Action for Young Australians Report

Parks and open space: for the health and wellbeing of children and young people

Australian Research Alliance for Children & Youth

Parks and open space:
for the health and wellbeing of children and young people

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The Australian Research Alliance for Children and Youth (ARACY)

ARACY is a national non-profit organisation working to create better futures for all Australia's children and young people. Despite Australia being a wealthy, developed country, many aspects of the health and wellbeing of our young people have been declining. ARACY was formed to reverse these trends, by preventing and addressing the major problems affecting our children and young people.

ARACY tackles these complex issues through building collaborations with researchers, policy makers and practitioners from a broad range of disciplines. We share knowledge and foster evidence-based solutions.

About the Action for Young Australians program

The Action for Young Australians series of publications focuses on complex issues impacting on young people in Australia today. Drawing on Australian and international research and expertise, the reports identify what is known and what is actually being done to address key problems affecting the wellbeing of children and young people and suggest a way forward for progressing identified solutions to the problem – that is, turning the evidence into action.

Parks and open space: for the health and wellbeing of children and young people was developed in partnership with the Centre for the Built Environment and Health, University of Western Australia. The report examines the evidence and knowledge gaps relating to the contribution that parks and open space can make to the health and wellbeing of children and young people. It finds that there are many untapped opportunities for better utilising parks and open space to foster a stronger sense of community and proactively enhance wellbeing.

This report is an important resource for encouraging a collaborative way forward to embrace those opportunities.

The Centre for the Built Environment and Health

In 2008 ARACY commissioned the Centre for the Built Environment and Health to develop an Action for Young Australians report on the importance of parks and open space to the wellbeing of children and young people.

The Centre for the Built Environment and Health is based within the School of Population Health at The University of Western Australia. The Centre focuses on research that can influence planning and urban design policy and practice to create healthy and sustainable communities, with a strong emphasis on research translation. An 'across the life course' perspective underpins the research, and there is a growing program of work relating to the impact of the built environment on the health and wellbeing and development of children and young people. The Centre involves a collaboration between a multi-disciplinary team of investigators, encompassing expertise in public health, behavioural science, geographical information systems, biostatistics, qualitative and quantitative methods, social determinants of health, urban design, transportation planning, ageing, child health, health economics and social ecology.

The report author was Dr Lisa Wood, Research Assistant Professor and Deputy Director, Centre for the Built Environment and Health, School of Population Health, the University of Western Australia.

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What's the issue?

> *The quality of the experience of living in a community is strongly influenced by the ambience of its parks, gardens and open spaces, by the vibrancy, safety, aesthetics and sense of ownership and stewardship of its open spaces.* [1, p23]

A childhood that is primarily sedentary and spent indoors can lead to poorer physical and mental health outcomes[2]. Conversely, there is growing recognition of the importance to children's and young people's health of physical activity, both structured and unstructured, contact with nature and time outdoors.

Traditionally, interventions to address these issues have been targeted through schools, recreational settings, or families and individuals considered more at risk. However recently it has been recognised that the built environment is an alternative intervention point for improving health and wellbeing. Parks and open space represent an often present but underused setting in this regard. For children and young people, parks and open space are not just the stereotypical place to play, but also provide a place to socialise, be physically active, explore, have fun, 'hang out', be in contact with nature, escape from indoors, or just be free from the encumbrances of an increasingly adult world.

The fact that urban planning standards and bylaws now require suburbs, towns and new developments to include provision for parks and open space presents an opportunity for enhancing the wellbeing of children and young people. However, as noted by Jane Jacobs in her iconic study of the death and life of great American cities, people do not use open space 'just because it is there and because city planners or designers wish they would'[3]. They use it for their own unique and varied purposes. Hence it is important to understand the reasons why children do or don't use such areas (including factors influencing their parents and carers), how children perceive, use, experience and value parks and open space, in what ways they benefit, how their needs vary with age, gender or ethnicity and how they are affected when access is diminished.

