increasing from 39% in 1995 to 44% in 2001 and 47% in 2004/05.

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The Council of Australian Governments (COAG) National Reform Agenda is aimed at further raising living standards and investing further in social capital, health and education. COAG is the peak inter-governmental forum in Australia, comprising the Prime Minister, State Premiers, Territory Chief Ministers and the President of the Australian Local Government Association (ALGA).

COAG agreed that health promotion, prevention and early intervention strategies and investment are required to reduce the incidence of chronic disease and improve overall health outcomes. COAG has identified the following priorities:

- **promoting healthy lifestyles** through nationally consistent messages on health, implementing nationally consistent school canteen guide and school-based and local programs to facilitate and support lifestyle changes
- **supporting early detection of lifestyle risks and chronic disease** through a new Well Person’s Health Check which will be available nationally for people around 45 years old with one or more identifiable risks that lead to chronic disease
- **supporting lifestyle and risk modification** through referral to services that assist people wanting to make changes to their lifestyle. Assistance could include nutritional advice, advice on weight management, support to give up smoking, and counselling.
- **encouraging active self-management of chronic disease** with services ranging from group-based courses to different forms of counselling.
- **improving integration and coordination of care** so that people with chronic conditions can receive more flexible and innovative support.

Why consider planning and health issues together?
Given Australia’s growing burdens of disease, its ageing population and the role that regular physical activity has in managing and reducing the risk factors of many preventable diseases, the design and management of the built environment of where we live, work, play, shop or learn is now recognised as a significant means of promoting regular physical activity.
In making day-to-day decisions from the strategic planning levels of state or metropolitan plans, to the detailed design of master planned neighbourhoods or centre redevelopment proposals, planners and other built environment professionals have an important role in improving the health of the people who live in these communities.

Research is showing that regular physical activity improves people’s physical and mental health and wellbeing. Regular physical activity locally also engenders a sense of belonging in a community and is a fundamental building block of improving social capital.

**Physical activity** has been defined as any bodily movement produced by skeletal muscle that results in a substantial increase over the resting energy expenditure.\(^4\)

As the proportion of trips made by car is significant at the local level: 10% of all trips are less than one kilometre (the equivalent to a ten minute walk) and 30% are less than three kilometers,\(^5\) there are substantial direct benefits in the reduction of greenhouse gas emissions with encouraging people to walk or cycle rather than drive.

Walking and cycling are very readily accessible forms of physical activity available to many people. In designing and managing places at both the macro and micro scale, planners need to remain aware of creating effective opportunities for people to walk or ride.

**Purpose of a national planning guide for health and the built environment**

*Healthy Spaces and Places* … aims to promote the ongoing development and improvement of built environments where Australian people live, work and play, which will facilitate lifelong active living and promote good health outcomes for all.

*Healthy Spaces and Places* is being developed to provide a policy framework at the national level to address the role of the built environment and its influence on people’s health.

A framework for supportive environments for healthy spaces and places is being developed to assist practitioners and decision-makers to understand the inter-connections between planning and health.

It is being prepared as a guide for all levels of government, industry, private sector and community groups in their consideration of health and the built environment.
Healthy Places and Spaces acknowledges the complexities inherent in urban issues and highlights the appropriateness of integrated management approaches. It encourages decision-makers to think broadly when trying to manage diverse issues such as health and wellbeing.

It showcases existing initiatives and draws upon current practices that apply and are consistent with the proposed framework and principles. In particular, it demonstrates effective policy development and implementation that encourage and require integrated outcomes for wellbeing.

The urban environment includes both natural and built places and encompasses state, metropolitan, regional, neighbourhood, local and remote settings.

Building on current initiatives
Healthy Spaces and Places is looking to complement the substantial initiatives currently being undertaken by state, territory and local governments together with industry and community sectors across Australia, such as the NSW Premier's Council for Active Living, the 'Livable Neighbourhoods: A Western Australian Government sustainable cities initiative' and the National Heart Foundation (Victoria) Healthy by Design: a planners’ guide to environments for active living.

It is not intended to duplicate this work. Rather Healthy Spaces and Places is designed to provide a national perspective for addressing the nexus between health and the built environment.

Current research learnings
Over the last 10–15 years, there has been a growing awareness and understanding of the possible effects cities, built environments and urban design have on people and their health. In particular, there has been much interest in the relationship between the quality and form of the built environment and people’s propensity to be active regularly and stay healthy.

Research has been undertaken in a range of disciplines that independently conclude a relationship between the built environment and health. Medical research, health promotion and health prevention, urban studies and planning, and transport planning and research have each articulated conceptual perspectives of this issue but have been independent and not well integrated across areas.

Encouraging more people to be active, especially by walking and cycling regularly, is seen as an effective means of improving people’s health.

The key question facing researchers is to determine how the built environment and urban form influence a person’s behaviour and decision to be active regularly.

There is an accumulating body of evidence on how aspects of urban form are likely to influence physical activity and that changes in environments could be one effective intervention that can contribute to population health benefits. At this stage, the growing body of evidence suggests that significant action needs to be taken now.

Physical activity choices made by different parts of the population, such as children and older adults, and their perceptions of barriers will be differently influenced by the urban environment.
Communities where consideration for people’s health is part of the planning process create a more sustainable community by contributing to outcomes such as reducing car emissions, creating safer communities and more socially connected communities.

There are further benefits in addition to the impact on health, which are not directly covered here, particularly concerning air quality, vehicle emissions and other greenhouse and climate change matters.

1.3 Role of this scoping report for discussion purposes

The main purpose of this scoping report is to promote discussion and to act as a vehicle for consultation. It is the result of a scoping stage which examined current research findings into the effect that the built environment has on people’s health and wellbeing, particularly how physically active they choose to be on a daily basis.

Initial consultation with a range of stakeholder groups was undertaken in preparing this scoping document. A list of people consulted during the preparation of this draft document is at page 60.

*Future users of the Healthy Spaces and Places planning guide*

*Healthy Spaces and Places* is a document to be used by many different people – policy makers, practitioners and decision-makers who work with health and urban management issues every day.

*Healthy Spaces and Places* is as relevant to you whether you are a manager, planner, community member or local government elected representative.

It aims to be a resource for a range of professionals in the built environment (e.g. planners, engineers, architects) and health sectors (e.g. health care, health promotion). It also aims to promote a change in policy thinking and its application in the consideration of everyday urban management decisions that can directly affect people’s health and wellbeing.

*Overview of Healthy Spaces and Places*

*Healthy Spaces and Places* is a draft for discussion purposes drawn from an initial scoping phase. It is presented in two parts: the first part provides background and justification for the joint consideration of health and planning (comprising chapters 2–4) and the second part identifies a range of tools to address the consideration of health and planning (comprising chapter 5). In detail:

- Chapter 2 discusses the relationship between health and the built environment
- Chapter 3 identifies some of the key community trends and concerns about Australia’s health and physical activity
- Chapter 4 provides a summary of the current practice in Australia for considering health and the built environment
- Chapter 5 provides a framework for creating healthy spaces – identifying key desired outcomes, key strategic elements and strategic principles. Section 5.4 identifies the design elements for healthy places and spaces
- Chapter 6 provides links to key resource material for the further consideration and research of health and the built environment
- A glossary of definitions and terms used in this document is found at page 57.
Think about …

- How can a national planning guide assist in making decisions in industry or at the strategic or local level?
- How can Healthy Spaces and Places help you in your daily work?
- How can Healthy Spaces and Places be made more relevant to practitioners and decision-makers?
- As a practitioner working with built environment issues on a daily basis, why do I need to be concerned about health?
- Do you need more evidence establishing the relationship between people’s health and the urban environment’s regulations and policies and their implementation?
- How do we ensure that ‘planning for health’ delivers effective outcomes on the ground?
- Does Healthy Spaces and Places meet the needs of all regular and possible future users?
2. HEALTH AND THE BUILT ENVIRONMENT

This section examines the relationship between people’s physical and mental health and wellbeing, and the built environment.

Design for the young and you exclude the old; design for the old and you include the young Bernard Isaacs, founding Director of the Birmingham Centre for Applied Gerontology.  

Health, wellbeing and the built environment

A critical issue is developing an understanding of what makes a place more conducive to regular physical activity, and understanding what conditions are likely to encourage an individual to make lifestyle choices to being more physically active, more regularly.

In urban planning terms, it is understanding that the location of jobs, houses, centres and transport connections, and the design of neighbourhoods can make an enormous impact on how people choose to live day to day.

![Figure 1 – Multiple influences on physical activity levels. Source: U.S. Transportation Research Board (2005) ](image)

The conceptual model in Figure 1 highlights the complex relationships between the social environment, the built environment and the individual in determining physical activity participation and health. Much can be learned about the relative importance of the individual (e.g. physical capacity, attitudes, preferences, and time demands), the social context (e.g. determinants of physically active behaviour).

“Planning for health outcomes means people have more choices” VicHealth/PIA Putting health at the centre of planning initiative.
Figure 2 – Influence of elements in the built environment on physical activity  
Source: U.S. Transportation Research Board (2005)

Figure 2 identifies elements of the built environment that influence physical activity and, more broadly, people’s health. It also illustrates that land use management at the regional and neighbourhood level directly impacts on the built environment. As Australia’s built environment changes so too do the public health issues change.

Gebel et al. (2005) offer a socio-ecological framework to conceptualise the influence of the physical environment on physical activity and obesity. The framework suggests that nutrition and physical activity behaviours are influenced by intra-individual factors and the broader social and physical environment. Furthermore, the framework highlights that intra-individual factors include cognitive factors, such as knowledge, attitudes and beliefs, and biological factors, such as age, sex, race, individual physiological responsiveness and genetic makeup (2005:16).

Importantly, the framework recognises that behaviour change approaches for physical activity rarely explicitly include the role of the physical environment. In doing this, the role of planners is recognised, as are the interrelationship between environmental and transport factors, along with the often neglected role of individual and social factors in affecting how people behave in specific environments. As such, Gebel et al (2005) offer an illustration of the links between environmental changes and physical activity.
Figure 3 – Design of the built environment and its influences

Figure 3 shows that the design of the built environment has many influences on a range of planning outcomes.

**Walkability and connectivity**

Highly walkable neighbourhoods, with population density mix, land use mix, high connectivity and good provision for walking and cycling, are more likely to encourage walking and cycling for transport, especially for local trips.\(^\text{15}\)

**Walkability** has been developed as a measure to assess the relative characteristics of different urban forms and designs. Questions about residential density, land use mix, accessibility, street networks and connectiveness, walking/cycling facilities, aesthetics and safety are often included.

▲

**Connectivity** is the directness of travel between destinations, which is influenced by the kinds of intersections and their density in a given area.

▼

**Proximity** reflects two land use variables: density (or compactness) of land use and land use mix (the degree of homogeneity or the extent to which different uses are co-located in space).\(^\text{16}\)

Two of the most important factors in determining the ‘walkability’ of an area are the proximity (how close destinations are to walk to) and the connectivity (how direct the routes of travel are).

Urban environments which are compact and intermixed create shorter distances (proximity) between desired destinations, thus encouraging people to walk. This reinforces the notion that spatial landform patterns, population density and mixed land use of an area are interrelated and all encourage walking.\(^\text{17}\)
‘Proximity’ and *connectivity* create walkable environments, neighbourhoods and communities. One example is that the more compact, connected and mixed a neighbourhood is the shorter the distances between destinations and the more walkable it becomes. Alternatively, there are non-compact environments with positive lifestyle characteristics and good connectivity, such as in country towns and suburban areas with effective linkages.

The National Heart Foundation research into supportive environments for walking has found the following environmental attributes influence an area’s walkability: street connectivity and grid pattern street networks, footpaths, walking routes, safe crossing points on roads, access to public transport stops and frequency of service.

In terms of children’s immediate living environment, those living in protected cul-de-sacs may have increased opportunity for play, as opposed to those living near busy roads. However, the everyday walking for adults in these environments may be reduced. Children’s indoor environments also offer more sedentary opportunities such as television and computer games, which influence children’s physical activity, outdoor play and walking opportunities. Mixed land uses, walkable neighbourhoods and clustering services, such as local shops and community facilities near to public transport, connects communities and contributes to local economies. All these factors can contribute to creating healthier places and communities, as well as being more sustainable, cost-effective and marketable.

**Accessibility**

Studies have found an association between the availability, proximity and quality of open space, parks, walking and cycling paths and increased physical activity for recreation. In some cases, there is also an association with access to transport.

A key motivator for regular physical activity (especially walking) is a variety of local destinations (within easy walking distance usually within 5–10 minutes/400 metres of the home [or work] and rarely further away than 20 minutes).

**Aesthetics**

Attractiveness of the neighbourhood environment has been associated with overall activity and with recreational walking. Attractive neighbourhood aesthetics such as scenery and pleasantness have been found to have a positive relationship with measures of overall physical activity. Public art, seating or signage, which all have an impact on the aesthetics of a place, can be influenced by planning decisions.

