



SUMMARY REPORT

PARKS FOR HEALTHY COMMUNITIES FORUM

On Thursday 12 May 2016, over 55 stakeholders participated in the Parks for Healthy Communities Forum, co-hosted by Parks Victoria and Deakin University's Institute for Physical Activity and Nutrition (IPAN) and Health, Nature and Sustainability research group. The forum was held at Deakin University Melbourne City Centre. This report summarises the presentations and discussions which took place at the forum.

PARKS FOR HEALTHY COMMUNITIES FORUM: Program

Time	Session
9:15am	<i>Registration (tea and coffee on arrival)</i>
9:30am	Welcome Alfred Deakin Professor Jo Salmon, Co-Director, IPAN, Deakin University
9:40am	<i>Presentation of the latest evidence on the role of parks in healthy communities</i> Associate Professor Mardie Townsend (Deakin University) <i>Healthy Parks Healthy People The State of the Evidence 2015</i>
9:55am	Dr Jenny Veitch (IPAN, Deakin University) <i>What is the impact of park renewal on park usage and physical activity?</i> <i>Natural Experiments in Parks</i>
10:10am	Professor Anna Timperio (IPAN, Deakin University) <i>Novel and innovative research highlighting adolescent preferences for park features to encourage park use and physical activity</i> <i>The Pick-A-Park findings</i>
10:25am	Dr Claire Henderson-Wilson (Deakin University) <i>Health benefits and associated economic value of parks and park use in Australia</i>
10:45am	Dr Javad Koohsari (Baker IDI Heart and Diabetes Institute) <i>Access to public open space: Is current urban planning policy promoting health?</i>
11:00am	<i>Morning tea</i>
11:20	Small group discussion: <i>Putting the research into practice</i> Facilitated by Andrew Shannon, Parks Victoria
12:00	Panel discussion: <i>The future of healthy parks – identifying ways to make it happen together</i> Facilitated by Andrew Shannon, Parks Victoria Panel Members: <ul style="list-style-type: none"> • Cath Olive , Metropolitan Planning Authority (MPA) • Dr Jenny Veitch, IPAN, Deakin University • Cathy Kiss, City of Melbourne • Sharon Laurence, Dept of Health and Human Services (DHHS) • Tony Varcoe, Parks Victoria
12:50	<i>Wrap up and close</i> Alfred Deakin Professor Jo Salmon, Co-Director, IPAN, Deakin University
1pm – 1:30pm	<i>Lunch</i>



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RESEARCH PRESENTATION SUMMARY: Presentation of the latest evidence on the role of parks in healthy communities

Power Point slides for the research presentations are available online at <http://www.hphpcentral.com/article/parksforum2016>. Please note, Power Point slides are not available for presentations by Dr Jenny Veitch and Professor Anna Timperio, due to the inclusion of unpublished results which are awaiting publication in the scientific literature. Please contact the presenters for further information.

Healthy Parks, Healthy People: The State of the Evidence 2015

Presented by Associate Professor Mardie Townsend (School of Health and Social Development, Health Nature and Sustainability Research Group, Deakin University) mardie.townsend@deakin.edu.au

Abstract

In 2015, the Health, Nature and Sustainability team in the School of Health and Social Development at Deakin University undertook a review of 663 articles, which culminated in the publication of 'HHP – State of the Evidence 2015'. Within these articles, there was strong evidence of the physical health benefits of parks, including empirical evidence. In relation to social health, there was a moderate level of evidence, with fewer studies than for physical health and less empirical data. Similarly for social health, the evidence was of a moderate level, and in this case relied more on qualitative data. While there was some evidence of spiritual health benefits of parks, empirical research was in short supply, perhaps because of difficulties associated with measurement.

In terms of physical health, parks foster physical activity, enhance immune functioning and reduce stress resulting in flow-on physical health benefits. For mental health, exposure to parks alleviates chronic stress such as PTSD, reduce attentional fatigue, attenuate hyperactivity and promote recovery from anxiety and depression. Parks and other natural environments support social cohesion, promote pro-social behaviour in children and alleviate loneliness and perceived lack of social support by increasing social contacts for older adults. Being in nature such as parks increases a sense of spirituality (connectedness to something greater than one's self and having a sense of hope and meaning in life), which has been shown to correlate with better health, less illness, better treatment response and lower mortality rates.

