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Healthy by Design: an innovative planning tool for the development of safe, accessible and attractive environments for people to walk in

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Abstract

Context

This paper will address the development of *Healthy by Design: a planners' guide to environments for active living*¹ (HBD), and its subsequent use in local government planning practice. The National Heart Foundation of Australia (Victorian Division) (HF) developed the guide in response to local government requests for practical guidance in designing walkable and more liveable communities.

"The HF has now produced a clear, concise and persuasive document that shows planners what to do and how to do it. HBD covers all of the aspects that will enable planners and subdivision engineers to plan healthy and cost-effective communities. It is a major contribution to integrated planning and will enhance sustainable outcomes."²

Aim

¹ National Heart Foundation of Australia (Victorian Division) (2004), *Healthy by Design: a planners' guide to environments for active living*, National Heart Foundation of Australia (Victorian Division).

² Planning Institute Australia - Victorian Division (2004), *Awards for Planning Excellence*, Awards Citation.

Through HF research and work undertaken with Victorian local governments, the HF identified a growing need for more detailed planning direction to increase walkability. The Planning Institute Australia (PIA) identified that although many planners believed they had a role in creating more active communities, many infrequently or never considered health issues in their daily planning work³.

HBD brings walking to the forefront and equips planners to consider the aspects required to develop more walkable communities. The desired outcome is to see mixed use communities that increase people's ability to walk to local services and facilities.

Methodology

HBD was developed with input from the planning, health and transport sectors. The guide includes 'design considerations' that demonstrate how planners can integrate 'health' into their planning. This is encouraged by providing:

- 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 spirit⁴.

Recommendations are underpinned by local and international research that provides a case for the development and promotion of environments conducive to walking.

Results

Since the dissemination of the guide via a successful workshop series, local governments are utilising the guide in a variety of ways. City of Whittlesea (CoW) will showcase some of the ways they are utilising HBD to increase the priority on walking in the municipality. HBD is being used to support the development of a municipal walking strategy and Council is seeking policy commitment to adopt HBD and develop associated checklists with relevant Council departments.

HBD was awarded winner of the 'Planning for Health and Wellbeing Award' and the 'President's Award' at the PIA Awards for Planning Excellence.

Main conclusions

³ Foos N, Maddern C (2002), *Planning for Health Benchmark Survey: An evaluation of planner awareness of health issues. Final Report*, prepared by Market Solutions Pty. Ltd for the Planning Institute Australia - Victorian Division, p.24.

⁴ National Heart Foundation of Australia (Victorian Division) (2004), *Healthy by Design: a planners' guide to environments for active living*, National Heart Foundation of Australia (Victorian Division), p.8.

Follow up of workshop participants revealed that HBD is being used as a reference document in most councils surveyed and as a policy platform in a small number of others. There is much work to be done to progress the impact and reach of the guide, particularly within the local government setting where staff turnover has a significant impact on the knowledge and practices retained in each municipality. The HF is continuing to work towards the inclusion of these design aspects into the Victorian Planning Provisions, ensuring that people's ability to walk in safe, accessible and attractive neighbourhoods is systematically integrated into planning decisions.

Biographies

Emma Sutherland, Health Planning Consultant

Emma project managed the development of HBD during her time working at the Heart Foundation (Victorian Division) and was instrumental in forming key partnerships and implementing the initial dissemination of the guide. Emma currently works as a Health Planning Consultant, providing support to the Heart Foundation's *Supportive Environments for Physical Activity* project.

Maureen Murphy, Health Planner, City of Whittlesea

With a Melbourne University Engineering degree and post-graduate qualifications in Journalism from RMIT, Maureen worked ten years in the community sector before joining local government.

Maureen has been employed for five years at the City of Whittlesea, a leader in healthy design and built environment innovation.

Rachel Carlisle, Manager Physical Activity, Heart Foundation (Victorian Division)

Rachel has worked on sustainable transport community education projects for the past 7 years in the community sector and assisted with various health promotion and public health projects at Deakin University. She has recently taken up employment with the HF.