**The built environment’s influences on people’s health**

There are many ways that the built environment influences people’s health. Some key urban form characteristics (in both the natural and built environments) that tend to be associated with physical activity, include:

- mixed land use and urban/housing density
- good provision of walking and cycling facilities (footpaths and cycle ways)
- facilities for physical activity (e.g. swimming pools)
- street connectivity and design
- transport infrastructure and systems, linking residential, commercial and business areas.

Other factors affecting physical activity include individual socio-demographic characteristics, personal and cultural variables, safety and security, topography, weather and time allocation.
Figure 4 – Impacts of Land Use Decisions

Figure 4 illustrates that everyday land use decisions will have a direct impact on a range of significant factors which influence urban structure and form, such as transport systems, public transport and employment location.

A key motivator for regular physical activity (especially walking) is a variety of local destinations within easy walking distances, usually within 5–10 minutes or 400–500 metres of the home (or work) and rarely further away than 20 minutes. A variety of local destinations could include:

- parks
- civic places and events
- beaches and other open space
- playgrounds
- cafe, restaurant/pub
- public transport routes and stops
- place of worship
- community centre
- convenience/grocery store
- newsagent
- doctors, dentists etc.
- library
- post office
- recreation facilities, e.g. swimming pools.

Well designed open spaces near homes increase the opportunities for participation in active recreation and to build social contacts. Lighting, signage and other infrastructure help people to feel safe in their local neighbourhood and to be active.

Australia’s growing suburbanisation and contemporary public health issues

Evidence is mounting about links between contemporary public health dilemmas of epidemics, such as obesity and depression, and aspects of our urban environment in parallel with the increasing suburbanisation of Australian cities.

Australia is becoming more urbanised and by 2021, 64.5% of Australians will be living in capital cities (up from 63.9% in 2006). The challenge for all is to make healthy choices, easy choices.
With the rise of public concern about the health impacts of cities and the growing interest in sustainable planning there is an opportunity to (re)connect reform in these two traditional urban issues in a new approach to urban public health.\textsuperscript{40}

Our car-reliant cities encourage sedentary lifestyle choices with a host of accompanying serious health implications. The accompanying air pollution is responsible for more deaths each year than road crashes.\textsuperscript{41}

The design of local areas without consideration for pedestrian and cycling access and movement results in urban environments with low walkability capabilities. This provides limited opportunities and encouragement for residents to walk or cycle as an attractive alternative for local trips.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5.png}
\caption{A comparison of the travel distances and connectivity of street networks in selected neighbourhoods}
\label{fig:travel_distances}
\end{figure}

\textsuperscript{42}Figure 5 compares on-road travel distances in grid and typical suburban curvilinear street networks. If consideration of pedestrian and cycle access is undertaken and, in the example on the right, off-road pedestrian and cycle access was provided, travel distances and times could be readily comparable.

The lack of a variety of land uses, especially in outer metropolitan suburbs, means increased dependency on the car to get to employment, centres, public transport, schools, facilities and services. Fewer opportunities are available for residents to walk or cycle for local needs.

The national housing trend of smaller suburban lot sizes and larger building footprints is impacting on the opportunity for informal use and play, especially for children, in private open space.\textsuperscript{43} The provision of high quality and well designed public open space in local neighbourhoods and centres is critical for providing opportunities for physical activity.

\textbf{Transport and liveability}

Australians are driving more, exercising less and eating more convenience foods: 58\% of all car journeys are less than five kilometres and 33\% are less than three kilometres.\textsuperscript{44}

Many Australian suburbs have been designed for car dependence, resulting in poor connection between travel behaviour and physical activity, and negative health and environmental impacts, but car use for urban travel is expanding.\textsuperscript{45}
Due to poorer availability of public transport in outer suburbs or longer trip times, many households in these areas have, on average, one additional car compared with inner-city households.46

An estimated one-third of day-to-day car trips are three kilometres or less in length. This suggests there is considerable scope for a greater reliance on cycling and walking for local trips to meet local needs. The gains, particularly in terms of local emissions, would be significant, given that cold starts account for a large proportion of noxious emissions. However, distance is often a minor factor in mode choice, compared with other considerations such as time, comfort, safety and passenger and parcel carrying capability.47


Figure 6 shows a comparison between travel behaviour and the incidence of obesity in eleven countries. The graph shows a strong correlation between a reduction in the incidence of obesity and the proportion of people walking, cycling and using public transport. In this comparison, Australia would fall approximately between Canada and the UK.

The health cost of air quality is estimated at between $3–5.3 billion every year.48

Transport accounted for 13.5% of Australia’s national greenhouse gas emissions in 2004, according to the Australian Greenhouse Office and the Bureau of Transport and Regional Economics.49

‘The Australian public must become more aware of air pollution and the impact private transport usage has on the air we breathe. For example, if public transport patronage increased by 45%, there would be a 28% decrease in exposure to photochemical smog.’

CSIRO, Reshaping cities for a more sustainable future.
Declining sense of local community
Perceived declines in the ‘sense of community’ among many outer suburbs, regional centres and rural areas can be held responsible for adverse health outcomes. Furthermore, inadequate public transport is making commuting more stressful and more expensive than it needs to be, and siphoning wealth away from local communities.

Current urban design thinking on automobile dependence is focusing on making centres work. Viable centres cannot be largely car dependent. The domination of car parks and traffic defeats walkability and precludes the higher-order function that centres need.

The proportion of people living alone is increasing markedly, with projections indicating that by the year 2021 between 2.4 and 3.4 million people could be living alone, an increase of 52–113% from the number in 1996.

VicLANES – the Victorian Lifestyle and Neighbourhood Environmental Study (2007) by the School of Population Health at Melbourne University assessed the importance of individual and area-level characteristics in shaping three important health behaviours: physical activity, household food-purchasing and alcohol consumption. The study found that residents living in more disadvantaged areas have poorer health and are less likely to participate in physical activity and healthy eating.

Planning systems that provide incentives for walking and cycling as modes of transport as well as recreational uses bring many short and long term benefits to the local communities. Creating a walkable and cycleable city is an important part of creating a sustainable city — one that is equitable, livable, cost-effective, healthy, environmentally sound and safe.

The future of Australian urban health
Governance systems that integrate the built form and health agendas are crucial to improving future urban health trends. When ‘health’ is integrated into planning, the choice for people to be active becomes more convenient, easy, safe and enjoyable.
Think about …

- How can *Healthy Spaces and Places* more clearly demonstrate the relationship between the built environment and health and wellbeing?
- How can *Healthy Spaces and Places* be made more relevant to practitioners and decision-makers?
- Do you need more evidence establishing the relationship between people’s health and the urban environment’s regulations, policies and implementation?
3. KEY COMMUNITY TRENDS AND CONCERNS

This section identifies a number of key demographic trends and issues facing the Australian community that relate to health, wellbeing and the urban environment outcomes. These issues and trends can be seen at both the ‘macro’ (e.g. strategic, metropolitan, regional) and ‘micro (e.g. detailed, local, neighbourhood, street) scale.

The trends discussed in this section include:

- physical activity trends across the life span, from childhood to old age
- physical activity trends in marginalised groups (such as Indigenous Australians, isolated communities)
- mental health and physical activity
- barriers to being physically active
- planning for sport and recreation.

Current trends in chronic diseases and key risk factors such as inactivity and obesity, combined with our ageing population give rise to concern about an enormous economic, social and health burden unless new approaches and priority are afforded to disease prevention.

National Physical Activity Guidelines

The National Physical Activity Guidelines for Australians suggest encouraging adults to be active every day in as many ways as they can be, and to participate in 30 minutes or more of moderate-intensity activity on most, or preferably all days of the week. The guidelines recommend some simple steps to increase activity as part of everyday activity:

- walk or cycle instead of using the car
- park further away from your destination and walk the rest of the way
- walk or cycle to and from your tram/train station or bus stop, and get on and off at a stop that is further away
- take the stairs instead of the lift
- walk rather than rest on escalators or travelators at places like airports
- work in the garden
- play with children in an active way
- walk or play with pets.

With approximately only one in four adults sufficiently active to gain a health benefit, there is considerable scope for improvement. In fact, if all Australians met the recommended levels of physical activity in the National Physical Activity Guidelines it would make a massive impact on Australia’s health by preventing:

- one-third of coronary heart disease
- one-quarter of diabetes
- one-fifth of colon cancer
- up to 12% of breast cancer risk
- about 15% of ischaemic stroke risk
- 10–16% of hip fractures.

Physical activity is beneficial across the lifespan providing health benefits from early infancy to older age. The following information relates to the benefits and issues relevant to physical activity, behaviours and planning practices across the life span.

Children

Regular physical activity is important for young people’s health and there is growing evidence that inactive children are more likely to become inactive adults, and that physical activity in childhood and adolescence may help to reduce the risk of chronic diseases of adulthood.
The number of children under 15 years is estimated to decline from 20% of the population to around 13–16% in 2051 and 2101.\textsuperscript{61}

The Australian Government has recently developed physical activity recommendations for children and young people. These are:

- children and young people should participate in at least 60 minutes (and up to several hours) of moderate to vigorous-intensity physical activity every day
- children and young people should not spend more than two hours a day using electronic media for entertainment (e.g. computer games, Internet, TV), particularly during daylight hours.

There is a positive association between children’s levels of physical activity or sport and cognitive functioning or academic success.\textsuperscript{62}

Physical inactivity is an important driver of the epidemic of overweight and obesity.\textsuperscript{63} Physical inactivity is one of the largest contributors to overweight and obesity in childhood.\textsuperscript{64,65} There has been a dramatic increase in children who are overweight and obese in Australia over the past two decades.\textsuperscript{66} Trend data suggest a decline in the proportion of children who actively commute to school or other venues, largely replaced by car usage rather than public transport use. Rates of active commuting for children and youth are now usually less than 10%.\textsuperscript{67} Since 1981, the proportion of children driven to school has doubled to more than 50%.\textsuperscript{68}

Declines in connected transport options for children resident in suburban neighbourhoods on the edges of larger cities, perceived lack of access to public transport and fewer walking paths and bike trail options for school commuting may also have contributed to physical activity declines among children.\textsuperscript{69}

Recent research examining transport methods to school found that, in terms of perceived factors that influence travel behaviour, the following factors were commonly cited as reasons for walking to school:

- being physically active
- concerns about safety
- not having to park a car at the school
- walking being the child’s preferred option

Conversely, the following factors were commonly cited as reasons for driving to school:

- concerns about safety
- convenience
- comfort.\textsuperscript{70}
Physical activity for children under 15 years usually consists of short intermittent bouts of activity with regular periods of rest. Unlike adults, children are usually more active during free play, rather than during structured activities. The design of playgrounds for safe playing that provides ready opportunities for informal play, physical activity and reduced risk of injury is therefore an important design consideration. Recent trends to rationalise the provision of playgrounds, especially in suburban locations, arising from pressures of public liability insurance, meeting design standards and maintenance costs, may reduce access to play equipment.

Physical activity participation is thought to be related to the optimum development and functioning of many physical, physiological, educational, social and psychological processes in children and youth. Design of neighbourhoods that encourage social inclusion and physical activity may influence these processes.

**Youth and young adults**

There were approximately 3.7 million young people (aged 12–24) in Australia in 2006 (about 18% of the total population; down from 21% in 1990). A continued decline is projected to around 15% in 2025.

The burden of disease for young people (aged 15–24 years) was estimated to be about 8% of the total burden of disease and injury for all ages. Mental health problems accounted for almost half of the total disease burden in 2003. However, obesity and inactivity were seen as growing issues, with only 46% of males and 30% females participating in levels of physical activity recommended in the national guidelines.

Recent consultations with youth representatives indicate an increasing alienation from the use of public spaces by young people. The semi-privatisation of public places, especially in suburban shopping centres and malls, can leave young people with limited options for places to gather that are free of charge. Often youth specific, government/community funded facilities are located in isolated or marginalised locations.

Overseas, government interventions are now rethinking the management and design of open and communal space with a view to promoting physical activity and wellbeing.

**Older people**

Older Australians are the least physically active of any age group in Australia. Older Australians are the most rapidly growing age group and this will continue to climb as the baby boomers generation continues to age.

An ageing population is inevitable for Australia. A more active population will place less demand on the health care system.
By 2051, an estimated 26–28% of all Australians will be 65 and over, a substantial increase from 13% in 2004. A key health objective is to ensure that people are not just living longer, they are healthier at advanced ages than previously. Physical activity can contribute to prevention or delay in the onset of chronic conditions and disabilities.

