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 within the Faculty of the Built Environment at the University of NSW (UNSW). The HBEP receives its core funding from the NSW Ministry 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 contemporary epidemics and our ways 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.

Vision Statement

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

Core Strategies

The HBEP 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 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 priorities for further research relevant to healthy built environments policy development.

See Page 4 for ‘Research’ initiatives undertaken in 2013.

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 via our quarterly newsletter, professional journals, popular media articles, talks and events.

See Page 17 for ‘Leadership and Advocacy’ initiatives undertaken in 2013.
3. **Education and Workforce Development** – the HBEP aims to deliver innovative, cross-disciplinary education and capacity building. An audit of practices within NSW Health enabled appropriate strategies for education and partnership building across the health and built environment sectors to be determined and enacted. Educational approaches also build on the ‘Healthy Planning’ and ‘Healthy Built Environments’ courses within the Faculty of the Built Environment. Doctoral research students are engaged in significant projects.

*See Page 29 for ‘Education and Workforce Development’ initiatives undertaken in 2013.*

**Governance and Administration**

Appropriate governance and administration activities underpin these three core strategies of the HBEP.

*See Page 40 for ‘Governance and Administrative Activities’ undertaken in 2013.*

**Further Information**

Further information about the HBEP can be obtained by visiting the Program’s website: [http://www.be.unsw.edu.au/programmes/healthy-built-environments-program/about](http://www.be.unsw.edu.au/programmes/healthy-built-environments-program/about) or by contacting us at: [hbep@unsw.edu.au](mailto:hbep@unsw.edu.au). You can also read more about the different initiatives and projects in our Annual Reports for 2010, 2011 and 2012 on the HBEP website: [https://www.be.unsw.edu.au/programs/healthy-built-environments-program/annual-reports](https://www.be.unsw.edu.au/programs/healthy-built-environments-program/annual-reports).

**HBEP Personnel in 2013**

**UNSW Based Staff**

- Director – Associate Professor Susan Thompson
- Senior Research Officer – Dr Jennifer Kent
- Research Officer – Ms Emily Mitchell
- Casual Research Assistants – Dr Vivian Romero; 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
- 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 (as at 31 December, 2013)

Chair:
Professor Peter Sainsbury – Sydney and South Western Sydney Local Health Districts

Members:
Ms Claudine Lyons - NSW Health
Professor Billie Giles-Corti – University of Melbourne
Professor Bill Randolph – University of New South Wales
Ms Norma Shankie-Williams – NSW Department of Planning and Infrastructure
Ms Helen Johnson – Transport NSW
Ms Diana Griffiths – Studio GL
Ms Robyn Vincin – Planning Institute of Australia
Mr Peter McCue – NSW Premier’s Council for Active Living
Ms Julie-Anne Mitchell – National Heart Foundation
Mr Paul Klarenaar - Northern Sydney Local Health District

The HBEP Board at the first meeting for 2013 at the North Sydney Coal Loader.
RESEARCH

The HBEP fosters interdisciplinary research relevant to both policy and practice. Research undertaken in 2013 builds on previous work, reinforcing the HBEP’s strategic direction. An overview of this research is provided below, commencing with a listing of our 2013 publications.

1. Publications

Book Chapters


Scholarly Journal Articles


Book Reviews


Conference Papers - Refereed


**Conference Papers – Non-Refereed**


**Other Publications**

New Planner ‘Healthy Built Environments’ Column
HBEP Director Thompson continued her regular column for *New Planner*, the quarterly journal of the Planning Institute of Australia (NSW). Details of these contributions can be found on page 25-26.
2. Research Grants, Projects and Proposals

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

Overview
The ARC funded project Planning and Building Healthy Communities: A multidisciplinary longitudinal study of the relationship between the built environment and human health commenced in 2011. The research is being undertaken in partnership with Urban Growth NSW (formerly Landcom), the National Heart Foundation and South Western Sydney Local Health District (SWSLHD). There are four study sites: Airds Bradbury (suburban south-west Sydney); Rouse Hill (suburban north-west Sydney); Renwick (Southern Highlands of NSW); Victoria Park (inner-urban south-east Sydney).

Research Approach
Research conducted in 2013 builds on previous work. In April, the Project Management Committee reviewed the research approach for the four study sites. It was decided to standardise the research approach across all four sites, with individual structured interviews replacing the self-administered survey originally planned. Focus groups will be conducted after the interviews.

A structured interview and list of focus group questions were developed. The ethics application and amendment to the original ethics approval received in October 2012 were submitted to the Human Research Ethics Advisory Committee of the Faculty of the Built Environment in May 2013. Approval for the new research approach for all case study sites was received later that month.

Healthy Neighbourhood Audits
Night and weekend audits for Airds Bradbury, Victoria Park and Rouse Hill were completed during 2013. HBEP Research Officer Ms Emily Mitchell, Dr Roy Byun of SWSLHD, and Built Environment Faculty PhD student Mr Ji Yu, made up the core audit team. The focus of the night audits was the quality and maintenance of lighting infrastructure, and feelings and perceptions of safety across the site. Weekend audits were undertaken to capture variations in activity or behaviour not observed during weekday audits. The following images illustrate information collected during these audits.

L to R: Airds Bradbury: A burned out car in an unlit area in at night; a group of people watching a soccer game on a sports field on a Saturday; a woman walking her dog on a Saturday.

L to R: Rouse Hill: A well-lit bus stop; a man walking his dog on a Saturday; an empty public space on a wet Saturday.
A report template was developed to structure the results of the audits. The template provides for the presentation and analysis of the images, mapping and qualitative data collected. Preparation of these reports will be completed in 2014. A Healthy Neighbourhood Audit of the Renwick development will be undertaken in 2014.

Community Food Assessment
Data collection for the Community Food Assessment project led by Ms Belinda Crawford (Public Health Officer Trainee with HBEP Consortium Partner South Western Sydney Local Health District) was completed in April 2013. This project involved an assessment of the affordability, availability and quality of healthy foods in supermarkets and farmers’ markets in Sydney. A cross-sectional healthy food basket survey was undertaken in 100 supermarkets in the 20 highest and 20 lowest socio-economic-status areas of Sydney. A cross-sectional produce survey, 640 customer surveys and 140 stallholder surveys was conducted at 18 farmers’ markets. In terms of the ARC Linkage study, this project included 23 supermarkets in Airds Bradbury, Victoria Park and Rouse Hill; and six farmers’ markets closest to the four study sites (including Renwick).

The results of the Community Food Assessment have been published in a number of conference papers as detailed on pages 4-5. The following report has also been completed:

site. At the conclusion of 2013, ten interviews had been finalised in Victoria Park, 13 in Rouse Hill, and 12 in Renwick. The interviews also provide an opportunity to recruit participants for focus groups to be conducted in 2014.

The Cooperative Research Centre (CRC) for Low Carbon Living

2013 saw further consolidation of the CRC for Low Carbon Living under the leadership of UNSW Scientia Professor Deo Prasad (CEO) and the CRC Board.

There are three integrated programs of activity in the CRC, reflecting three pivotal ‘bridges’ that must be crossed in order to deliver a low carbon built environment:

- **Program 2 - Low Carbon Precincts**, focussed on the development of tools to enable the design and marketability of low carbon precincts.
- **Program 3 - Engaged Communities**, focussed on understanding and influencing individual and community behaviour to reduce greenhouse gas emissions by embracing low carbon living.

Throughout 2013, HBEP Director Susan Thompson continued in her role as Research Leader of Program 3. This role involved discussing different research ideas for the CRC, and connecting academics with relevant industry and government end-users.

Susan also led the writing of a major research proposal titled ‘The Co-Benefits Calculator: A multi-level technological interface enabling informed cross-disciplinary decisions to support, encourage and enable low carbon living’. The team for this proposal comprises CRC research colleagues from UNSW (Faculty of Engineering and the Asia Pacific Ubiquitous Healthcare Research Centre), Swinburne University (Psychological Sciences and Statistics) and Curtin University (Sustainability Policy Institute). The proposal aims to deliver a major CRC milestone in Program 2, as well as having links to Program 3. The project takes as its starting point the fact that many measures to reduce greenhouse gas emissions have ancillary health and economic benefits (‘co-benefits’) which go well beyond simply improving environmental sustainability. For example, health costs may be reduced as people take up active transport. The proposed calculator will estimate these co-benefits for a range of issues, including human health and associated productivity gains, from selected environmental modifications to reduce greenhouse gas emissions. The research proposes to develop a suite of calculators for use by three different groups: policy makers and government officials; public and private sectors professionals in the built environment and health; and community members. Four PhD projects are envisaged for the research – one of which will be situated in the Faculty of the Built Environment. This PhD will focus on the impact of a co-benefits calculator on policy and decision makers in relevant built environment, health and related professions. The proposal was submitted to the October meeting of the CRC Research Advisory Committee. Feedback has been received and the proposal is undergoing review prior to being presented to the CRC Board in 2014.