Aspects of health and wellbeing relevant to parks and open space

Sedentary lifestyles

For both adults and children, the way in which we work, live and play is increasingly sedentary compared with past generations. Children today are often driven to school and other places due to safety concerns, distances between home and multiple destinations and parental work schedules[4]. Societal concerns about 'stranger danger' have also led many parents to curtail the kind of free play at the park or vacant lot enjoyed by previous generations[2]. At the same time, there has been an increase in inactive leisure activities such as playing video games or watching television[5].

...the way in which we work, live and play is increasingly sedentary compared with past generations

Physical activity

The rise in sedentariness and obesity is paralleled by a decline in children's physical activity levels[6]. Higher levels of physical activity in childhood are associated with reduced risk of many chronic diseases later in life including heart disease, high blood pressure, diabetes, some cancers and obesity[8]. While there are many contributing factors (physical education in schools, family influences), environmental factors such as urban design, access to parks and playgrounds and neighbourhood safety[7] also influence children's opportunities to be active as well as their activity levels.

Childhood obesity and overweight

Childhood obesity is increasingly described as a global epidemic[9]. In 2006, 6% of Australian children were obese and 17% were overweight[10]. It is projected that 25% of young Australians will be obese by 2025 if current trends are not reversed[11]. As well as the obvious link to nutrition, childhood obesity is strongly associated with lower levels of daily physical activity and increased hours of television viewing[12]. In addition to the adverse consequences to physical health in later life, overweight and obese children suffer from social and mental health issues including bullying and teasing, low self-esteem, disturbed body image, exclusion by peers and depression[13].

Mental health and wellbeing

In addition to the mental health benefits associated with physical activity[14], parks and open space provide opportunities for social interaction and contact with nature which are protective factors for mental health. The presence of nature in children's immediate vicinity can improve mental health[15] and be restorative[16]. New research angles relating to the nexus between nature and children's wellbeing are also emerging. For example, a significant reduction in ADHD symptoms has been observed for boys and girls exposed weekly to green space[17]. As noted by Louv, access to green and outdoor spaces can also foster social interaction and friendships, both for children and their parents[2].