In many countries (Japan, USA, Norway and UK) over 65s are approximately 15% of the population. Over 65s are divided in the young-old ages 65–74, the old-old ages 75–84, and the oldest-old ages 85+. In Australia, the over 85s are estimated to grow from only 1.5% of the population, 2–3% in 2021 to 7–10% in 2101.

An aged population may mean that people are:
- less car dependent
- more isolated
- less physically active
- susceptible to falls and injury
- likely to be retired.

These factors combined, demand goods and services that are costly for individuals, communities and governments to provide. Accessibility and affordability of goods and services significantly contributes to the extent of health problems and associated health care.

Many older Australians are choosing to remain at home, living independently and ageing in place. This trend is likely to continue and grow, making it important for practitioners (both in planning and public health) to consider environments that support physical activity suitable for the ageing population and sustain social inclusion.

Physical activity is one strategy that older people can undertake to maintain physical and mental health and quality of life. Older adults can obtain significant health benefits from moderate physical activity, such as walking or gardening. Physical activity can prevent falls in older people. In Australia, falls are the main cause of deaths from injury for older adults (55% of cases in 2002) and the rates for fall injuries increases sharply with age.

Recent surveys of older people’s practices and perceptions of physical activity found that participants undertook a wide range of current activities: walking, gardening and housework were the most common (Australian Longitudinal Study on Women’s Health). Barriers identified included poor health, no one to exercise with, inappropriate or unsafe environments and facilities, and lack of interest.

Recent research in Finland in ‘three-generational play’ found that a combination of climbing frames, swings and see-saws had significantly helped old people to regain confidence in their bodies.

Research has indicated that older people are less likely than others to be physically active. If older adults could be encouraged to be more active as they age, frailty and disability associated with falls would be reduced and function and physical, social and mental health in older people would be improved.

In Queensland, the ‘Just walk it’ walking group program has shown that older women, who live alone, with higher BMI were more likely to increase their physical activities by at least three-fold by participating in walking groups. Although people may have joined for health reasons, because of the social contact and friendships that developed, the walking groups
had sustained health and mental health benefits (refer Queensland Department and Sport and Recreation and Heart Foundation program www.sportrec.qld.gov.au/just_walk_it_program.cfm).

Indigenous Australians
Physical inactivity was responsible for 8.4% of the total Indigenous Australian burden of disease and injury in 2003. It was the third leading cause of burden among the 11 risk factors considered by the Australian Institute of Health and Welfare. As a result of physical inactivity, ischaemic heart disease and Type 2 diabetes accounted for 88% of the burden. 84

It has been suggested that the number of Indigenous people who do not participate in adequate physical activity may be more than 55%. 85

Indigenous Australians’ participation in sport and recreation activity has also been shown to be less than half (46%), compared with almost two-thirds (63%) of the non-Indigenous population. 86

Qualitative data from focus groups suggest that sport is important for building social capital, particularly in rural and Indigenous communities. 87 This is supported by Marshall and Miller (2004) who found that Indigenous people were more likely to participate in ‘competitive sports’ like netball, rugby league and boxing or moderate activities such as ‘throwing a ball around with the kids’ and ‘mowing the lawn’. 88

Mental health and wellbeing
Regular physical activity has mental health benefits reducing depression and anxiety and improving self-esteem and self-concept. 89

By the year 2020, depression will constitute the second largest cause of disease burden worldwide. 90

It is now generally acknowledged that the global burden of mental ill health is well beyond the treatment capacities of developed and developing countries, and that social and economic costs associated with this growing burden will not be reduced by the treatment of mental disorders alone. 91

Belonging to a social network makes people feel cared for and valued and this has a powerful protective effect on health. 92 The National Heart Foundation now recognises that social isolation, depression and lack of quality social support are independent risk factors for coronary heart disease. 93

Increasing physical exercise is suggested as an evidence-based alternative treatment for depression and anxiety by Beyondblue – the national depression initiative. 94

**‘Act Belong Commit’ campaign of the Mental Health Council of Australia recognises that activity and exercise have many psychological benefits, including:**

- reducing anxiety
- counteracting withdrawal, inactivity and feelings of hopelessness
- positively affecting moods
- improving self perceptions about physical abilities and body image
- bringing you into contact with other people. 95

www.mhca.org.au
Mental health is not merely the absence of mental illness. It is the embodiment of social, emotional and spiritual wellbeing. It is fundamental to physical health, productivity in the workplace, school, family and overall quality of life. Mental health provides individuals with the vitality necessary for active living, to achieve goals and to interact with one another in ways that are respectful and just.

A well planned built environment can facilitate places for people with a strong sense of place offering opportunities for increasing social connection, support and civic engagement, and safe and enjoyable human interaction while decreasing social isolation.

**Providing opportunities for sport**
Participating in organised sport and recreation has been found to be an important strategy to keep in contact with others in a community and has assisted to promote a sense of community identity.  

> Individual, non-competitive activities are more popular than organised sports  

The provision of sport and recreation facilities for structured active recreation is an issue facing many Australian communities. The cost of provision and maintenance is forcing the amalgamation to regional level facilities from provision at the local level. This is leading to metropolitan and regional land supply issues for suitable sites and to decreases in participants accessing such facilities by walking and cycling.

The impact of climate change on the provision of sporting facilities is still being examined. A possible impact is the likelihood of ongoing water restrictions, the deterioration of existing pitches and the construction of large indoor facilities as alternatives, with accompanying impacts.

‘Active Design Promoting opportunities for sport and physical activity through good design’ prepared by Sport England advocates that effective design and layout of new housing communities (both large and small) have a pivotal role in promoting sport and active recreation to people regardless of sex, age, race or disability.

**The daily choices we make**
Our daily choices include how we travel (especially locally), the foods we eat and what we do in our spare time. All of these decisions affect our health and wellbeing, and are influenced significantly by the barriers and support that may exist in our neighbourhoods and cities – many of these are amenable to intervention.

Nearly 16% of Australian households cannot afford to participate in social activities such as family holidays, having a night out or having family or friends over for a meal.

In time-poor societies, people tend to choose the quick, easy, affordable option. The overall trends show that Australians are driving more, exercising less and eating more convenience foods: 58% of all car journeys are less than five kilometres and 33% are less than three kilometres. These trends have direct health implications.
City of Greater Dandenong 'Wonders of Dandenong' Walking Tours, Victoria, aims to encourage social engagement, explore local opportunities for physical activity through the economic and built environment at the local level. The project methodology has been subsequently applied to other walking tours. The key lessons learnt have been the importance of harnessing local resources and sharing them in a creative way by partnering traders, existing infrastructure, local characters and volunteer tour guide and encouraging broader program linkages.

Overcoming barriers
To enable people to make the healthy choice the easy choice, it is necessary to ensure multilevel and joined-up interventions are developed that incorporate the creation of supportive environments for physical activity along with social interventions that promote a supportive cultural environment and social inclusion.

Understanding why people are not physically active is an important step when considering the suite of interventions to be developed. Barriers to physical activity have been identified as:

- **personal barriers** – are subjective considerations that restrict an individual’s motivation or ability to exercise. Frequently cited personal barriers include lack of time, physical inability to exercise and perceptions of safety and injury risk.
- **environmental barriers** – are real-world conditions that place restrictions on physical activity, such as the lack of bike lanes on roads, lack of road crossings for high traffic areas and poor footpath repair.
- **social barriers** – including a lack of social support, social isolation, child care responsibilities and a lack of health knowledge.
- **administrative barriers** – are unintended consequences of administrative processes, including legislative and regulatory requirements, public liability insurance, and design standards.

Recent survey of older people accessing pool/aquatic venue identified a range of barriers including:

- Cost of travelling to the venue and the cost to enter the venue
- Transport to the pool, especially lack of public transport
- Accessibility in and out of pools, such as a ramp for people with knee/hip problems, poor eyesight or balance
- Poor body image issue, particularly with women, but not so much if everyone is old.

Various studies have identified additional barriers to being active as being:

- high traffic volumes
- lack of places to safely cross streets with high traffic volume (e.g. freeways)
- uneven, poorly maintained footpaths
- unattractive places (e.g. noisy, air pollution, litter)
- space too small for being active
- unattended dogs
- no-one to walk with regularly.
Think about ...

- What other important issues are facing Australia today, such as climate change and global warming, and their relation to health outcomes?
- How do housing affordability issues affect physical activity choices?
- How does this relate to people living in remote communities and rural locations in Australia? What else can be added to make it more relevant?
- How does this relate to Aboriginal and Torres Strait Islanders’ health concerns?
- Do people with non-English speaking background (NESB) and diverse cultural backgrounds make different physical activity choices and different health concerns?
4. CURRENT PRACTICE IN AUSTRALIA

This section recognises the diversity of the issues associated with the practice of integrated health and planning, which are reflected in the breadth of current practices being undertaken in Australia.

In an effort to reduce the health inequalities associated with a lack of exercise and having poor diet, researchers, practitioners and policy makers in public health and in other disciplines such as planning, health promotion and geography are trying to explore the complex reasons for these differences.\(^{106}\)

There are currently many initiatives and programs working towards improved health outcomes. Many are aiming to work across governments at all levels – local, metropolitan, regional, state/territory and Commonwealth – industry, private sector, non-government agencies, community groups and individuals. A number of links to key initiatives are identified in Chapter 6. While each initiative may focus on reaching a specific outcome or target a specific group, the challenge of fostering healthier Australians and lifestyles is a common goal.

**Working together is paramount**
A collaborative approach between all these diverse parties and sectors is essential to address these cross-sectoral and complex issues and solutions. The role of the urban environment needs to be at the forefront of current practice.

**Key Areas of Current Practice**
Key areas of current practice that may influence the built environment for creating healthier communities include:

- **Government** – seeking cost-benefit analysis for investing in preventative measures (e.g. integrated land use and transport) to contribute towards a sustainable economic, environmental and social future of Australia
- **Industry** – following market demand (accommodating ageing population and sustainability agenda); marketing healthy and connected communities
- **Public health and health promotion** – acknowledging preventative measures to reduce onset of diseases and prevent injury and using urban environments as environments that encourage active communities and are supportive for walking, cycling, play and other forms of active recreation
- **Urban and regional planning** – designing supportive environments for health and wellbeing in order to create sustainable communities, with reduced greenhouse impacts
- **Transport** – seeking to deliver active transport options to reduce car dependency
- **Sport and recreation** – designing facilities and programs for promoting ongoing activity for all ages
- **Research and development** – researching and developing understanding and practical application to managing the influence of urban environments on people’s health
- **Education and training** – encompassing integrated planning for physical education, health and wellbeing into core curriculum, teacher preparation and professional development training to guide policy development and effective implementation.
Identified Gaps
During initial consultations with some key targeted stakeholders, the following issues were identified as gaps existing in current practice:

- governments acknowledging that change in current practices is critical to ensuring health and future productivity of Australia
- leadership and support at a national level from the Australian Government for integrated approaches and frameworks
- supportive approach to cross-government partnerships – local, state, territory and commonwealth
- recognition that people’s health is an equal consideration in any assessment of sustainability and its solutions
- understanding that both legislative and policy changes and supportive environments are required for sustainable outcomes
- improved understanding that some market efficiencies are counter to improved health outcomes
- effective ownership and management of integrated land use and transport systems (need for consolidation)
- supportive policy development and implementation across sectors – industry, community, government
- implementation of measurement tools
- identification of causal links between public health and the built environment.

Facilitating Improved Practice
Consultation on Healthy Spaces and Places: Towards a national planning guide intends to facilitate improved practice, by seeking to:

- identify specific needs of decision-makers at different government levels and sectors
- further explore how a national level framework could be effectively used
- determine how consideration of people’s health can be integrated into the sustainability agenda
- change existing policy focus and management strategies so that they are more effectively addressing key issues associated with health and the built environment
- progress development of a draft framework that bridges gaps within current practice and assists in identifying integrated cross-sectoral solutions.

Think about ...

- There are many current examples of successfully integrating health and planning, can you share some insights about these policies, projects or programs?
- What tools and mechanisms can be implemented to help achieve well integrated planning for health and wellbeing outcomes?
5. HEALTHY SPACES AND PLACES – ELEMENTS OF A FRAMEWORK

This section provides a framework for the consideration of health and the built environment for all levels of planning from the strategic to the local level.

5.1 Framework for supportive environments for Healthy Spaces and Places

A framework for supportive environments for healthy spaces and places has been developed to illustrate the clear linkages between health and the built environment. This framework seeks to provide a holistic view for built environment practitioners and other users to design health into the built environment. Its components include a set of key strategic elements and principles which are complemented by design considerations. The articulated desired outcomes from this process are also identified.