HBEP Director Susan Thompson also worked throughout 2013 on the annual CRC Symposium, held on 24 to 25 October. Susan organised and facilitated the PhD workshop on day one. As well as providing opportunities for students from CRC partner universities (UNSW, University of Melbourne, Swinburne University, University of South Australia and Curtin University) to share their projects and get to know each other, productive discussions were held on the challenges of working in the interdisciplinary space of low carbon living and of undertaking policy relevant research.
The PhD students exchanging with each other at their workshop.

The approved CRC project ‘Urban Micro Climates: Comparative study of major contributors to the urban heat island (UHI) effect in three Australian cities (Sydney, Melbourne, Adelaide)’ has also been signed off by the Faculty of the Built Environment. The co-relations between urban morphology, surfaces, vegetation and the urban energy balance are being explored. The methodology is based on end-user needs and potential impact on the use of public spaces in cities, including direct and indirect health impacts. The research outcomes will provide evidence for urban policy, planning and data on the UHI effect of materials for construction manufacturers and managers, transferable to other Australian cities.

Susan is a Chief Investigator for this study led by Professor Steffen Lehmann, Director, Centre for Sustainable Design and Behaviour, University of South Australia. The first steering committee meeting of all research and industry partners was held in Adelaide on 11 October.

Read more about the CRC and the many research activities underway at: http://www.lowcarbonlivingcrc.com.au/.

Green open space in urban areas has a positive impact on the UHI by reducing temperatures.
HBEP Mapping Project

In 2013 HBEP staff finalised a project and associated report on healthy built environment initiatives throughout NSW. This was a major research initiative for the HBEP as articulated in the HBEP’s Research Strategy.

Many organisations in NSW support activities which contribute to a healthy built environment. These activities often engage communities through local initiatives, such as walking groups and communal gardens, and are delivered through partnership arrangements. There has been limited systematic reporting on these initiatives. To fill this research gap, the HBEP has ‘mapped’ the activities in NSW that support a healthy built environment (HBE).

In late 2012 details were collated of 81 organisations considered as potentially active in the HBE area. This first stage informed by recommendations from the HBEP Advisory Board and enabled development of an understanding of the composition of HBE activity across NSW. It was used to produce a basic record of organisations within the scope of the project. Organisations identified through the initial data collection process were then contacted by e-mail and requested to participate in an on-line survey. Participants were asked to identify their organisation’s healthy built environment (HBE)-related activities. By February 2013, 46 responses had been received, a 57.5% response rate.

The data collected establishes a picture of the activities currently delivered across NSW to support HBEs. A report on this data has been prepared and is available for download from the HBEP website: [http://www.be.unsw.edu.au/programs/healthy-built-environments-program/reports](http://www.be.unsw.edu.au/programs/healthy-built-environments-program/reports). The report includes data analysis and concludes with a series of implications drawn from the results. Strategies for dissemination of information in the report will include development of a database of HBE stakeholders and their activities across NSW. The database will be hosted on the HBEP website with the aim of connecting professionals as well as recording the diverse array of activities occurring across NSW in the HBE arena.

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

HBEP Strategic Consultant Tony Capon is a Chief Investigator for an ARC-funded project ‘The Development and Application of an Evaluation Framework to Assess Transport, Health and Economic Impacts of New Urban Cycling Infrastructure’ approved in 2012 (with funding of $382,219). 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 method will then 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 project’s partner organisations, the Heart Foundation and the NSW Premier’s Council for Active Living, have close links to the HBEP.

Cycling infrastructure and clear signage is important in supporting the uptake of active transport.
National Health and Medical Research Council (NHMRC) Grant Application

In October, HBEP Director Susan Thompson was invited to be a Chief Investigator on an NHMRC grant application entitled ‘Planning for Health: Land use planning legislation and public health’. The proposal aims to explore how public health organisations can engage with other sectors to enable legislative reform to support healthy built environments. As part of the project the process leading up to the inclusion of health as an objective in the new NSW planning legislation will be examined. It is hoped that the project outcomes will facilitate partnerships between researchers and policymakers for successful cross-sectoral policy influence and future research collaborations. A national team of researchers from health and built environment sectors was established for the grant application. It is being led by Dr Patrick Harris of the Centre for Health Equity Training, Research and Evaluation (UNSW Faculty of Medicine and HBEP Consortium Partner). Practitioner/industry groups on the grant application include the NSW Premier’s Council for Active Living (HBEP Board member) and the Heart Foundation (HBEP Consortium Partners). The outcome of the grant application will be known in 2014.

3. Conference Organisation

In 2013, the HBEP was actively involved in organising two national conferences.

6th State of Australian Cities Conference
The 6th State of Australian Cities Conference (SOAC) was held in Sydney from 26-29 November 2013. SOAC is now well established as the premier urban planning conference in Australia and HBEP Director Susan Thompson worked throughout the year as the Co-Chair of its Social Stream. This involved the review and administration of over 70 abstracts on healthy planning and related issues. These embraced topics such as environmental determinants for healthy behaviour, safety, open space quality and provision, environmental sustainability, community cohesion and well-being, liveable residential neighbourhoods, child and age-friendly cities, food security and affordable housing.

In addition to the work organising the Conference, Susan was a senior research mentor for the PhD workshop held immediately prior to SOAC. This involved preparatory reading and then working intensely with eight students on their PhD research in healthy planning related topics. This was the first time that the SOAC PhD workshop had been held over two and a half days – mirroring the format favoured by planning scholars in Europe and North America.

See the Conference website for further details: http://www.soacconference.com.au/

6th Liveable Cities Conference
HBEP Director Susan Thompson was on the organising committee of the 6th Liveable Cities Conference, held in Melbourne from 17 – 19 June. This was a great opportunity to promote the work of HBEP to a national audience.

4. Student Supervision

First HBEP Doctorate Degree Awarded

Less than three years since its inception, the HBEP was very proud to have its first PhD. HBEP Research Associate Jennifer Kent submitted and passed her doctoral thesis in July 2013. Her project ‘Secured by Automobility: Why does the private car continue to dominate transport practices?’ was jointly supervised by HBEP Director Susan Thompson and Faculty of the Built Environment colleague Associate Professor Simon Pinnegar. Jennifer’s PhD research unpacks attachments to private car use in low density cities like Sydney. Using a complex process of participant selection, the project identified a series of people who could travel to work using active transport modes (walking, cycling and public transport use) in the same amount of time it currently takes them to drive. These people were then interviewed using a qualitative and in-depth approach to explore their reasons for continued car use.

The study reveals the way the private car is deeply engrained in the way people make sense of, and navigate not only their streets, but their place in the world. It uncovers junctures at which transition away from private car use will only occur in the face of unprecedented disruption to existing ways of ‘being’ in modern life. This research provides a deeper understanding of barriers to the uptake of active transport and exposes a series of inconsistencies between the expectations of those planning for, and those anticipated to one day use, alternative transport.

Jennifer’s PhD thesis can be downloaded from the HBEP website: http://www.be.unsw.edu.au/programs/healthy-built-environments-program/student-research

Postgraduate Research Student Supervision

HBEP Director Susan Thompson continued to supervise postgraduate research students undertaking PhD and masters level research. All projects have strong synergies with healthy planning and will contribute to knowledge in this field. The following table summarises the postgraduate student cohort.

<table>
<thead>
<tr>
<th>Student</th>
<th>Degree</th>
<th>Topic</th>
<th>Role in Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gary Shiels</td>
<td>PhD</td>
<td>Developing and Planning for an Age Friendly and Healthy Built Environment.</td>
<td>Joint Supervisor</td>
</tr>
<tr>
<td>Louise McKenzie</td>
<td>PhD</td>
<td>Climate, Public Space and Public Health: The implications of heat for the design and planning of urban public space for health and wellbeing.</td>
<td>Joint Supervisor</td>
</tr>
<tr>
<td>Anumitra Chand</td>
<td>PhD</td>
<td>Reconceptualising Hospital Facility Resilience to Extreme Weather Events.</td>
<td>Joint Supervisor</td>
</tr>
<tr>
<td>Jarra Hicks</td>
<td>PhD</td>
<td>Energy Cooperatives and Low Carbon Living.</td>
<td>Joint Supervisor</td>
</tr>
<tr>
<td>Shirley Lithgow</td>
<td>PhD</td>
<td>Community Engagement in Urban Planning.</td>
<td>Co-supervisor</td>
</tr>
<tr>
<td>Elaine Tan</td>
<td>MPhil</td>
<td>Evaluating the Effectiveness of Falls Prevention Programs amongst the Elderly Living at Home.</td>
<td>Co-supervisor</td>
</tr>
</tbody>
</table>
Undergraduate and Postgraduate Coursework Student Supervision

Towards the end of their degree, students enrolled in UNSW undergraduate and postgraduate coursework Planning programs (BPlan and MPlan respectively) are required to undertake an original piece of research – the subject of which is their choice. The project is then written up as a dissertation. The HBEP, as part of the City Futures Research Centre, is increasingly the focus for students keen to pursue healthy planning research. This is an area of scholarship gaining greater popularity as increased awareness of the importance of the relationship between health and planning grows.

During this year, HBEP Director Susan Thompson and Research Associate Jennifer Kent supervised nine coursework student projects. Topics included:

- The role of farmers’ markets in contributing to local food security (Maxine Szeto)
- Seniors living: planning for the ageing Australian (Patrice Grzelak)
- Perceptions of safety and its effects on participation in active living (Shoilee Iqbal)
- Barriers to car-share in Sydney (Keeley Allen)
- Barriers to the development and use of bike-share in Leichhardt LGA (Boris Santana).