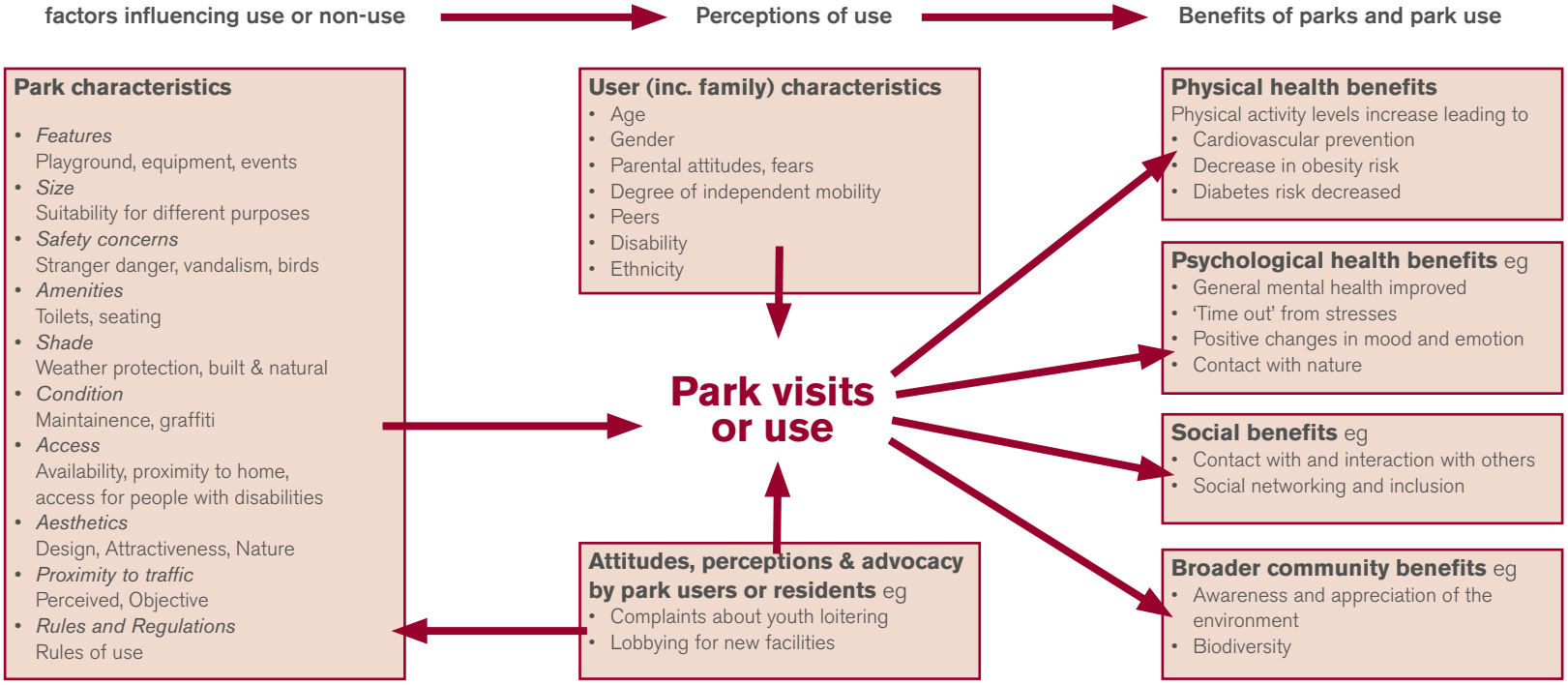
New research angles relating to the nexus between nature and children's wellbeing are emerging...

What is the evidence base for what works?

As shown in the diagram below, there are a number of elements that can be created or modified to influence both the quantity and quality of children's experiences in parks and open space.

Parkes and health and wellbeing; a conceptual model for children

(adapted from Bedimo-Rung, Mowen, & Cowen 2005)



The ways in which parks and open space characteristics influence, and can be modified for, health and wellbeing are detailed below.

Catering for varying needs

The reasons for and nature of children's park use can vary considerably by age, gender, physical capability, ethnicity and area. Parks need to cater to both passive and active use. Passive uses of parks reported by children include socialising and 'hanging out'[1] while active uses typically include playing on sporting equipment, skateboarding, walking and playing sport[1]. In terms of age differences, younger kids are more likely to visit the park with parents or older family members and for purposes of play, including playground use[4]. Popular uses reported for primary school aged children include playing on play equipment, ball games and walking[1]. Older children and adolescents on the other hand are more likely to use parks for socialising[1], as well as for organised sport or informal sporting activity such as ball games[18].

There is very little in the published literature about the experiences and perceptions of young people from Culturally and Linguistically Diverse (CaLD) or Indigenous backgrounds in relation to parks and open space. However, a youth consultation undertaken for the City of Darebin highlighted the need to recognise that people from Indigenous and existing and emerging CaLD communities use and view parks differently[1]. Experiences of non-acceptance, fear of racism and lack of intercultural understanding, can deter some young people of CaLD backgrounds from using parks. In addition, due to higher visibility when congregated in public (eg due to skin colour or dress), they can be erroneously accused of 'anti-social' behaviour or be classified as 'gangs'[19]. In relation to young people with disabilities, while some parks have specific equipment (eg a wheelchair swing) available, broader issues emphasised in the literature relate to actual access into the park and fear of stigmatisation[20 21].

Accessibility

Having parks, ovals or open space close to home increases the likelihood that children and young people will use them[22 23] and has been associated with significantly higher levels of physical activity[23-27]. While some studies of children and young people have used 800 metres as a marker of park proximity, it is recommended that parks be within 5 minutes walk or 400 metres from the furthest house in the neighbourhood to ensure easy access by walking or cycling[28].