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Introduction

Healthy by Design: a planners' guide to environments for active living was released by the National Heart Foundation of Australia (Victorian Division) (HF) in 2004. The guide is one of the more recent resources produced to build upon the Supportive Environments for Physical Activity work which commenced in Victoria in 1998 following initial research and development by the National Heart Foundation of Australia (South Australia Division)⁵ in 1996 and their local government guidelines produced in 1999⁶. HBD aims to demonstrate ways planners can have an impact on the health and well being of communities through their urban planning and design practice. The development of HBD was assisted by key stakeholders representing planning, recreation, health, transport and community building sectors and with valued support from VicHealth and the Planning Institute Australia - Victoria Division.

Since its release, the HF has concentrated efforts on disseminating HBD to local and state government planners, private planners and planning consultants, developers, urban designers, engineers, landscape architects, land surveyors, health planners and relevant community organisations.

Two series of workshops have been implemented to ensure a grounding of the principles that inform HBD, in addition to demonstrating practical applications via Local Government case studies. Through the workshops and dissemination, the guide has been provided to Local Governments throughout Victoria, made available to planners via the Planning Institute Australia - Victoria Division and provided to planning and urban design institutions. Some limited interim evaluation has taken place, which has assisted in guiding the HF's future directions for HBD and its broader walking initiative.

Background

⁵ Wright C, MacDougall C, Atkinson R, and Booth B (1996), *Exercise in Daily Life, Supportive Environments, Report of a National Heart Foundation Research Project funded by the Commonwealth Department of Health and Family Services*, Commonwealth of Australia.

⁶ National Heart Foundation Australia (1999), *Supportive Environments for Physical Activity, Guidelines for Local Government*

The HF in Victorian has focused its physical activity efforts on the Supportive Environments for Physical Activity (SEPA) project for several years. This research-based initiative aims to increase environmental support and opportunities for people to lead active lifestyles, with the long term aim of reducing the impact of cardiovascular disease in Australia. To achieve this aim the HF has worked with local governments, developers, universities and community/health organisations to demonstrate ways the built form can be designed to make it easy for people to walk as part of their daily life.

It is envisaged that by investing efforts into a Supportive Environments approach to walking, in the long term the built environment will have the capacity to sustain the number of people choosing to walk to local services and facilities, public transport stops and to and from schools, as part of their daily routine.

Although the SEPA project initially commenced as a health initiative, it is now viewed more as a 'planning and health' partnership. Through the project the HF has liaised with many planners to understand their support needs in creating environments that promote walkable communities, and this work will continue. The SEPA project, which is now encompassed as an element of the National Heart Foundation of Australia's *Supportive Environments for Walking Initiative*, will continue to grow as a key aspect of the Foundation's physical activity program.

Response to a planning need

The HF developed HBD to assist Local Government and associated planners in the implementation of a broader set of SEPA guidelines. The concept was initially formed in response to feedback from local government planners and engineers who requested practical guidance in designing walkable communities. The original SEPA resource: 'SEPA Guidelines for Local Government'⁷ provided planners with an introductory guiding framework to the built environment and physical activity. However after two pilot projects were conducted with local governments, it was clear that more detailed direction was required to assist planners in the process of incorporating 'health' into their planning. When approaching the design of parks, re-vitalising local areas and adding new bike paths, planners were seeking more specific guidance to make the process of implementation easier.

In addition to this, the Planning for Health Benchmark Survey⁸ addressing planners' views, conducted by the Planning Institute Australia - Victoria Division,

⁷ National Heart Foundation of Australia (SA Division) (1999), *Supportive Environments for Physical Activity: Guidelines for Local Government*, National Heart Foundation of Australia.

⁸ Foos N, Maddern C (2002), *Planning for Health Benchmark Survey: An evaluation of planner awareness of health issues. Final Report*, prepared by Market Solutions Pty. Ltd for the Planning Institute Australia - Victorian Division, P.13 and 18.

revealed that the majority of respondents (89%) thought they had a role in creating a healthier more physically active community, however 49% said they infrequently or never considered health issues in their daily planning work.