Some of these projects are available for download from the HBEP website: [http://www.be.unsw.edu.au/programs/healthy-built-environments-program/student-research](http://www.be.unsw.edu.au/programs/healthy-built-environments-program/student-research)

5. Internationalising Our Research

Healthy Planning Initiatives in Dublin

HBEP Director Susan Thompson attended the Joint European (AESOP) and American (ACSP) Planning Schools Congress in Dublin, Ireland from 15 - 19 July. The Congress, ‘Planning for Resilient Cities and Regions’, attracted over 1,000 delegates from more than 50 countries. It was structured around a mammoth program of papers across 16 fields of interest encompassing the breadth and depth of contemporary planning research and practice, including planning for health and well-being.

HBEP’s contribution was a paper entitled ‘Planning and Health: Forging New Alliances in Building Healthy and Resilient Cities’ jointly authored by Susan, HBEP Research Associate Jennifer Kent, and Ms Claudine Lyons from the Ministry of Health. The paper, which detailed the work and contribution of the HBEP, can be accessed at: [http://www.be.unsw.edu.au/sites/default/files/upload/pdf/cf/hbep/publications/attachments/Planning_and_Health_Forging_New_Alliances_in_Building_Healthy_and_Resilient_Cities.pdf](http://www.be.unsw.edu.au/sites/default/files/upload/pdf/cf/hbep/publications/attachments/Planning_and_Health_Forging_New_Alliances_in_Building_Healthy_and_Resilient_Cities.pdf)
While in Ireland, Susan undertook a series of site visits taking 860 images for her library of different planning initiatives – some supportive of health and others not so. One of the most interesting issues was the devastatingly negative impact of the economic downturn on housing and retail development. The following images show some of the incomplete housing estates where much of the community infrastructure has not been built. This has significant implications for those living in these developments.

As well, Susan found some inspiring green open spaces, cycling hire in the centre of Dublin and a farmers’ market also in the heart of the city.

6. Planning for the Future - Research

In line with the HBEP Research Implementation Strategy, preparatory work has been undertaken in 2013 to pursue a number of key research projects in 2014.

Indicators Project

While many suites of indicators for healthy built environments have been collated in Australia and globally, there are no specific indicators relevant to the NSW context. An 'Indicators Project' aiming to fill this gap has been written into the HBEP 2013-14 Business Plan. Preliminary scoping work began in late 2013. A project plan and position statement on the definition of a healthy built environment for the purposes of the project have been drafted.
7. Planning for the Future – Publications

International Monograph
Throughout 2013, HBEP Director Susan Thompson continued in her role as co-editor of a proposed monograph entitled ‘Planning for health and well-being: shaping a sustainable and healthy future’. This editorship is with UK colleagues Hugh Barton, Marcus Grant and Sarah Burgess at the WHO Collaborating Centre for Healthy Built Environments at the University of the West of England in Bristol, UK. The book will be part of the Routledge Reader Series and will have five sections:

- Part 1: Approach and orientation – setting the context of the book, including historical overview
- Part 2: The human habitat as a determinant of health and well-being - examining the way in which the built and natural environment functions to provide for human activities and health, and how people impact on the environment
- Part 3: The relationship between healthy behaviour and environment
- Part 4: Systems, processes and tools for healthy planning
- Part 5: Healthy planning in global practice - implementation of healthy/sustainable urban planning principles from around the world.

Susan is editing Part 3, as well as working with the other editors on Part 5.

The involvement of the HBEP means that Australian researchers will be well represented in the book. So far, HBEP Strategic Consultant Tony Capon and Advisory Board member Professor Billie Giles-Corti have agreed to contribute chapters (Tony on the co-benefits for health from action on climate change, and Billie on the relationship between physical activity and place). A/Professor Linda Corkery, HBEP Consortium Partner from the Faculty of the Built Environment, will author a chapter on green infrastructure. HBEP Research Associate Jennifer Kent will join HBEP Director Thompson to co-write a chapter on healthy planning in Australia.

The editorial team met regularly during 2013 via Skype as well as in person in Dublin in July. The book is due for release in 2014.
Special Issue of the ‘Urban Policy & Research’ Journal
Throughout 2013, HBEP Director Susan Thompson has worked with Associate Professor Kathy Arthurson (University of South Australia) on a proposal for a special issue of the well-regarded journal 'Urban Policy and Research'. The issue will focus on the nexus between the built environment, urban planning and public health and will feature articles from professionals and academics working in this area. The proposal was successful and articles are due for submission for peer review in 2014.

Other planned publications
Publishing research in scholarly journals is a key dissemination strategy for the HBEP. Preliminary work has been completed over the course of 2013 in respect to the following publications:

- The Healthy Built Environments Program: a conceptual paper on the challenges and opportunities for interdisciplinary working in the healthy built environment space
- Mapping Project Report: a descriptive paper outlining the results of the HBEP mapping project
- ARC Linkage Grant project preliminary results: a series of empirical papers presenting preliminary results from the primary HBEP ARC project: ‘Planning and Building Healthy Communities’
- Market Basket Survey results: an empirical paper outlining results from the market basket survey project completed in 2013
- Farmers’ Markets Survey results: an empirical paper outlining results from the farmers’ market survey project completed in 2013.

8. Awards and Special Appointments

In November, Research Associate Jennifer Kent was awarded the Peter Harrison Memorial Prize for the best PhD student paper at the State of Australian Cities Conference (see image at right). The award recognises a distinctive contribution to knowledge and capacity for the ecologically sustainable development of Australian cities and regions and was established in 1992 in recognition of Peter Harrison’s contribution to urban issues in Australia.

Jennifer’s paper, ‘Private Car Use as Resistance to Alternative Transport: Automobility’s Interminable Appeal’ was based on the qualitative research she undertook for her PhD. It explores the depth to which private car use is embedded in the everyday lives of Sydneysiders. Jennifer was both surprised and honoured to win the Peter Harrison Memorial Prize. In an interview with the UNSW media unit she emphasised that the award gives recognition to the importance of qualitative research.

LEADERSHIP AND ADVOCACY

1. Conference Presentations

The HBEP team presented papers at a number of conferences during 2013. Selected presentations are listed below.

Australasian Housing Researchers Conference, Fremantle, February

The 7th Australasian Housing Researchers Conference was held in Fremantle, Western Australia from 6 – 8 February 2013. HBEP Research Officer Emily Mitchell gave a presentation entitled 'The Healthy Neighbourhood Audit Instrument: Understanding the Environmental and Socio-Cultural Conditions to Support Healthy, Happy and Resilient Residential Communities'. The presentation provided an overview of how the primary audit instrument used in the HBEP's ARC Linkage project was developed and how it has been applied in the field. A peer reviewed paper has also been published in the conference proceedings.

6th Liveable Cities Conference, Melbourne, June

HBEP Director Susan Thompson and Ms Claudine Lyons from the Ministry of Health travelled to Melbourne in June to present at the 6th Liveable Cities Conference. The presentation was entitled: 'The Healthy Built Environments Program: Working together to break down health and planning silos'. Susan also chaired a session on day one of the Conference – entitled ‘Working with Climate Change’.

Joint European and American Planning Schools Congress, Dublin, Ireland, July

HBEP Director Susan Thompson attended the Joint European (AESOP) and American (ACSP) Planning Schools Congress in Dublin, Ireland from 15 - 19 July. The Congress, entitled 'Planning for Resilient Cities and Regions', attracted over 1,000 delegates from more than 50 countries and was structured around a mammoth program of papers across 16 fields of interest.

HBEP’s contribution was a paper entitled ‘Planning and Health: Forging New Alliances in Building Healthy and Resilient Cities’, jointly authored by Susan, HBEP Research Associate Jennifer Kent, and Ms Claudine Lyons from the Ministry of Health. The paper, which detailed the work and contribution of the HBEP, can be accessed at:

Annual ANZAPS Conference, Canberra, September

HBEP Director Susan Thompson attended the Australian and New Zealand Association of Planning Schools (ANZAPS) Conference in Canberra on 27-28 September (http://anzaps.net/2013-anzaps-conference-university-of-canberra/). This annual meeting of planning academics is a chance to discuss educational initiatives and challenges in the discipline. Susan presented a paper authored with HBEP Casual Research Assistant Dr Vivian Romero entitled ‘Interdisciplinary Teaching and Learning: Preparing built environment and health professionals for interdisciplinary and integrative 21st Century practice’. The paper gave an overview and critique of the Healthy Planning course at UNSW. The paper has been accepted for publication in the ANZAPS proceedings.
State of Australian Cities Conference, Sydney, November

The HBEP was well represented at the State of Australian Cities Conference (SOAC) held in Sydney in November. This is arguably the definitive conference for urban researchers in Australia. Held every two years, the conference attracts international interest, with conference proceedings presenting a formidable snapshot of contemporary urban scholarship.