Key gaps in the research identified through this research were in relation to park influences on children's and adolescents' mental health, children's social health, all aspects of health of marginalised groups and spiritual health across all population groups. The study identified a number of barriers to park use, including lack of awareness of benefits, difficulties accessing parks and fear of crime, injury and the breaking of perceived social norms.

From this research it is evident that there are some important opportunities upon which the park and health sectors could capitalise. It is clear that park users' motivations vary and that these variations need to be taken into account when promoting parks as health resources (i.e. one size does not fit all). As we face increasing urban densification, park access and proximity remain important. And the quality and useability of parks remain a key factor in their health benefits being realised.



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What is the impact of park renewal on park usage and physical activity?

Natural Experiments in Parks

Presented by Dr Jenny Veitch (IPAN, Deakin University) jenny.veitch@deakin.edu.au

Background: Natural experiments involve researchers examining changes that occur in a population after the environment has been altered. The intervention is usually outside the researchers' control. Due to financial costs and logistic challenges natural experiments are scarce but they are important as they are a research priority for investigating causal associations between the built environment and physical activity. This presentation will review the various methodologies and results from two natural experiment studies conducted in parks in Victoria.

Methods:

Natural Experiment #1: This study examined the impact of park refurbishment on park visitation and park-based physical activity in a small neighbourhood park (25,000 m²). The refurbishment included the installation of a small playground, walking track, off-leash dog area and landscaping. Measures were conducted at baseline in August 2009 and at follow-up in March and August 2010 in the intervention park and a control park. Measures included counts of people visiting the park and physical activity levels. Results showed increases of more than 400% in park use and 600% in people engaged in vigorous physical activity following refurbishment of the park. After simple low cost changes we found a dramatic and sustained increase in park use and physical activity. This study showed that modifying the built environment by improving parks is potentially a long term and sustainable way to increase population levels of physical activity.

Natural Experiment #2: REVAMP is a natural experiment study that is examining the impact of the installation of a playscape in a large regional park in Victoria, Australia on park use and park-based physical activity. The study is funded by an Australian Research Council Linkage Grant and includes four partners: Brimbank City Council, VicHealth, Parks Vic, and City West Water. Baseline measurements were conducted at the intervention park as well as a control park in May 2013 and included: interviews with park users; electronic recording of path usage and cars entering the parks; and cross-sectional surveys with local residents. At each park, observations of park users were also conducted hourly on four weekdays (7.30am-4.30pm) and four weekend days (8.30am-4.30pm). Follow-up measures were identical to baseline measures and were conducted in May 2014 and 2015. Results from this study are yet to be published but may be obtained by contacting: jenny.veitch@deakin.edu.au

Conclusions: This research provides evidence on impact of park refurbishment and is important for policy and decision makers, urban planning, and future park developments.

Veitch J, Salmon J, Carver A, Timperio T, Crawford D, Fletcher F, and Giles-Corti B. (2014) A natural experiment to examine the impact of park renewal on park-use and park-based physical activity in a disadvantaged neighbourhood: The REVAMP study methods. *BMC Public Health*, 14;600.

Veitch J, Ball K, Crawford D, Abbott G, Salmon J. (2012) Park improvements and park activity: A natural experiment. *American Journal of Preventive Medicine* 42(6):616–619.



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Novel and innovative research highlighting adolescent preferences for park features to encourage park use and physical activity

The Pick-A-Park findings

Presented by Professor Anna Timperio (IPAN, Deakin University) anna.timperio@deakin.edu.au

Authors: Veitch J, Timperio A, Salmon J, DeForche B, Parker K.

Background: Little is known about specific park features that may encourage adolescents to visit or to be physically active whilst in the park. This is important if we are to avoid building parks that fail to support and encourage use by this important age group. This study involved the use of images of park features to identify critical characteristics of parks that are associated with adolescents' use of parks and willingness to be physically active within these settings.

