



Healthy Built Environments Program

Annual Report 2012

Never Stand Still

Faculty of Built Environment

Healthy Built Environments Program



THE HEALTHY BUILT ENVIRONMENTS PROGRAM

What is the Healthy Built Environments Program?

The Healthy Built Environments Program (HBEP) is an innovative collaboration that brings the built environment and health together. The Program is situated in the City Futures Research Centre, Faculty of the Built Environment at the University of NSW (UNSW). The HBEP receives its core funding from the NSW Department of Health.

As Australia faces increasing health costs from rising rates of obesity, diabetes and other lifestyle diseases, health workers are seeking to influence the design of cities to make them more supportive of healthy ways of living. Research increasingly demonstrates strong links between modern epidemics and the way of life in cities. Car-dominated transport, reduced opportunities for physical activity, increased fast-food availability and lack of social connection are all implicated. More and more the health sector is focusing on prevention, and to be effective, health professionals need to work in collaboration with other disciplinary groups, especially those from the built environment.

The HBEP is contributing to revitalising the relationship between the built environment and health professions so that together we can create built environments that support people being healthy in their everyday lives.

Healthy Built Environments Program Vision Statement

The HBEP's vision is that built environments will be planned, designed, developed and managed to promote and protect health for all people.

Healthy Built Environments Program Core Strategies

The HBEP strategy aims to support the development in NSW of current and future communities in which the built environment promotes good health for all. This is done through the HBEP's three identified core strategies.

1. Research – the HBEP fosters interdisciplinary research which is policy relevant. Through our research we have identified three domains of the built environment that support healthy behaviour as part of everyday life. A literature review has been conducted to identify gaps in current knowledge. This has enabled the development of a research strategy to prioritise policy relevant healthy built environments research.

See Page 4 for 'Research' initiatives undertaken in 2012.

2. Leadership and Advocacy – the HBEP advocates for closer links between health and the built environment. This advocacy involves government and non-government agencies, the private sector and the community. We disseminate the latest healthy planning research, policy and practice initiatives in professional journals, popular media articles, talks and events.

See Page 15 for 'Leadership and Advocacy' initiatives undertaken in 2012.

3. Education and Workforce Development – the HBEP aims to deliver innovative, cross disciplinary education and capacity building. An audit of practices in NSW Health has been conducted so that appropriate strategies for education and partnership building across the health and built environment sectors can be determined. Educational approaches also build on the Faculty of the Built Environment's 'Healthy Planning' and 'Healthy Built Environments' courses. Doctoral research students are engaged in significant projects.

See Page 25 for 'Education and Workforce Development' initiatives undertaken in 2012.

Governance and Administrative Activities underpin the three core strategies of the HBEP.

See Page 35 for 'Governance and Administrative Activities' undertaken in 2012.

Healthy Built Environments Program Further Information

Further information on the HBEP can be obtained by visiting the Program's website: <http://www.be.unsw.edu.au/programmes/healthy-built-environments-program/about> or by contacting us via hbep@unsw.edu.au. You can also read more about the different initiatives and projects in this Annual Report on the HBEP website.

HBEP Personnel in 2012

UNSW Based Staff

- Director – Associate Professor Susan Thompson
- Senior Research Officer – Dr Klaus Gebel
- Research Officer – Ms Emily Mitchell
- Casual Research Assistants – Ms Jennifer Kent and Mr Andrew Wheeler

HBEP Strategic Consultant

- Professor Tony Capon

Consortium Partners

- Academics in the Faculty of the Built Environment, UNSW
- Academics in the Faculty of Medicine, UNSW
- Sydney South West Area Health Service Population Health – now South Western Sydney and Sydney Local Health Districts
- Western Sydney Region of Councils
- Heart Foundation NSW
- Arup
- Dr Danny Wiggins, Planning, Facilitation and Education Services
- Willana Associates, Urban Planning and Facilities Management

Advisory Board

Chair:

Professor Peter Sainsbury (Population Health, South Western Sydney and Sydney Local Health Districts)

Members:

- Professor Billie Giles-Corti (University of Melbourne)
- Ms Karen Gillham (Hunter New England Local Health District)
- Ms Diana Griffiths (Arup)
- Ms Claudine Lyons / Ms Bev Lloyd (NSW Ministry of Health)
- Mr Peter McCue (NSW Premier's Council for Active Living)
- Ms Julie-Anne Mitchell (NSW Heart Foundation)
- Ms Karen Patterson (Division of Local Government)
- Professor Bill Randolph (University of New South Wales)
- Ms Caroline Scott (Transport for NSW)
- Ms Norma Shankie-Williams (NSW Department of Planning and Infrastructure)
- Ms Robyn Vincin (Planning Institute of Australia NSW Division)

Image below: Community garden in Portland, Oregon, USA



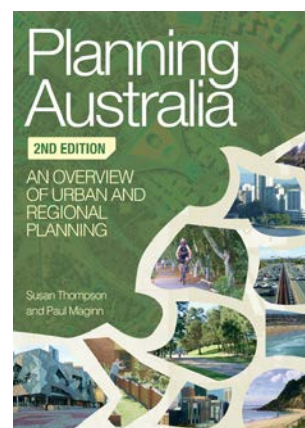
RESEARCH

The HBEP fosters interdisciplinary research, which is relevant to both policy and practice. Research undertaken in 2012 builds on previous work, reinforcing the HBEP's future strategic direction. An overview of these activities is provided below.

1. Publications

Books

Planning Australia: An Overview of Urban and Regional Planning (2nd edn)
HBEP Director Thompson and Paul Maginn's (UWA) edited text *Planning Australia: An Overview of Urban and Regional Planning* was published by Cambridge University Press in February 2012. The book provides a comprehensive introduction to the major issues and activities that constitute urban and regional planning in Australia.



Given that the book includes a full chapter on healthy planning (authored by HBEP's J. Kent, S. Thompson and A. Capon), it is hoped that it will be of interest to public health professionals who want to better understand the Australian planning system. Further, the book's accessible style and illustrative case study examples will appeal to a wide audience, including non-planners. For more information visit:

<http://www.cambridge.org/aus/catalogue/catalogue.asp?isbn=9781107696242>

Scholarly Articles and Reviews

The HBEP team was involved in a range of academic paper publication, preparation and review activities in 2012.

The following journal article was published in the open access periodical *Journal of Environmental and Public Health*:

- Kent, Jennifer and Thompson, Susan 'Health and the Built Environment: Exploring Foundations for a New Interdisciplinary Profession', *Journal of Environmental and Public Health*, vol. 2012, Article ID 958175, 10 pages, 2012. doi:10.1155/2012/958175. Direct access to the article is available here: <http://www.hindawi.com/journals/jeph/2012/958175/>

The HBEP team has also been working on different academic papers during the year with several articles currently under review.

HBEP Casual Research Assistant Andrew Wheeler published a review of the book *The Life and Death of the Australian Backyard* (Hall, 2010) in the journal *Urban Morphology*. HBEP Director Thompson completed a review of the New Zealand text *Tāone Tupu Ora: Indigenous knowledge and sustainable urban design* (Stuart and Thompson-Fawcett, 2010) for the journal *Geographic Research*.

Senior Research Officer Gebel wrote a paper with colleagues from the Karolinska Institute and Lund University in Sweden analysing whether car ownership moderates or mediates the relationship between the built environment and physical activity. A second paper, with colleagues from the University of Newcastle, uses data from an intervention to promote physical activity in adolescent girls that was based on social cognitive theory.

The HBEP team has been involved in various peer-review activities. The most significant concerned HBEP Director Thompson organising the peer review process of all papers and posters submitted for review to the 2012 *Making Cities Liveable Conference* held in Geelong, Victoria (<http://healthycities.com.au/>). All HBEP staff and some Consortium Partners generously contributed.

Conference Papers

Refereed: Mitchell, Emily (2013) 'Addressing the Dual Burden: Healthy Planning for Low and Middle-Income Countries', *Proceedings of the 10th International Urban Planning and Environment Symposium*, 24-27 July 2012, University of Sydney, NSW, pp. 385-398.
<http://static.icms.com.au/upe10/proceedings.pdf>

Non-refereed: Thompson, Susan (2012) 'The Healthy Built Environments Program: An Interdisciplinary and Connected Way-of-Working', paper presented to the *49th International Making Cities Livable Conference*, 20-24 May 2012, Portland, Oregon.
<http://www.livablecities.org/conferences/49th-conference-portland>

Other Publications

Healthy Built Environments: A Review of the Literature – Fact Sheets

The HBEP published a series of fact sheets that summarise key points from the Program's comprehensive [Literature Review on Healthy Built Environments](#). Fact sheet 1 provides a general summary and an outline of the structure of the literature review. Fact sheet 2 focuses on aspects of the built environment that can support physical activity. Fact sheet 3 centres on the built environment's role in connecting and strengthening communities, and how this affects physical and mental health. Fact sheet 4 explains how zoning and land use regulations can support or inhibit access to healthy food. Fact sheet 5 is about the importance of green open space for health. The fact sheets can be downloaded from the HBEP website at: <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/fact-sheets>. Printed copies have been distributed to NSW Local Health Districts (LHDs) and to participants of various HBEP forums, advocacy and educational events.



New Planner 'Healthy Built Environments' Column and Special Issue

HBEP Director Thompson and HBEP Strategic Consultant Tony Capon continued their regular column for *New Planner*, the quarterly journal of the Planning Institute of Australia (PIA) NSW. HBEP Director Thompson was also a Guest Editor of the June 2012 Special Issue focusing on healthy urban environments and active living. HBEP staff and partners wrote a number of articles for the Special Issue. See pages 20-21 for further details.