As well as close proximity, active adolescents also report the importance of walkability, including ease of movement within an area and road connectivity to get to parks[29]. Access to parks and open space is increasingly important given the declining prominence of the suburban backyard and increasing higher density living in Australia. The presence or absence of ovals, reserves and parks can also determine convenience of access to sporting clubs and activities that commonly take place at these, such as junior sport (eg t-ball, football) or dog walking groups. Informal opportunities to play sport are also affected by access.

Sometimes a park or oval can be present in a neighbourhood but not necessarily available to young people. The fencing and padlocking of a school oval to prevent vandalism, for example, has been bemoaned as a loss of a place to play by young people[30]. Park accessibility for children and/or parents and carers with disabilities is also important. This applies both to physical access into the park, movement within it (eg presence and quality of paths), location of amenities such as toilets, and provision of shaded resting areas[20 21].

Proximity to traffic

In a study of physical activity and adolescent girls, the higher the traffic density, the less likely the girls were to travel to the park. This was associated in turn with lower physical activity levels[39]. Footpaths en route to parks and safe crossings to a park by means of

median strips, zebra crossings and, where traffic is moderately high, traffic lights, can reduce both actual safety risks and parental concerns about safety. The location of parks and open space away from busy main roads and high density traffic is also an important planning consideration[27] and the recommendation for parks to be within a five minute walk of houses reduces the likelihood of needing to cross busy intersections[28].

Size

There are differing viewpoints in the literature and in urban planning guidelines relating to the optimal size of parks and open space. Larger surface areas such as ovals and larger parks have been associated with greater physical activity in young children[28], but increasing park proximity to homes may entail a greater number of smaller parks and green areas. On balance, a variety of sizes is optimal within a community, thus catering to different needs of different people at different times[31].

Safety

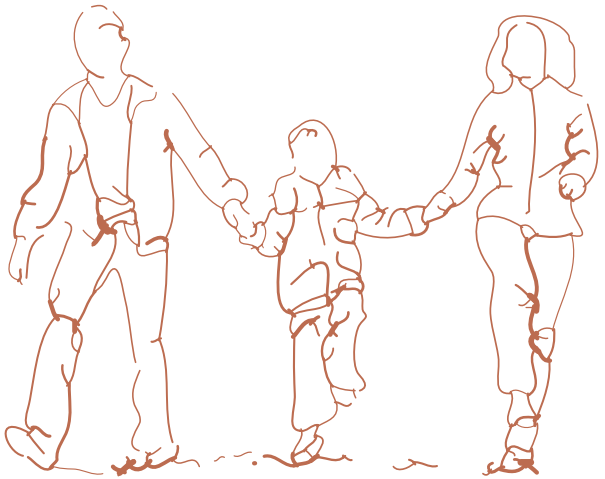
Both perceived and actual safety concerns, as well as a broader societal trend towards an over-protective style of parenting[2] impact on children's and young people's use and experience of parks and open space. Parental concerns about safety in neighbourhoods is significantly associated with children engaging in lower levels of physical activity outside of the school setting[27]. A recent qualitative Australian study identified "stranger danger" as one of the main reasons for parents restricting their children's independent mobility within neighbourhoods[32]. Children themselves have also reported being afraid of strangers[33], although not to the same level of concern expressed by parents[27].

Use of parks and open space is also affected by parent and child concerns about the risks of encountering dangers of a physical form, such as syringes or broken glass, or social

form, such as bullying and antisocial behaviour from teenagers[32 34]. However, as noted by Kelty et al[35] little is known about the actual risk posed by these concerns, nor is there evidence of any increase in child abductions or assaults by strangers in Australia over the past few decades.