HBEP Research Officer Emily Mitchell and HBEP Director Susan Thompson’s paper on the Planning and Building Healthy Communities ARC Linkage project opened a session focusing on healthy built environments. HBEP Research Associate Jennifer Kent presented her award-winning paper on her PhD research (see page 16) and also co-authored a paper on automobility with Professor Robyn Dowling from Macquarie University. Both papers focused on societal attachments to private car use, with the latter conceptualising ways to combine autonomy and sustainable transport use.

Susan and Jennifer were invited to chair sessions at the conference and all papers submitted by the HBEP team were accepted for publication in the conference proceedings.

2. Other Keynote and Professional Presentations

Environmental Health Association Conference

HBEP Director Susan Thompson was invited to present a keynote address at the South Australian Environmental Health Association Congress in Adelaide held on 11 April. Susan’s address focused on the role of the built environment and urban planning in supporting human health and wellbeing. It featured in the plenary session of the Congress and was entitled: ‘Building Healthy Communities through motivation, integration and collaboration’.

Healthy Cities Conference

HBEP Strategic Consultant Tony Capon was a keynote speaker at the 6th Making Cities Liveable Conference held in St Kilda, Melbourne in June. Tony's presentation focused on the co-benefits of action for health and climate change.

Water Services Association of Australia: Working Across Disciplines to Address Complex Problems

In August, HBEP Director Susan Thompson had the pleasure of speaking to the Water Services Association of Australia’s Adaptive Planning and Integrated Water Management Network. The topic of Susan’s presentation was ‘Planning, Health and the Environment: Working across disciplines, breaking down professional silos’.

Obesity Australia Annual Summit

HBEP Director Susan Thompson was invited to present a keynote address to Obesity Australia’s 2nd Annual Summit, held at the John Curtin School of Medical Research in Canberra in November. Susan's presentation featured in a session considering alternatives other than medical interventions in the treatment and prevention of obesity. Entitled ‘Creating healthy built environments’, Susan’s talk outlined the role of built environments in supporting healthy behaviours which address the main risk factors for obesity. For further details on the Summit, go to the Obesity Australia website.
**Gear Up Girl!**

In February and December, HBEP Research Associate Jennifer Kent represented the HBEP at two women-specific workshops on cycling (see image at right). The workshops were hosted by Bicycle NSW as part of their ‘Gear Up Girl’ program. The program aims to encourage more women to try cycling and Jennifer’s presentation focussed on women-specific barriers to the uptake of cycling and cultural perceptions of travelling by bike.

**City Futures Research Centre Seminars**

*Jennifer Kent*

On 11 September, HBEP Research Associate Jennifer Kent presented a seminar on her PhD research entitled *Secured by Automobility, why does the private car continue to dominate transport practices?* The seminar was well attended, attracting over 30 attendees from the Faculty of the Built Environment, Transport for NSW, local government, and cycling advocacy groups. A number of interesting issues were raised in discussion after Jennifer’s presentation, including questions from Transport for NSW as to how the research findings can be incorporated into their data collection processes.

A video recording of Jennifer’s presentation can be downloaded from the City Futures Research Centre at:

Andy Dannenberg

On 11 December, visiting Professor Andy Dannenberg presented a lunchtime seminar at the Faculty of the Built Environment entitled Healthy Community Design: Current Research and Opportunities. The seminar was part of Andy’s ten day visit to UNSW. The seminar was well attended, attracting 20 participants primarily from the Faculty of the Built Environment, indicating increasing interest in research opportunities in the HBE space from built environment academics not traditionally associated with health. The slides from Andy’s presentation can be accessed at: http://www.be.unsw.edu.au/sites/default/files/upload/pdf/cf/hbep/education/Andy_Dannenberg_Lecture_Dec2013.pdf

3. Policy and Inquiry Submissions and Advocacy

During 2013, the HBEP made a number of submissions on issues of importance for the promotion and support of healthy built environments in a variety of policy and practice contexts.

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 comprised an Issues Paper covering the ideas and feedback received during the initial consultation phase. A subsequent Green Paper, ‘A New Planning System for NSW’, was published in
July 2012. In May 2013, a White Paper was released, accompanied by two pieces of draft planning legislation - the Exposure Planning Bill and the Exposure Planning Administration Bill. The Planning Bill establishes the key provisions for the new system and the Planning Administration Bill provides for the establishment of planning bodies and other procedural matters.

On publication of the Planning Bill, HBEP was delighted to learn of the incorporation of health as one of the objectives of the new planning legislation. This inclusion opens the door to ongoing augmentation of the health-built environment relationship in NSW. It is a unique and inspiring opportunity.

While the inclusion of health as an objective in the Planning Bill was encouraging, further submissions on the White Paper and draft legislation were necessary to both reinforce the importance of the health objective and lobby for further change. The HBEP’s submission on the White Paper had a specific focus on the content of the draft legislation, taking the opportunity to comment and provide recommendations on ways the legislation could be strengthened to better address planning for healthy built environments. Our submission also specifically recommended development of a NSW Planning Policy for Healthy Built Environments, and provided example objectives and delivery strategies for components of such a policy.

In brief, our submission made the following key points:

1. The inclusion of health as an object of the draft legislation is a positive and welcome step. The HBEP can provide on-going support to the NSW Department of Planning & Infrastructure (DP&I) as it progresses to actualise this intention through explicit policy and processes.
2. The principles articulated in the Community Participation Charter are comprehensive. There remains, however, some ambiguity and weakness in the wording for specific sections. Benchmarks are required to assess community participation. Provisions are required to ensure strategic planning remains responsive to social context in the absence of a community voice.
3. Specific time frames for the review of Community Participation Plans need to be articulated in the Planning Act.
4. The need to consider the objects of the Planning Act in the preparation of strategic plans is not articulated in a robust way in the draft Planning legislation. Health targets need to be added to the list of targets required for inclusion in Regional Growth Plans and Sub-regional Delivery Plans.
5. Health professionals need to be added to each list of appropriate experts nominated in the draft legislation as assisting various planning bodies.
6. A NSW Planning Policy for Healthy Built Environments should be included in the final list of initial NSW Planning Policies.

Our complete submission, along with all previous HBEP submissions on the Planning System Review, are on the HBEP website: http://www.be.unsw.edu.au/programs/healthy-built-environments-program/submissions

In addition to our own submissions to the planning system review, the HBEP teamed with the NSW Premier’s Council for Active Living (PCAL) to host three stakeholder forums on the review process. The most recent was held in April 2013 to discuss the White Paper and draft legislation. The forum was well attended by key stakeholders with an interest in healthy built environments. Attendees represented an array of organisations, including NGOs, Local Health Districts (LHDs), academia, industry and local and state government. They were from diverse backgrounds, including health, planning, aged care and architecture.
The aim of the forums was to bring people together to discuss the best way to respond to the Planning System review. Stakeholders were provided with practical tips and advice on the structure and content of their separate submissions to the review. This resulted in a consistent and clear message delivered to those responsible for the review. While it is difficult to attribute legislative change to any one factor, provision of this clear ‘health’ message was undoubtedly instrumental in its inclusion as a planning objective. The forum was facilitated by HBEP Consortium Partner, Dr Danny Wiggins and included presentations from DP&I, PCAL and staff from LHDs.

In addition to the joint organisation of this remarkably productive forum, HBEP staff attended a number of other meetings and consultation opportunities related to the review, all the while promoting the inclusion of health as a consideration in and objective of any new planning system implemented in NSW.

Submission on the draft Metropolitan Strategy for Sydney

Concurrent to the NSW Planning System Review, DP&I released a draft Metropolitan Strategy for Sydney. On the 12 April HBEP Research Associate Jennifer Kent attended an invitation-only Academic Roundtable at the Department to discuss the new strategy.

The HBEP subsequently made a formal submission to DP&I urging the government to continue to frame health as a central policy component in the Metropolitan Strategy. Our submission cited the evidence base established by the HBEP Literature Review to present opportunities throughout the draft strategy to incorporate human health and well-being as a more explicit focus. We emphasised the provision of infrastructure concurrent with the development of new residential and employment areas, the need to develop higher density housing in accordance with best-practice urban design standards and the importance of protecting existing tracts of green and open space. We also made a number of recommendations regarding terminology adopted by the strategy, including the framing of active transport as walking, cycling and public transport. All of these recommendations focus on enabling new and existing residents of Sydney to establish and maintain healthy ways of living, including opportunities to be physically active, to connect with their community and to access healthy food. Our complete submission can be downloaded at: http://www.be.unsw.edu.au/programs/healthy-built-environments-program/submissions

Subsequent to our submission, on the 15 October, HBEP Director Susan Thompson attended a meeting convened by DP&I of healthy built environment stakeholders to discuss the inclusion of health as an objective in the Strategy. The meeting included representatives from the Heart Foundation, Ministry of Health, LHDs, Centre for Health Equity Training, Research and Evaluation (CHETRE) at UNSW and the Planning Institute of Australia. The meeting discussed how the strategy could best incorporate a health supportive objective and policy clauses. Possibilities were canvassed in confidence. HBEP is very supportive of such an inclusion and has offered its assistance in advancing this matter.
Activating Healthy Built Environments in NSW – Forum with Professor Andrew Dannenberg

While inclusion of a health objective in the NSW planning legislation is a unique and inspiring opportunity, its full realisation will only come about with ongoing promotion from within the health and planning professions. To commence this process, the HBEP hosted a forum on 12 December to discuss ways to best implement and activate the objective. The forum was attended by eight participants, representing a range of built environment and health backgrounds. Its highlight was the opportunity to learn from the experience of Professor Andy Dannenberg from the USA in integrating health and planning legislature (further information on Andy’s visit can be found on pages 20, 31 and 36).