Methods: Secondary schools located in low, mid and high SES areas of metropolitan Melbourne, Australia were recruited and students in years 8-10 were invited to participate. A range of physical features that may influence adolescent's willingness to visit and be physically active in parks were photographed using colour digital images. A computer application that included 44 images of park features was created and these images were presented one-by-one to participants in a random order on an Apple iPad*. Participants rated each image individually according to how likely they would be to visit the park depicted in the image and how likely they would be to be active in the park on a 10-point Likert scale (1=not likely, 10=highly likely). To obtain more detailed insights, participants also indicated using a 'thumbs up' symbol, characteristic(s) in each image that had the greatest positive influence on their rating and a 'thumbs down' on characteristic(s) that had a negative influence on their rating.

Results: 99 adolescents mean age 13.3 years (SD=0.87), 52.6% female constituted the final sample. The five features that were most likely to make the adolescents want to visit and be active in the park included: large slide, flying fox, large swing, table tennis tables and wooden adventure playground.

Features that would discourage them from visiting a park included: skate bowls/ramps, steps, graffiti, signage about rules and toilets.

Conclusion: This study used images to provide an insight of features that may be important for attracting adolescents to parks. This study is the first step in better understanding the needs of adolescents when upgrading or designing new parks.



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Health benefits and associated economic value of parks and park use in Australia

Presented by Dr Claire Henderson-Wilson (School of Health and Social Development, Health Nature and Sustainability Research Group, Deakin University) claireh@deakin.edu.au

Increasingly people are living in urban areas. Parks and green spaces are an often-deferred element in this, as the health and economic benefits of parks are largely under-rated and not well understood. The aim of this pilot study was to directly estimate the health and wellbeing benefits attained from parks and the economic value assigned to parks by park users in Victoria.

The research employed a mixed methods approach (survey and interviews) to collect primary data from a selection of park users. Data were collected between July and November 2015. Two researchers randomly approached parks users inviting them to complete a short written survey, resulting in 140 park user responses: 100 from metropolitan Melbourne parks and 40 from a park on the urban fringe of Melbourne, 17 of these participants were interviewed (only the survey responses are reported in this presentation). The survey included a range of measures and a contingent valuation method that estimated the monetary value park users attach to the health benefits derived from parks (known as a 'willingness to pay' scenario).

Majority of respondents were female, aged 35-64 years, working full-time, with a weekly income of more than \$1000, they also tended to have children, own a dog and have 'very good' health. The findings suggest that participants tend to visit parks for about 30-60 minutes, 2-3 times a week to participate in light to moderate physical activity. More park users were visiting parks for reasons classified as physical activities, followed by social and emotional-wellbeing and the mean 'willingness to pay' observed were also highest for those who visit parks for physical activities, then social reasons and relaxation and wellbeing. In addition, a majority of respondents indicated that they would miss the park 'very much' if it was not around and their corresponding 'willingness to pay' were also higher than those who would 'occasionally' or 'never' miss it. Overall our pilot study findings suggest that park users are willing to pay for parks as they highly value them as places for socialising, exercising and relaxing. Importantly, most people would miss parks if they did not exist, as evident from both the quantitative findings and the qualitative findings. We hope to further investigate the economic value associated with parks and park use by testing our survey, in an online format, with a separate sample of the Australian general population.



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Access to public open space: Is current urban planning policy promoting health?

Presented by Dr Javad Koohsari (Baker IDI Heart and Diabetes Institute) Javad.Koohsari@bakeridi.edu.au

Public open spaces (POS) are key neighbourhood environment elements shown to confer numerous physical and mental health benefits. The amount and spatial distribution of POS throughout cities are guided by urban planning policies and standards. However, the majority of POS guidelines haven't come from a solid evidence base. Developing evidence-based POS measures can help inform POS urban planning guidelines that will support healthier communities.