Parent and carer safety concerns that consequently disallow children to play alone or without supervision at parks, or to travel independently to and from parks, can significantly impact on the time children spend in outdoor play[36]. Factors shown to increase perceptions of safety and hence park use include improving natural surveillance by opening the park to view of surrounding houses[37], lighting at night [22 38] and the presence of an authority figure such as a park ranger or security guard[27]. Maintenance of playgrounds and parks and the absence or removal of graffiti are also factors that shape parent and community perceptions of park safety[44].

Perceived and actual safety concerns (and) an over-protective style of parenting can impact on children's and young people's use and experience of parks and open space



Aesthetics

Although more researched in relation to adults, aesthetic factors (eg attractiveness, presence of interesting focal points) are relevant also to children's mental health and appear to influence both use of parks and associated physical activity and, more broadly, feelings towards the neighbourhood[29]. Adolescent girls for example, were found to be more physically active on weekends if they rated their overall neighbourhood as attractive with enjoyable scenery[40]. In another study, children expressed a desire for clean and attractive environments as a preference relating to outdoor play[41]. While not negating the attractiveness of manicured park gardens and grassed areas, children and young people also need and value access to natural landscapes[2]. There is also sometimes a tension between what is designed by developers and landscape architects to be aesthetically pleasing and what is functional and practical for park user groups, in particular children.

Facilities and amenities

Aspects of park infrastructure shown to be associated with park preference and increased physical activity among young people include:

- large, grassed open areas for free play and room to run[42]
- playgrounds that cater to different age-groups[42]
- physically challenging and interesting play equipment [41]
- playground equipment and other features that enhance creative and unstructured play, imagination and agility[43]
- safe walking and cycle paths[22 26 27 38]
- high quality and clearly designated areas for play including sporting fields and pitches (for football and cricket)[18 22] and half or full basketball courts[1]/basketball rings[41]
- shelter, seating and tables for adults supervising children on play equipment[24]
- better overall amenities such as fresh drinking water[22]
- accessible toilets[1]
- improved lighting[1]
- aesthetic features and nature eg water features, trees[2]
- skateboards ramps (mainly used by boys)[22 41]
- events and activities that draw families or young people such as movies or music[1].

It is pertinent to note that some facilities may cater better to particular subsets of young people; a case in point being Cohen's finding that boys' physical activity was positively associated with parks with skateboard ramps, while the relationship was inverse for girls[22]. Similarly, facilities that attract older teenagers may deter young children or vice versa. Further investigation is needed regarding ways parks and open space can optimally cater for multiple user groups[35].

While the literature and guidelines often focus on more structured features of parks and open space (such as playground equipment and paths) from a broader child development perspective, providing opportunities for creative play, exploring, make-believe, contact with different textures and exposure to nature are all critical, and often missing in the more typical 'plastic fantastic' playgrounds of today. The willingness of parents to travel across suburbs to more unique parks that are often built from natural materials or have a unique feature (eg resembling a ship, a volcano) is testimony to this[44].

Conditions

As articulated by Bedimo-Rung et al, 'people choose to visit or not visit parks not only because of what features are located there, but also because of the condition of those features'. The condition of play equipment is a key influence in a parent's decision to let children play in certain parks[45]. In a recent WA study, negatives relating to the condition of playground equipment and vandalism on playgrounds, tables or benches emerged as a deterrent or reason for using parks outside of the local area[44]. The condition of parks have also been found to vary by area, with a US playground audit reporting significantly more safety problems in disadvantaged neighbourhoods[46]. Both actual and perceived conditions of parks by parents and the wider community can be a barrier to park use for children.

Rules

Rules and regulations relating to parks and open space can work both for and against children and young people. Although not often mentioned in the published literature, evidence 'on the ground' suggests that in some instances rules and restrictions put in place to address one issue (eg no dogs, no ballgames, no bikes or scooters on the grass) can inadvertently deter children's and young people's use of these areas.