The aims of the forum were to:
- learn from Andy Dannenberg’s insights into how we might consider different aspects of activating the health objective
- discuss any updates on the status of the health objective
- brainstorm key activation ideas
- discuss the role of the Land and Environment Court in defining health and applying the health objective.

In summary, Professor Dannenberg drew on key elements of a report titled ‘Healthy Plan Making’ by Anna Ricklin and Nick Kushner commissioned by the Centers for Disease Control and Prevention in the USA and prepared by the American Planning Association. The purpose of the report was to answer the question of where health fits in to planning.

Important elements for the successful integration of health into planning were identified as:
- Find community champions
- Consider (political) context and timing
- Reach out and work strategically with advocacy groups
- Develop formal partnerships across sectors
- Nominate key health priorities
- Work to fill gaps in the data
- Seek multiple sources of funding
- Develop strategies to monitor change.

Suggestions to move the agenda forward discussed at the forum included developing a database of evidence on healthy planning and developing a set of indicators for healthy built environments in NSW. The key resolve was to convene a meeting of the Healthy Planning Expert Working Group originally assembled to comment on the planning review and lobby for the inclusion of health considerations. The meeting is to have clear focus on implementation and is to be convened in 2014.
4. Participation in UNSW and City Futures Research Centre Strategic Faculty Committees

UNSW Postgraduate Reviews

HBEP Director Susan Thompson participated throughout 2013 in formal UNSW reviews of PhD student research projects. Several of these related to healthy built environments including support for active transport, healthy ageing, and 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). A recommendation of the Review was to create an Executive Committee of representatives from each of the CFRC’s newly expanded areas of interest, including the HBEP. Director Susan Thompson sits on this Committee as an Associate Director (Healthy Built Environments) of the CFRC. The Executive Committee met once a month in 2013.

5. Strategic Participation with Healthy Built Environment Stakeholders

Cancer Council Shade Committee Representation

The NSW Skin Cancer Prevention Strategy 2013-2015 identifies five ‘Priority Settings’ for skin cancer prevention initiatives. As part of the achievement of preventive actions, a Shade Working Group was formed in 2012. HBEP Director Susan Thompson sits on this 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 built environment sectors, including local and state government, and will work on one of the five Priority Settings: Community – built environments, social structures and advocacy. The Group met four times in 2013 to discuss various matters, including an update of the Shade Handbook for Local Government and an audit of shade practices across NSW. Involvement in the Working Group is useful for ensuring HBEP is up-to-date with current research and policy development in this area. It is also useful for networking with key stakeholders and there may well be opportunities for research projects.

Diabetes Panel at UWS

In early 2013, the Western Sydney Local Health Network and the Medicare Local–Western Sydney invited HBEP Director Susan Thompson to participate in a panel discussion on diabetes prevention. The panel followed a lecture by Professor Chris Rissel, the Director of the NSW Office of Preventive Health, titled ‘Diabetes Prevention and the NSW Healthy Worker Initiative’. The event was held at the University of Western Sydney Clinical School at Blacktown Hospital on 19 March and was well attended by both health clinicians and health promotion professionals. The Panel included clinicians, health professionals, PCAL and HBEP Consortium Partner Western Sydney Region of Councils. Susan spoke about the ways in which the built environment is critical in supporting healthy behaviours which are known to prevent diabetes.

Premier’s Council for Active Living (PCAL) Integrated Planning Review Framework Working Group

Throughout 2013, the HBEP contributed to a multi-disciplinary working group convened by PCAL. The working group has been established to oversee a review of PCAL’s guide on ways to promote various healthy planning principles and practices through the Integrated Planning and Reporting framework established in the Local Government Act 1993 in 2009. The framework requires local
councils to undertake 'whole-of-council' long, medium and short term planning. Since 2010, PCAL has provided guidance in the form of an online resource to assist local government and other stakeholders on ways the framework can be used to promote active living. This resource is being updated to include a focus on healthy eating.

**Mentoring and Support for Health Activities – Research and Policy**

HBEP Director Susan Thompson worked throughout the year as a mentor in the NSW Health Education and Training Institute (HETI) ‘Rural Research Capacity Building Program’. Her mentee, Brendan Pearson, is the Health Promotion Coordinator with the Murrumbidgee LHD Health Promotion Team and is undertaking a research project on active transport in Albury. He will investigate the current participation in and support for walking and cycling to work in Albury. Brendan will also examine strategies that could be adopted to encourage walking and cycling to work.

As well as being great research training for him, Brendan’s project will augment understandings about healthy built environments for rural areas. The detailed project proposal, and accompanying ethics application, was submitted to HETI in early December.

**6. New Planner Column**

In 2013 HBEP Director Susan Thompson continued to contribute the regular ‘Healthy Built Environments’ column to *New Planner*, the quarterly journal of Planning Institute Australia (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 to implement healthy built environments. Details of the 2013 columns are listed below. All columns can be accessed from [http://www.be.unsw.edu.au/programs/healthy-built-environments-program/new-planner](http://www.be.unsw.edu.au/programs/healthy-built-environments-program/new-planner).

**March 2013:** A discussion of the key issues planners must consider in balancing the environmental, health and economic needs of Australian cities. The theme of the issue was ‘getting the balance right’. In the column, Susan collaborated with Strategic Consultant Tony Capon to argue that liveability, sustainability and productivity are all foundations for human health and wellbeing.


**June 2013:** This column focused on education – considering the value of planning for interdisciplinary understandings which are central to creating and managing healthy built environments. An overview of current educational offerings in healthy planning for both professionals and students in health and the built environment was provided. Educational initiatives of PIA, the Heart Foundation, PCAL and the HBEP were presented.


**September 2013:** The theme of this issue of ‘New Planner’ was ‘adding up the numbers’. The ‘Healthy Built Environments’ column discussed how planners can find and use health and well-being data to inform policy, assess the health impacts of development proposals and measure the
effectiveness of developments over time. Susan invited Dr Roy Byun, epidemiologist with the South Western Sydney LHD, to join her in authoring this column.


**December 2013:** Susan worked with Paul Klarenaar from the Northern Sydney LHD to review 2013 as a watershed year for healthy planning in NSW. The column had a specific focus on the opportunities provided by the inclusion of a health objective in the draft NSW planning legislation.


7. HBEP Website, Newsletter and Promotional Material

**Website Review and Maintenance**

A comprehensive review of the HBEP website was undertaken in April, with subsequent editing, updating and structural improvements carried out by HBEP Research Officer Emily Mitchell following training from the Built Environment Computing Unit on website editing and maintenance. Core changes were made to the Publications, Education and Research sections. The information on these pages was re-organised to allow users to better access HBEP publications, including books, conference papers, academic articles, staff presentations, and submissions; online education resources and information about workforce development and capacity building; information about current research projects and student research; and the fortnightly HBEP literature updates. The website is now updated and maintained on a weekly basis.

**Newsletter**

The HBEP released three newsletters in 2013 (Autumn, Winter and Spring), with the summer newsletter to be published in early 2014. Newsletters 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 HBEP website. They also include news items and up and coming forums and seminars. All HBEP newsletters can be downloaded from: [http://www.be.unsw.edu.au/programs/healthy-built-environments-program/newsletters](http://www.be.unsw.edu.au/programs/healthy-built-environments-program/newsletters)
8. HBEP Media Coverage

The HBEP is regularly contacted by media for comment about different issues. Media coverage in 2013 included:

The Guardian

In late January HBEP Director Susan Thompson was interviewed for an article in The Guardian’s online Sustainable Business section: ‘How we can improve the impact of urban living on health and wellbeing’. The article discusses the growing global recognition of the relationship between the built environment and health and can be accessed at: http://www.guardian.co.uk/sustainable-business/urban-living-impact-health-wellbeing.

The Sydney Morning Herald


The Fifth Estate

The 20 June e-newsletter of ‘The Fifth Estate’ included an article on the HBEP’s presentation at the 6th Liveable Cities Conference in Melbourne. Entitled ‘Bridging the gap between health and built environments’, it provided an overview of the presentation to the Conference by HBEP Director Susan Thompson and Ms Claudine Lyons from the Ministry of Health. This was great publicity for HBEP and its participation in this national conference. Refer: http://www.thefifthestate.com.au/archives/50757/.