In March 2012, HBEP Casual Research Assistant Andrew Wheeler was invited onto the *New Planner* Editorial Team. He was Guest Editor of the December 2012 Issue and will continue in this role in 2013, maintaining close links between the Journal and HBEP.



2. Research Grants, Projects and Proposals

Australian Research Council (ARC) Linkage Grant - Planning and Building Healthy Communities

The ARC funded project 'Planning and Building Healthy Communities: A multidisciplinary longitudinal study of the relationship between the built environment and human health' has now been active for just under two years. The research, which is being undertaken in partnership with Landcom, the National Heart Foundation and South Western Sydney Local Health District (SWSLHD), is located in Airs Bradbury (suburban South West Sydney), Rouse Hill (suburban North West Sydney), Renwick (Southern Highlands of NSW) and Victoria Park (inner urban South East Sydney).

Healthy Neighbourhood Audits

The initial audits of Victoria Park, Rouse Hill and Airs Bradbury were completed during 2012. Research Officer Ms Emily Mitchell, Mr Roy Byun of SWSLHD, and FBE PhD student Mr Ji Yu made up the core audit team. Other casual research assistants were also used as necessary.

The images below show the audit team at work.

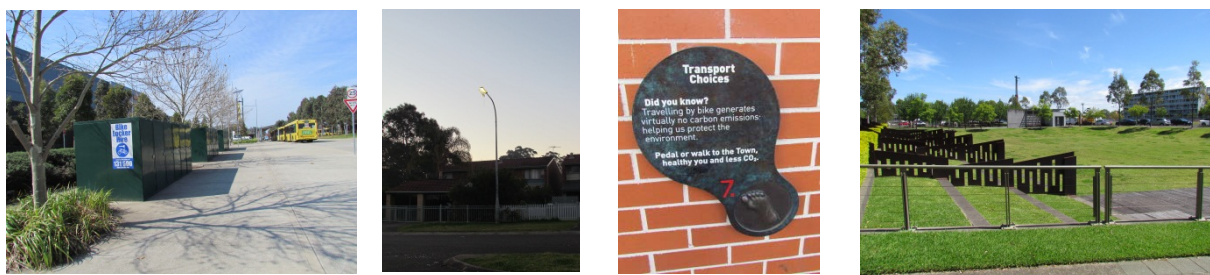


Images above from L to R: measuring footpaths at Victoria Park; assessing the quality of lighting at Airs Bradbury at night; recording different land uses at Rouse Hill

The audit instrument was used to collect detailed information about the key features and infrastructure of each neighbourhood, such as land uses, walking and cycling networks, public transport systems, open space, street trees and street furniture, amenities and traffic calming measures. The audit instrument was also used to record detailed environmental observations about how different spaces are used, how people move through and between spaces, and perceptions of safety. The following images illustrate the types of information collected during the audits.



Images above from L to R: a temporary community garden at Airs Bradbury; residents of Victoria Park socialising with their dogs in Joynton Park; a pet parking station in the Rouse Hill Town Centre



Images above from L to R: Bicycle storage lockers at Rouse Hill; damaged street light at Airids Bradbury; signage encouraging active transport at Rouse Hill; open space at Victoria Park

Preliminary Geographic Information Systems (GIS) mapping was completed for Victoria Park, Rouse Hill and Airids Bradbury. Examples are shown below. Some of this mapping has already been provided to the Airids Bradbury Community Reference Group, which intends to submit the details of disabled and damaged street lights to Endeavour Energy to allow for the lights to be fixed.



Images above from L to R: GIS Maps for Victoria Park; Rouse Hill; Airids Bradbury

Market Basket Surveys

Food outlets in each neighbourhood are being assessed to provide an understanding of how residents access healthy food. The protocol for this assessment was developed by the SWSLHD for a Public Health Officer Trainee project which aims to investigate the quality, cost and availability of foods in supermarkets and farmers' markets in 100 high and low socioeconomic areas in Sydney. Professor Bin Jalaludin and Director Susan Thompson provided high level advice on the development of the project protocol. Public Health Officer Trainee Ms Belinda Crawford led the project, with Mr Roy Byun and Ms Emily Mitchell assisting.

In addition, Director Thompson submitted a successful application to the Built Environment Research Link Scholarship Program, and was provided with funding of \$1500 for an undergraduate student to work on the market basket surveys. This funding was used to pay for Linda Kennedy, a fifth year architecture student, to assist the team with the data collection.

The research team used a Market Basket Survey Instrument to record the availability, price and quality of food items needed to satisfy typical nutritional requirements in Woolworths, Coles, Franklins, IGA, Foodworks and ALDI stores in each locality. This was completed in November 2012.

A similar assessment tool was also developed to investigate the cost, quality and diversity of produce at farmers' markets, as well as perceptions and attitudes of customers, stallholders, and residents. This research will be undertaken in 2013.



Images above from L to R: Shopping centre at Airds Bradbury; Rouse Hill Town Centre; Thai restaurant at Victoria Park

Focus groups

A list of questions for discussion at focus groups in Airds Bradbury, Rouse Hill and Victoria Park has been developed. A survey has also been created, which focus group participants will be asked to complete immediately prior to the group discussion. The survey includes questions relating to perceptions of neighbourhood quality and amenity; walking and cycling; active recreation; social interaction; and access to fruits and vegetables. Ethics approval for the survey and focus groups was granted in October 2012. The focus groups will be held in 2013.

The Cooperative Research Centre (CRC) for Low Carbon Living

2012 saw the CRC for Low Carbon Living commence operations on 1 July under the leadership of [Scientia Professor Deo Prasad](#) (CEO) and the [CRC Board](#). On 12 December, the [CRC was officially launched](#) by the Honourable Chris Evans, Minister for Tertiary Education, Skills, Science and Research. The CRC is headquartered at UNSW with its office appropriately located in the recently completed Tyree Energy Technologies Building. The CRC Business Manager and Office Manager were appointed during the year and the website established <http://www.lowcarbonlivingcrc.com.au/>. There are three integrated programs of activity in the CRC that reflect three pivotal “bridges” that must be crossed in order to deliver a low carbon built environment. They are:

- [Program 1](#) - *Integrated Building Systems*. Its focus is on the development of low-carbon-lifecycle building construction materials and multipurpose solar products.
- [Program 2](#) - *Low Carbon Precincts*. Its focus is the development of tools to enable the design and marketability of low carbon precincts.
- [Program 3](#) - *Engaged Communities*. Its focus is on understanding and influencing individual and community behaviour to reduce greenhouse gas emissions through embracing low carbon living.

HBEP Director Thompson is the Research Leader of Program 3 which is led by Dr Stephen White from the CSIRO. In the lead-up to the start of the CRC, there were two major Program 3 workshops where CRC researchers got together with industry partners and government agencies to discuss research priorities and how projects will translate into practical outcomes, including policy development. These meetings were significant in relationship building across the CRC.

As well as her duties in connecting Program 3 researchers with industry partners on potential research projects, and engaging prospective PhD students with the CRC, HBEP Director Thompson was involved in the development of specific CRC research proposals. She was asked to participate in a study on urban heat island impacts led by University of South Australian researcher, Professor of Sustainable Design, Steffen Lehmann, to bring human health issues into the study. HBEP Director Thompson and HBEP Strategic Consultant Capon commenced work on a proposal for a key deliverable of the CRC – a health and productivity co-benefits calculator. Subject to approval by the CRC Board, this research project will commence in 2013.

HBEP Mapping Project

The Healthy Built Environments Program 'Mapping Project' (a major research study) commenced late in 2012. Numerous organisations in NSW support a range of activities that contribute to a healthy built environment. These activities include research and policy development, as well as engaging communities through local initiatives, such as walking groups and communal gardens. Such work is delivered through partnership arrangements. To date there has been limited systematic reporting on these initiatives and it is likely that the scope of work being undertaken exceeds that publicly reported. This project aims to map the activities that are being delivered in NSW to support healthy built environments (HBEs).

The specific objectives of the research are to:

- Improve the knowledge of HBE activities currently being undertaken in NSW
- Facilitate information sharing across LHDs, NGOs and other organisations
- Identify gaps in HBE activity
- Provide a link to the work being undertaken through the HBEP
- Facilitate the development of a preferred format/process for ongoing recording of HBE activities.

The mapping project will facilitate the preparation of an inclusive and meaningful inventory of the work currently being undertaken in NSW. In 2012 UNSW ethics approval was obtained for the research. An on-line survey was subsequently prepared and sent to 80 relevant organisations from the health and built environment sectors. Data collection was finalised in December 2012. A report on the research will be completed in 2013.

Evaluating Urban Cycling Infrastructure Australian Research Council (ARC) Linkage Grant

HBEP Strategic Consultant Capon is a Chief Investigator on an ARC Linkage Grant approved in 2012 (with funding of \$382,219) entitled 'The Development and Application of an Evaluation Framework to Assess Transport, Health and Economic Impacts of New Urban Cycling Infrastructure'. Led by Professor Chris Rissel from the University of Sydney, this project will develop and apply a more accurate yet simpler approach to the measurement of the impacts of new cycling infrastructure, than is currently available. This newly developed method will be applied to a bicycle path to be built by the City of Sydney, demonstrating the full transport, environmental, health and economic impacts on the community. Two of the Linkage project's Partner Organisations, the Heart Foundation of Australia and NSW Premier's Council for Active Living, are HBEP consortium partners.