<table>
<thead>
<tr>
<th>FRAMEWORK FOR SUPPORTIVE ENVIRONMENTS FOR HEALTHY SPACES AND PLACES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aim</strong></td>
</tr>
</tbody>
</table>
| **Elements for Healthy Spaces and Places** | **Key strategic elements**
1. Integration
2. Partnerships
3. Implementation
4. Research
5. Education and training | **Design elements influencing health**
• Connectivity
• Walkability
• Mixed land use
• Mixed density
• Accessibility
• Aesthetics
• Surveillance and safety
• Environments for all
• Many and varied destinations
• Public open space |
| **What are we trying to achieve?** | **Articulated desired outcomes for Healthy Spaces and Places**
• people engaging in regular physical activity
• improved understanding of how the built environment influences active living
• sense of belonging – social inclusion
• sense of place
• positive health impacts on future health burden
• sustained economic wellbeing |

*Figure 7 – Framework for supportive environments for healthy spaces and places*

The framework articulated above demonstrates how the main components may be considered in the context of the overall framework. It is intended that the framework will be used as a model and the components can be tailored to a specific urban environment. While the entire framework may be applied, the components may be used independently, according to the user’s need for the framework. This would enable users to deliver specific health outcomes appropriate for the subject environment.
Recognising a range of scales – from the ‘macro’ to the ‘micro’

Any successful application is at both the ‘macro’ scale (i.e. strategic, metropolitan or regional geographical level) to the ‘micro’ scale (i.e. detailed, local, neighbourhood or street level). It is considered essential that this inter-dependence is recognised.

This framework advocates for practitioners and decision-makers to consider geographic scales and interplays of ‘macro’ and ‘micro’ issues as key determinants of health. Particular consideration should be given to:

- considering planning decisions as significant influences on people’s accessibility and affordability of basic human needs (including food, shelter, education and employment). Key macro issues (including integrated transport systems and housing) need to be understood and managed at micro levels.
- using geographic scales to represent and measure economic, social and environmental issues of health
- providing feedback loops within decision-making hierarchies
- applying local, metropolitan, regional, state and national context when identifying issues and determining their impacts on health and wellbeing.

5.2 What are we wanting to achieve? – Articulated Desired Outcomes

The Healthy Spaces and Places framework has been developed to guide the integration of design elements into local neighbourhoods. Where integration is successful, there will be numerous positive impacts that influence health, economic and social factors resulting in a successful outcome. Some of these desired outcomes are discussed in detail.

| CONSIDER ENVIRONMENTAL CHARACTERISTICS... |
| Accessibility | Affordability | Connectivity | Proximity | Diversity |
| CONSIDER PHYSICAL CONSIDERATIONS ... |
| Basic human need (e.g. food and water) | Housing and community services | Transport | Local destinations | Land uses |
| THAT PROMOTE... |
| Healthy communities | Inclusive communities | Active communities | Local communities | Safe communities |
| TO IMPROVE... |
| Overall wellbeing | Social inclusiveness | Physical activity | Sense of belonging | Social interactions |

Figure 8 – Comparative analysis of health and planning considerations

Figure 8 illustrates that the consideration of an environmental characteristic such as connectivity has physical dimension in terms of transport systems which promote active communities and improve levels of physical activity.
<table>
<thead>
<tr>
<th>Articulated desired outcomes</th>
<th>Health Issues</th>
<th>Planning Response</th>
</tr>
</thead>
</table>
| 1. People engaging in regular physical activity – more active people and healthier people | • National Physical Activity Guidelines recommendations not being significantly met by Australian adults  
• Physical inactivity a key risk factor for many chronic diseases | • Design and management of the built environment a significant means to provide opportunities for regular physical activity  
• Urban structure and form characteristics directly affect the connectivity and walkability of places  
• Mix of land uses  
• Range of housing types and densities  
• Open space, parks and playing fields provision and design  
• Public transport access  
• Walking and cycling routes to facilities |
| 2. Improved understanding of how the built environment influences active living | • Built environment does affect how regularly people choose to be active in their community | • Healthy planning is ‘core business’ of planning authorities  
• Variety of local destinations within 5–10 minutes walk from home or work  
• Planning for people’s health and active living can be seen as the human face of climate change  
• Communication strategy about local plans and designs, including signage |
| 3. Sense of belonging – social inclusion | • Communities with higher physical activity participation have higher social capital  
• Neighbourhood crime is negatively associated with physical activity; more adults participate in physical activity when they perceive that they are safe | • Sustainable communities have higher participation levels in the local community  
• Opportunities for social interaction for all members of the community  
• Opportunities for community participation in planning and decision-making  
• Plans and designs acknowledge local communities |
| 4. Sense of place | • Important component of well being as it forms part of individual’s identity and higher perceived quality of life  
• In physical activity terms, linked with sense of belonging and can be related to increased use of recreation facilities, motivation to be active and likelihood of participating in group programs | • Recognising the relationship between people and their spatial setting  
• Enhancing recreational settings and experiences  
• Good urban design  
• High quality, well maintained public spaces  
• Consult with local communities about local issues and facilities |
5. Positive health impacts on future health burden

- Common lifestyle choices of increased inactivity and car dependency significant contributors to chronic disease
- Ageing population
- Childhood obesity
- Mental health for youth

- Planning to provide opportunities for physical activity, especially walking and cycling
- Built environments provide for safety and promote the prevention of falls and injuries
- Enable healthy food choices
- Include facilities for people of all ages and abilities

6. Sustained economic wellbeing

- Long term economic growth and productivity requires a healthy population
- Cost of physical inactivity is significant in health care costs – 8,000 deaths each year

- Planning considers the human side of urban development and management
- Provision of and access to diverse employment and training opportunities
- Opportunities for local business to develop and expand

5.2.1 People engaging in regular physical activity – more active people and healthier people

The most recent physical activity prevalence estimate for Australia suggested that more than half (54%) of Australians aged 18–75 years did not undertake leisure time physical activity at the levels recommended to achieve health benefits.  

Physical activity has been identified as an essential component of all Australians’ everyday lives in order to combat obesity and promote healthy and fulfilled lifestyles. In 2003, physical inactivity accounted for 6.6% of the total burden of disease and injury in Australia, with ischaemic heart disease, Type 2 diabetes and stroke accounting for more than four-fifths of this burden.

Physical inactivity is the most prevalent among chronic disease risk factors in the population. This makes physical inactivity the largest contributor of population-attributable risk for chronic disease.

There are numerous benefits from increasing physical activity, many of which have been discussed in this guide. The key message for both urban planners and public health professionals is to collaboratively develop multi-level interventions including the creation of environments that support physical activity to enable people to meet the minimum guideline for physical activity required to gain health benefits.

**What does this mean in practice?**

- The choice to be physically active finally rests with the individual; the built environment can provide significant opportunities for daily physical activity choices
- Location of employment and design of transport networks, particularly public transport, are significant factors at the regional and metropolitan scales for providing opportunities for communities to increase physical activity
5. HEALTHY SPACES AND PLACES – ELEMENTS OF A FRAMEWORK

- The provision of connected walking and cycling pathways will enable residents to undertake 30 minutes of walking each day
- Connect new or existing schools to pathway networks and provide safe crossings of busy roads to encourage children to walk to ride

5.2.2 Improved understanding of how the built environment influences active living

The term physical environment includes the natural and the built environment. The latter encompasses three main aspects:

- land use patterns
- the transport systems, including public transport networks
- design features of the built environment.\textsuperscript{110}

Understanding that the location of jobs, houses, centres and transport connections, and the design of neighbourhoods can make an enormous impact on how people choose to live day to day, is an important planning principle.

There are several urban form characteristics that tend to be associated with physical activity (and possibly nutrition-related obesity behaviours) including:

- mixed land use and urban/housing density
- good provision of walking and cycling facilities (footpaths and cycle ways)
- facilities for physical activity (e.g. swimming pools)
- street connectivity and design
- transport infrastructure and systems, linking residential, commercial and business areas.\textsuperscript{111}

Other factors affecting physical activity include individual demographic characteristics, personal and cultural variables, safety and security, topography, weather and time allocation.

A key motivator for regular physical activity (especially walking) is a variety of local destinations (within easy walking distance usually within 5–10 minutes/400 metres of the home [or work] and rarely further away than 20 minutes).\textsuperscript{112,113,114}

Transport systems in Australian cities also need to be examined and considered when planning neighbourhoods. Our car-reliant cities encourage sedentary lifestyle choices with a host of accompanying serious health implications. The accompanying air pollution is responsible for more deaths each year than road crashes.\textsuperscript{115}

The design of local areas without consideration for pedestrian and cycling access and movement results in urban environments with low walkability capabilities. This provides limited opportunities and encouragement for residents to walk or cycle as an attractive alternative for local trips. This is particularly significant for the travel behaviour of children travelling to school.

**What does this mean in practice?**

- Ensure that new areas are effectively integrated with existing areas, particularly when the new development is dependent on the use of existing infrastructure, facilities and services, including public transport, schools, shops and other facilities
- In designing new neighbourhoods, ensure a variety of local destinations within a 5–10 minute walk (or about 400–500 metres walking range or ‘pedshed’)
- Ensure walking and cycling access is fully connected to any school
5. HEALTHY SPACES AND PLACES – ELEMENTS OF A FRAMEWORK

- Trend in larger house sizes with bigger building footprints on smaller lots is leading to less private open space provision. The quality and useability of that private open space is critical for informal play, especially for children
- The provision of quality public open space is important in new areas with smaller lot sizes and where with provision of private open space is limited
- Are there difference issues facing regional centres, rural and remote areas?

5.2.3 Sense of belonging – engendering strong and growing community spirit and maximising social capital benefits

When specifically considering physical activity, it has been found that communities with higher levels of physical activity participation have higher social capital. Engendering a sense of belonging can positively benefit an individual’s personal mental health and wellbeing.

Social capital enables communities to form networks, norms and social trust, to coordinate and communicate together to act on common issues. The ‘capital’ in social capital relates to physical, economic, cultural, and symbolic capital, which communities draw upon to encourage social inclusion. Social capital has been described as social glue that holds communities together.

Research has indicated that social capital is a prerequisite for the community development process. Where there is no or little social capital people will not be able to come together to work for the common good.

There are several correlations between physical activity and strong social capital, including:
- greater social participation can be associated with reduced likelihood of having low levels of physical activity
- having social networks, such as friends or family who are supportive or who you can participate in physical activity with, or having neighbours with recreational facilities, is associated with being physically active
- neighbourhood crime and safety have been found to be negatively associated with physical activity participation
- adults are more likely to engage in physical activity when they perceive their neighbourhoods to be safe.

These factors, combined with a positive impact on crime and an increased sense of community cohesion, are all important contributors to encouraging community-wide physical activity in neighbourhoods that are planned to be able to support this type of activity.

What does this mean in practice?
- How effective can interventions and initiatives, such as walking groups for older people and walking school buses, be in promoting a sense of belonging?
- Encouraging a sense of belonging for an individual has direct benefits on their mental health and wellbeing
- What specific measures can assist young people?
- Housing affordability issues and financial stress will impact on people’s ability to participate in their community
5.2.4 Sense of place – designing spaces for community inclusion and engagement

A sense of place can refer to the relationship, connection, a feeling at home with a prescribed place, in terms of both the human and the natural content. Creating a strong sense of place through successful urban design can lead to broad public benefits and positive personal benefits for the individual.

Cantrill (1998) identified that a sense of place incorporates both social and physical aspects of a place. This can include attachment to either the people or community living in a place, to aspects of the physical environment itself, or to both.

Furthermore, a sense of place can be generally defined as the relationship between people and spatial settings.

In relation to health, a sense of place is an important component of wellbeing as it forms part of an individual’s identity, contributes to the creation of a group, neighbourhood or cultural identity.

These mental health benefits have been further identified in an Alaskan study where communities that had stronger levels of place attachment were more cohesive and had a higher perceived quality of life. The physical environment is hypothesised to contribute to an individual’s sense of place in recreational settings. Factors likely to affect the development of a sense of place include features endemic to the local environment, personal and communal experiences and perceptions of the environment and information on the local environment from media and interpersonal networks.

In terms of physical activity, a sense of place is linked to a sense of belonging and can relate to:
- increased use of recreation facilities
- increased motivation to undertake physical activity
- increased likelihood of participating in group programs.

What does this mean in practice?
- Are there particular physical design elements which actively contribute to creating a sense of place?
- Design and access to recreation and community facilities
- Flexibility of design for inclusion of different users over time

5.2.5 Positive health impacts on future health burden

Australia’s disease profile is dominated by a few leading chronic diseases. These diseases are in turn influenced largely by environmental, social and behavioural determinants.

Physical inactivity is estimated to cost the Australian community around $10 billion nationally each year in direct health care costs; obesity is as high as $5 billion.

Despite the predicted steady decline in cardiovascular disease burden over the next two decades, there is likely to be a strong increase in burden due to diabetes, primarily as a consequence of the obesity epidemic and the increase in our sedentary lifestyle. If current trends in obesity and sedentariness continue unabated, diabetes will account for around 9% of total burden in 2023, up from around 5% in 2003.
Common lifestyle choices of increased inactivity and car dependency are significant contributors to these chronic diseases, and these lifestyle behaviours are in turn linked to our built environment.