Data from the 2000 National Physical Activity survey show that about 54% of Australians aged 18-75 years were not undertaking leisure-time physical activity at the levels recommended to obtain a health benefit, including 15% who reported no physical activity at all⁹. More than 8,000 deaths per year are associated with physical inactivity, representing an estimated 77,000 premature potential years of life lost¹⁰. Associated with this, is the concern that over seven million adult Australians are now considered to be overweight or obese¹¹.

There are many ways we can address these growing health issues. Designing environments that support physical activity – walking, cycling and being active as part of everyday life – is one solution, but not one the health sector can deliver alone. The HF encourages planners and decision makers to be creative in their urban design of new developments, and use budgets allocated for development or renewal of urban environments in ways that result in positive outcomes for public health.

HBD demonstrates that when planning and health are integrated, we can strive to achieve not only well planned neighbourhoods, but also neighbourhoods that positively impact on health, wellbeing and overall quality of life. Mixed use communities that increase the ability for people to walk or cycle to shops, schools, parks, services, facilities and public transport are more likely to enhance physical activity and create more socially vibrant communities. This in return delivers a range of health, social, economic and environmental benefits.

Design considerations

HBD provides planners with supporting research, a range of design considerations to promote walking, cycling and public transport use, a practical design tool and case studies.

The 'Design Considerations' demonstrate ways planners can improve the health of communities through their planning and design. This is encouraged by providing:

- Well planned networks of walking and cycling routes
- Streets with direct, safe and convenient access

⁹ Australian Institute of Health and Welfare (AIHW) web site, <http://www.aihw.gov.au/riskfactors/inactivity.cfm>, accessed 21/9/06

¹⁰ Bauman A, Bellew B, Vita P, Brown W, Owen N (2002), *Getting Australia active: towards better practice for the promotion of physical activity*, National Public Health Partnership, Melbourne, Australia, March, p.13.

¹¹ AIHW and National Heart Foundation of Australia (2004), *Heart, stroke and vascular diseases – Australian facts 2004*, Cardiovascular Disease Series No. 22, AIHW Cat. No. CVD 27, Canberra, p.93.

- Local destinations within walking distance from homes
- Accessible open spaces for recreation and leisure
- Conveniently located public transport stops
- Local neighbourhoods fostering community spirit¹².

Table 1 provides a brief summary of the design prompts covered in each section.

Table 1: Outline of design objectives and considerations presented in HBD¹³

Aspect	Objective	Design considerations (outline)
Walking & cycling routes	> To provide an accessible, integrated network of walking and cycling routes for safe and convenient travel to local destinations and points of interest.	<ul style="list-style-type: none"> > Make connections > Create safe places for people to walk and cycle > Create stimulating and attractive routes > Design safe, accessible footpaths > Shared path design
Streets	> To design legible street networks that provide direct, safe and convenient pedestrian and cycle access. To position pedestrian crossings along streets and roads with heavy traffic volumes.	<ul style="list-style-type: none"> > Slow traffic for safe streets > Provide safe places to cross streets > Support on-road cyclists > Keep routes clear, direct and legible > Create attractive and welcoming streets
Local destinations	> To provide local destinations to support lively, walkable and rideable neighbourhoods.	<ul style="list-style-type: none"> > Support mixed use, walkable neighbourhoods > Provide a community 'heart' > Support pedestrian access to local destinations > Provide amenities for comfort and convenience
Open space	> To provide a range of public open spaces within walking distance from dwellings. To clearly define walking and cycling routes that pass through open spaces and incorporate these routes in to the broader walking and cycling network.	<ul style="list-style-type: none"> > Provide open spaces within safe, comfortable walking distances > Connect to the broader walking and cycling network > Encourage active recreation > Create pleasing places to be > Promote safety and amenity > Provide for comfort and convenience
Public transport	> To establish and promote clear and direct walking and cycling routes to public transport stops and appealing and convenient facilities for users.	<ul style="list-style-type: none"> > Make public transport an easy option > Provide safe, visible stops > Provide facilities for comfort and convenience
Fostering community spirit	> To develop built environment and community participation strategies that foster active communities and a sense of community spirit.	<ul style="list-style-type: none"> > Involve your community in planning activities > Create spaces for community activity

The design considerations may be used in a variety of settings to:

- Prepare plans (e.g. open space master plans)

¹² National Heart Foundation of Australia (Victorian Division) (2004), *Healthy by Design: a planners' guide to environments for active living*, National Heart Foundation of Australia (Victorian Division), p.8.