ARC Linkage Grant Application

In December, HBEP Director Thompson and HBEP Strategic Consultant Capon were invited to be Chief Investigators on an ARC Linkage Grant application entitled 'For Better or for Worse. Urban Form, Sustainability and Human Development in Canberra and Trondheim: An International Comparison'. Led by Professor Helen Berry of the University of Canberra, the study proposes to examine how urban design shapes sustainable behaviours (e.g. active travel) in particular settings, and how such behaviours benefit individuals, households and neighbourhoods (e.g. improved health and reduction in carbon footprint). With partners from government and the development sector, the project will utilise case studies in Norway and Australia – both of which are highly ranked globally in relation to health, education, living standards and equality. Both nations have also benefited economically from resource booms. However, in terms of sustainability measures, Australia is doing poorly when compared to Norway. The project aims to provide practical ways for Australia to enhance its human development sustainably from the example of its close comparator, Norway. A decision on the success of this grant application will be made in the first quarter of 2013.

3. Conference Organisation

In 2012, the HBEP was actively involved in organising national and international conferences. Some of these focussed specifically on healthy built environments, whereas others incorporated healthy built environmental issues more broadly. The following conference organisational work was undertaken.

5th Making Cities Liveable Conference (July 2012)

HBEP Director Thompson was a member of the National Steering Committee for the 5th *Making Cities Liveable Conference*, held in Geelong in July 2012. She was responsible for organising the paper and poster review process, and a special Conference session on 'Planning for People and their Pets'. Director Thompson has also been appointed as a member of the Committee for the 6th *Making Cities Liveable Conference* to be held in St Kilda (17-20 June 2013). The 2013 Conference will be held in conjunction with the *Sustainable Transformation Conference*. The HBEP logo features on the Making Cities Liveable website where details about the Conference can be found. See <http://healthycities.com.au/>.

10th International Urban Planning and Environment Symposium (July 2012)

HBEP Director Thompson was a Symposium Co-Chair responsible for the overarching direction of the 10th *International Urban Planning and Environment Symposium* (UPE10), as well as different organisational matters.

The HBEP was well represented at UPE10. Strategic Consultant Tony Capon was a keynote speaker, presenting on health co-benefits from action on climate change. HBEP Director Thompson gave an oral presentation on the audit instrument developed by the HBEP for the current ARC Linkage study. Entitled 'Developing a Comprehensive Healthy Neighbourhood Audit for Urban Planners' delegates were informed about the healthy neighbourhood audit instrument as a tool for use by researchers examining the relationship between the built environment and human health. Further, HBEP Research Officer Mitchell presented a paper entitled 'Addressing the Dual Burden: Healthy Planning for Low and Middle-Income Countries'.

The Symposium Proceedings, edited by HBEP Director Thompson, Nicole Gurrán (USyd) and Peter Phibbs (UWS) can be downloaded from: <http://www.upe10.org/>

CSIRO Systems Thinking Workshop (September 2012)

The Urbanism, Climate Adaptation and Health Cluster, in partnership with the Australian National University (ANU), conducted the first of two Systems Thinking Workshops for Health in Sydney Metropolitan Planning – *Critical Public Health Issues and Drivers in Western Sydney* – on 24 September at CSIRO Ecosystems Sciences Division, Sydney. HBEP Strategic Consultant Capon played a key role in coordinating the workshop, which was facilitated by Katrina Proust and Barry Newell from the ANU.

6th State of Australian Cities Conference (November 2013)

HBEP Director Thompson is a member of the State of Australian Cities Conference (SOAC) 2013 organising team and will co-lead the Conference's Social Stream. This will entail planning and organising keynote sessions as well as refereed abstract and paper submissions and review processes. SOAC 2013 will be an important opportunity to further inter-disciplinary understandings

around issues to do with health and the built environment. The HBEP will have a strong representation at the Conference. See: <http://www.soacconference.com.au/>

4. Student Supervision

Postgraduate Research

The HBEP is building a strong postgraduate research culture. Doctoral students researching in the area of healthy built environments and supervised by HBEP Director Thompson in 2012 are listed below.

- Ms Jennifer Kent is investigating 'Secured by automobility: why does the private car continue to dominate transport practices?'.
- Ms Helen Kendall is investigating 'Integrated landscapes for ageing well in the urban environment: an Australian perspective'.
- Mr Gary Shields is investigating 'Planning for ageing: a healthy lifestyle in an age-friendly built environment'.
- Ms Louise McKenzie is investigating 'Climate, public space and public health: the influence of heat on public space use and implications for public health'.
- Ms Anumitra Mirti Chand is investigating 'Hospital facility resilience: developing an adaptation framework for extreme weather events'.

Undergraduate Research

HBEP Director Thompson supervised three Bachelor of Planning students undertaking their final year thesis on a healthy planning topic. They are as follows:

- Teille Whiteman: Assessment of walking trails in Sydney
- Emily Salvisberg: Food deserts and access to healthy food for disadvantaged communities
- Sohini Sen: The role of farmers' markets in place-making.

Built Environment Research Link Scholarship

HBEP Director Thompson submitted a successful application to the Built Environment Research Link Scholarship Program. This scholarship provides \$1,500 for an undergraduate student to work in partnership with academic staff on a research project. For this project, entitled 'Healthy Built Environments: Assessing Healthy Food Availability', the successful student applicant Linda Kennedy undertook research with the ARC Linkage Team on the availability of healthy foods. See page 7 for more details of the research. The Built Environment Research Link Scholarship is a great opportunity to get some additional research resources for the HBEP, while providing a capacity building opportunity for a built environment student in healthy planning.

5. Overseas Research

Healthy Planning Initiatives in the US

In May 2012, HBEP Director Thompson travelled to the United States visiting Portland, Oregon and Seattle, Washington. Portland is renowned for healthy planning and during her visit HBEP Director Thompson inspected and documented many of Portland's healthy planning initiatives. While in Seattle, HBEP Director Thompson saw some excellent use of very small open space areas – called 'end-of-street' parks – which overlook the water. Many people in Seattle enjoy cycling – including University of Washington Dean Professor Howard Frumkin (and colleague Dr Andrew Dannenberg),

who rode to a breakfast meeting with HBEP Director Thompson to discuss healthy planning collaborations (see images below).



6. Strategic Documents

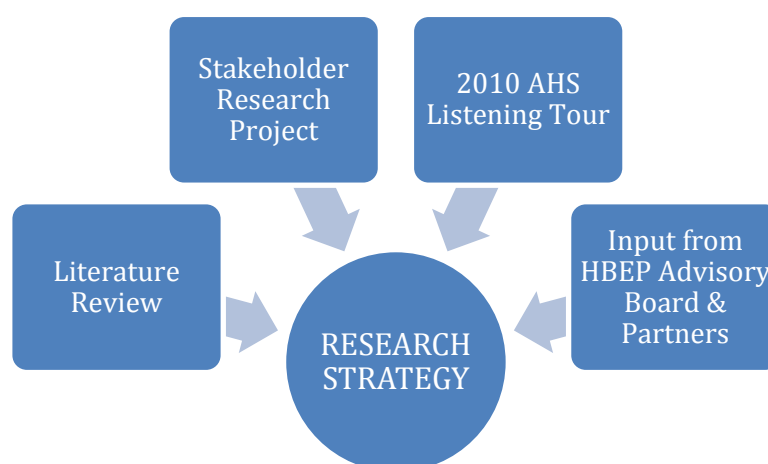
A number of key strategic documents were researched and prepared during 2012. These documents are important in positioning HBEP's priorities, activities and strategic engagement in healthy built environments.

Research Strategy

The Research Strategy has been devised to provide direction for policy relevant research in the cross-disciplinary field of healthy built environments. Specifically, it is based on the following objectives:

- To identify current gaps in policy relevant research on healthy built environments.
- To prioritise research projects that will build the evidence base for policy to implement healthy built environments in NSW.
- To utilise synergies amongst HBEP stakeholders to enhance the identification of research opportunities to undertake priority projects.

The diagram below shows the key projects that informed the Research Strategy.



Following discussions with the NSW Ministry for Health and the HBEP Advisory Board, the HBEP *Research Strategy 2012-2014* was revised and finalised in 2012. It is published on the website – see <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/reports>.

Research Implementation Strategy

The Healthy Built Environments Program's Research Implementation Strategy (RIS) is a direct outcome of the HBEP Research Strategy 2012-2014. The RIS is an action-oriented document endorsed by both the NSW Ministry for Health and the HBEP Advisory Board. It proposes key research questions emanating from the Research Strategy in relation to healthy built environments that NSW Health is interested in investigating. Two specific research projects are identified:

- Mapping of Healthy Built Environment Activities in NSW
- Indicators for a Healthy Built Environment

These particular projects address current gaps in understanding and knowledge and have high policy and practice relevance. They are scheduled to be undertaken in the 2012-2013 HBEP Business Plan using existing funding. Other research activities currently underway in the HBEP are also outlined in the RIS – including the ARC Linkage and the CRC.

Workforce Education and Capacity Building Plan

In June HBEP Director Thompson prepared a Discussion Paper about workforce development and capacity building. An overview of HBEP learning and teaching resources was provided including the following:

- Formal tertiary courses – NSW Health staff participation in the post graduate course Healthy Built Environments
- HBEP and partner sponsored seminars and forums
- Web learning and teaching resources – E-lectures, videos and resources (especially research information) on the HBEP website.

Proposals under consideration for education and workforce development into 2013 were also part of the Discussion Paper. This included ideas for a series of workshops for 2012/13 on the urban planning system and the [Healthy Urban Development Checklist](#).

In September, a further document was prepared entitled 'Workforce Development Strategy'. This contains the blueprint for an exciting capacity building initiative of ten workshops for health professionals across NSW. The workshops will be delivered by HBEP Director Thompson and HBEP Consortium Partner, Dr Danny Wiggins. There will be metropolitan, regional and rural workshops – the first to be held in 2012 and then the rest rolled out in 2013. See pages 30-31 for details of the workshop series.