This study examined associations between urban design policy-derived and empirical measures of POS proximity and density with walking and depression. The 2011-12 Australian Diabetes, Obesity and Lifestyle study (AusDiab) wave data were used. Adults living in metropolitan Melbourne, Australia were included (n=319). Participants self-reported their walking for recreation and any walking within their neighbourhood during the last week. Depression was calculated using the Center for Epidemiologic Studies Short Depression Scale (CESD-10). Informed by Australian urban design policies and the empirical evidence, various POS measures were calculated at different street network buffers around residential addresses using geographic information systems software. Measures tested included: distance to the nearest, size of the nearest, total number, and area of POS at scales of 400, 800, 1000, and 1,600 m. Associations of POS measures with walking and depression were examined using adjusted multilevel logistic regression models.

Overall 68% and 77% of participants reported walking for recreation and any walking in the past week, respectively. About 13% of the sample were categorized as depressed. Living within 400m of POS was not associated with either type of walking, but those whose nearest POS was > 1.5 ha reported 1.90 and 2.66 times greater odds of walking for recreation and any walking during the last week, respectively. No POS measures were associated with depression. The urban planning policy requirement for POS being available within 400m of homes was not associated with walking or depression in this sample; however having a larger POS nearby supported residents' walking.

SUMMARY: SMALL GROUP DISCUSSION - Putting Parks Research into Practice.

A facilitated session asked the forum participants to break into small groups to reflect on the evidence presented by various researchers and discuss ways in which the research could be put into practice.

Working in small table groups of about 6 tables x 8 people, using butchers' paper, participants were asked to explore the general question of how to strengthen the links between research and practice to achieve increased participation.

As a starting point, participants were provided with the following questions:

- How do we best transfer the knowledge gained through urban park studies to the broader suite of state and national parks?
- How can we better link the work of practitioners and researchers? What approaches/tools/methods may be effective?
- Are there projects you are currently working on where you see opportunities for collaboration between researchers and practitioners?

Below follows a summary of the notes made on butcher's paper by a scribe from each small group.

Enhancing the links between practitioners and researchers

Researcher engagement with stakeholders & stakeholder engagement with researchers – it needs to be a two way street.

How do we link practitioners and researchers?

- Networking
- Forums etc
- Research partnerships
- Advocating co-benefits / common interests
- Informal knowledge exchange
- Industry body coordinating role
- Memo of understandings (policy / joint work)
- Collaboration

Great benefit of having this forum to expand partnership opportunities.
Need to involve practitioners + researchers + **community**

What can researchers do to enhance links with practitioners?

- Research agenda to be co-developed by agencies and academics
- Researchers – exploit engagement funding
- Researchers can look at agency strategic directions. What do they want to know?
- Agencies do community engagement – how can this inform research evidence?
- Focus on research that is more transferable across space and time – detail less important
- Explore the connection between biodiversity, people, and health and the benefits to both.
- Link / partner research to the practitioner at the early stage of developing survey questions and seek practitioners' needs /inputs (eg Researchers partnering with councils, PV, others).
- More research to support benefits of multiple health /rehab activities when taken outside (eg Royal Talbot)

What can practitioners and other stakeholders do?

- Stakeholders need to get better at articulating questions
- Contact researchers and get them involved early
- Explore the concept of the “knowledge-action boundary” and the role of “boundary organisations” – is Parks Victoria one?
- Consider links to the National Quality Framework for Early Childhood and other education sector links?

Knowledge Transfer Strategies, Tools and Methods

How do we better translate knowledge?

- Get practitioners [more] involved in formulation of research questions
- Engagement throughout process
- Why do new innovations when we know existing opportunities could be better supported and/or implemented?

NB We can't transfer research design and findings from urban settings to national parks. We need to develop a different set of questions and methods.

Translation activities identified by forum participants included:

- Develop tools to link the research to development of on-the-ground programs and to meet community needs
- A central location for putting research /ideas/case studies – Healthy Parks Healthy People (HPHP) website? Council websites? Promote better use of this?
- Importance of grey literature reviews
- Establish a research Clearinghouse (similar to the one run by the Australian Sports Commission on sports research)
- Literature reviews (eg Mardie Townsend)
- Peak bodies / Professional Associations play a key role in translation of research
- Formatting results for accessibility (eg Link to CPD requirements)
- Steering / Consultative committees for research
- Joint projects
- Link research to council Health and Wellbeing Plans.
- A Parks Victoria Health and Wellbeing Plan or Procedure.
- Support community groups better to expand and scale up existing projects (if evidence shows their effectiveness). Could a new research project aim to understand barriers for groups to do that?