¹³ Ibid, pp.9-22.

- Design proposed developments
- Develop design guidelines or checklists
- Develop innovative built environment projects
- Assess development proposals
- Influence strategic directions
- Embed 'health' into Municipal Strategic Statements
- Influence planning scheme provisions
- Contribute to the ongoing development and enhancement of open spaces¹⁴.

Key achievements & outcomes

Since its release, local governments, planning bodies and community organisations have been utilising HBD in a variety of ways, with several short term evaluation successes. The current usefulness and adoption of HBD is growing:

- The interim HBD evaluation (via dissemination workshops) indicated that 95% of participants said the guide will 'definitely' (63%) or 'probably' (32%) enhance their current or future work activities.
- A leading Victorian property developer has utilised the guide in the development of a 'Sustainability Charter', having direct bearing on delivery benchmarks for each of their projects.
- A Victorian Community Health Service has used the guide to support the community consultation process for an Older Person's Initiative at a Public Housing Estate.
- HBD was recommended by the State Department of Human Services as a key source of information for the Public Health Research Project Funding 2004-2005 for the 'built environment and health' research submissions, forming a basis for new projects in the area of walking and the built environment.
- The guide has been acknowledged in many reports and plans, including the 'Inquiry into Sustainable Urban Design for New Communities in Outer Suburban Areas'¹⁵ and 'Age-friendly built environments: Opportunities for local government'¹⁶.

Following the development of HBD, a local neighbourhood audit tool has been developed titled 'Healthy Urban Environments: Site Assessment Audit'. This is a complementary tool available for planners or community organisations wishing to assess the walkability of local areas. The tool is available on the Heart

¹⁴ National Heart Foundation of Australia (Victorian Division) (2004), *Healthy by Design: a planners' guide to environments for active living*, National Heart Foundation of Australia (Victorian Division), p.33-34.

¹⁵ Outer Suburban/Interface Services Development Committee, Parliament of Victoria (2004), *Inquiry into Sustainable Urban Design for New Communities in Outer Suburban Areas: Final Report*

¹⁶ Australian Local Government Association (2005), *Age-Friendly Built Environments: Opportunities for local government*.

Foundation website and is an addition to the Heart Foundation's suite of tools available for planners. The audit tool was developed in conjunction with VicHealth, The Cancer Council Victoria and the Planning Institute Australia - Victorian Division. Planners and community groups have used the audit tool to assess the walkability of specific sites.

At the Planning Institute Australia - Victoria Division, Awards for Planning Excellence 2004, the HF received the 'President's Award' and the 'Planning for Health and Wellbeing Award' for HBD.

"The Healthy by Design guide is excellently designed and illustrated, and covers all of the aspects that will enable planners and subdivision engineers to plan healthy and cost-effective communities. It is a world class contribution to health and well being outcomes, is innovative, is a major contribution to integrated planning and will enhance sustainable outcomes".

Trevor Budge, President, Planning Institute Australia – Victoria Division¹⁷

A case study follows including reflections from a Local Government perspective on how HBD has been received and utilised.

City of Whittlesea: a case study

The City of Whittlesea is one of the designated growth areas identified in *Melbourne 2030*. The municipality's current population of 132,000 is forecast to grow to 240,000 persons by the year 2030. In the next three to five years, the City of Whittlesea will become Victoria's fastest growing municipality.

Located on the northern metropolitan fringe of Melbourne, the municipality is encountering conflicting pressures for rapid urban expansion on the one hand and preservation of environmentally significant areas on the other.