Strategic Think Tank Report

HBEP Consortium Partners met together in December 2011 for a Strategic Think Tank. A report was prepared and finalised early in 2012 summarising the discussions which focussed on the following issues:

1. Outreach/advocacy: Engaging professionals in healthy built environments
2. Ideas for collaborative healthy built environment research projects
3. Communicating the healthy built environments message to the broader community.

All participants contributed to each of the focus issues, resulting in a rich variety of ideas for future HBEP deliberation and action. The report of the Think Tank has informed the development of strategic initiatives, as well as HBEP actions and ideas during 2012. The report is on the HBEP website:

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/reports>

7. Awards and Special Appointments

In 2012, the HBEP received several prestigious awards from the Planning Institute of Australia's NSW Division (PIA NSW). Honouring her career-spanning contribution to the planning profession, HBEP Director Associate Professor Susan Thompson was elected as a Fellow of the Institute, while the HBEP's [Healthy Built Environments: A Review of the Literature](#) won the 'Cutting Edge Research and Teaching Award'. Casual HBEP Research Assistant, Jennifer Kent, and designer, Jodi Lawton, were honoured for the scholarship and practical policy relevance of both the Review and the more recently released set of [Fact Sheets](#) (all downloadable from the HBEP website). HBEP Casual Research Assistant and urban planner, Andrew Wheeler, received the 'Outstanding Student Project Award – Tertiary' for his thesis, [Planning for Urban Health: An Analysis of Metropolitan Strategic Planning in Australia](#).



Image above: Andrew and Susan proudly display their awards from the Planning Institute of Australia

Meanwhile, over in Western Australia, the State PIA Division awarded HBEP Director Associate Professor Susan Thompson and the University of Western Australia's Associate Professor Paul Maginn a commendation for their edited text, [Planning Australia: An Overview of Urban and Regional Planning \(2nd edn\)](#).

Towards the end of 2012, the HBEP was delighted to congratulate Advisory Board Chair Peter Sainsbury on his appointment as adjunct Professor in the Faculty of the Built Environment at UNSW.

Image below: Cycling is encouraged for all in Portland



LEADERSHIP AND ADVOCACY

1. Conference and Professional Presentations

The HBEP team presented papers at different conferences throughout 2012. Selected presentations are listed below¹.

- Invited presentation 'Liveable Environments: Building the Evidence' at the *Hunter New England Liveability Forum*, Newcastle, 16 February 2012 (ST)
- Forum presentation 'Healthy Foods for Communities: Research evidence and implications for policy and practice' at the *Healthy Foods for Communities: Building Local Partnerships Forum*, Kiama, 1 May 2012 (ST)
- General presentation 'Healthy Planning Down Under: Interdisciplinary research, capacity building and advocacy for healthy built environments' at the Healthy Places Research Group, University of Washington, Seattle, 30 May 2012 (ST)
- Conference presentation 'The Healthy Built Environments Program: An Interdisciplinary and Connected Way-of-Working' at the *49th International Making Cities Livable Conference* on True Urbanism: Planning Healthy Communities for All in Portland, Oregon, 20-24 May (ST)
- Conference presentation 'Evidence Based Policy and Practice for Healthy Built Environments: The Three Domains' at the *5th Making Cities Liveable Conference* in Geelong, 6-8 June (ST)
- Forum presentation 'Urban Environment and Wellbeing' at the *Forum on Science, Technology and Innovation for Sustainable Development* in Rio De Janeiro, 11-15 June (TC)
- Poster presentation 'Population Health in a Changing World' at the *2012 Population Health Congress* in Adelaide, 9-12 September (LM)
- Conference presentation 'Developing a Comprehensive Healthy Neighbourhood Audit for Urban Planners' at the *10th International Urban Planning and Environment Symposium* in Sydney, 24-27 July (ST)
- Conference presentation 'Addressing the Dual Burden: Healthy Planning for Low and Middle-Income Countries' at the *10th International Urban Planning and Environment Symposium* in Sydney, 24-27 July (EM)
- Conference presentation 'Neighbourhood walkability, income and physical activity: Moderating effects of gender' at the *4th International Congress on Physical Activity and Public Health* in Sydney, 31 October - 3 November (KG)
- Keynote address 'Designing Healthy Communities: Weaving the Threads Together' at the *Creating Environments to Improve Health: A NSW Health Promotion Symposium* in Sydney, 15-16 November (TC)
- Invited workshop 'Creating Healthy Built Environments' at the *Creating Environments to Improve Health: A NSW Health Promotion Symposium* in Sydney, 15-16 November (ST)
- Keynote address 'Human Occupations as Determinants of Population Health: Linking Perspectives on People, Places, Planet' at the *6th Australasian Occupational Science Symposium* in Canberra, 6-7 December (TC)
- Keynote address 'Healthy Built Environments: Supporting Everyday Occupations' at the *6th Australasian Occupational Science Symposium* in Canberra, 6-7 December (ST)
- Workshop presentation 'Overview of Healthy Planning' at the *Planning for Health Workshop* in Port Macquarie, 10 December (ST)

¹ ST denotes Director Susan Thompson; TC denotes Strategic Consultant Tony Capon; KG denotes Senior Research Officer Klaus Gebel; EM denotes Research Officer Emily Mitchell; JK denotes Causal Research Assistant and PhD Candidate Jennifer Kent; LM denotes PhD Candidate Louise McKenzie

2. Policy and Inquiry Submissions

During 2012, the HBEP made a variety of submissions on issues of importance to promoting and supporting healthy built environments in a variety of policy and practice contexts. The HBEP submissions for 2012 are summarised below.

NSW Planning System Review

The HBEP has made a series of submissions to the NSW Government as it undertakes the first [comprehensive review of the State's Planning System](#) in over 30 years. The Review process commenced in July 2011 with extensive consultations held across the state. The second phase of the Review focussed on an Issues Paper covering the ideas and feedback received during the initial consultation phase. A [Green Paper](#) entitled *A New Planning System* for NSW was published by the NSW Government in July 2012.

All HBEP submissions on the Planning System Review (made in 2011 and 2012) are on the HBEP website: <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/submissions>

While each submission responds to a specific phase of the planning review, the most significant submission in 2012 was the HBEP's response to the Government's Green Paper. The following key points were made:

1. The Green Paper needs to, in greater detail, reinforce the *purpose* of planning – which is to create a better society. This necessitates providing the community with environments where everyone can live full, healthy and happy lives.
2. The Green Paper's focus on evidence based strategic planning provides a strong basis for the Government to list 'promoting human health and wellbeing' as an explicit objective of the new Planning Act.
3. Health and wellbeing must feature in key policies and plans in the new Planning Act. The current policy framework at both the National and State level warrants a stand-alone NSW Planning Policy on health and wellbeing.
4. It is essential that Health is represented on governance and planning bodies such as the proposed Chief Executive Officer's Group and Regional Planning Boards.
5. Monitoring, evaluation and review processes will need to be carefully built into the Planning System so that it responds to emerging trends and issues as they arise.

A New Metropolitan Strategy for Sydney

The HBEP made a submission on the NSW Department of Planning and Infrastructure's Discussion Paper, *Sydney over the next 20 years*, as it prepares to develop a new Metropolitan Strategy for Sydney. The HBEP submission argues that health needs to be framed as a central policy component of the Metropolitan Strategy for Sydney. It also stresses the importance of addressing key dimensions of healthy built environments through explicit policies and actions, and the need to engage public health experts in the planning process through inter-sectoral collaboration. The submission can be downloaded from the HBEP website:

http://www.be.unsw.edu.au/sites/default/files/upload/pdf/cf/hbep/publications/attachments/HBE_P_Submission_SydneyNext20Years_June2012.pdf

NSW Strata and Community Scheme Laws

In response to the NSW Government's review of the State's strata and community scheme laws, the HBEP made a submission outlining how strata living can enhance individual health while respecting

the needs of the broader community in medium and high density residential living. The submission specifically discusses the health benefits of companion animals, and the restrictions on pet ownership in some strata-titled residential developments. It can be downloaded from the HBEP website:

http://www.be.unsw.edu.au/sites/default/files/upload/research/centres/cf/researchprograms/healthy_built_environments_program/publications/HBEP_Submission_StrataTitlesReview_Feb2012.pdf

Smoke Free UNSW Campus

To reduce the exposure of staff, students, visitors and contractors to environmental tobacco smoke, from 1 July 2012 the UNSW Kensington became smoke free. The HBEP supported this overdue initiative by writing a submission, which can be downloaded from the website:

http://www.be.unsw.edu.au/sites/default/files/upload/pdf/cf/hbep/publications/attachments/HBEP_Submission_for_SmokeFreeUNSW.pdf

3. Participation in UNSW and City Futures Research Centre Strategic Faculty Committees

UNSW Postgraduate Reviews

Director Thompson participated in formal UNSW reviews of post graduate students throughout 2012. Several of these research projects, all PhDs, were related to healthy built environments and included healthy built environments support for active transport; healthy ageing; health and environmental sustainability.

City Futures Research Centre Executive Committee

This committee was formed as a result of the 2011 UNSW review of the City Futures Research Centre (CFRC). This review is performed on all UNSW research centres every three years to decide whether they are viable and should continue to operate in their current form. The CFRC was deemed satisfactory and will be reviewed again in 2014. One of the Review's recommendations was to create an Executive Committee of representatives from each of the CFRC's newly expanded areas, including the HBEP. Director Thompson sits on this Committee as an Associate Director (Healthy Built Environments) of the CFRC. The Executive Committee meets once per month.

4. Strategic Participation with Healthy Built Environment Stakeholders

Stakeholder Forums on the NSW Planning System Review

During 2012, HBEP jointly hosted two stakeholder forums on the NSW Planning System Review with the NSW Premier's Council for Active Living (PCAL). The aim of the forums was to bring key stakeholders with an interest in healthy built environments together to discuss the best way to respond to the ongoing review of the Planning System.