On the other hand, parents of young children sometimes report feeling that fenced playgrounds are safer (eg less likelihood of animals entering, less litter)[44] and that rules relating to things such as shared path use (eg for walking, bikes, rollerblades, scooters) are also in the interest of safety. Trends towards a more litigious society also have potential negative implications, for instance liability concerns or insurance costs that result in rationalisation of playgrounds[31].

Rules and regulations relating to parks and open space can work both for and against children and young people

What is currently done to address the issue?

Distilling what are current practices and approaches in relation to parks and open space as they pertain to children and young people is not a straightforward task for a number of reasons:

1. What is currently done does not fall neatly into the mandate of a particular sector, profession or research field.

As with many intersectoral issues, parks and open space can run the risk of 'falling through the cracks' as an area for policy attention and intervention. There are no guidelines or recommendations that apply nationally, and at state and territory and local government level, it is mainly broader issues that are covered (eg the percentage of land allocated to green space, regulations relating to types of use). Although 'quantity' of access to parks and open space per se is an issue in some areas, and can be problematic particularly in small remote communities, 'quality' is probably the more neglected issue, particularly for children and young people. For instance, while planning guidelines often stipulate the minimum area to be allocated to parks and open space in new developments (eg 10% in WA), little if any consideration is given to the variability in size, location, inclusion of interesting features and activities for population groups.

2. What is currently done also gets framed and addressed differently depending on the group or sector concerned.

Parks and open spaces are variously considered as:

- *important for physical activity* –referred to in guidelines and reports on children's physical activity[47]
- *infrastructure* – usually the remit of local government and concerned with facilities, co-existence of different user groups, maintenance and safety issues
- *a venue for activity* – used by sporting groups, recreational clubs and other activities for children and young people
- *'a place for youth'* – recognised in the youth sector as places where young people may like to hang out, but also where anti-social behaviour may occur
- *a planning or design issue* – urban planners, landscape architects and developers are among groups that influence the placement, size, design and content of parks and open space, but may not overtly consider specific issues relating to children and young people
- *play areas for young children* – both the general community and parent groups recognise access to parks, playgrounds and space to run and play as important for children, as well as providing an 'out of the house' option for parents.

3. What is currently being done is not always easy to find.

Within Australia as elsewhere, there is much unseen activity that is relevant to parks and open space and young people, ranging from PhD studies, local council projects, youth development initiatives and more. Examples include council youth consultations and park planning in Victoria and a mobile 'fun van' visiting parks in WA to draw parents and young children. As information about such initiatives is usually not formally published or disseminated, there is greater likelihood of wheels being re-invented elsewhere and lessons learnt being lost.

4. What is currently done is often on behalf of children and young people.

The direct and indirect value of input from children and young people is less acknowledged in the published literature but is a recurring theme in a number of consultation documents and reports. A Victorian inquiry into sustainable urban design for example, noted that it is rare for young people to be consulted about the design of public open space and refers to 'the skatepark' as 'frequently representing the quintessence of planning for youth"[48]. By contrast, involving young people can foster a sense of ownership of public places in a way that merely providing them with facilities cannot do[1]. Published qualitative research undertaken with children aged 6 to 12 years also highlights the rich insights afforded by children into the mix of intrapersonal, social and environmental factors that influence their perceptions and use of open space[41].

Who can make a difference?

The ARACY webinar discussion around parks and open space for children held in late 2008 highlighted the diversity and groundswell of interest around Australia in enhancing children and young people's access to and experiences of parks and open space. Those identified as having an interest and role to play are listed in the table below.