The municipality is characterised by a large developed urban area to the south and an extensive rural area to the north which contains areas either zoned or being investigated for future urban development. The total area of the municipality is 490 square kilometres.

In demographic terms, residents of the municipality come from a diverse range of cultural backgrounds. Data from the 2001 Census shows that almost 46 per cent of residents speak a language other than English at home. The municipality has a younger age structure compared to the rest of Melbourne or Victoria.

Public transport infrastructure has not kept pace with development, and there are higher levels of car ownership in the municipality compared to the rest of

¹⁷ Planning Institute Australia - Victorian Division (2004), *Awards for Planning Excellence*, Awards Citation.

Melbourne¹⁸. Perceptions of safety surveys show that Whittlesea residents feel less safe than residents in the rest of Melbourne¹⁹.

These factors combine, presenting challenges when planning safe, accessible, and attractive environments for people to walk. Conversely, great opportunities are also presented with rapid growth and development: planning new communities provides a unique opportunity to create appropriate infrastructure aimed at promoting the community's health and well being.

SEPA project

A SEPA Pilot Project was initiated by the HF in 1998 as a collaborative pilot project with the City of Whittlesea and Maribyrnong City Council. The HF aimed to work with and support the two Councils to provide environments that encourage incidental physical activity, and to embed SEPA concepts into a number of planning and policy documents that direct the core business of each Council. Following the success of this SEPA Pilot Project, the City of Whittlesea continued to pursue SEPA initiatives.

In 2002, the HF developed SEPA guidelines for new developments. Considerable work went into adapting these guidelines to the Whittlesea context. However this work was quickly absorbed into a more far reaching and ambitious project to develop a unified set of design criteria incorporating *Access for All* (Sport & Recreation Victoria)²⁰; *Safer Design Guidelines* (Crime Prevention Victoria)²¹; *Developing Shade in Public Places* (The Cancer Council Victoria)²²; and *Supportive Environments for Physical Activity* (National Heart Foundation of Australia)²³.

The City of Whittlesea joined the HF, The Cancer Council Victoria and the City of Port Phillip to commission the Centre for Design at RMIT University to conduct research into the compatibility of these four specific design criteria that guide the planning and design of urban environments. Acknowledging links between planning and health outcomes, the four sets of guidelines were reviewed to assess the feasibility of developing a unified set of design criteria. From this

¹⁸ Australian Bureau of Statistics, *2001 Census of Population and Housing*

¹⁹ Crime Prevention Victoria, *Perceptions of Local Safety Survey, City of Whittlesea Summary Results 2004*

²⁰ Sport and Recreation Victoria (2003), *Access for All Abilities Guidelines 2003-2006*, The Department for Victorian Communities

²¹ Bell Planning and Associates (2002), *Safer Design Guidelines for Victoria - Draft*, Crime Prevention Victoria.

²² The Cancer Council of Victoria (1997), *Developing Shade in Public Places*, Melbourne, The Cancer Council of Victoria

²³ National Heart Foundation Australia (1999), *Supportive Environments for Physical Activity, Guidelines for Local Government*

initial work, the 'Matrix of Like Design Considerations'²⁴, published within HBD emerged.

Implicit in the HF – Whittlesea Council partnership was the recognition that local government is uniquely placed to contribute to the health and well being of the community through its policies, planning processes, and through the provision of built environment infrastructure, facilities and services.

Health public policy

The principles embodied in SEPA and HBD have been instrumental in shaping planning in the Whittlesea municipality and have contributed to shaping the face of new urban developments. The workforce development, policy development and partnership development across Council departments undertaken around health and planning have led toward a cultural shift within the organisation.

State government legislation requires Councils to develop a Municipal Strategic Statement and a Municipal Public Health Plan. Councils also develop a range of other policies and strategies, such as open space strategies, community safety strategies and the disability action plan.