The first forum was held on 31 January 2012. The second forum was held on 8 August 2012 to discuss the Green Paper.

The focus of the discussions was on how health and wellbeing need to be part of the new planning legislation. The forum included a presentation from the Department of Planning and Infrastructure (DPI) on the Green Paper and the timing of the rest of the planning review process. Under the facilitation of Dr Danny Wiggins (HBEP Consortium Partner), forum participants work-shopped key issues about health promotion in relation to the Green Paper. There were two main outcomes.

First, the group came up with a set of recommendations that were widely circulated to all agencies represented at the forum for their use in submissions on the Green Paper.

Second, a NSW Healthy Planning Expert Working Group was formed and its services offered to the Department of Planning and Infrastructure to bring health and wellbeing into the new planning legislation.

Ministerial Planning Forum

HBEP Director Thompson attended an invitation only Ministerial Planning Forum on 9 February 2012 to discuss different aspects of the new planning system. There were opportunities to reiterate some of the key issues in the HBEP submissions to the first and second phases of the Planning Review.

South Western Sydney and Sydney LHDs' Health Promotion Strategic Plan Consultation Workshop

HBEP Director Thompson was invited to attend a consultation for the South Western Sydney and Sydney LHDs in relation to the preparation of their Health Promotion Strategic Plan for 2012-2017. The aim of the consultation was to identify key priorities and strategies for the Plan to improve health and reduce health inequalities.

Australian National Preventative Health Association Roundtable

The HBEP was involved in convening a high level roundtable of urban planning / infrastructure and preventive health / public health decision makers to promote greater collaboration between relevant federal and state based agencies. Held on 18 June 2012, the roundtable was convened to coincide with Dr Andrew Dannenberg's visit to Australia (see pages 27 and 31 for more details of activities during this visit). Attendees at the roundtable included built environment and health professionals from the university sector, government, private and not-for-profit sectors. Louise Sylvan, the CEO of the Australian National Preventive Health Agency (ANPHA), chaired the meeting. Tony Thirlwell, the CEO of the NSW Division of the National Heart Foundation, Dorte Ekelund, Executive Director, Major Cities Unit, Department of Infrastructure Australia, and Peter Poulet, the NSW Government Architect, were in attendance. The NSW Health position was strongly promoted by Professor Peter Sainsbury (HBEP Advisory Board Chair) and Paul Klarenaar, Director Health Promotion, North Sydney Local Health District. Professor Billie Giles-Corti and Ms Robyn Vincin (HBEP Board members) were also present. HBEP

Director Thompson presented a brief overview of key milestones in healthy place making in Australia over the last decade. It was interesting to note just how much the area of healthy built environments has grown and developed during this time period.

The image below shows the roundtable held at the Heart Foundation in session



Urban Health Workshop and Roundtable

The HBEP sponsored, assisted with organisation, and actively participated in a two-day Urban Health Roundtable and Workshop (16-17 July 2012), convened by the Centre for Research and Action in Public Health at the University of Canberra. Other partners included the Heart Foundation ACT, Diabetes ACT and the Public Health Association of Australia. The Roundtable brought senior representatives of the partners together with a small number of other Australian research leaders to discuss, debate and reach preliminary agreement on the knowledge and understanding required to advance urban health in Australia in the next few decades. Discussions on the first day led into a one-day workshop with researchers and a group of senior policy and practice partners from relevant sectors (e.g., population health, urban planning, environmental policy, infrastructure design). There was a particular focus on exploring real-world research priorities to inform further development of healthy and sustainable urban communities across Australia. Relationship building between those who conduct and those who use research and research-informed indicators was a key objective of this day.



The Heart Foundation of Australia's Annual Solicitors' Lunch

HBEP Director Thompson was invited to be one of two guest speakers at the Heart Foundation's Annual Solicitors Lunch on 16 August 2012. The aim of this event was to maintain the profile of the Heart Foundation amongst solicitors involved in the preparation of wills and bequests. HBEP Director Thompson spoke about the relationship between public health and the built environment, the activities of the HBEP and the seminal role of the Heart Foundation in this work. Her talk entitled 'Creating Healthy Built Environments: A Heartful Process' was very well received by the audience, many of whom were surprised to realise just how influential the environment is in supporting health and wellbeing as part of everyday life. The talk is available on the HBEP website:

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/presentations>

Health and Climate Change Think Tank

On 22 August 2012, Strategic Consultant Capon was an invited speaker at a policy think tank put on by the Australian Healthcare and Hospitals Association (AHHA) and the Climate and Health Alliance (CHA), examining how hospitals and healthcare providers can reduce their own carbon footprints. The forum focused on how such action will strengthen the Australian health care system through the promotion of greater sustainability and environmental health. The event also included the Australian launch of the [Global Green and Healthy Hospitals Agenda](#). A report has been published from the policy think tank and is available at: <http://ahha.asn.au/publication/policies/greening-health-sector-policy-think-tank>

Ministerial Advisory Committee on Preventive Health

On 19 September 2012, HBEP Director Thompson and HBEP Advisory Board Chair Peter Sainsbury were invited to address the Health Minister's Advisory Committee about preventive health considerations in relation to the NSW Planning System review. They were requested to provide an overview of the Green Paper, discussing how the proposed new planning legislation must be supportive of health and wellbeing. During the presentations to the Advisory Committee, it was stressed that the current review of the NSW planning system is the first reform in thirty years, presenting a critical strategic opportunity to integrate a health focus in plan making and planning actions. Further, it was reported that the *Green Paper* carries limited recognition of preventive health measures despite wide stakeholder representations to the previous two stages of the NSW Planning Review. This meeting represented a very important strategic engagement at the Ministerial level for HBEP.

The immediate meeting outcome was a draft letter from the members of the Ministerial Advisory Committee on Preventive Health to the Minister for Health supporting her representations to the Minister for Planning and Infrastructure in relation to the Green Paper. As well as providing background to the matter, the letter noted the Committee's support for the incorporation of health and wellbeing as a principal purpose and key objective of the new Planning Act. Further, the Committee supported health and wellbeing as part of key policies and plans in the new Planning Act, and health representation on governance and planning bodies such as the Chief Executives Officer's Group and Regional Planning Boards.

Cancer Council Shade Committee Representation

The NSW Skin Cancer Prevention Strategy 2012-2015 identifies five 'Priority Settings' for skin cancer prevention initiatives. As part of the achievement of preventive actions, a Shade Working Group has been formed. HBEP Director Thompson has been invited to sit on the Shade Working Group in her capacity as an urban planner with a strong understanding of the health interface with the built environment. The Group comprises members from health and the built environment, including local and state government, and will work on one priority setting: *Community – built environments, social structures and advocacy*. This is a great opportunity to further the supportive role that the built environment can play in promoting healthy behaviour.

5. New Planner Column and Special Issue

In 2012, the HBEP Director Thompson and Strategic Consultant Capon continued to contribute their regular 'Healthy Built Environments' column to *New Planner*, the quarterly journal of PIA NSW. This column provides an important opportunity to advocate for healthy built environments to urban planners. It also enables the dissemination of policy relevant research to support urban planners implement healthy built environments. The 2012 columns are listed below:

March 2012: The HBEP's March column was about the effects that environments can have on children and what planners can do to create environments that support healthy behaviours in young people.

(Ref: [Thompson SM, Capon AG, 'Healthy Built Environments: Putting Children First', *New Planner*, March 2012: 22-3](#))

June 2012: This special issue of *New Planner* was devoted to healthy built environments and active living. HBEP Director Thompson and Patrick Harris from the Centre for Health Equity Training,

Research and Evaluation at UNSW were invited to be guest editors. Articles included an overview of resources and tools for NSW planners keen to embrace healthy built environment issues in their work. HBEP staff and partners made significant contributions to the Issue. The June 2012 *New Planner* Special Issue is available from the HBEP website at:

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/new-planner>. This was provided through the generosity of PIA NSW Executive Officer, Ms Robin Vincin (also HBEP Advisory Board member).

September 2012: The HBEP's September column stresses the fundamental inter-dependency of human health and survival on the health of global ecosystems. The article lists different ways in which urban planners can work positively for human and ecological health.

(Ref: [Capon AG, Thompson SM, 'Healthy Built Environments @ Rio+20', *New Planner*, September 2012: 13](#))

December 2012: The HBEP's December column addresses the need for the NSW Government to embrace the evidence for healthy built environments and include health as a key objective of the new planning system for the State.

(Ref: [Thompson SM, Capon AG, 'Healthy Built Environments: From Rhetoric to Reality: Mind the Gaps!', *New Planner*, December 2012: 21](#))

6. HBEP Website, Newsletter and Promotional Material

Website

At the end of 2011, the Faculty of the Built Environment initiated a revision of its branding including a new design for the Faculty's website. The changes required the HBEP website to be moved to a new server. In addition, a completely new structure for the administration of the website was implemented. This included a Content Management System and a new user interface that allows the end users to edit the website without having to use HTML. The move to the new web server meant that most of the content that was on the old HBEP website had to be set up from scratch. This involved a lot of work, including training, by HBEP staff in early-2012. The new HBEP website has an improved structure and provides more resources than before. The new HBEP website URL is:

<http://www.be.unsw.edu.au/programmes/healthy-built-environments-program/about>.

Newsletter

The HBEP released four newsletters in 2012 (March, June, September and December). They are distributed electronically to the HBEP's growing mailing list and are placed on the HBEP website. The newsletters highlight HBEP activities and achievements, referring readers to the Program's website. They also include news items and up and coming forums and seminars. The HBEP newsletter can also be downloaded from:

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/newsletters>

Brochure

The HBEP issued a new brochure in 2012 – the inspiration of Jodi Lawton of Lawton Design. It contains basic information about the HBEP in an engaging format. This brochure is handed out at forums and workshops, including the NSW Health Promotion Symposium, together with copies of the HBEP Fact Sheets.