The Border Mail

While in Albury presenting the ‘Planning for Health’ workshop, HBEP Director Susan Thompson was interviewed by a local journalist for ‘The Border Mail’. The article was a great opportunity to promote healthy built environments in rural localities. Refer: http://www.bordermail.com.au/story/1610382/feeling-alone-a-rural-issue/?cs=11

9. Recognition of the HBEP

Various HBEP initiatives and achievements have been recognised in 2013 in various publications by the Faculty of the Built Environment:

City Futures Research Centre (CFRC) Quarterly Newsletters

In 2013, CFRC newsletters included items on the recognition of health as an objective in draft NSW planning legislation and Sydney’s Metropolitan Strategy (May), the HBEP mapping report (August), HBEP publications (May, August and November), HBEP’s first PhD graduand (November), and our activities around Andy Dannenberg’s visit (November). Refer: http://www.be.unsw.edu.au/centres/city-futures/newsletters
UNSW Built Environment (BE) Newsletters and News Items

The Faculty of the Built Environment publishes regular newsletters and e-bulletins. In 2013, BE news items featured various HBEP stories:

April: HBEP Director Susan Thompson’s appearance in UNSW TV’s ‘From Tigger’s to Milford House, with love’.
July: HBEP Director Susan Thompson’s visit to Dublin (with Faculty colleagues) and attendance at the AESOP/ACSP Congress.
September: HBEP Research Associate Jennifer Kent’s Seminar at the Faculty.
November: HBEP Research Associate Jennifer Kent’s award of the Peter Harrison Memorial Prize.

City Futures Research Centre Annual Report

The CFRC 2012 Annual Report, published in 2013, includes a comprehensive overview of HBEP and its activities in the context of the CFRC. The Annual Report is distributed to a wide audience interested in urban issues, which augurs well for the promotion of HBEP and its work. Refer: http://www.be.unsw.edu.au/research-centres-and-clusters/city-futures/annual-report.

10. Leadership and Advocacy – Looking Ahead

The HBEP Symposium 2014

Preparations commenced for the HBEP to host a multi-disciplinary symposium in April 2014. The organising committee consists of HBEP Advisory Board members Peter Sainsbury, Helen Johnson and Paul Klarenar, as well as the HBEP Team. The committee met in September to brainstorm ideas.

The theme of the symposium will be ‘Healthy Built Environments: Making it Happen’. This implies a focus on how practitioners and researchers can enact real change to create environments that are more supportive of human health. A relatively broad conceptualisation of ‘change’ will be assumed, and it is intended to explore strategies for not only infrastructure modifications but also ways to better engage key stakeholders. A tentative date of the 7 April, World Health Day, has been set. The committee is looking at hosting the symposium at UNSW with an afternoon fieldtrip to one of the field study sites in the HBEP ARC Linkage Project Planning and Building Healthy Communities.

A school kitchen garden typical of many such healthy built environment initiatives found across Australia.
EDUCATION AND WORKFORCE DEVELOPMENT

1. Formal Tertiary Courses

Healthy Planning (BENV2949)

The undergraduate elective ‘Healthy Planning’ was held in Semester One at UNSW with 32 students successfully completing all course requirements. In 2013, for the first time, the course was principally taught by HBEP Research Associate Jennifer Kent. The students profited from the involvement of the National Heart Foundation (HBEP consortium partner) and PCAL (HBEP Board member). The Ministry of Health and HBEP’s Strategic Consultant Tony Capon also contributed, with HBEP Director Susan Thompson maintaining a key role as both course supervisor and guest lecturer.

The course is innovative in that it has its fundamental focus on the ways in which built, natural and socio-cultural environments can inhibit and enhance the physical and psychological health of contemporary communities. Classes involved a mixture of lectures, participant discussion, presentations and strategic engagement with healthy planning tools. The course included significant field work components, where students learnt to experience and audit the built environment as a way to gauge its potential to hinder or support healthy lifestyles.

A key aim of the course is to foster students’ generic skills in working in interdisciplinary teams. Students are encouraged to learn as much from each other as they are from those engaged with course delivery. In 2013 the course retained a specific focus on walkability and the use of built environment audits to assess how well walking is encouraged in particular localities. Students from planning, construction management, exercise physiology as well as interior and industrial design banded together to undertake a walkability audit of a precinct of their choice based on a unique audit tool they developed themselves. Audits were completed at seven sites, including the Sydney central business district, Kings Cross and Glebe Point Road. Many of the recommendations resulting from the audit reports were of a standard suitable for submission to the relevant local government authority and students were encouraged to take this step.

Healthy Built Environments (BENV7712)

The postgraduate elective ‘Healthy Built Environments’ was held at UNSW in Semester Two, with 21 students as well as one staff member from the Northern Sydney LHD. Run by HBEP Director Susan Thompson, the course focuses on the role of the built environment in supporting healthy behaviour as well as the ways that health and built environment professionals are collaborating to address the epidemic of chronic disease associated with sedentary and socially isolated urban living. Current research, legislative and policy frameworks, and best practices 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 the built environment (architecture, landscape architecture, urban planning and sustainable development) and health. Students participated in a mix of formal lectures delivered by HBEP staff and consortium partners. Topics included:

- Transportation and health
- Access to healthy food
- Environmental sustainability and health
- Housing and health; green infrastructure and health
- Companion and assistance animals and their role in supporting physical and mental health
- Health in developing countries
- Assessing health impacts – use of different tools
- Interdisciplinary ways of working in health and the built environment.

Students participated in discussions, an audit of health-supporting features of the UNSW campus, and presented group posters on outdoor gyms, healthy urban design, the importance of green space for health and well-being, and community gardens. These posters were displayed as part of the Planning Program’s offerings in the end-of-year Faculty of the Built Environment exhibition **LuminoCity** ([http://www.be.unsw.edu.au/luminocity](http://www.be.unsw.edu.au/luminocity)) which celebrates the work of all graduating students. A class debate on scenarios for a healthy future for people and the planet was held in the last week of semester. A highlight of the course was a Saturday morning field trip to the Orange Grove Farmers’ Markets in Lilyfield ([http://www.yelp.com.au/biz/orange-grove-farmers-market-leichhardt](http://www.yelp.com.au/biz/orange-grove-farmers-market-leichhardt)) and an inspection on foot of the Greenway which traverses part of the Ashfield, Marrickville, Leichhardt and Canterbury Council areas ([http://www.greenway.org.au](http://www.greenway.org.au)). The tour, led by Susan, concluded in the Leichhardt Dog Park, where students partook of refreshments at the famous Café Bones.
Developing ‘Healthy Built Environment’ Curriculum with Professor Andrew Dannenberg

In 2012, the HBEP collaborated with the University of Canberra on a successful application to the Fulbright Commission to host Professor Andrew Dannenberg in Australia for four weeks under their Senior Specialist Program. Professor Dannenberg is an Affiliate Professor of environmental health and of urban design and planning at the University of Washington in Seattle. He was formerly Team Lead of, and now serves as a consultant to the Healthy Community Design Initiative in the National Center for Environmental Health at the U.S. Center for Disease Control and Prevention in Atlanta.

The primary focus of Andy's visit was curriculum development in the healthy built environment (HBE) space. Andy's work has been extremely influential in promoting the HBE agenda and his experience as an educator provided a unique opportunity to engage HBE stakeholders in cutting-edge ways of learning and teaching in this area.

The first two weeks were spent with the University of Canberra where Andy gave a keynote address and proceeded to actively contribute to a ‘Healthy and Sustainable Places' short course. This week-long course was designed specifically for practitioners in public health, urban planning, environmental health, non-government organisations and advocacy groups along with researchers, postgraduate and undergraduate students of public health. In addition to Professor Dannenberg's keynote address, the course featured presentations by professionals and academics working in the HBE space, including HBEP's Research Associate Jennifer Kent.

Professor Dannenberg's visit culminated with ten days in Sydney where the HBEP hosted a number of events, forums and workshops to capitalise on his expertise. These included the faculty research seminar, public lecture and Activating Healthy Built Environments forum (discussed on page 20, 36 and 23 respectively) as well as a day-long academic roundtable to discuss curriculum development on healthy and sustainable places in Australia.

The roundtable was attended by ten participants all involved in various aspects of HBE education in tertiary institutions in Australia. The core objectives were to:
- obtain an overview of what is happening in HBE education and research across Australia
- discuss opportunities to work and educate in the HBE space
- take stock of progress made in HBE education (including the achievements and undertakings of people and groups not represented at the workshop)
- share stories and discuss key barriers to HBE education, with the aim of learning about how HBE education can be improved and extended
- reflect and determine the next steps for HBE education (for individual institutions and partnerships with international organisations).

The day commenced with general discussion about the importance of collaboration between educators working in the HBE area. Professor Dannenberg proceeded to deliver an overview of HBE education in the United States (USA). Of particular note and interest was the Built Environment and Public Health Curriculum website (www.bephc.com) created by Nisha Botchwey (Georgia Tech School of City and Regional Planning). This website provides a catalogue of HBE programs, courses and units by different institutions in the USA. The website currently has information, including syllabi, readings and assignments, for around 20 courses. Participants discussed the potential to establish a similar resource with an Australian focus.

Participants then shared stories about content, format, mode of delivery, and assignments from their HBEs courses. The idea of a Massive Open On-line Course (MOOC) in healthy built environments, where stakeholders contribute various modules, was aired. Strategic Consultant Tony
Capon gave participants a brief overview of the function and organisation of the United Nations University (UNU).