The ageing of Australia’s population will result in increasing numbers of people with diseases more common in older age (such as dementia, hearing and vision loss, and osteoarthritis). By 2051, current population projections estimate that 26–28% of Australians will be over 65 years old, a significant change from 13% of the population in 2004. It is important to ensure environments support a safety culture and promote the prevention of falls and injuries, especially for older people.

Being active on a regular, daily basis is an important approach to help prevent and manage these preventable diseases. Active living is one way to prevent or delay their onset.

Walking is an activity available to almost everyone, almost everywhere and at no cost. Generally, it is a great way to be regularly active, to keep healthy and, through good planning outcomes, can be incorporated into daily activities. However, about half of Australian adults are not sufficiently active to meet the recommended levels of physical activity and children are decreasingly engaged in active play and commuting to school.

What does this mean in practice?
- Transition from principles and policies to on the ground implementation
- How to implement healthy lifestyle choices?

5.2.6 Sustained economic wellbeing
Long term economic and productivity growth requires a healthy population and a healthy environment.

Physical inactivity contributes to the deaths of about 8000 people a year in Australia.

Figures on the health care costs on physical inactivity are compelling:
- the direct costs alone of these conditions are well over $10 billion nationally a year, obesity is as high as $5 billion
- in Sydney, the health costs of motor-vehicle emissions are estimated to be between $600 million and 1.5 billion per annum. Costs which could be cut through walking, cycling and public transport replacing more car trips.

The cumulative economic impacts are experienced at all levels – individual, community, local and larger collective levels – and have a direct effect on the ability of communities to engender ongoing inclusive environments.

In this age of competitiveness, it may be an advantage for developers to plan neighbourhoods that are supportive of active living and use these principles in the marketing of that neighbourhood. Developing neighbourhoods that support physical, social and mental wellbeing may become a key driver for the property development sector and could provide the marketing edge which appeals to the population as a whole.

What does this mean in practice?
- Gradual change and implementation of active living principles within existing budgets and asset management programs
• How to ensure that new development or master planned communities deliver integrated health outcomes on the ground?
• Effectiveness of public–private partnerships in combined efforts
• Different approaches are needed in areas of high growth demand or in areas of slower change

In summary, the following table identifies some of the benefits of considering people’s health in planning and suggests ways these benefits could be achieved in practice.

<table>
<thead>
<tr>
<th>Benefits of considering people’s health in planning</th>
<th>How are these benefits achieved in practice?</th>
</tr>
</thead>
</table>
| 1. People engaging in regular physical activity – more active people and healthier people | • The built environment can provide significant opportunities for daily physical activity choices  
• Location of employment and design of transport networks, particularly public transport, are significant factors at the regional and metropolitan scales for providing opportunities for communities to increase physical activity  
• The provision of connected walking and cycling pathways will enable residents to undertake 30 minutes walking each day  
• Connect new or existing schools to pathway networks and provide safe crossings of busy roads to encourage children to walk to ride  
• Provision of a range of community and recreational facilities within walking and cycling distance of homes  
• Range of housing types and densities  
• Mix of land uses  
• Reliable and frequent public transport  
• Streets designed for walking and cycling as well as vehicles |
| 2. Improved understanding of how the built environment influences active living | • Planning authorities adopt ‘healthy planning’ as core business, acknowledged in mission and visions statements and reflected in planning strategies  
• Ensure that new areas are effectively integrated with existing areas, particularly when the new development is dependent on the use of existing infrastructure, facilities and services, including public transport, schools, shops, recreation and other facilities  
• In designing new neighbourhoods, ensure a variety of local destinations within a |
Healthy Spaces and Places

### 5. HEALTHY SPACES AND PLACES – ELEMENTS OF A FRAMEWORK

<table>
<thead>
<tr>
<th>5–10 minute walk (or about 400–500 metres walking range or ‘pedshed’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ensure walking and cycling access is fully connected to any school</td>
</tr>
<tr>
<td>• Trend in larger house sizes with bigger building footprints on smaller lots is leading to less private open space provision. The quality and useability of that private open space is critical for informal play, especially for children</td>
</tr>
<tr>
<td>• The provision of quality, well maintained public open space is important in all areas, and particularly in new areas with smaller lot sizes and where with provision of private open space is limited</td>
</tr>
<tr>
<td>• Communications strategy about local plans and designs including signage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Sense of belonging – social inclusion – engendering strong and growing community spirit and maximising social capital benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Encouraging a sense of belonging for an individual has direct benefits on mental health and wellbeing</td>
</tr>
<tr>
<td>• Promote a sense of wellbeing and involvement through interventions and initiatives, such as walking groups for older people, walking school buses and activities and facilities for young people</td>
</tr>
<tr>
<td>• Housing affordability issues and financial stress will impact on people’s ability to participate in their community</td>
</tr>
<tr>
<td>• Ensure there are opportunities for all members of the community to interact</td>
</tr>
<tr>
<td>• Ensure there are opportunities for community participation in planning and decision-making</td>
</tr>
<tr>
<td>• Plans and designs acknowledge and be responsive to local communities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Sense of place – designing spaces for community inclusion and engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Good urban design with high quality, well maintained public spaces and places</td>
</tr>
<tr>
<td>• Provision, design and access to recreation and community facilities</td>
</tr>
<tr>
<td>• Flexibility of design for inclusion of different users over time</td>
</tr>
<tr>
<td>• Public art and community events</td>
</tr>
<tr>
<td>• Acknowledge cultural diversity</td>
</tr>
<tr>
<td>• Sustainable and adaptable design solutions</td>
</tr>
</tbody>
</table>
| 5. Positive health impacts on future health burden | Transition from principles and policies to on the ground implementation  
Access to healthy food choices enabled  
Healthy urban planning including opportunities for walking and cycling and public transport, range of local facilities including employment and training  
Safe built environment that prevents falls and injuries and encourages people to be physically active  
Provide for people of all ages and abilities |
|------------------------------------------------|-----------------------------------------------------------------------------------------|
| 6. Sustained economic wellbeing                  | Access to diverse employment and training opportunities  
Opportunities for business to develop and expand  
Gradual change and implementation of active living principles within existing budgets and asset management programs  
Different approaches are needed in areas of high growth demand or in areas of slower change |
5.3 **Key Strategic Elements**

Five key strategic elements of the framework have been defined. These are:

- Integration
- Partnerships
- Implementation
- Research
- Education and training.

These strategic elements provide strategic directions for health, built environment and related professionals, policy makers, managers, decision makers and interested community members. The elements are considered fundamental and the identified strategic principles are designed to be tailored to any situation and any level of planning.

5.3.1 **Strategic Element One: Integration**

An integrated approach enables joined-up thinking and policy alignment (within and between sectors), which is imperative for a coordinated and effective response.

**Key Strategic Principles**

- Identify specific health issues and linkages with other issues within and across sectors
- Facilitate responses by integrating roles and responsibilities across sectors to achieve integrated health outcomes
- Establish mechanisms to achieve integrated planning and policy
- Ensure alignment of regulation, policy and program delivery
- Engage local communities to incorporate local knowledge which increases project ownership and overall effectiveness.

*If the urban system in south-east Queensland is to deliver liveable communities and sustainable development, this growth needs to be managed by governments at all levels, through working together to develop and implement a regional plan.*

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**CASE STUDIES**

**NSW Premier’s Council of Active Living**
Department of Premier and Cabinet, New South Wales, Australia


The NSW Premier’s Council for Active Living (PCAL) aims to encourage more people in NSW to be more active every day. The Council comprises 13 senior representatives from various government agencies, as well as representation from business and the community sector. It provides an important form for inter-agency and inter-sectoral collaboration through the promotion of Active Living Principles and their implementation.

**Northern Territory Chief Minister’s Active Living Council**

**South Australian Active Living Coalition**

**Tasmanian Premier’s Council of Active Living**


**Western Australian Premier’s Physical Activity Taskforce**


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*Hon. Desley Boyle MP, Minister for Local Government, Planning & Women, commenting on the intended role of the South East Queensland Regional Plan, November 2004*
5.3.2 Strategic Element Two: Partnerships

Shared strategic vision and coordinated investment are essential in providing effective partnerships that deliver sustainable outcomes in urban and built environments.

Key Strategic Principles

- Define short and long term goals
- Focus on collaboration to determine shared agenda that meets goals of all involved to deliver sustainable outcomes in the urban environment for supporting health and wellbeing
- Establish clear management process and structure that includes agreement of outcomes, benchmarks and measures of progress
- Define specific roles and responsibilities for evaluation and regular monitoring stages (review, consultation and revision)
- Collaborate with like-minded organisations for recognised, mutually agreed goals and outcomes.

No single agency or organisation will be able to reverse the decline in physical activity on its own.

Western Australian Premier’s Physical Activity Taskforce

‘Effective partnerships require the establishment of a clear vision which speaks to the ethical and moral underpinnings of the work of the member organisations, and to which individual participants can make personal commitments’ (Labonte 1997, p.100).

Recognise the principles of effective partnership:

- Cohesion
- Trust
- Shared agenda
- Adding value to outcomes 1+1=4

CASE STUDY

**NSW Main Street Program** provides an example of a partnership between State and Local government facilitated through the Department of State and regional Development. The program provided funding opportunities for both metro and rural/regional communities to improve the function and appearance of their town centres.

This has in many cases resulted in centres that are not only more viable economically, but are also more engaging and accessible, encouraging greater pedestrian activity and sense of community.

Other possible case studies:

- Innovative private and public partnerships to fund redevelopment such as **The Entrance** foreshore and town centre redevelopment which was funded through a mix of Council revenue sources and special rates for the business sector, providing a revitalised town centre with a mixture of recreational, commercial and entertainment facilities to encourage the community to utilise the public spaces around the town centre and foreshore

Other possible examples of master planned communities with healthy living design considerations:

- Renwick, NSW – Joint venture NSW Landcom, HF and Wingecarribee Shire
- Northgate, SA – Joint venture SA LandCorp and CIC
- Lyons, NT – Joint venture Defence Housing Authority and CIC
5.3.3 Strategic Element Three: Implementation

An implementation plan driven by shared ownership that clearly and concisely sets out roles and responsibilities in order to achieve specific tangible outcomes in communities and neighbourhoods is imperative to successful implementation.

Key Strategic Principles

- Identify, implement and measure tangible outcomes
- Incorporate standards to deliver quality outcomes
- Utilise existing support systems including local networks for engaging communities in activities that promote health and wellbeing
- Ensure the timeliness and actual delivery of any implementation action
- Monitor and review the application of any regulation, policy or program.

Health outcomes should be fundamental to what we do and should be the critical priority of what we do.¹³⁸

Honorable Justin Madden
MLC
Minister for Planning
Victoria, March 2007

CASE STUDIES


Clause 56 Sustainable Neighbourhoods are residential subdivision provisions within the Victorian Planning Schemes. Sets out the requirements for the design and assessment of residential subdivisions in urban areas throughout Victoria.

Liveable Neighbourhoods: Guiding New Developments for a more sustainable urban future Western Australia Department of Planning and Infrastructure. Liveable Neighbourhoods is an implementation tool for the sustainability objectives of the State Planning Strategy.

Guidelines for Residential Subdivision in the Macedon Ranges Shire: Designing in Health and Wellbeing

The Guidelines provide supplementary advice to the Macedon Planning Scheme and offer developers advice on how to incorporate objectives into the development proposal.

Adopted by Macedon Ranges Shire Council in 2005, the Guidelines for Residential Subdivision is a good example, where Local Government is actively seeking to facilitate healthy lifestyles, community connections and social interaction, and enhanced community safety through its residential subdivision processes.

City of Greater Bendigo – ‘Walk Bendigo’ initiative

The City of Greater Bendigo has identified that creating a better balance between pedestrians and vehicles without impacting on parking capacity will deliver a broad range of benefits to health and lifestyle.

‘Your Home Technical Manual’
Department of the Environment, Water, Heritage and the Arts
http://www.yourhome.gov.au

‘Your Home’ is a suite of consumer and technical guide materials and tools developed to encourage the design, construction or renovation of homes to be comfortable, healthy and more environmentally sustainable. ‘Your Home’ contains specific tools to encourage specific built design outcomes including:
Fact Sheets – technical manuals that describe practical ways to implement principles of good design
Checklists – to inform decisions of a range of users (home owners, builders, tenants, designers, developers)
5.3.4 Strategic Element Four: Research

Research and evidence bases are critical to better understanding issues and causal associations between health and the built environments.