Another brochure was designed by Jodi Lawton of Lawton Design for distribution in delegate satchels for the Population Health Congress 2012 entitled: 'Population Health in a Changing World'. HBEP distributed over 1,000 *Healthy Built Environments: Healthy Places = Healthy People* brochures at the Conference. Below is an excerpt of the conference insert brochure.



Creating a Healthy Built Environment

As Australia faces increasing health costs from rising rates of obesity, diabetes and other lifestyle diseases, health workers are seeking to influence the design of cities to make them more supportive of healthy ways of living. Research continues to demonstrate the links between modern epidemics and the way of life in cities. Car-dominated transport, reduced opportunities for physical activity, increased fast-food availability and lack of social connection are all implicated. Increasingly the health sector is focusing on prevention, and to be effective, health professionals need to work in collaboration with other professional groups, especially those from the built environment.

This is a key focus for the Healthy Built Environments Program where we work collaboratively with health professionals so that together we can create built environments that support people being healthy in their everyday lives.

What is the Healthy Built Environments Program?

The Healthy Built Environments Program is an innovative collaboration that brings the built environment and health together. The Program is situated in the City Futures Research Centre, Faculty of the Built Environment, at The University of NSW. We receive our core funding from the NSW Department of Health. Our vision is that built environments will be planned, designed, developed and managed to promote and protect health for all people.

What do we do?

The Healthy Built Environments Program has three core strategies.

Research – the Healthy Built Environments Program fosters interdisciplinary research which is policy relevant. We have completed a major scholarly literature review examining the role of the built environment in supporting human health as part of everyday living¹. The principal aim of the review was to establish an evidence base to support the development, prioritisation and implementation of healthy built environment policies and practices. It includes an annotated bibliography of key research articles and a glossary of terms to assist practitioners, policy makers and researchers working in this interdisciplinary realm.

The focus of the review is on the three key built environment domains that support human health:

1. The Built Environment and Getting People Active.
2. The Built Environment and Connecting and Strengthening Communities.
3. The Built Environment and Providing Healthy Food Options.

These built environment domains address three of the major risk factors for contemporary chronic disease – physical inactivity, social isolation and obesity.

You can download the full literature review for free from our website: <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/literature-review>

1. Reid J, Thompson J, and Akkaiya H (2011). Healthy Built Environments. Evidence of the Australian, Sydney: Healthy Built Environments Program, City Futures Research Centre, UNSW, 100pp, ISBN: 978-0-7332-5200-8

7. HBEP Media Coverage and Professional Journal Publications

The HBEP is increasingly sought for comments in the media about different issues. Media coverage in 2012 included the following items:

Sydney Morning Herald

Director Thompson was interviewed for two *Sydney Morning Herald* articles on walkability that appeared in its Domain Section on 31 March 2012. Walkability is becoming an increasingly important aspect in selecting a property to rent or buy. The *Sydney Morning Herald* articles stressed the benefits of walkability in an accessible style for those unfamiliar with the concept.

The Conversation

Strategic HBEP Consultant Tony Capon contributed a blog on *The Conversation* website. This is an independent source of information, analysis and commentary from the university and research sector. Tony's blog entitled 'How full is full? Planning Sydney to be big, sustainable and healthy' presented some of the issues about Sydney's future population size, the city's ecological footprint and its relationship to how people live. The article appeared on 31 March and can be accessed here: <https://theconversation.com/how-full-is-full-planning-sydney-to-be-big-sustainable-and-healthy-6029>

Diabetes Connect

HBEP Strategic Consultant Tony Capon and Director Thompson were invited to contribute to *Diabetes Connect*, the [Australian Diabetes Council](#) magazine for diabetes management and healthy living with a circulation in excess of 15,000 subscribers. This issue featured articles on how cities and neighbourhoods can promote health and active living. The HBEP article discusses the ways in which health is connected to the environment and how city form and design influence the way we live. The article is on the [HBEP website](#)

Ref: Capon, A & Thompson, S (2012) 'Our Habitat, Habits and Health', *Diabetes Connect*, Autumn: 12-13.

Landscape Architecture Australia

HBEP Director Thompson and Strategic Consultant Capon and were invited to contribute an article to a special issue of *Landscape Architecture Australia* (the official journal of the Australian Institute of Landscape Architects) on healthy spaces. This special issue was published in parallel with the exhibition Bloom which explored how cities can support people's health. More details here: <http://www.aila.org.au/bloom/>

Ref: Thompson, S & Capon, A (2012) 'Designing for Health: Knowledge and Resources for Built Environment Professionals', *Landscape Architecture Australia*, May, 134: 26.

GU Health's Inform

HBEP Director Thompson was interviewed for an article in GU Health's *Inform*, a popular magazine published by Grand United Corporate Health Ltd which has over 27,000 subscribers. The interview was incorporated into a story about the built environment and health, particularly the ways in which the built environment can support people to be healthy and active as part of everyday living. The

article encourages readers to think about ways that they can be healthy in their daily lives. The full 'GU Health' magazine can be downloaded from:

http://www.guhealth.com.au/wellness/Documents/GU_inform13-low.pdf

Uniken

Uniken, the official newspaper of UNSW, ran a full length article entitled 'Rise of the Urban Jungle' focusing on urban agriculture. HBEP Director Thompson was interviewed for this piece and spoke about the many health benefits associated with community gardens and edible verge planting. The full *Uniken* Issue can be downloaded from: <http://uniken.unsw.edu.au/features/rise-urban-jungle>.

8. Recognition of the HBEP

Various HBEP initiatives and achievements have been recognised in 2012, and covered in:

City Futures Research Centre (CFRC) Quarterly Newsletters

In 2012, CFRC newsletters included items on the CRC for Low Carbon Living and the work of HBEP Director Thompson in the Engaging Communities Program (May newsletter), HBEP Director Thompson's edited text, *Planning Australia* (August newsletter), and the HBEP's successes at the 2012 PIA NSW Awards for Excellence in Planning (November newsletter). Access the CFRC newsletters here: <http://www.be.unsw.edu.au/centres/city-futures/newsletters>

UNSW Built Environment (BE) Newsletters and News Items

In 2012, BE newsletters and news items featured:

- the UNSW TV documentary on Community Gardens (see item in Workforce Development and Education page 33)
<http://www.be.unsw.edu.au/content/watch-now-feeding-future-part-1-food-security>
- HBEP Director Thompson's edited text, *Planning Australia: An Overview of Urban and Regional Planning* (2nd edition)
<http://www.be.unsw.edu.au/content/planning-australia-2nd-edition>
- the HBEP's forum and submission on the NSW Government's Green Paper on Planning
<http://www.be.unsw.edu.au/content/nsw-planning-review-green-paper>
- the HBEP's successes at the 2012 PIA NSW Awards for Excellence in Planning
<http://www.be.unsw.edu.au/content/2012-planning-institute-australia-awards>

City Futures Research Centre Annual Report

The CFRC published its 2011 Annual Report in 2012. HBEP Director Thompson contributed text to the Report, providing a comprehensive overview of HBEP and its activities. The Report is distributed to a wide audience interested in urban issues, which augurs well for the promotion of HBEP and its work. It can be downloaded from:

<http://www.be.unsw.edu.au/research-centres-and-clusters/city-futures/annual-report>

A short version of the CFRC Annual Report has also been published and is distributed in hard copy by CFRC staff at different meetings and forums to promote the work of the Centre. HBEP staff and publications are included in this overview.

EDUCATION AND WORKFORCE DEVELOPMENT

1. Formal Tertiary Courses

Healthy Planning (BENV2949)

HBEP Director Thompson's undergraduate course BENV2949 'Healthy Planning' was held in Semester One 2012. The course this year focused on walkability with both lectures and assignments addressing this important topic. The major group assessment task required students to devise a walkability audit and to use this to assess commercial centres in the Randwick City Council area. As part of the audit exercise, students had to take into account how well people with vision impairment could negotiate the centres being studied. During the course, Gisele Mesnage, who is blind, spoke with the class with her guide dog D'artagnan. Parts of the UNSW campus were inspected during this class, giving the students an in-depth understanding of everyday mobility issues for those without sight. Senior HBEP Research Officer Gebel assisted with aspects of the class, presenting a lecture on healthy bodies and undertaking some of the marking. Student evaluations were incredibly positive, with interesting

insights about bringing economic benefits to developers in building healthy environments and adopting healthy planning practice as part of architectural design. Students appreciated the passion of many of the guest lecturers (HBEP consortium partners), the assignments, and the inspiring talk from Gisele and her guide dog D'artagnan (see image below).



Healthy Built Environments (BENV7712)

The 2012 postgraduate course BENV7712 'Healthy Built Environments' was offered in Semester Two 2012. Run by HBEP Director Thompson, this elective focuses on the role of the built environment in supporting healthy behaviour for diverse communities. The course examines the ways in which health and built environment professionals are collaboratively addressing the epidemic of chronic disease associated with sedentary and socially isolated urban living. Current research, legislative and policy frameworks, together with best practice from Australia and abroad, are critically evaluated. The challenges of inter-disciplinary research, policy development and implementation are also considered. The course is specifically designed for students undertaking postgraduate studies in built environment and health. As part of the HBEP Contract, six pro-bono places for health professionals are offered each year.

