

Urban design and health

A guide to relevant resources for planning



This guide is a supplement to the *Environments for Health* (2001) planning framework and the *Practical Guide to Municipal Public Health Planning* (2009). This guide introduces features in our built environments that influence population health and wellbeing, along with some suggested resources which can be used by local planners to make improvements. Complementing this guide is the *Climate change and health* guide, also available on the Local Government health and wellbeing webpage <http://www.health.vic.gov.au/localgov/>. This acknowledges the influence climate change can have on the built environment. For example, increasing opportunities for walking and cycling (as a result of the need to reduce greenhouse gas emissions) can positively impact on health.

The primary audience for this Guide are those directly involved in public health and social policy and planning in local government, this guide will also be useful to council staff responsible for land use planning.

The *Environments for Health* framework is the major resource for use in planning for the impact of the natural, built, social and economic environments on health. Since 2001 this framework has been used extensively to guide planning at a municipal level.

People's immediate environment is critical for their health

Local governments have a strong role in creating environments to support healthy people. Local governments influence health outcomes through their work in areas such as transport, roads, footpaths, parks, waste, land use, housing and urban planning, recreation and cultural activities and creating safe public places.

When health is integrated into planning, the choice for people to be active becomes more convenient, easy, safe and enjoyable. Providing convenient, easy-to-access built environments that encourage people to be out and about on a daily basis will contribute to a more active and vibrant society.

Source: National Heart Foundation, 2004

Environmental dimensions



Built/physical



Economic



Social



Natural

Source: PDF Management

Planning based on evidence about what works

Increasing opportunities for walking and cycling

People are more active in areas with shops and services within easy walking distance, recreational facilities and open space, low road traffic and few intersections.¹ Features of 'walkable' neighbourhoods are street connectivity, good public transport links, footpaths and bike lanes, higher residential density and mixed land use.² Residents in areas with these characteristics have been shown to be more physically active and have lower rates of obesity and all-cause mortality.³

The Melbourne VicLANES study⁴ correlated obesity rates with availability of healthy food and opportunities to be physical active. Among participants in the VicLANES study, the most common reason given for not exercising was a lack of time. This emphasises the importance of environments that build in opportunities for incidental activity including active travel. This includes having attractive and efficient routes for walking and cycling between local facilities. In addition to exercise, reducing the use of cars for short journeys also contributes to reducing congestion and carbon emissions and improving air quality.⁵

People's physical health is also affected by motor vehicle emissions, which are responsible for 40 per cent to 90 per cent of air pollutants in Australian air.... To encourage people to use alternative transport, physical features such as bike paths and footpaths need to be sufficiently well-maintained, attractive and networked to regular public transport.

Source: Bigalow 2006, p. 19.

People living in the most disadvantaged areas are less likely to be active, purchase groceries that are consistent with dietary guidelines, and are more likely to eat fast food and live near fast food outlets.⁶ Research has shown that child pedestrian injuries are linked to living in areas of higher disadvantage, streets with heavy traffic flow and limited access to safe playgrounds.⁷

Encouraging activity through building and facility design

Building layout and facilities also influence activity levels. This includes workplaces that encourage stair use and provide secure storage for bicycles and shower facilities. Activity is encouraged for younger people with, for example, provision of activities and play areas in schools and parks.⁸

Importance of connection to place

There is an emerging field of research into the connection between our environments and mental health and wellbeing.⁹ This relates to people's sense of belonging, interest in and connection to the places where they spend time.

PlaceMaking offers a facilitative role in linking urban planners, designers and developers with community engagement specialists, artists and architects, to create quality places. Well designed public places support civic participation and can strengthen communities. (For further information on PlaceMaking see details under 'Resources'.)

Healthy parks, healthy people

Access to green space and open spaces in urban environments is important for health. A good overview is provided in the 2008 report by Deakin University and Parks Victoria, *Healthy parks, healthy people: The health benefits of contact with nature in a park context, a review of current literature*. This report can be downloaded <www.parkweb.vic.gov.au/resources/mhphp/pv1.pdf>.

1 Bauman & Bull 2007, Duncan et al. 2005, Frank et al. 2007, Takano et al. 2002.

2 Bauman & Bull 2007, Frank et al. 2007, Harrison et al. 2007.

3 Bauman & Bull 2007, Giles-Corti & Donovan 2003, Kavanagh 2005, Saelens et al. 2003.

4 Kavanagh et al. 2007.

5 Eddington 2008.

6 Kavanagh et al. 2007.

7 Blakemore 2007, Ewing et al. 2003.

8 Blamey et al. 1995, Dunton & Schneider 2006, Hyden et al. 1999, Kahn et al. 2002, Pangrazi 2000, Sallis et al. 1998.

9 For example, Evans 2003, Weich & Blanchard 2002.

Resources—reports and documents

These are listed in alphabetical order.