Key Strategic Principles

- Identify how research can inform work
- Bridge gap between research and practice
- Foster understanding between researchers and practitioners by working together
- Develop tools that can track associations between built environment and health over time stages (review, consultation and revision)
- Strengthen project or policy rationale by using research bodies to bridge the gaps between research and practice
- Further integrate role of researchers to provide and analyse quantifiable data that demonstrate causal links between environments and health
- Using research to inform decisions
- Increase research component into budgeting of project proposals, work planning and review processes.

‘Excellence in research is an important priority for the community and is seen by NHMRC as a cornerstone for improving the health standards of all Australians.’

National Health and Medical Research Council (NHMRC)

A detailed description of the burden of disease and injury in a population is not sufficient for setting priorities in public health. It is, however, an important foundation on which to build assessments and evaluations that underpin health policies. This report contributes most obviously by identifying the magnitude of health problems in a population and by quantifying the contribution to these problems of major modifiable risks to health. The present study greatly extends the scope of the previous study in this respect by presenting burden estimates for a greater range of population subgroups in Australia. It also provides a cogent analysis of past trends in burden in this country, and suggests the likely state of the population’s health in 20 years from now if these trends were to continue. Furthermore, it quantifies the contribution to overall burden of an expanded set of risks to health.

Australian Institute of Health and Welfare 2007

CASE STUDIES

The RESIDE Project (RESIDential Environments Project)
School of Population Health, University of Western Australia
www.populationhealth.uwa.edu.au/reside

The study is being conducted by The University of Western Australia, in conjunction with the Department for Planning and Infrastructure and the National Heart Foundation.

RESIDE is a five-year longitudinal research project aimed to evaluate the impact of urban design on health. It aims to compare and evaluate the implementation of ‘Liveable Neighbourhoods’ policies and conventional neighbourhood design to evaluate the impacts of policies on physical activity.

This study will look at the impact of community design on people’s leisure time activities, health and transport patterns. It will also look at the extent to which people have access to, and use, facilities in their local community. It will include people moving into new housing developments in the Perth metropolitan area. The information will be used to help plan communities that are sustainable, healthy and give residents a sense of community.
The Victorian Community Indicators Project
VicHealth and Melbourne University
The long-term aims of the VCI project are to provide a sustainable Victorian foundation for the development and use of local health and wellbeing indicators – and to support more informed and democratic community planning and policy making at local, state and national levels.

Strategic Research Framework
National Heart Foundation
The Heart Foundation Strategic Research Program represents a valuable tool to develop the evidence base for the cardiovascular health activities of the Heart Foundation.

The program aims to foster collaborative working relationships with relevant stakeholders in order to meet the needs of health professionals, patients and the general public. This collaborative environment will assist the Heart Foundation to meet its strategic vision for Australians to have the best cardiovascular health in the world.
5.3.5 Strategic Element Five: Education and Training

Widespread education and training relating to the linkages and interrelations between environments and health are critical to effectively addressing our priority health issues.

**Key Strategic Principles**

- Facilitate behavioural change of the wider community by making healthy choices the easy choices
- Encourage community education and promotion
- Encourage work rotations between industries influencing the built environment to better understand the complexities of environments for health
- Raise awareness and educate about the value of incorporating determinants of health to other key stakeholders (including private development industries and roads authorities)
- Include healthy planning in planning courses and health courses
- Encourage continuing professional development on health and the urban environment issues.

> ‘Until the broad health relationships within cities are better understood it is unlikely that planning will be able to make an innovative and positive contribution to the improvement of urban public health.’

Mead, Dodson & Ellway 2006

**CASE STUDIES**

*‘Healthy Cities and Communities’ Post-Graduate Course*

Department of Public Health (part of Primary Health Care Program) Flinders University, South Australia

The post-graduate course offers topics at Masters level and is ideal for environmental health officers, urban planners, public policy and planning officers, public health practitioners, community development officers, community health workers and a range of people associated with healthy cities and related projects.

Students will develop a critical understanding of the principles and practices associated with Healthy Cities and Communities and will acquire skills to determine and develop advanced project and practice skills that contribute to effective projects related to Healthy Cities and Communities.

*Healthy Cities and Communities Short Course*

School of Health and Social Development Deakin University, Deakin University (in collaboration with the Planning Institute of Australia)


Of particular interest to local government practitioners, managers and councillors, the course aims to bring together urban planners, health planners, social planners, managers, administrators, consultants and policy makers in the public and private sectors. The course has a strong urban design focus, and concentrates on research and practice relating to ‘place’. It addresses health promotion in the urban physical and social environments and explores two basic questions: What is a healthy city/community? How do we get one?

*University of New South Wales, Faculty of the Built Environment ‘Healthy Planning’ undergraduate elective unit*

‘Healthy Planning’ is an inter-disciplinary elective for senior students studying to be built environment and health professionals. The course focuses on the ways in which built, natural and socio-cultural environments inhibit on the one hand, and on the other, can enhance and sustain the physical and psychological health of contemporary communities. The course focuses on the relationship between the urban environment and current health issues facing modern society – particularly lifestyle-related health problems (such as obesity and depression). Research and theoretical issues which draw planning and health together will be discussed using specific case studies. Sessions involve a mixture of lectures, participant discussion, presentations and strategic engagement with healthy planning tools.
Teams of planning, landscape architecture, architecture and medical students conduct an audit of the urban environment in a suburban setting. It is a revealing exercise, challenging the ‘silo’ approach to teaching professions. For example, the medical students had little understanding of how that urban environment impacted on them; vice versa, the planning/architecture students. Common questions asked included:

- what does it matter if someone happens to fall over and break a bone?
- where the medical student replied that could be a life changing experience for that person they may never have the confidence to go out to that community again.


**National Speaker Series ‘A Community for All Ages – Building the Future’**
Department of Health and Ageing, Australian Government
The National Speaker Series was conducted in 2005-2006 to promote discussion among professionals involved in planning, designing and building Australia’s built environment.

The toolbox was formed as a ‘hands-on’ resource for local government to assist them in integrating planning for ageing communities into their ‘day-to-day’ planning and service delivery. The Toolbox is being used by councils across Australia to improve their planning and response to ageing communities.

The response by local government has been across a wide range of geographical areas and from councils of varying sizes and resources. Work by some of the rural and regional councils, such as the Sarina Shire in Queensland, has shown that innovative and practical solutions can be achieved regardless of relative resources. Their *Positive Ageing in Sarina Shire* Strategy has been developed and implemented with the assistance of the community and other stakeholders.


**Think about ...**

- Do the proposed five key strategic elements encompass the priority areas for successfully addressing health, wellbeing and the built environment?
- Are there any additional principles and other matters which should be included?
- Do you know of any other great examples of projects, policies, programs or other initiatives which could be included as a case study?
- Examples of best practice both around Australia and internationally
5.4 Design elements linking to health

Many design elements of the built environment have been identified that affect health and encourage active living at the local neighbourhood scale.

It is important that practitioners and decision makers consider design elements when planning neighbourhoods that support active living. Clearly, the design elements impact greatly on the ability of individuals and groups to be active either directly or mediated by the social environment. Professionals in the planning field have the capacity to make changes in environmental variables such as connectivity, accessibility and amenity to improve quality of life.

Figure 9 – Design elements; influences at the ‘micro’ or local level

Figure 9 shows how built environment characteristics influence and encourage healthy, liveable communities at the local or ‘micro’ level. There are strong links to the delivery of these outcomes at the ‘macro’ scale, for effectively creating urban environments which promote physical activity and ongoing health and wellbeing benefits.

The following provides a summary of key design elements at the local level, an explanation about how health is impacted and some possible planning responses.

<table>
<thead>
<tr>
<th>Design Element</th>
<th>Why is this important?</th>
<th>Examples of practical outcomes</th>
</tr>
</thead>
</table>
| Connectivity  | The directness of travel between destinations is influenced by the kinds of intersections and their density in a given area. This results in the connectiveness of an area to move around, whether by foot, bike, public transport or car. | • A variety of local destinations with easy walking distance (400 metres is a comfortable walking distance for many people)  
• Grid street layout  
• Off-road pedestrian and cycle networks in non-grid or curvilinear street layouts |
<table>
<thead>
<tr>
<th><strong>Healthy Spaces and Places</strong> – Elements of a Framework</th>
</tr>
</thead>
</table>

The greater the connectiveness of a local area, the easier it is to travel within it and the increased likelihood of people preferring to do that travel by walking or cycling on a regular basis.

- 800 metres walking catchments for public transport networks and stops

<table>
<thead>
<tr>
<th>Walkability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walkability is a measure to assess the relative characteristics of different urban forms and designs. Assessments are often about residential density, land use, diversity of uses, access, street connectivity, walking/cycling facilities, aesthetics and safety.</td>
</tr>
</tbody>
</table>

Highly walkable neighbourhoods, that is, higher population density, greater land use mix, high connectivity and good provision of walking and cycling facilities, are more likely to encourage walking and cycling for transport and recreation. This is particularly important for children and older people.

- Suitably wide footpaths provided on both sides of streets
- Connected pathways and walking routes that lead to local destinations
- Routes provided along predictable paths of travel, such as to schools, recreation facilities and shops
- Well maintained non-slip surfaces
- Gradients to enable safe and convenient use by all users

<table>
<thead>
<tr>
<th>Mixed land use</th>
</tr>
</thead>
<tbody>
<tr>
<td>A mix of different land uses provides a range of choices for residents, workers and visitors. Mixed land use areas could comprise commercial, retail, recreational and residential uses.</td>
</tr>
</tbody>
</table>

It creates more opportunities for walking and cycling to access local places and facilities. It also assists in reducing the use of car for local trips (i.e. within 3–5 km of home); an established known producer of greenhouse gas emissions.

- Access to a range of shops including fresh food
- Range of housing choices, prices and tenures
- Access to diverse employment and training opportunities
- Access to public facilities, including public phones, post boxes
- Shared community facilities such as school and public libraries, playing fields

<table>
<thead>
<tr>
<th>Mixed density</th>
</tr>
</thead>
<tbody>
<tr>
<td>A variety of housing and population densities provides opportunities for housing to suit a variety of the population (including ageing in place).</td>
</tr>
</tbody>
</table>

- A range of housing sizes and densities
- Range of housing tenure and price options
- Range of housing styles
- Flexible and adaptable housing (for all ages and stages of life)
- Supportive housing policies

<table>
<thead>
<tr>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring accessibility for all people can create opportunities for everyone to remain physically active.</td>
</tr>
</tbody>
</table>

- Local destinations are great motivators for active living: variety, proximity, safety, connectivity
## 5. Healthy Spaces and Places – Elements of a Framework

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced dependency on vehicles</td>
<td>Reduced dependency on vehicles can lead to more physically activity and reduced rates of heart disease and other chronic illnesses. Easy access to a range of services reduces the need to travel, it also enhances opportunities for social interaction.</td>
</tr>
</tbody>
</table>
|                                  | • Local parks and recreation facilities, as well as playing fields and entertainment facilities  
• Buildings should be designed to enable access by all people including those with mobility problems |
| Aesthetics                       | Aesthetically pleasing neighbourhoods encourage regular walking. Features such as street trees, landscaping, path networks, street furniture, lighting and seating, can actively contribute to keeping people physically active. Good maintenance is also very important.  
Well designed, safe public places and spaces  
• High quality design  
• Provision of shade, especially along major walking routes and playgrounds  
• Provision of shelter |
| Surveillance and safety          | Active surveillance and perceptions of safety assist in enabling walking and cycling, particularly after dark and for women, youth and older people. Well-lit streets and spaces, and the safe design of streets and pedestrian/cycle paths all contribute to safety.  
Creating environments that actively encourage the prevention of falls and injury, particularly for older adults and children.  
Street design for safe pedestrian, cyclist and wheelchair use, as well as for vehicles – traffic calming measures  
• Urban design guidelines to encourage buildings to ‘address’ the street  
• Safe car park design  
• Application of ‘Crime Prevention through Environment Design’ (CPTED) or safer design principles |
| Environments for all             | Creating places for all recognises and values social inclusion - for all ages and cultural backgrounds. Places and communities with a stronger sense of belonging address mental health issues.  
• Create spaces and places for the community  
• All members of the community including children and young people are involved in planning and design processes  
• Community art included in public buildings and space |
| Many and varied destinations      | A variety of local destinations is essential to keep people active locally. Destinations need to be within easy walking distance usually within 5–10 minutes or about 400 metres of the home (or work) and rarely further away than 20 minutes.  
• Shops, including fresh food outlets, schools, recreation facilities, parks and other community facilities provided in local neighbourhoods, including new estates and housing areas |
Healthy Spaces and Places

Corner stores, Laundromats and similar can be key community meeting places contributing to community life and vitality.

See also Connectivity and Mixed uses and Accessibility.