Opportunities for collaboration between researchers and practitioners

1. Ballarat: regional urban park Canadian Park = new opportunity
 - Could baseline data be collected here as a case study for new park development?
 - Opportunity to get researchers involved early
 - Consultation with a range of stakeholders when planning parks
2. Early childhood to school age
 - Research opportunities re: bush kinders?
 - what are the barriers to participation in bush kinders?
 - Survey child care centres and kindergartens
 - Providing evidence to parents and/or educators
 - How to capitalise on this – bush kinders appear to be growing in number across the state?
 - Has there been evaluation of Bush Kinders?
 - Encourage others to consider opportunities with bush kinders
 - Discussions with Dept of Education and training (DET)
 - Explore risks to children and how this may present a barrier (and how it may be overcome?)
 - Parents perceptions of bush kinders?
 - Working with schools and families
 - Co-location of schools and parks / outdoor classrooms
 - What would it take to allow 8 year olds to visit parks alone?
 - Play rangers / Play workers / Play strategies in City of Melbourne?
3. Adolescents
 - Opportunity for social media awareness / education / engagement campaign?
 - Evaluation of adolescent mindsets
 - You tube videos?
 - Getting youth engaged in parks to value parks more?
 - Lack of focus in this area?
4. Ageing Populations
 - Planning for these populations??
 - Opportunities for encouraging older adults to use parks for health and social engagement?
5. Links with government departments and bodies
 - Support currently Sport and Recreation Victoria (SRV)
 - Opportunities for more health and education department
 - Academic to present findings to relevant organisations (ie PIA, PLA, ILA, MPA) staff meetings
 - Decision makers and people of influence – social media is a good platform for sharing info and collecting data?
6. Hard to reach groups
 - Hard to reach groups include: low SES, CALD, disability, older adults, kids, traditional owners and aboriginal communities
 - Opportunities for targeting people who are NOT visiting parks (esp youth)
 - How do we engage children with disabilities / those living with disadvantage with our parks?
 - Working with cultural diversity
7. Spiritual connections
 - Using open space in different ways (eg. Yoga & ‘outdoor rooms’)

SUMMARY PANEL DISCUSSION: The future of healthy parks – identifying ways to make it happen together

Panel Members:

- Cath Olive , Metropolitan Planning Authority (MPA)
- Dr Jenny Veitch, IPAN, Deakin University
- Cathy Kiss, City of Melbourne
- Sharon Laurence, Department of Health and Human Services (DHHS)
- Tony Varcoe, Parks Victoria

Power Point slides for the panel presentations are available online at

<http://www.hphpcentral.com/article/parksforum2016> .

Cath Olive, Metropolitan Planning Authority (MPA)

Context

Plan Melbourne <http://www.planmelbourne.vic.gov.au/>

Melbourne is a growing city in terms of sprawl and density. By 2025 the area of land dedicated to open space across Melbourne will increase. However with increasing population density the amount of public open space per person will decline. It is estimated that in 2016 there is ~92 m²/pp and that this will decline to ~73 m²/pp by 2051.

Planning Interventions

Metropolitan open space planning needs to consider public realm and open space in its widest context. How do we create a better and greener Melbourne? We need to find ways to optimise use and access of available public land.

Dr Jenny Veitch Panel IPAN, Deakin University

Four key points were presented for discussion.

Firstly, what evidence is needed? First and foremost we want our research to be useful and informative. We are aware of the academic literature but we are interested to understand what evidence is needed to help those involved in planning and practice. For example, what evidence would help with the justification for funding for park refurbishment. From your perspective, what are the gaps in knowledge needed to design parks so they optimise visitation among all groups and maximise health benefits?

Secondly, what are the opportunities to work with researchers? There are opportunities to become partners on research grants (i.e. NHMRC Partnership grants and ARC Linkage grants). For example, the REVAMP study includes four partners; Brimbank City Council, VicHealth, Parks Vic, and City West Water. It is also possible to engage researchers to evaluate projects and involve researchers to inform evidence based park design.