Active by Design, Subdivision Guidelines and Checklist for Residential Development

Source: David Locke Associates 2009.

Description: This design guide was produced by the Baw Baw Shire Council for developers, designers and council planners

Further information: Can be downloaded <http://www.bawbawshire.vic.gov.au/Page/page.asp?Page_Id=1772&h=0>

Bikeability and Walkability Checklists

Source: Go for your life, Department of Human Services.

Description: There are *Bikeability* and *Walkability* checklists, developed in the USA and available through the *Go for your life* website, which can assist in assessing the ‘bikeability’ and ‘walkability’ of neighbourhood areas.

Further information: Files can be downloaded:

<[www.goforyourlife.vic.gov.au/hav/admin.nsf/Images/bikabilitychecklist.pdf/\\$File/bikabilitychecklist.pdf](http://www.goforyourlife.vic.gov.au/hav/admin.nsf/Images/bikabilitychecklist.pdf/$File/bikabilitychecklist.pdf)>

<[www.goforyourlife.vic.gov.au/hav/admin.nsf/Images/walkingchecklist.pdf/\\$File/walkingchecklist.pdf](http://www.goforyourlife.vic.gov.au/hav/admin.nsf/Images/walkingchecklist.pdf/$File/walkingchecklist.pdf)>

Building health into Cities and Municipalities: Working with local governments in Northern Melbourne to develop walkability indicators

Source: Edwards, M, Butterworth, I & Leslie E 2006, Deakin University,

Description: This report outlines the project to assess how walkability is being addressed by seven local governments in the northern metropolitan area of Melbourne. The objective was to establish a set of walkability indicators to inform future policy development and planning decisions to provide walkability in their communities.

Further information: http://www.goforyourlife.vic.gov.au/hav/admin.nsf/Images/Northern_Healthy_Cities_and_Communities_Project.pdf

Building local government capacity to put walkability into policy and practice: Workforce development research report

Source: Edwards, M, Butterworth, I & Leslie, E 2008, Deakin University

Description: This research aimed to explore the development and implementation of local governments to embed walkability into council strategic planning and decision making processes. The research examined ways of improving planning within and between all relevant council departments to provide walkability. Five local councils participated in the capacity building research project.

Further information: Contact City of Darebin, Melissah Edwards, Community Health and Wellbeing Officer, Community Access, Health and Safety Unit, medwards@darebin.vic.gov.au

Checklist for Liveability Planning

Source: Victorian Growth Area Authority, 2008

Description: The Victorian Growth Areas Authority, with funding and other support provided by the Department of Human Services, VicHealth and the Planning Institute of Australia, commissioned a strategic framework for creating liveable new communities in Melbourne’s growth areas in partnership with key government and other stakeholders.

Liveable communities and health and wellbeing are two areas of priority in *A Fairer Victoria*, a whole-of-government social policy action plan to address disadvantage and promote inclusion and participation. This document defines ‘liveable communities’ as:

where people feel safe, there is a sense of belonging and community pride, and where there are job opportunities, affordable housing, good local services and facilities, and enjoyable environments.

An example of a ‘liveable communities’ priority is *Neighbourhood Renewal*, a place-based initiative designed to address location-specific disadvantage.

The GAA *Checklist for Liveability Planning* includes the four liveability goals:

- 1 high-quality jobs and a thriving local economy
- 2 healthy, safe and socially connected communities
- 3 affordable living
- 4 sustainable built and natural environments.

The checklist provides prompting questions that can be used by councils together with the *Environments for Health* framework to determine improvements under each of the domains. Other resources, such as *Healthy by Design: A planners guide to environments for active living* (Heart Foundation 2004), assist councils to operationalise these broader frameworks.

Although the GAA *Checklist for Liveability Planning* was developed for growth areas, it is generally considered to be applicable to existing communities.

Further information: Can be downloaded <www.gaa.vic.gov.au/Assets/Files/Liveability%20Planning%20Checklist%209%20April%2008.pdf>.

Clause 56 Walkability Toolkit: Making walking preferable, not just possible

Source: City of Greater Geelong and David Lock Associates 2009

Description: This toolkit provides a compelling description of the characteristics of a walkable environment and an easy-to-use set of guidelines that allow these characteristics to be built into proposed developments.