The issue of parks and open space for children and young people does not fall neatly into the mandate of a particular sector, profession or research field.
Those who can make a difference include:

- Urban designers
- Urban planners
- Town planners
- Developers
- Landscape architects
- Local government (various sections, including crime and safety, youth development, park maintenance)
- Playground designers and contractors
- Botanists
- Education Departments
- National parks
- Environmental groups (eg Men of the Trees, Earthcare)
- Park and open space user groups
- Local residents
- Youth organisations and events
- Parents and carers
- Groups working priority youth populations (eg CaLD, Aboriginal)
- Service clubs (eg Rotary, Lions)
- Sporting clubs
- Sport and recreation departments/ organisations
- Kidsafe Australia
- Community and kitchen garden projects

Experience from the field tells us

While many of the factors that can contribute to children's and young people's use and experience of parks and open space can be drawn from the literature, there is an incredible volume of anecdotal and grassroots insight that needs to be tapped into for some of the unanswered questions. For example:

- What are the key modifiable factors that make some parks very popular while others are deserted and avoided?
- How can we resolve tensions between teenagers needing places to hang out and community apprehension about 'loitering'?
- Who is 'leading the way' in relation to designing and planning 'best practice' parks and open space?
- Are there ways to engage children and young people more in the planning and design of such spaces?
- Can modern parks and open space cater to children's developmental needs for adventure, exploration and imagination?
- Is there scope to roll out 'adopt a park' programs to local residents, schools and other community groups to increase sense of ownership as well as practical care of parks and open space?
- How can parks and open space better cater simultaneously to a range of age groups, youth of CaLD backgrounds and those with special needs?

Posing these and other questions, and identifying the actionable gaps in research, policy and practice to date, are part of the way forward to enhancing the role that parks and open space can play in the health and wellbeing of children and young people in Australia.

Where to from here?

While there is a growing recognition and pockets of research and activity around Australia in many of the areas identified above, there is much more that could be done. Broad recommendations for moving forward include:

- *Fostering mechanisms for contact and collaboration* between diverse organisations and sectors that have shared interest in enhancing the role of parks and open space for children's health and wellbeing. The ARACY webinar brought just some of these players 'out of the woodwork' and together, and there was interest among participants in further sharing of information, ideas and 'what works'. The national playground conference to be held in 2010 is one example of an avenue for progressing some of these links.
- *Addressing research and practice voids.* For example, much of the literature and planning for parks and open space is 'through adult eyes', albeit on behalf of children, and there is very little Australian research or documented consultation relating to children's and young people's perspectives on how and why they use parks, their play equipment preferences (eg 'plastic fantastic' versus nature based), barriers and facilitators to use and changing needs for different age, gender and ethnicity groups and so on.
- *Building community ownership and valuing of parks and open space for children/ young people.* Low use of parks and open space, a mismatch between park design and amenities and local demographics, and incivilities such as graffiti and vandalism create a vicious circle that deters parents and children from using them. Quality also

emerges from parents and parent/youth organisations as an important consideration for decision-making relating to the location, design, equipping and landscaping of parks and open space. Greater consultation with local groups and residents can help to inform planning and maintenance, and also aids the process of engagement that helps to build ownership of parks and open space as a community asset. There are some promising examples around Australia of local councils that have taken a more holistic (across sectors) approach to parks and open space and engaged in community consultation with good outcomes, but there is a role for external groups and residents to play in encouraging other councils to follow suit.

Conclusion

This brief report summarises both the evidence and knowledge gaps relating to the contribution that parks and open space can make to the health and wellbeing of children and young people. Access to and use of parks and open space is linked to physical, social and mental health benefits, and is increasingly important for current generations growing up in a world with more structured 'play', smaller backyards, higher density housing and rising levels of sedentary behaviour, childhood obesity and depression. The mere presence of a park or open space does not, however, mean that it is enticing or appropriate for children, and in general parks and open space are often underused or undervalued. The evidence surrounding the nexus between parks and open space and children has been somewhat scattered to date. This report and the conceptual model presented sought to consolidate what is currently available. Similarly, there is a diverse array of sectors, agencies, community groups, researchers and policy makers to whom this issue is pertinent; including many whose core business may not be children and youth per se, but whose role impacts on the built and natural environment. There is considerable scope for further communication and collaboration among these players, and untapped synergies between parks and open space that make good design sense, foster a sense of community and help to enhance the health and wellbeing of children and young people in Australia.

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