The 2012 class commenced in July fully subscribed with enrolled students and six Local Health District staff. Over the semester there was a mixture of formal lectures, participant discussions and a field trip. The latter part of the course involved hands-on experience with different audit tools, presentation of group posters – which were displayed at the LuminoCITY Exhibition – and a class debate. HBEP Strategic Consultant Capon contributed to the class, as did HBEP Advisory Board Chair Sainsbury. As part of the course, students were also able to fully participate in the UPE 10 Symposium activities for a day. The images below show students in the field at a neighbourhood

sustainability street in Dulwich Hill, Wilga Avenue, which showcases community involvement in edible plantings in an urban setting.



2. Other University Based Educational Activities

Environmental Sustainability Guest Lecture

On 28 March 2012, HBEP Director Thompson gave a two-hour guest lecture on healthy built environments for postgraduate students studying environmental sustainability in the Faculty of the Built Environment. Many of the students are already working in local and state government positions, as well as the private sector. This was a great opportunity to illustrate the links between health and environmental sustainability, including the co-benefits framework. The lecture provided students with a comprehensive overview of the nature of healthy planning, together with current policy and practice initiatives. The lecture was well attended and received.

Exercise Physiology Guest Lecture

HBEP Director Thompson presented an invited guest lecture to UNSW Exercise Physiology students on 19 April 2012. The lecture provided an overview of healthy built environment principles, together with current policy and practice initiatives. It concluded with a discussion of how exercise physiologists can work with council planners to provide supportive environments for health, thereby enabling their patients and clients to live healthier lives. The lecture also emphasised the importance of auditing neighbourhoods for walkability, feeding the results back to planners and local decision makers. It is hoped that by presenting lectures such as this, future health care professionals – in this case, exercise physiologists – will not only understand the relevance of healthy built environments for their work, but will actively advocate for them.

5. HBEP Participation in Events and Exhibitions

Hunter New England Liveability Forum

In February the Hunter New England Population Health and Hunter Councils hosted a Liveability Forum. HBEP Director Thompson was involved in planning the forum – including the agenda and workshop discussions. Director Thompson gave a presentation entitled ‘Liveable Environments: Building the Evidence’. This talk focussed on the research evidence for liveable, healthy and sustainable environments for policy making to underpin practice.



The workshop examined ways to create liveable communities in the Hunter. Participants came from across the region and participated in the discussions about liveability. Opportunities for building future partnerships and obstacles for the creation of liveable communities were discussed. As well, two key resources were launched at the forum which are available on the website of the Hunter New England Local Health District: a [Model for Working with Local Government to Create Liveable Communities](#) and a [Liveability Assessment Tool](#).



Andrew Dannenberg HIA Webinar on Health Impact Assessment (HIA)

On 12 June 2012, HBEP Director Thompson and Advisory Board Chair Peter Sainsbury were invited to participate in a webinar entitled, ‘The Role of Health Impact Assessment in Promoting Healthy Urban Development’. This event was sponsored by the Public Health Association of Australia (NSW), Australian Health Promotion Association (NSW) and UNSW Centre for Primary Health Care and Equity. Dr Andrew Dannenberg presented the keynote lecture, and Susan and Peter provided formal commentary. Webinar participants came from across NSW and New Zealand and were able to fully participate in the session as it went to air – this involved asking questions and making comments.

NSW Health Promotion Symposium

Both HBEP Director Thompson and Strategic Consultant Capon made major contributions to the 2012 NSW Health Promotion Symposium, held from 15-16 November 2012. The HBEP provided suggestions and feedback to the Symposium organisers about speakers and workshop topics. HBEP Director Thompson ran a workshop at the Symposium, entitled ‘Creating Healthy Built Environments’. This session provided an introduction to the principles of creating healthy built environments for people living and working in NSW. Through a set of focused discussion questions, participants considered the health-supporting nature of their own residential and work environments. The workshop concluded with a session on

practical implementation, focusing on the inter-disciplinary and inter-agency nature of creating healthy built environments. Strategic Consultant Tony Capon also played a major role in the Symposium, presenting a keynote address and facilitating a session. The NSW Health Promotion Symposium was a key capacity building initiative around healthy

built environments for health professionals. The HBEP Fact Sheets and the latest HBEP brochure were distributed to all delegates.

The image on the left shows HBEP Director Thompson and HBEP Strategic Consultant Capon at the forum.



LuminoCITY Exhibition

UNSW Built Environment's LuminoCITY Exhibition was held from 15-22 November 2012. The event was a great success, with around 7,000 people passing through the historic doors of Pier 2/3 at Walsh Bay. On display was the visionary work of the Faculty's students and staff, as well as special lectures, panel discussions and other events interspersed throughout the eight-day program. The HBEP was a key participant in the Exhibition. The Program produced four posters for the Exhibition, designed by HBEP Research Assistant Wheeler, which showcased key initiatives and research currently being undertaken by HBEP staff. The posters are shown below and can be downloaded from the HBEP website.

Poster 1 – [HBEP Overview](#)



Poster 2 – [HBEP in Action](#)



Poster 3 – [ARC Linkage Project](#)



Poster 2 – [PhD Research on Active Transport](#)



Posters created by the postgraduate and LHD students of the Healthy Built Environments course were also on display with topics ranging from cycling to workplace health and retrofitting existing neighbourhoods to improve health supportive infrastructure. Students in their final year of the Bachelor of Planning Degree at the BE Faculty displayed their thesis work at LuminoCITY. The HBEP sponsored this exhibition and catalogue of student thesis abstracts and images. Several projects examined healthy built environment issues.

Occupation for Population Health Symposium

HBEP Strategic Consultant Tony Capon was involved in planning the 'Occupation for Population Health' Symposium, hosted by the University of Canberra from 6-7 December 2012. Strategic Consultant Capon presented the Inaugural Ann Wilcock Lecture at the Symposium. HBEP Director Thompson presented a keynote address entitled 'Healthy Built Environments Supporting Everyday Occupations'. This presentation focused on the evidence for healthy built environments showing how the built environment can sustain the everyday and ordinary occupations of living, thus keeping the population physically and mentally healthy. The Symposium provided an excellent opportunity to further promote the work of the HBEP.

6. Capacity Building

The HBEP continued its capacity building activities for NSW Health and associated staff in understanding the relationship between health and the built environment. The 2012 activities are outlined below.

Kiama Healthy Foods Forum

On 1 May 2012, the HBEP, together with Kiama Council, hosted its 'Healthy Foods for Communities: Building Local Partnerships' forum in the beautiful NSW South Coast town of Kiama. The forum focused on how local councils can work with health agencies and members of the community to enhance access to healthy food. Speakers from the local area presented research, case studies and healthy food initiatives (see image below – left). The highlight of the forum was a visit to the Kiama Community Garden to see and hear how the project works (see image below – right). All food served at the forum was from local producers. The presentations and a report on the forum are on the HBEP website and form part of our e-learning resources on access to healthy food.

See: <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/online-education-resources>

Images below show participants at the forum and inspecting the Kiama Community Garden



Health and Density Forum

HBEP Director Thompson worked closely with HBEP Consortium Partners the Heart Foundation of Australia and PCAL on the Health and Density Forum, held on 29 October 2012 in the Sydney CBD. The organising team engaged Dr Danny Wiggins (HBEP Consortium Partner) to facilitate this important capacity building event on a critical topic for healthy built environments. Professor Giles-Corti (HBEP Advisory Board member) delivered the keynote address, providing an overview of her review of health and density undertaken for the Heart Foundation. A group of NSW based experts respond to some of the issues raised in this address. The afternoon session comprised an interactive workshop with participants. A full report of the day was prepared following the forum. It can be downloaded here: <http://www.be.unsw.edu.au/healthy-built-environments-program/education> under 'Health and Density Workshop'.

Health Professionals' Capacity Building Workshops

In close consultation with the NSW Ministry of Health, HBEP Director Thompson finalised a detailed proposal for a series of ten capacity building workshops on planning for health professionals. The aim of the workshop series is to equip health professionals in NSW to better engage with the NSW planning system.

Specific objectives are to:

- Explain in detail the operation of the NSW planning system: strategic planning and development assessment.
- Discuss, with examples, how the NSW planning system can promote supportive environments for health.
- Provide advice on key points in the planning process for input from health professionals.
- Introduce and work through the 'Healthy Urban Development Checklist' (HUD Checklist) as a useful tool for health professionals to respond to planning proposals.

The primary target audience is Local Health District staff throughout NSW, particularly those who currently work with or intend to work with key partners, such as local council planning staff, to advocate for and promote health as a consideration in the community planning process. The project comprises a full day face-to-face workshop delivered by HBEP Director Thompson and HBEP Consortium Partner, Dr Danny Wiggins. The workshops will be held in ten different locations across

NSW. Locations have been selected in consultation with the Ministry to maximise the reach of the workshop for the NSW public health workforce. The first workshop was held in December in Port Macquarie. Evaluations of this workshop were very positive but identified the need to spend more time focussing on the HUD Checklist. The remaining nine workshops will take place during 2013. See <http://www.be.unsw.edu.au/healthy-built-environments-program/education> under 'Workshops on the NSW Planning System'.

Below: Dr Danny Wiggins is shown with participants at the Port Macquarie Workshop in December



Public Lectures

The HBEP organised and hosted the following public lectures by international visitors in 2012.

Professor Andrew Dannenberg

On 18 June 2012, Professor Andrew Dannenberg presented a public lecture jointly sponsored and organised by the HBEP, PCAL and the Sustainability Research Cluster of the Built Environment Faculty, UNSW. The lecture, which focussed on healthy built environment initiatives in North America, was audio recorded and can be downloaded from the HBEP website: <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/online-education-resources> under 'Healthy Community Design and Active Transport'.