The day concluded with participants breaking into two groups to brainstorm ideas for taking HBE tertiary education forward. The first group was asked to take a blue sky approach. This included discussion of who was missing from the workshop and may potentially be involved in future work, and brainstorming of the next short, medium and long term steps for HBEs work. The second group took a more grounded approach in discussion of the ideas currently on the table – including common strengths, resources, and institutional and other barriers. A series of conclusions and strategies were discussed. These have been incorporated into a report to be available on the HBEP website in early 2014.

A subsequent first step will be to collate HBE course outlines on-line, and to ensure all roundtable participants are able to remain in contact by provision of contact details and information about course offerings.

Andrew Dannenberg presenting at the HBE curriculum roundtable, UNSW.
2. Other University-Based Educational Activities

Exercise Physiology Guest Lecture

On 5 March, HBEP Director Susan Thompson gave a guest lecture on healthy built environments for undergraduate students studying exercise physiology in the Faculty of Medicine at UNSW. This is now a regular annual event. In the lecture students were provided with an overview of healthy built environment principles, together with current policy and practice initiatives. The lecture concluded with a discussion of how exercise physiologists can work with local government planners to provide supportive environments for health as part of everyday living for their patients and clients. The lecture also emphasised the importance of auditing neighbourhoods for walkability, and feeding the results back to planners and local decision makers. It is hoped that by presenting lectures such as this, future health care professionals will not only understand the relevance of healthy built environments for their work, but will actively advocate for them.

Undergraduate Healthy Planning Course Guest Lecture

On 26 April, HBEP Research Assistant Emily Mitchell gave a presentation on the Healthy Neighbourhood Audit Instrument as part of a class on walkability audits for the undergraduate Healthy Planning course taught by HBEP Research Associate Jennifer Kent. The lecture provided an overview of how the audit instrument was developed, and how it is being used in the field for the ARC Linkage Project Planning and Building Healthy Communities. The audit instrument was described in detail, accompanied by a visual presentation of the different types of collected data. The presentation gave students an opportunity to learn about the development and application of audit instruments prior to completing an assessment in which they were required to create and use their own audit instrument.

First Year Planning Guest Lectures

On 24 April, HBEP Director Susan Thompson presented a two hour guest lecture to first year planning students at UNSW. This lecture focused on the nature of diverse communities who live and work in our cities, towns and regional centres. Students were encouraged to consider how, as future planners, they need to understand and incorporate the needs of the various age groups, cultural backgrounds and abilities in our communities.

On 15 May, HBEP Research Associate Jennifer Kent delivered a subsequent two hour guest lecture to first year planning students. This lecture used a review of the literature relating to health and the built environment to outline principles of healthy planning. Students also participated in an audit of their own travel behaviour to demonstrate the links between public transport use and physical activity.

Post Graduate Environmental Sustainability Course Guest Lecture

On 2 May, HBEP Director Susan Thompson presented a two hour guest lecture to postgraduate students studying for their Masters in Environmental Sustainability. Susan’s lecture focused on creating a supportive built environment for health, as well as the co-benefits for human and planetary health from action on climate change. This lecture was a great opportunity to showcase the work of the HBEP. Feedback from the students has been very positive.
Postgraduate Healthy Built Environment Course Guest Lectures

On 8 August HBEP Research Associate Jennifer Kent delivered a presentation on transport and health to the postgraduate Healthy Built Environments course taught by HBEP Director Susan Thompson. The lecture used data from current research and Jennifer’s own PhD to explore the links between mobility and health. The session concluded with the students undertaking an audit of their own travel behaviour.

On 12 September, HBEP Research Officer Emily Mitchell presented on ‘Health and the Built Environment in Low and Middle Income Countries’. Emily’s presentation reviewed the literature on the links between health and built environments and presented the concept of the “dual burden” of infectious and non-infectious disease experienced in these countries.

University of Canberra - Undergraduate Public Health Course Guest Lecture

On 5 September, HBEP Research Associate Jennifer Kent delivered a two hour guest lecture to public health students at the University of Canberra on ‘Auditing the Built Environment for Health’. The lecture discussed the way measuring the built environment for health informs policy and research initiatives. Students were then provided with an overview of the HBEP’s Mini-Audit instrument and proceeded to use the instrument to audit parts of the University of Canberra campus.

Macquarie University – Transport, Health and Environmental Management Guest Lectures

On 29 August and 13 September, HBEP Research Associate Jennifer Kent delivered guest lectures to planning and environmental management students at Macquarie University. Macquarie’s planning degree has an explicit focus on environmental sustainability with the health-built environment relationship receiving less attention. Jennifer used the opportunity to connect with a broader student body about the work of the HBEP, including the relationship between urban environments and health through the three domains articulated in the HBEP Literature Review (the built environment can support physical activity, the built environment can connect and strengthen communities, the built environment can provide equitable access to healthy food). Feedback from the students has been very positive and Jennifer remains in contact with a number of students currently undertaking research on the use of street verges for vegetable gardens and active transport for the journey to school.

Postgraduate Course on Research Methods

On Thursday September 5 and Saturday September 7, HBEP Director Susan Thompson made a major contribution to the Faculty of the Built Environment post-graduate intensive research methods course. This is compulsory for all postgraduate students enrolled in the Faculty. Susan lectured on the principles of qualitative methodologies, covering qualitative research philosophy and epistemology, appropriate methods selection, design and use of specific approaches (including in-depth interviews, case studies and detailed field observations), data gathering techniques, and data analysis and interpretation.

Susan also participated on a panel with other qualitative researchers within the Faculty discussing the application of qualitative methods in their different projects. The session concluded with reflections about the complexities and realities of qualitative research.
3. Capacity Building

The HBEP continued its capacity building activities for NSW Health and associated staff. All activities focused on augmenting professional understandings of the relationship between health and the built environment. The 2013 activities are outlined below.

Health Professionals’ Capacity Building Workshops

Throughout the year HBEP Director Susan Thompson and HBEP Consortium Partner Dr Danny Wiggins completed delivery of a series of ten capacity building workshops on planning for health professionals. The final workshop was delivered in Dubbo on 6 November where Susan and Danny were treated to a tour of local rural healthy built environment initiatives organised by LHD staff.

Titled ‘Planning for Health Workshops’, the series aimed to equip health professionals to better engage with the NSW planning system. The specific objectives were 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’ as a useful tool for health professionals to respond to planning proposals
- Provide advice (with worked examples) on preparing submissions to State and local planning agencies using the ‘Healthy Urban Development Checklist’.

A range of stakeholders participated in the all-day forums, including staff from LHDs, local councils and other interested groups (e.g. Medicare Locals, Heart Foundation, PCAL and community groups). The table below shows the location and dates of forums, enrolments and full day attendance numbers.

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>DATE OF WORKSHOP</th>
<th>ENROLMENTS</th>
<th>CERTIFICATES AWARDED FOR FULL DAY ATTENDANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Macquarie</td>
<td>10 December 2012</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Canterbury/Bankstown</td>
<td>21 February 2013</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>Newcastle</td>
<td>19 April 2013</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>Shellharbour</td>
<td>21 May 2013</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Penrith</td>
<td>23 May 2013</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Albury</td>
<td>1 July 2013</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>Griffith</td>
<td>3 July 2013</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Sydney CBD</td>
<td>4 September 2013</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Queanbeyan</td>
<td>1 October 2013</td>
<td>39</td>
<td>26</td>
</tr>
<tr>
<td>Dubbo</td>
<td>6 November 2013</td>
<td>36</td>
<td>31</td>
</tr>
</tbody>
</table>

While the exact format of each workshop was modified based on feedback and context, the typical workshop began with an overview of healthy planning concepts and key information resources from HBEP Director Susan Thompson. The aim was to ensure that everyone had a basic understanding of healthy planning principles, as well as where to go for information. Local examples were used as much as possible. This lecture also included an overview of the Healthy Urban Development (HUD) Checklist. This remains one of the best resources available to assist health and related stakeholders.
assess health matters in relation to plans, policies and development proposals. HBEP partner Dr Danny Wiggins followed this session with a comprehensive overview of the NSW planning system – an incredibly complex task. Dr Wiggins commenced with the statutory system and later in the day moved to explaining how strategic planning works. Interspersed were references to the proposed changes to the legislation. The final segment was a group exercise where case studies were analysed by participants using the HUD Checklist. This activity is designed to give attendees an appreciation of the Checklist and to inspire them to use it in their workplace. The contextual relevance of each workshop was greatly enhanced by excellent contributions from local planners.

Each participant received a certificate for their attendance and completed an evaluation of the workshop. Evaluations were generally extremely positive.

Images from the NSW Health Professionals’ Capacity Building Workshops.

Andy Dannenberg Public Lecture

On 4 December 2013, Professor Andrew Dannenberg presented a public lecture jointly sponsored and organised by the HBEP, the Henry Halloran Trust (University of Sydney) and the Heart Foundation (NSW). Held in the evening at historic Customs House in the Sydney CBD, the occasion was a great public showcase for Professor Dannenberg’s visit (further information on Andy’s visit can be found on pages 20, 23 and 31). The event attracted 81 registrations with attendees representing a diverse array of organisations, including local government, LHDs, tertiary institutions and NGOs. Andy’s presentation initiated interesting discussion on the role of health in promoting sustainable transport use and ways to better garner political and public support for HBE initiatives. The lecture, entitled How can the design of our cities support human health and sustainability? was audio recorded and will be available on the HBEP website in 2014: http://www.be.unsw.edu.au/programs/healthy-built-environments-program/online-education-resources.
4. Health Workforce Resources

The HBEP e-Learning Strategy

A key aim of the HBEP is the provision of opportunities for professionals to learn about healthy built environments, with ‘Education and Workforce Development’ defined as a key focus for the program. e-Learning is therefore an innovative opportunity to engage a busy and geographically diverse set of professionals potentially interested in and integral to the creation of healthy built environments.