<table>
<thead>
<tr>
<th>Public open space</th>
<th>Public open space needs to cater for diverse needs – recreation, sport, play, walking and cycling.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local parks with trees, shade, seating, playgrounds, landscaping, birdlife and well-maintained footpath conditions (especially for older adults and families with infants).</td>
</tr>
<tr>
<td></td>
<td>Access to green, natural places is important for wellbeing.</td>
</tr>
<tr>
<td></td>
<td>Parks with facilities for all age groups e.g. play equipment for toddlers, basketball rings for teens, seniors 'play' equipment, fitness trail.</td>
</tr>
<tr>
<td></td>
<td>Local parks, playing fields and regional parks connected with walking and cycling routes.</td>
</tr>
<tr>
<td></td>
<td>Community gardens particularly in higher density housing areas.</td>
</tr>
<tr>
<td></td>
<td>Well designed, aesthetically pleasing and well maintained.</td>
</tr>
</tbody>
</table>

There is a number of existing policy documents which address in detail the consideration of the design elements of the local built environment which influence health at the local detailed level. Three examples are given below, also refer to Chapter 6 for further details:

- **Healthy by Design** particularly the detailed provisions in ‘Design for safe and healthy communities: the matrix of like design considerations’ provide a framework to consider a variety of planning matters and an opportunity to achieve benefits in several other areas, at no additional cost. ([www.heartfoundation.com.au/](http://www.heartfoundation.com.au/)) Planning matters identified in the matrix are:
  - physical activity
  - shade
  - safer design
  - access design
  - road user safety.

- **Healthy by Design** matrix of like design considerations includes:
  - street design
  - active frontages
  - mixed use
  - connections
  - walking and cycling routes
  - public transport
  - shelter
  - lighting
  - landscaping and open space
  - maintenance.

- **Liveable Neighbourhoods**: contains eight elements for creating a sustainable community, these are:
  - community design
  - movement network
  - lot layout
  - public parkland
  - urban water management
  - utilities
  - activity centres and employment
  - schools.
There are three scales of proposals envisaged to be considered under the ‘Liveable Neighbourhoods’ policy:

- district and larger-sized structure plans
- local structure plans and
- subdivisions


- NSW Premier’s Council for Active Living Planning and Design Guidelines – Designing Places for Active Living. It is divided into six focus areas:

  - cities, towns and neighbourhoods
  - walking and cycling routes
  - public transport
  - streets
  - open space
  - retail areas

For each focus area, there is a design objective, some important design considerations and links to key references and additional resources for detailed design guidelines and specifications: www.pcal.nsw.gov.au/guidelines/index.html
## Design Considerations
The following provides a summary of design considerations to be taken into account with a specific location or proposal.

<table>
<thead>
<tr>
<th>Design element</th>
<th>Does the subject area…</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utility provision</strong></td>
<td>Adequately accommodate existing demand for all utilities?</td>
</tr>
<tr>
<td></td>
<td>Have capacity to accommodate increased demand for all utilities?</td>
</tr>
<tr>
<td></td>
<td>Have restricted access/ability to provide or implement specific utility installation or infrastructure</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>Encourage housing diversity?</td>
</tr>
<tr>
<td></td>
<td>Provide affordable housing?</td>
</tr>
<tr>
<td></td>
<td>Encourage mixed housing developments near main activity centres/transport hubs?</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>Offer range of employment opportunities nearby to local community?</td>
</tr>
<tr>
<td></td>
<td>Offer range of development training nearby to local community?</td>
</tr>
<tr>
<td></td>
<td>Provide active transport linkages to main employment hubs?</td>
</tr>
<tr>
<td><strong>Community facilities and services</strong></td>
<td>Provide primary community services in walkable distance from residential areas?</td>
</tr>
<tr>
<td></td>
<td>Provide inclusive transport options for residents to access community services?</td>
</tr>
<tr>
<td><strong>Walk and cycle routes</strong></td>
<td>Provide adequate provision of walking and cycling routes?</td>
</tr>
<tr>
<td></td>
<td>Connect walking and cycling routes to local destinations?</td>
</tr>
<tr>
<td></td>
<td>Design walking and cycling routes inclusively? (for all ages and abilities)</td>
</tr>
<tr>
<td><strong>Mixed uses</strong></td>
<td>Integrate residential areas with other local land uses (education, retail, special uses)</td>
</tr>
<tr>
<td></td>
<td>Offer recreational and open spaces within walking distance of residential areas?</td>
</tr>
<tr>
<td></td>
<td>Do mixed uses encourage higher density development?</td>
</tr>
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<td><strong>Street front</strong></td>
<td>Enable passive surveillance at public–private interface?</td>
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<td>Require consistent setback?</td>
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<td>Encourage vegetated street frontage?</td>
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<td><strong>Street design</strong></td>
<td>Conducive to walking and cycling?</td>
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<td></td>
<td>Encourage active transport between residential areas with local destinations (schools)?</td>
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<td>Offer shade, resting and meeting points (street furniture)</td>
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<tr>
<td><strong>Integrated public transport</strong></td>
<td>Promote linkages with public transport in local neighbourhood?</td>
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</table>
|                                             | Offer safe and accessible access routes (both indirect and direct) and waiting areas for all ages and abilities?
6. KEY REFERENCES AND RESOURCES

The preparation of Healthy Spaces and Places has been based on a large body of research, application and practice being undertaken within Australia and internationally. A list of references has been provided.

Key research papers
These are some of the key references used in the development of this scoping phase document (also refer to the list of references):


Key resources and links to relevant websites
The following provides a starting point for the many topical and relevant websites and links to other pertinent sources for more information about planning and health and wellbeing matters.

Partner organisation websites
- **Australian Local Government Association** [www.alga.asn.au](http://www.alga.asn.au)
  - Local Government Ageing Toolbox: A guide to action
  - ‘Age Friendly Built Environment’ document – tips for making our built environment more accessible and inclusive for older persons.
- **National Heart Foundation of Australia** [www.heartfoundation.com.au](http://www.heartfoundation.com.au)
  - *Healthy by Design: a planners’ guide to environments for active living*
  - *Supportive environments for physical activity (SEPA) guidelines for local government.*
- **Planning Institute of Australia** [www.planning.org.au](http://www.planning.org.au)
  - Liveable Communities: How the Commonwealth can foster sustainable urban form and liveable communities (2004)
  - Creating Child Friendly Communities: National Position Statement (December 2007)

**Australian Government**

**Department of Health and Ageing**
- An active way to better health, National Physical Activity Guidelines for Adults (Reprinted 2005), Department of Health and Ageing
• Communities for Children (C4C) program

Department of the Environment, Water, Heritage and the Arts
• Sustainable transport www.environment.gov.au/settlements/transport/

Department of Infrastructure, Transport, Regional Development and Local Government
• TravelSmart www.travelsmart.gov.au/bikeability/index.html

National Research Institutions
• Australian Bureau of Statistics www.abs.gov.au
• Bureau of Transport and Regional Economics www.btre.gov.au
• CSIRO www.csiro.au
• National Institute for Health and Welfare www.nihw.gov.au

State and Territory Governments and non-government

New South Wales
• Premier’s Council for Active Living www.pcal.nsw.gov.au
• www.healthykids.nsw.gov.au Provides a link to other sources concerning healthy children and families

Northern Territory
Chief Minister’s Active Living Council (CMALC)
‘Go NT’

Queensland

South Australia
• South Australian Active Living Coalition
• www.beactive.com.au

Tasmania
• Premier’s Physical Activity Council
• ‘Get Moving Tasmania’ derived from ‘Tasmania Physical Activity Plan’ www.getmoving.tas.gov.au

Victoria
• Victorian Healthy by Design. The detailed design matrix from Healthy by Design – Design for safe and healthy communities: the matrix of like design considerations
• www.goforyourlife.vic.gov.au includes inspiration for active living and healthy eating for everyone, teenagers, young adults, adults, children and families and older adults
• ‘Towards Healthy Environments: Case studies from the Municipal Health Planning Good Practice Program’ available from the Department of Human Services website www.health.vic.gov.au/localgov/

Western Australia
• Premier’s Physical Activity Taskforce www.patf.dpc.wa.gov.au

Crime Prevention through Environmental Design (CPTED) and Safer Design
• CPTED policies exist in most states and territories
People Pets and Planning
- Promoting the creation of pet friendly environments, particularly the case study of Playford North Urban Renewal Project in South Australia developing a 15-year program in partnership between the City of Playford, the Centre for Companion Animals in the Community and the Australian Veterinary Association www.playfordalive.com.au and www.uam.net.au
- ‘Living in a healthy community: People Pets and Planning’ Symposium held 30 November 2007 at Deakin University

Key international links

www.who.org
The World Health Organization (WHO) initiated the Healthy Cities program in 1987. The program is now in its fourth (2003-2007) phase. More than 1,200 cities and towns from more than 30 countries in the WHO European Region are ‘Healthy Cities’ (via national, regional, metropolitan and thematic networks). Currently programs of physical activity and active living, healthy ageing, healthy urban planning and health impact assessment are major WHO thematic foci. Australia is a part of the Healthy Cities program. Australian local governments have voluntarily committed to the principles of health urban planning (e.g. Townsville Healthy City Planning Project).

www.euro.who.int/document/e75662.pdf
A physically active life through everyday transport with a special focus on children and older people and examples and approaches from Europe, Copenhagen, WHO Regional Office or Europe (2002).

www.ipenproject.org
IPEN is the International Physical Activity and the Environment Network. It was launched at the International Congress of Behavioral Medicine in August 2004 by Professor James Sallis, San Diego State University, Dr Isle DeBourdeaudhuij, Belgium and Professor Neville Owen, University of Queensland. Key IPEN links, projects etc. are:
- Neighborhood Quality of Life Study (NQLS)
- Physical Activity in Localities and Community Environments (PLACE) (see above)
- Australian Research Council Research Network in Spatially Integrated Social Science (ARCRNSISS)

www.walk21.com
The objectives of Walk21 are to respond to the growing demand for a partnership between policy makers, researcher, campaigners and practitioners to:
- confirm the importance of walking issues at political and policy levels
- provide an international platform for an inclusive discussion
- acknowledge the research, practice and promotion undertaken so far and to highlight best practice
- identify the need for future research and opportunities for funding future networking.

The Walk21 conference series has been established to support, encourage and inspire professionals to evolve the best policies and implement the best initiatives, which create and promote environments where people choose to walk as an indicator of liveable communities. Conferences have been held annually since 2000; conference papers are available onsite.

www.oxha.org
The Sydney Resolution ‘Healthy People in Healthy Places on a Healthy Planet’ (draft dated 25 February 2008).
North American links

www.rwjf.org
Robert Wood Johnson Foundation (RWJF)
As America’s ‘largest philanthropy devoted to improving health and health care, RWJF supports training, education, research and projects that demonstrate effective ways to deliver health services, especially for the most vulnerable among us’ (downloaded March 2007). The Robert Wood Johnson Foundation supports the Active Living Program, Active Living by Design and Active Living Research programs.

www.activeliving.org
Active Living
Promotes active living and healthier communities through a range of partnerships networks, e-newsletters and other initiatives.

An example of the Active Living Program is:
‘Go! Chapel Hill – For a healthier more active life’
Chapel Hill in North Carolina is one of three neighbourhoods currently focus areas for Active Living by Design with a multi-dimensional approach – community, business etc. – retro-fitting or new areas adjoining existing urban areas
www.gochapelhill.org

www.activelivingbydesign.org
Active Living by Design (USA)
A collaborative program of the Robert Wood Johnson Foundation and administered by the University of North Carolina School of Public Health. Currently, it funds about twenty-five partnerships to increase active living by integrating physical activity into daily routines through community design, public policies and communication strategies.

www.activelivingresearch.org
Active Living Research
An Active Living Program supported by the Robert Wood Johnson Foundation and administered by San Diego State University. Example of a current project is:
Reforming codes to promote active living communities: The Wisconsin Smart Growth Law (SG Law)
Grant $59,226 (awarded on July 27, 2005, starting August 1, 2005 ending May 31, 2007)
Project proposes to explore two case studies of policy change in SG Law, intergovernmental collaboration, effective leadership etc.
www.rwjf.org/portfolios/grant.jsp

www.smartgrowthamerica.org
Smart Growth América
The idea of Smart Growth is to encourage the perception of communities not only as places to live but also as places to promote health and wellbeing. The initiative emerged from a concern about the suburban development and negative effects on people’s lives, increasing car dependency etc. To overcome this, Smart Growth has developed principles for communities to offer options for a more active, healthy lifestyle, including:

- Mixed land use to integrate a variety of pedestrian-oriented destinations within close proximities to promote viable modal options (e.g. walking or cycling) to driving
- Use of compact building design with reduced footprints, making efficient use of land and resources
- Provision of a range of housing choices suitable and affordable for the needs of diverse households, in the vicinity of neighbourhood transit areas, commercial centres and other services
• Creation of walkable neighbourhoods with safe, connective walking corridors to make pedestrian activity possible
• Provision of a variety of transport choices to link areas of housing, shopping and services.