Thirdly, please communicate with researchers if you become aware of planned refurbishment or re-development works that you think may be suitable for a research project. This doesn't need to be restricted to park refurbishment. It may include, for example, programs in parks or novel usage of parks.



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Finally, once we have gathered the evidence we need to ensure that we present it in a way that is most likely inform policy and practice. So, we would like to hear from you about how you have used evidence in your planning? What strategies have worked? What format is most useful to your organisation?

Cathy Kiss, City of Melbourne

Children are more physically active when they are outside. Children today are spending less time outdoors in unstructured play than in any other time in history. Lifelong habits of physical activity for health and wellbeing can be enhanced by positive active outdoor experiences as a child. When children live somewhere with no private open space / garden, they are dependent on adults to take them outside. When they go to a park they will not have the 'unsupervised' time that they would have in a backyard, which children need.

Children are less independently mobile than at any other point in history. This is having a significant impact on their free play. How do we encourage adults to let their children be independently mobile? How do we gather evidence to improve planning for parks in medium to high density settlement areas, including provision of play yards, so children growing up in these areas can play outside?

Management of Use

Management of use is one of the biggest issues for Park Managers. It is a particular problem when there is conflict between uses. When one activity deters another person from participating (constraint to participation).

In the City of Melbourne we experience particular problems with commuter cyclists and off leash dogs. We receive complaints from people who are scared because they don't hear a cyclist coming, that they might be knocked by a bike, or that they are afraid of dogs. This is not a problem solely in Australia.

How can we influence a better understanding, awareness and respect of sharing spaces, and the impact their activity has on another's participation. This might include the need for more research and better understanding of the psychology of the participant.

Value of participation in non-structured activities

We have a challenge not only to provide new parkland in urban areas, but also to protect existing parkland. There is a lack of data about the unstructured recreational use of parks, which we know is the highest use of our parks. We often need to demonstrate that a park is valued and used, but have insufficient information.

The amount of physical activity undertaken by individuals is very high, but at present most information is only about 'structured' activities, where numbers are counted and there are organised groups to communicate. (so sports fields are valued by some more highly than open parkland.)

There is a risk of the debate being about the merit of passive vs active use, that areas should be converted from one use to another. However the issue is really about the need for adequate provision of parkland, and land for other community facilities. A further need for research is on the economic value of parks. We frequently are told we "can't afford to buy that land" – and we need to show that we can't afford not to.

Sharon Laurence, Department of Health and Human Services

- The Victorian Public Health and Wellbeing Plan 2015–2019 outlines the governments vision for a Victoria free of the avoidable burden of disease and injury, so that all Victorians can enjoy the highest attainable standards of health, wellbeing and participation at every age.
- Encouraging interaction with nature in Victoria's parks and open spaces is identified as a strategic direction in the plan.
- Local government is major partner to the state government in the effort to protect public health and wellbeing in Victoria. Each council is required to prepare a municipal public health and wellbeing plan every four years, and have regard to the state public health and wellbeing plan.
- Draw upon state and local health policy frameworks to embed nature and interaction with open space in preventative health programs and service delivery.

Tony Varcoe, Parks Victoria

Knowledge gaps to inform policy

Much of the research on the health benefits of nature has focussed on preventative health benefits for the general population. We need to work across sectors to develop further studies to assess the role of parks for their therapeutic benefits for specific target groups.

These studies need to include research and monitoring of the effectiveness of specific interventions to improve physical, mental and social health.

Further work is required to assess the benefits of different types of park settings including urban, urban fringe and non-urban parks for specific target groups including children, youth, older adults, people with disabilities, new migrants, volunteers etc. This should include benefits for urban residents vs non-urban residents.

While there is a significant body of research that demonstrates the physical, mental and social health benefits of being in nature, more work is required to develop practical and consistent metrics and tools for evaluating and quantifying the impacts of parks on people's health and wellbeing and outcomes of health interventions in nature. Complicating this is the need to recognise that physical, mental and social health benefits are often interconnected and health outcomes from nature can be 'bundled'