Incorporating design considerations that positively impact on health and well-being into planning is an objective of the *City of Whittlesea Municipal Public Health Plan 2004–2007*, with specific strategies relating to HBD. An objective of the *City of Whittlesea Community Safety Plan 2006-2008* is to create a safe environment through good urban planning and design with reference to HBD as a tool to achieve this.

A partnership across Council of transportation engineers, strategic, sustainability, open space, access, leisure, tourism development and health planners is currently commissioning the development of a *Whittlesea Walking Strategy*. This strategy will aim to encourage and increase walking in the municipality through improvements to the built environment, community programs, policy statements, planning systems and processes. It recognises that an increase in walking in the municipality would encourage a healthy lifestyle, reduce the incidence of obesity, and improve social capital, community safety and sustainable transport.

The *Whittlesea Walking Strategy* will incorporate best practice HBD principles, including width and surface of paths, continuous and accessible paths of travel, seating, signage, safer design, and shade. In 1999, the City of Whittlesea was the first Council in Victoria to adopt a shade policy.

²⁴National Heart Foundation of Australia (Victorian Division) (2004), *Healthy by Design: a planners' guide to environments for active living*, National Heart Foundation of Australia (Victorian Division), p.23-24.

It is also intended that HBD will be referenced in Council's *Municipal Strategic Statement*, when the current review is completed. Linking HBD to both Council's *Health Plan* and *Municipal Strategic Statement* further strengthens the creation of healthy policy at Council level, acknowledging the important relationship between people, their environment, public policy and their health.

Healthy built environment

The City of Whittlesea is preparing itself for significant development in a number of growth areas in the coming years, including Epping North, where VicUrban (formerly the Urban and Regional Land Corporation) purchased land for a planned community of 25,000 persons. The development, known as Aurora, is underpinned by principles of sustainable urban development, and features as a case study in HBD.

The *Aurora Development Plan Part 1* states “a comprehensive walking and cycling network linking all of the facilities and services in these areas is required to facilitate accessibility and choice for residents. The network should be designed to promote walking and cycling as equally important and attractive modes of transport to the private car and should meet therefore the actual and perceived safety needs of all potential users.”²⁵

Some of the features at the planned development that promote walkability are:

- Local parks located approximately 200m from most dwellings
- Neighbourhood parks located within 400 to 500m of the majority of dwellings
- Most homes will be within 800m of local destinations (schools, community centres, local shops)
- All homes approximately 400m from a bus stop, and the majority of residents within 800m of retail centres and train station
- Around 160 hectares of the development will be retained as public open space, including protected areas of environmental significance, and local, neighbourhood and district parks.

HBD is one of a suite of tools that has, and will continue to play, a significant role in planning for health in the Whittlesea municipality. More than a tool, HBD can be a catalyst for a process within an organisation, where a multi-disciplinary team is brought together, and where the voice of the local community is heard.

Future directions

²⁵ VicUrban (2003), *Aurora Development Plan Part 1*, September, Edition 5, p.40.

As the National Heart Foundation of Australia's *Supportive Environments for Walking* initiative continues to unfold, HBD will continue to be implemented across all states and territories, thus building the capacity to influence the way new developments are planned throughout Australia.

A review of workshop participants revealed that HBD is being used as a reference document in most councils surveyed and as a policy platform in a small number of others. With dissemination of HBD and the complementary site assessment audit tool still underway, there is still much work to be done to ensure local and state governments are aware of the guide and the impact it can make.

In the State of Victoria gains are slowly being made, and this work must continue in order to give more priority to walking within the current political environment. Building on the partnerships which have supported development and implementation of HBD is crucial to taking this work forward. However the full support of State Government in mandating planning and design to encourage walking as an embedded priority in state planning requirements is the ultimate goal of this work.

The HF is continuing to work towards the inclusion of HBD design considerations into the Victoria Planning Provisions. A project is underway to examine how best to support HBD uptake through this legislated state framework. To fully support planners in Victoria we aim to ensure that people's ability to walk in safe, accessible and attractive neighbourhoods is systematically integrated into planning frameworks and subsequently, into daily planning decisions.