Further information: Can be obtained from David Lock Associates <www.dlaaust.com/projects.shtml>.

Cycle-friendly suburbs: Practical tools and guidelines for building bike networks, paths and bike lanes

Source: Bicycle Victoria

Description: Bicycle Victoria developed this toolbox to help councils and developers plan local area traffic management so it is friendly for cyclists and pedestrians.

Further information: Can be downloaded <www.bv.com.au/change-the-world/11473/>.

Healthy by design: A planners' guide to environments for active living

Source: National Heart Foundation of Australia (Victorian Division), 2004

Description: This resource introduces a variety of design features that influence the extent to which people walk and cycle in their local neighbourhood including:

- well-planned networks of walking and cycling routes
- streets with direct, safe and convenient access
- local destinations within walking distance from homes
- accessible open spaces for recreation and leisure
- conveniently located public transport stops
- local neighbourhoods fostering community spirit.

A case study illustrating the use of this guide is also available on the Heart Foundation website.

For further information: Can be downloaded <www.heartfoundation.org.au/SiteCollectionDocuments/Healthy%20by%20Design.pdf>.

Download *Healthy By Design* Case Study

<www.heartfoundation.org.au/SiteCollectionDocuments/HW_HbD_CaseStudy_WhitehorseCommunityHealthService.pdf>.

Healthy spaces and places: Toward a national planning guide

Source: Planning Institute of Australia, 2008

Description: The Australian Local Government Association, the National Heart Foundation of Australia and the Planning Institute of Australia have worked together to develop *Healthy Spaces and Places*. This project, funded by the Commonwealth Department of Health and Ageing, has developed a national planning guide and accompanying website and other materials, addressing the relationship between people's health and the built environment. The project also aims to raise awareness of this cross-disciplinary area and to contribute to national policy setting.

The Healthy Spaces and Places website leads planners and other built environment professionals, health professionals, governments, and communities to key tools and resources for building supportive environments for healthy spaces and places.

For further information: <<http://www.healthyplaces.org.au/site/>>

Leading the Way: Councils creating healthier communities

Source: VicHealth, 2002

Description: *Leading the Way* provides a brief overview and practical insights into the social, economic and environmental influences on the health and well being of communities. It provides questions and case studies to help in making decisions about policy and strategic planning.

Further information: Can be downloaded <www.vichealth.vic.gov.au/en/Programs-and-Projects/Planning-Healthy-Environments/Leading-the-Way-Councils-Creating-Healthier-Communities.aspx>.

Planning guidelines for walking and cycling

Source: NSW Department of Infrastructure, Planning and Natural Resources, 2004

Description: These guidelines aim to assist land-use planners and related professionals to increase consideration of walking and cycling in their work. These guidelines include information, concepts, case studies and illustrations.

Further information: Can be downloaded <www.planning.nsw.gov.au/plansforaction/pdf/guide_pages.pdf>.

Walkable neighbourhoods

Source: M Zeibots, 2008, *Your Development Creating Sustainable Neighbourhoods*

Description: *Your Development* is an Australian online resource providing practical information on how to create sustainable urban residential developments.

Further information: Can be downloaded <yourdevelopment.org/factsheet/view/id/70>.

Planning for Health

Source: VicHealth, 2002

Description: This issue of the *VicHealth Letter* is themed 'Planning for Health'. The website also links to a number of PowerPoint presentations on this topic.

Further information: Can be downloaded <<http://planning.org.au/vic/index.php?option=content&task=view&id=61&Itemid=73>>.

Resources—websites

Healthy Spaces and Places

URL: <<http://www.healthyplaces.org.au/site/>>

Description: The website leads planners and other built environment professionals, health professionals, governments, and communities to key tools and resources for building supportive environments for healthy spaces and places.

Project for Public Spaces

URL: <<http://www.pps.org>>

Description: PPS is a US-based organisation dedicated to helping people create and sustain public places that build communities. It offers PlaceMaking (as described above) and includes tools for this on their website.

Other sites:

Place Making tools <www.pps.org/info/placemakingtools/casesforplaces/>

Streets as Places <www.pps.org/info/streets_as_places/>.

VillageWell is a PlaceMaking group in Victoria <www.villagewell.org>.

Bibliography

The information in this guide was sourced from the following references.