The reality of *Smart Growth* has been controversial in the US where regulatory frameworks have typically not allowed direct government regulation of land-use activities except where mandated by specific democratic ballots. As there is no Federal agenda for *Smart Growth*, it has been left up to the discretion of state and local governments, so application of these principles is fragmented and uneven (Mead et al. 2006).

[www.smartgrowth.umd.edu/index.htm](http://www.smartgrowth.umd.edu/index.htm)
The National Center for Smart Growth and Education is a non-partisan centre for research and leadership training on Smart Growth and related land use nationally and internationally. It is located at the University of Maryland.

[www.planning.org/physicallyactive/](http://www.planning.org/physicallyactive/)
American Planning Association – Planning and Designing the Physically Active Community

‘Planning and Designing the Physically Active Community’ is a current research project supported by the Robert Wood Johnson Foundation initiative to encourage changes to the built environment that will promote physical activity as a means to improving the health of Americans. ‘Planning Active Communities’ was published in December 2006.

In the last decade, the paradigm of smart growth has prompted many communities to improve the physical design of downtowns and neighbourhoods. The precepts of smart growth include:
• Building more compact, walkable communities
• Allowing more mixing of land uses
• Providing transport options other than automobiles, including public transit, and bicycle and pedestrian facilities
• Balancing jobs and housing to reduce commute times, improve air quality, and reduce reliance on cars.

In the last several decades, many states, including New Jersey, Maryland and Oregon, have taken an active role in promoting smart growth in communities and neighbourhoods.

The APA approach is to identify and focus on the strategic points of intervention – where the most critical community planning decisions are being made that affect future physical activity.

**Europe and UK links**

[www.ec.europa.eu/health](http://www.ec.europa.eu/health)
European Commission
Commission of the European Communities issued a Green Paper on *Promoting healthy diets and physical activity: a European dimension for the prevention of overweight, obesity and chronic diseases* in 2005. The Green Paper raises questions on a very broad range of issues to which the Commission invites contributions, including what public policies contribute to ensure that physical activity and healthy eating are ‘built into’ daily routines, measures needed to foster the development of environments that are conducive to physical activity, maternal health, nutrition and food sourcing. The website also lists submissions received from a number of different member government agencies (e.g. Physical Activity Health Promotion Officers in the Health Service Executive, Republic of Ireland) and peak
bodies (e.g. The National Coalition for Active Ageing which brings together key agencies and stakeholders in the UK to act as a collective voice and champion of promoting physical activity with older people).


Injury prevention

The major directions for injury-related actions under the Public Health Programme are determined in the Commission Communication on ‘Actions for a Safer Europe’ and in the ‘Proposal for a Council Recommendations on the prevention of injuries and the promotion of safety’.

Institute for European Environmental Policy

Department of Health

www.health.gov.uk

‘Healthy Weight Healthy Lives’ plans to encourage healthier lifestyles. There are proposal for ‘healthy towns’, which prioritise walking and cycling, outdoor green spaces and community-based initiatives to promote a good diet. It also focuses on children and young people, especially the investment in ‘healthy schools’.

National Health System NHS London Healthy Urban Development Unit

‘Watch Out for Health – Planning Checklist’

http://www.healthyurbandev.development.nhs.uk/

‘Watch Out for Health’ provides a healthy sustainable communities spatial planning self-appraisal checklist for London. A range of positive and negative health and planning benefits are identified for a range of issues (including healthy lifestyles, housing quality, access to work, crime reduction and community safety, public services and climate change).

NHS National Institute for Health and Clinical Excellence

Physical Activity and Environment Guidance

http://www.nice.org.uk/guidance/index.jsp?action=folder&r=true&o=34733

University of Lapland – Finland and Germany (in Nuremberg)

www.trendhunter.com/trends/playgrounds-for-the-elderly/

‘Three-generational play’

Termed ‘three-generational play’, researchers in Finland have found that the elderly benefit from play normally thought to be strictly for children. Elderly-only playgrounds are being built and Germany (e.g. Nuremberg) is considering a model based on Finland’s lead. Boredom and lack of body-confidence are just two of the issues that are successfully being addressed through active play. Improvements during a three-month period of using a variety of swings and climbing apparatuses included better balance, coordination and speed.

Elderly-specific playground equipment is being specially designed to accommodate the needs of seniors and to ensure safety. The idea was hatched in Finland, where researchers have experimented with what they call ‘three-generational play’. The University of Lapland found that a combination of climbing frames, swings and seesaws had significantly helped old people to regain confidence in their bodies. Forty test patients aged between 65 and 81 showed improvements in balance, coordination and speed after using a playground for three months (see also http://tecfalse.unige.ch/ and for Nuremberg (see media release 14 December 2006 at http://lifestyle.monstersandcritics.com/life/news/article_1233041.php/German_city_playgrounds ).

www.livingstreets.org.uk
Living Streets (formerly call the Pedestrians Association) is a UK-based national charity advocating for local streets and public places to be for people, resulting in a better quality of life for all. Active through Living Streets campaign, road safety initiatives (e.g. Walk to School Campaign, Home Zones) and assess your local area against ten liveability criteria:
- ‘Walkability’ right – high-density community, high demand for services
- Balance right – streets designed for all purposes, not just traffic
- Traffic right – appropriate volume and speed of traffic
- Environment right – well designed, clutter-free fully accessible streets
- Upkeep right – clean, well-managed streets and public places
- Safety right – well-lit and safe, day and night
- Relaxation right – places to sit, in locations convenient for walkers
- Beauty right – attractive and interesting street environment
- Connections right – convenient links to where you want to walk
- Information right – maps and signs to tell walkers where they are.

www.laterlifetraining.co.uk/documents/NCCAFinal.pdf
The National Coalition for Active Ageing brings together key agencies and stakeholders in the UK to act as a collective voice and champion the cause of promoting physical activity with older people of all interests, abilities and ages.

Commission for Architecture and the Built Environment

New Zealand links
New Zealand Ministry for the Environment Urban Design Protocols
http://www.mfe.govt.nz/publications/urban/
Glossary of terms and definitions

**Built environment** means the structures and places in which we live, work and play, all of which are integral to improving the health, wellbeing and quality of life of our community as a whole. (DoHA 2006 National Speaker Series Final Report)

**Connectivity** is the directness of travel between destinations, which is influenced by the kinds of intersections and their density in a given area. (Gebel et al. 2005, p8)

**DALYs** or ‘disability-adjusted life year’ is the key measure used by the Australian Institute of Health and Welfare in its report on the national burden of disease and injury. DALYs describes the amount of time lost due to both fatal and non-fatal events, that is, years of life lost due to premature death coupled with years of ‘healthy’ life lost due to disability.

**Health** is a state of complete physical, mental and social wellbeing, not merely the absence of disease or infirmity. (Gebel et al. 2005, p.8)

**Healthy communities** are communities that:
- Provide affordable, appropriate, accessible housing
- Adjust the physical environment for inclusiveness and accessibility
- Ensure access to key health and supportive services
- Ensure accessible, affordable, reliable and safe transport
- Provide work, volunteer and education opportunities
- Encourage participation in civic, cultural, social and recreational activities. (US Department of Health and Human Services, Administration on Aging, Center for Home Care policy & Research – Case Studies [2005], 2005 Livable Communities for All Ages Competition)


**Land use** refers to the location and activities within a geographic area. Often activities are grouped into relatively basic categories, such as residential, industrial, recreational and commercial. (Mead et al. 2006, p.110)

**Land use mix** is the diversity or variety of land uses (e.g. residential, commercial, industrial and agricultural). A diverse land use mix is associated with shorter travel distances between places of interest and activities. (Gebel et al. 2005, p.9)

**‘Macro’ scale** is used as a term in this document to indicate the operation at the strategic level or at the metropolitan or regional geographic scale.

**‘Micro’ scale** is used as a term in this document to indicate the operation at the detailed level or at the local, neighbourhood or street geographic scale.

**Physical activity** is defined as bodily movement produced by the contraction of skeletal muscle that increases energy expenditure above the basal level. It can be categorised into four types:
leisure time or recreational
transport
household
occupation (Transportation Research Board 2005, p.33).

Safety is a term used to mean being at little or no risk of injury. A holistic approach to wellbeing requires that people must feel that they are safe in addition to actually being safe. (The National Injury Prevention and Safety Promotion Plan: 2004–2014)

Social determinants of health have been identified by the World Health Organization (2006) as:
1. Poverty, social exclusion, poor housing and poor health systems are among the main social causes of ill health.
2. Differences in the quality of life within and between countries affect how long people live. A child born in Japan has a chance of living 43 years longer than a child born in Sierra Leone.
3. The probability of a man dying between the ages of 15 and 60 is 8.2% in Sweden, 48.5% in the Russian Federation and 84.5% in Lesotho.
4. In Australia, there is a 20-year gap in life expectancy between Australian Aboriginal and Torres Strait Islander peoples, and the Australian average.
5. Low- and middle-income countries account for 85% of the world’s road deaths.
6. In 2002, nearly 11 million children died before reaching their fifth birthday – 98% of these deaths were in developing countries.
7. Inequality in income is increasing in countries that account for more than 80% of the world’s population.
8. Few governments have explicit policies for tackling socially determined health inequalities.

Social inclusion is a society where all people feel valued, their differences are respected and their basic needs are met so they can live in dignity. (Cappo 2009)

Transport system is the physical infrastructure of roads, footpaths, bike paths, railway lines etc that provide the physical connection between activities. Travel time, comfort and safety are factors that determine the quality of transport systems. It is also used as a term to describe the level of service provided (e.g. accessibility to public transport, routes, frequencies and connectivity). (Mead et al 2006, p.110)

Urban environment includes both natural and built places and encompasses state, regional, metropolitan, local and remote settings.

Urban form is a term used to describe the physical elements within a city. It refers to the arrangement, function and aesthetic qualities of the design of buildings and streets, which overlay the land use and transport system. (Mead et al 2006, p.110)

Walkability measures have been developed to assess the relative characteristics of different urban forms and designs. Questions about residential density, land use, diversity of uses, access, street connectivity, walking/cycling facilities, aesthetics and
safety are often included. Walking is used as an indicator of regular physical activity. (Gebel et al 2007, National Heart Foundation of Australia 2007)

**Walkable communities** give people a variety of destinations within walking distance of home, and safe and connected streets and pathways to get there. (Gebel et al 2007, adapted from Active Living Research at [www.activelivingresearch.org](http://www.activelivingresearch.org))
List of organisations and people consulted or briefed during the scoping phase of *Healthy Spaces and Places*

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<th>Organisation/Person</th>
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<td>ACT Health</td>
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<td>Australian and New Zealand Falls Prevention Society</td>
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<td>Australian Greenhouse Office</td>
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<td>Australian Injury Prevention Network</td>
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<td>Australian Local Government Association</td>
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<td>Australian Research Alliance for Children and Youth (ARACY)</td>
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<td>Iain Butterworth, Deakin University</td>
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<td>Delfin/Lendlease Communities</td>
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<td>Elton Consultants</td>
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<td>GHD Pty Ltd (Northern Territory)</td>
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<td>Billie Giles-Corti, School of Population Health, University of Western Australia</td>
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<td>LandCorp, Western Australia</td>
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<td>Paul Mees, Faculty of Architecture Building and Planning, University of Melbourne</td>
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<td>Mirvac</td>
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<td>Multiplex</td>
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<td>National Heart Foundation of Australia</td>
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<td>Peter Newman, Murdoch University</td>
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<td>New South Wales Premier’s Active Living Council</td>
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<td>Northern Territory Department of Planning and Infrastructure</td>
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<td>Northern Territory Chief Minister’s Active Living Council</td>
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<td>Planning Institute of Australia</td>
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<td>Property Council of Australia</td>
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<td>Public Health Association of Australia – Special Interest Group – Injury Prevention</td>
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<td>Queensland Department of Local Government, Planning, Sport and Recreation</td>
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<td>Royal Australian Institute of Architects</td>
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<td>South Australian Active Living Coalition</td>
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<td>Tasmanian Resource Planning and Development Commission</td>
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<td>Tasmanian Premier’s Physical Activity Council</td>
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CONSULATIONS & BRIEFINGS DURING SCOPING PHASE

Victorian Department of Human Services
Victorian Department of Infrastructure
Victorian Department of Premier and Cabinet
VicHealth
Victorian Office of the Coordinator General of Infrastructure
VicUrban

Western Australian Department of Planning and Infrastructure
Western Australian Premier’s Physical Activity Taskforce

John Wiseman, Community Indicators Victoria, The McCaughey Centre, University of Melbourne
HEALTHY SPACES AND PLACES: NATIONAL PLANNING GUIDE

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**FOOTNOTES**

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