In 2013, HBEP staff worked to formalise a strategy for the delivery of e-Learning resources. The HBEP’s e-Learning Strategy will be based on three tiers (as three Parts):

I. Part 1: Introducing the Basics of Healthy Planning (novice)
II. Part 2: Building on the Basics (intermediate)
III. Part 3: Research and Further Information (advanced).
An e-Learning ‘home page’ will outline the three tiers, provide ‘instructions’ for how they can be navigated, and also provide information on opportunities for face to face learning (such as workshops and UNSW courses).

The HBEP team have prepared a comprehensive briefing document to guide the strategy’s preparation and implementation. This will include the team and other HBEP consortium partners recording a series of online lectures. These resources will be available online in 2014 and will be accessible to anyone interested in healthy built environments.

The HBEP Mini-Audit Tool

A HBEP Mini-Audit tool, initially developed by HBEP Director Susan Thompson, has now been formally branded and is published on our website as part of the e-Learning strategy outlined above. The tool is the result of many years of development and use in Healthy Planning courses at UNSW. It takes students through a series of questions in which they are required to undertake detailed observations of the locality around them (in their case, their campus). Questions cover safety, access, food facilities, transport and places for interaction and the tool can be adapted for use in any environment. Depending on the size of the site under audit, the process can take as little as half an hour to complete. However, students are encouraged to take their time and remain in a place as a way to experience the way that place is navigated and felt from the perspective of those using it.

UNSW TV Video – Connecting communities ‘From Tigger’s to Milford House, with love’

HBEP Director Susan Thompson recently took part in a UNSW TV video about the importance of fostering social connections across generations. The video depicts the relationship between the children of Tigger’s Honeypot, a child care centre at UNSW, and residents of Milford House, an aged care facility in nearby Randwick. It illustrates the multiple well-being benefits both groups gained from regular interactions and friendships that developed over time. This engaging and moving video will be useful for different educational purposes. It is on the HBEP website e-Learning resources page: http://tv.unsw.edu.au/video/from-tigger’s-to-milford-house-with-love.

The video and HBEP’s contribution has also been featured on the Faculty of the Built Environment website: http://www.be.unsw.edu.au/content/tiggers-milford-house-love.

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: https://www.be.unsw.edu.au/programs/healthy-built-environments-program/literature-review.

The references are also uploaded into the HBEP’s EndNote Library.
5. HBEP Participation in Events and Exhibitions

Luminocity

LuminoCity showcases the work of UNSW Built Environment graduating students, together with a dynamic program of public events. See details of the 2013 event here: http://www.be.unsw.edu.au/luminocity. The HBEP showcased exemplary student research in healthy built environments. In 2013 HBEP was proud to have undergraduate planning student theses being exhibited (see page XXX), as well as postgraduate student posters from the Healthy Built Environments course.

6. HBEP Staff Capacity Building

HBEP staff undertook their own capacity building in a range of different activities in 2013. They included the following:

**Workshops on Inter-disciplinary Education**
HBEP Director Susan Thompson and Research Associate Jennifer Kent attended this UNSW Built Environment sponsored forum on 19 February. Further training was undertaken by Jennifer on 13 June. The focus of these workshops was on skill development for teachers engaged with multidisciplinary groups in the classroom.

**Integrating health, active transport and land use planning: opportunities, challenges & next steps**
HBEP Director Susan Thompson attended this Heart Foundation and PCAL sponsored forum on 7 February. Contributions were made from US and Australian healthy built environment experts.

**Website Maintenance Training**
HBEP Research Assistant Emily Mitchell received specialist training on 1 May to assist in editing and maintaining the HBEP website.

**Media Training**
Research Associate Jennifer Kent attended media training at the UNSW media unit on 27 August.

**Publications data management system (ROS) Training**
Research Associate Jennifer Kent undertook training in this new UNSW system on 26 September.

**Intersectoral Action on the Social Determinants of Health Forum**
HBEP Director Susan Thompson and Research Officer Emily Mitchell attended this forum on 14 October. The Forum provided an overview of current national and international policy initiatives to address the social determinants of health.
GOVERNANCE ACTIVITIES

HBEP Advisory Board

The HBEP Advisory Board convened four times in 2013 as listed below.

- 7 March – in person
- 30 May – teleconference
- 22 August – via email
- 14 November – in person.

Each meeting requires considerable planning and organisation. Dates for the 2014 meetings have also been finalised. There will be two face-to-face meetings and one teleconference.

HBEP Business Plan 2013-14

The HBEP Business Plan for the year commencing 1st July 2013 was prepared and accepted by the Advisory Board.

HBEP Quarterly Reporting to NSW Health

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

Evaluation and Review of the HBEP

On 10 September the Ministry of Health invited HBEP to comment on its draft guidelines for evaluation and review of the Program. As stated in the guidelines, the evaluation seeks to answer the following key questions:

- How effective has the program been in meeting its objectives across the three program areas of focus?
- How effective has the program been in working with and influencing external stakeholders?
- Is investment in a program like HBEP an effective and efficient approach for the Ministry of Health to influence the healthy built environment field?

The Ministry’s evaluation will take a mixed methods approach involving key informant interviews, expert opinion and document analysis. In December, the HBEP submitted the following documents for the review:

- A list of contents for a Portfolio to showcase key achievements in the areas of: research; education and workforce development; and advocacy and leadership
- A summary report of key achievements over the life of HBEP
- A summary report of evaluations of HBEP activities.

A formal evaluation interview was conducted with HBEP Director Susan Thompson in early December at UNSW. Completion of the review is anticipated in 2014 and the Ministry of Health will provide the results of the evaluation and review to the HBEP.
Higher Education Research Data Collection (HERDC) Return

HBEP's HERDC return for 2011/12 was completed and submitted to UNSW Central Finance. The HERDC return determines how much funding UNSW receives from the Commonwealth Government each year.

HBEP Annual Report

The 2012 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 2013 involved relationship building with healthy built environment stakeholders, as well as progressing HBEP strategic initiatives. HBEP staff also attended their own retreat in April, monthly City Futures Research Centre Team Meetings and a City Futures Research Centre annual retreat in October.
### APPENDIX ONE – HEALTHY BUILT ENVIRONMENT CONSORTIUM PARTNERS

<table>
<thead>
<tr>
<th>Sector</th>
<th>Key Attributes</th>
<th>Organisation</th>
<th>Consortium Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic</strong></td>
<td>Specific disciplinary &amp; research knowledge</td>
<td>Faculty of the Built Environment, UNSW</td>
<td>City Futures Research Centre</td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary research understandings and skills</td>
<td></td>
<td>Centre for Health Assets Australasia – until mid-2013</td>
</tr>
<tr>
<td></td>
<td>Learning and teaching expertise</td>
<td></td>
<td>Planning and Urban Development Program</td>
</tr>
<tr>
<td></td>
<td>Academic networks</td>
<td>Faculty of Medicine, UNSW</td>
<td>Public Health and Community Medicine</td>
</tr>
<tr>
<td><strong>State Government</strong></td>
<td>Policy knowledge in health</td>
<td>South Western Sydney and Sydney Local Health Districts</td>
<td>Population Health Directorate</td>
</tr>
<tr>
<td></td>
<td>Research projects in health and built environment</td>
<td></td>
<td>Centre for Research, Evidence Management and Surveillance</td>
</tr>
<tr>
<td></td>
<td>Practice expertise</td>
<td></td>
<td>Centre for Health Equity Training, Research and Evaluation</td>
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<tr>
<td></td>
<td>Health network</td>
<td>Health Promotion Service</td>
<td>Public Health Unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transport for NSW</td>
<td>Multicultural, HIV/AIDS and Hepatitis C Services</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>HIV and Related Programs</td>
</tr>
<tr>
<td><strong>Local Government</strong></td>
<td>Legislative, policy and practice knowledge</td>
<td>Western Sydney Region of Councils</td>
<td>Western Sydney Region of Councils</td>
</tr>
<tr>
<td></td>
<td>Key networks</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-government organisation</strong></td>
<td>Broad knowledge and expertise in health and the built environment</td>
<td>Heart Foundation NSW</td>
<td>Heart Foundation NSW</td>
</tr>
<tr>
<td></td>
<td>Key networks</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>Practice knowledge in health, built environment and sustainability</td>
<td>Arup</td>
<td>Danny Wiggins</td>
</tr>
<tr>
<td></td>
<td>Management skills</td>
<td>Danny Wiggins, Planning, Facilitation and Education Services</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Willana Associates, Urban Planning and Facilities Management</td>
<td>Willana Associates</td>
</tr>
</tbody>
</table>