Bauman, A & Bull, F 2007, *Environmental correlates of physical activity and walking in adults and children: a review of reviews*, National Institute for Health and Clinical Excellence.

Bigalow, Lisa 2006, 'Creating transport choices', *VicHealth Letter*, 27, pp. 19–21.

Blakemore T 2007, 'Examining potential risk factors, pathways and processes associated with childhood injury in the Longitudinal Study of Australian Children', *Australian Social Policy 2006*, Australian Department of Families, Canberra.

Blamey, A, Mutrie, N & Aitchison, T 1995, 'Health promotion by encouraged use of stairs', *British Medical Journal*, 311, pp. 289–290.

Butterworth, I 2000, *The relationship between the built environment and wellbeing: A literature review*, Victorian Health Promotion Foundation, Melbourne <www.vichealth.vic.gov.au/~ /media/ProgramsandProjects/PlanningHealthyEnvironments/Attachments/built_environment.ashx>.

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

Duncan, MJ, Spence, JC & Mummery, WK 2005, 'Perceived environment and physical activity: A meta-analysis of selected environmental characteristics', *The international journal of behavioral nutrition and physical activity*, 2, p. 11.

Dunton, G & Schneider, M 2006, 'Perceived barriers to walking for physical activity', *Preventing Chronic Disease*, 3, pp. 1–11

Eddington, Rod 2008, 'East West Link Needs Assessment final report', Department of Transport, Melbourne.

Evans, G 2003, 'The Built Environment and Mental Health', *Journal of Urban Health: bulletin of the New York Academy of Medicine*, 80, 4, pp. 536–555.

Ewing, R, Schieber, RA, Zegeer, CV 2003, 'Urban sprawl as a risk factor in motor vehicle occupant and pedestrian fatalities', *American Journal of Public Health*, 93, pp. 1541–45.

Frank, L, Kerr, J, Chapman, J & Sallis, J 2007, 'Urban form relationships with walk trip frequency and distance among youth', *American Journal of Health Promotion*, 21, Supplement, pp. 1–7.

Giles-Corti, B & Donovan, R 2003, 'Relative influence of individual, social environmental, and physical environmental correlates of walking', *American Journal of Public Health*, 93, pp. 1583–89.

Harrison, R, Gemmell, I & Heller, R 2007, 'The population effect of crime and neighbourhood on physical activity: an analysis of 15 461 adults', *Journal of Epidemiology and Community Health*, 61, pp. 34–39.

Hyden, C, Nilsson, A & Risser, R 1999, 'How to enhance WALKing and CYcliNG instead of shorter car trips and to make these modes safer', in Department of Traffic PAE., University of Lund, Sweden.

Kahn, E, Ramsey, L, Brownson, R, Heath, G, Howze, E, Powell, K, Stone, E, Rajab, M & Corso, P 2002, 'The effectiveness of interventions to increase physical activity: A systematic review', *American Journal of Preventive Medicine*, 22, pp. 73–107

Kavanagh, A, Thornton, L, Tattam, A, Thomas, L, Jolley, D & Turrell, G 2007, *Place does matter for your health: A report of the Victorian Lifestyle and Neighbourhood Environment (VicLANES) Study*, University of Melbourne <www.kcwh.unimelb.edu.au/__data/assets/pdf_file/0009/61398/VicLanes_Report.pdf>.

Kavanagh, A, Goller, L, King, T, Jolley, D, Crawford, D, Turrell, G 2005, 'Urban area disadvantage

and physical activity: a multilevel study in Melbourne, Australia', *Journal of Epidemiology and Community Health*, 59, pp. 934–40.

Pangrazi, R 2000, 'Promoting physical activity for youth', *Journal of Science and Medicine in Sport*, 3, pp. 280–86.

Saelens, BE, Sallis, JF, Black, JB, Chen, D 2003, 'Neighborhood-based differences in physical activity: an environment scale evaluation', *American Journal of Public Health*, 93, pp. 1552–58.

Sallis, J, Bauman, A & Pratt, M 1998, 'Environmental and policy interventions to promote physical activity', *American Journal of Preventative Medicine*, 15, pp. 379–97

Takano, T, Nakamura, K & Watanabe, M 2002, 'Urban residential environments and senior citizens' longevity in megacity areas: the importance of green open spaces', *Journal of Epidemiology and Community Health*, 56, pp. 913–18.

Weich, S & Blanchard, M 2002, 'Mental health and the built environment: cross-sectional survey of individual and contextual risk factors for depression', *British Journal of Psychiatry*, 180, pp. 428–33.