Dr Susan Parham

Visiting academic Dr Susan Parham, Head of Urbanism at the UK's University of Hertfordshire's Centre for Sustainable Communities, presented an HBEP sponsored public lecture entitled *Marketplace: How the rise of food quarters in contemporary London is transforming spaces and changing lives*. Held on 3 October 2012 the lecture examined ways that food production, distribution, and consumption arrangements have been played out in three fast transforming urban sites in contemporary London. The lecture was audio recorded and can be downloaded from the HBEP's website: <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/online-education-resources> under 'Marketplace: How the rise of food quarters in contemporary London is transforming spaces and changing lives'.

BE Healthy! Campaign

In 2012, the HBEP initiated a *BE Healthy!* campaign focussing on staff from the Faculty of the Built Environment. Signs were placed near the lifts in the Faculty's home building, the Red Centre, encouraging stair use. This was followed by an email to all staff and students announcing the campaign. Information about the health dangers of a sedentary working life was communicated in this email with a link provided to the Australian Heart Foundation's 'Sitting Less for Adults':

<http://www.heartfoundation.org.au/SiteCollectionDocuments/HW-PA-SittingLess-Adults.pdf>

A *BE Healthy!* web page now appears on the HBEP website with useful resources for different workplaces. The focus is on three areas 'Being Active', 'Getting Access to Healthy Food', and 'Relaxation and Stress Reduction'.

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/be-healthy>.

HBEP Staff Capacity Building

HBEP staff undertook their own capacity building in a range of different activities in 2012. They included the following seminars, forums and public talks:

Commission for Children and Young People Seminars

HBEP staff attended all four seminars on 'Children, Young People and the Built Environment' hosted during 2012 by the NSW Commission for Children and Young People. HBEP Consortium Partner, A/Professor Linda Corkery (Landscape Architect in the Faculty of the Built Environment) was one of the seminar series leaders. More information about the seminars can be found at:

<http://www.kids.nsw.gov.au/director/advocacyresearch/builtenvironment.cfm>.

Webcasts of both seminars are available from the NSW Commission for Children and Young People website: <http://kids.nsw.gov.au/kids/advocacyresearch/builtenvironment/seminarseries/>

'Accommodating Australians' Book Launch

HBEP staff attended Emeritus Professor Patrick Troy's book launch on 1 August 2012 – *Accommodating Australians: Commonwealth Government Involvement in Housing* (published by UNSW Press). This new book chronicles the history of Australia's public housing – housing is a critical issue for human health and wellbeing.

George Galster Talk

HBEP staff attended a talk by Professor George Galster (Professor of Urban Affairs, Wayne State University, Detroit) on 17 August 2012. Professor Galster spoke about 'Neighbourhood Social Mix: Right Diagnosis, Wrong Prescription'. Professor Galster is an expert in this area which has significant implications for community wellbeing.

Alexandros Washburn Lecture

HBEP staff attended a lecture by Mr Alexandros Washburn (Chief Urban Designer, New York City Department of City Planning) on 7 September 2012. Mr Washburn gave a wonderfully inspiring lecture about urban design in New York City. He illustrated strong links between human health, sustainability and urban design excellence. The lecture was historically situated to show the influence of key American urban designers such as Jane Jacobs. Contemporary projects in New York were featured – especially the High Line Park – a great green civic regeneration initiative (see: <http://www.thehighline.org/>)

Deo Prasad Utzon Lecture

HBEP staff attended the Utzon Lecture on 19 September 2012 given by Professor Deo Prasad (CEO of the CRC for Low Carbon Living). Entitled 'Envisioning Low Carbon Cities: Challenges and Opportunities', the lecture provided a comprehensive overview of sustainability issues, together with the format of the CRC and its future work. This lecture is available for download:

http://www.be.unsw.edu.au/utzon/current_series#DP

8. Health Workforce Resources

Online Education Resources

The HBEP is working to develop a comprehensive set of online educational resources on healthy planning. In 2012 we created an Online Education Resources web page which provides links to informative and interesting videos on healthy built environments. The videos cover topics such as food security, climate change, the importance of social interactions for health, the health benefits of physical activity and healthy planning. See:

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/online-education-resources>

To further enhance the HBEP's e-learning resources, we also commenced a program of audio recording lectures on basic healthy planning issues. The following lectures have been recorded with Andrew Marston from e-Classroom and are now downloadable from the HBEP website:

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/online-education-resources> under 'HBEP E-Learning Resources'.

Lecture Title	Presenter
<i>Healthy Built Environments Program: An interdisciplinary way-of-working</i>	Susan Thompson
<i>Environmental Sustainability and Human Health</i>	Anthony Capon
<i>Active Transport: Cycling</i>	Jennifer Kent

Other e-lectures are planned. The lectures have PowerPoint slides with recorded voice over. This will be particularly useful for our rural and remote colleagues.

UNSW TV Videos on Food Security, Community Gardens and Social Connection

HBEP Director Thompson was interviewed for two UNSW TV videos on food and healthy eating issues. 'Feeding the Future – Part 1: Food Security' examines the importance of urban agriculture for food security and access to locally grown healthy fresh produce. While more than 60% of Sydney's fresh produce is grown close to the city, this agricultural land use is increasingly under threat from housing development. The UNSW TV video entitled 'Feeding the Future – Part 2: Community Greengrocers' also features HBEP Director Thompson talking about the multiple health benefits of community gardens. Not only do participants get access to healthy fresh produce, they are physically active, meet new friends and learn about sustainable garden practices. In some areas community gardens have extended to nature strips along residential streets. Neighbours meet each other, local communities are safer and there is more fresh food to eat. Both videos are available on the HBEP's online education resources web page:

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/online-education-resources>

In December, HBEP Director Thompson was interviewed for a video about social connection. It will be released early in 2013.

Fortnightly Literature Review

The HBEP undertakes a fortnightly review of new research relating to the three key domains of healthy built environments (as defined in the HBEP Literature Review). Other relevant healthy built environment policy and research is also included. Key email alerts, websites and newsletters are regularly checked for new publications, initiatives and news. Citations and web addresses for relevant articles, policy papers and publications are then tabulated, with key words and a brief summary provided. These tables can be found on the HBEP website at:

<http://www.be.unsw.edu.au/programs/healthy-built-environments-program/updates-research>. The references are also uploaded into the HBEP's EndNote Library.

Literature Review 'Fact Sheets'

The HBEP's award-winning 'Fact Sheets' were widely disseminated in 2012. They are intended to be a useful source of policy-relevant information for HBE practitioners. The Fact Sheets can also be downloaded from the HBEP website at: <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/fact-sheets>

Image below: This beautiful staircase situated in Geelong along the waterfront encourages people to be active



Governance Activities

HBEP Advisory Board

The HBEP Advisory Board convened four times in 2012 as listed below.

- 23 February in person at UNSW
- 17 May – teleconference
- 23 August via email
- 22 November – teleconference

Each meeting requires considerable planning and organisation. The dates for the 2013 meetings have also been finalised. There will be two face-to-face meetings, one email meeting and one teleconference.



Image above: The HBEP Advisory Board in session

HBEP Business Plan 2012-13

The HBEP's Business Plan for the year commencing 1st July 2012 was prepared and accepted by the Advisory Board.

HBEP Quarterly Reporting to NSW Health

The HBEP Director met every quarter with NSW Ministry of Health staff to discuss the achievements of the HBEP. A detailed Quarterly Report was prepared for the first three quarters of the year. The final quarter forms part of the Annual Report. Each Quarterly Report was also presented to the HBEP Advisory Board for discussion.

2013-15 External Research Budget Projections

The HBEP prepared 2013-15 external research budget projections for UNSW Finance.

HRDEC Return

HBEP's HRDEC return for 2010/11 was completed and submitted to UNSW Central Finance. The HRDEC return determines how much funding UNSW receives from the Commonwealth Government each year.

HBEP Annual Report

The 2011 HBEP Annual Report was finalised and is available on the HBEP website at: <http://www.be.unsw.edu.au/programs/healthy-built-environments-program/annual-reports>

General Meetings

HBEP employees were involved in different meetings related to strategic and governance matters both within UNSW and beyond. Key meetings for 2012 involved relationship building with healthy built environment stakeholders, as well as progressing strategic initiatives. HBEP staff attended monthly City Futures Research Centre (CFRC) Team Meetings.

APPENDIX ONE – HEALTHY BUILT ENVIRONMENT CONSORTIUM PARTNERS

Sector	Key Attributes	Organisation	Consortium Partner
Academic	Specific disciplinary & research knowledge	Faculty of the Built Environment, UNSW	City Futures Research Centre
	Interdisciplinary research understandings and skills		Centre for Health Assets Australasia – until mid 2012
	Learning and teaching expertise		Planning and Urban Development Program
	Academic networks		Landscape Architecture Program
		Faculty of Medicine, UNSW	Public Health and Community Medicine
State Government	Policy knowledge in health	Sydney South West Area Health Service Population Health – now South Western Sydney and Sydney Local Health Districts	Population Health Directorate
	Research projects in health and built environment		Centre for Research, Evidence Management and Surveillance
	Practice expertise		Centre for Health Equity Training, Research and Evaluation
	Health network		Health Promotion Service
			Public Health Unit
			Multicultural, HIV/AIDS and Hepatitis C Services
			HIV and Related Programs
Local Government	Legislative, policy and practice knowledge; key networks	Western Sydney Region of Councils	Western Sydney Region of Councils
Non-government organisation	Broad knowledge and expertise in health and the built environment; key networks	Heart Foundation NSW	Heart Foundation NSW
Industry	Practice knowledge in health, built environment and sustainability; management skills	Arup	Arup
		Danny Wiggins, Planning, Facilitation and Education Services	Danny Wiggins
		Willana Associates, Urban Planning and Facilities Management	Willana Associates



THE HEALTHY BUILT ENVIRONMENTS PROGRAM

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