

Community Engagement and Health Promotion in Parks and Gardens

Population Health and Nature in the Urban Environment

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Images as credited

Managing the health of its population is perhaps the most important task of any society. Governing bodies can cost-effectively address multiple issues contributing to illness in society through the retention of existing green spaces, the development of new green spaces and community engagement to encourage participation in these green spaces. Ongoing funding is important for sustainability.

It is well documented that urban greenery, such as parks and gardens and including living green roofs and living green walls, improve air quality through the offsetting of carbon dioxide gas and mitigating pollution. These green spaces also work to moderate the urban “heat island effect” of hot bare concrete, steel and asphalt, while insulating buildings and helping to manage storm water run-off. But often overlooked in this discussion is the equally important active community usage of these urban green spaces for the enhancement and encouragement of population health. Growing evidence suggests that green space engagement can lead to many physical and mental health benefits for resident populations, as well as greater environmental advocacy by the population. City parks and gardens play an enormous role in the promotion of human health and these benefits of engagement are being embraced and applied in planning and policy development by progressive governments throughout Australia and the world.

In the developed world, the rise of chronic diseases and mental health issues are unsustainably stretching the public dollar. In a condition common in many of the world’s developed societies, it is estimated that if unhealthy lifestyle choices continue to increase in line with current trends in South Australia, then government health spending will supersede the state’s entire budget by the year 2038. The physically inactive modern lifestyle, coupled with unhealthy eating patterns and other behaviours such as smoking, have contributed to enormous health costs, with cases of preventable chronic illnesses, including diabetes, cardiovascular disease and obesity, impacting heavily on health systems and hospitals. On a wider scale, physical inactiv-

OPPOSITE Cycle and walking pathway through Adelaide parklands (Photo: G. Groves, APPA).





ity may also contribute to disinterest in the natural environment and a breakdown in community participation through lack of opportunities for outdoor activities in green spaces. Current health promotion activities are being targeted at healthy lifestyle choices and are being increasingly shown to be a far more beneficial and cost-effective strategy when conducted with the population in the natural environment and city green spaces.

Engaging Adelaide's Urban Population in Greenery and Getting Healthy

Adelaide City Council in South Australia is actively engaged in getting the urban population into the city's Heritage-listed parks and gardens and into getting healthy. The council's programmes promote healthy communities through physical activity in the city's parks and green spaces, and are also aimed at providing respite from closed-built environments. Park and green space activity also creates opportunities for social interaction, in addition to the traditional benefits of improved physical and mental health, especially for people living in a city environment. Adelaide City Council has identified an important next step in promoting green spaces for city workers that support physical activity—the development and use of infrastructure, such as showers, bicycle storage and other facilities, aimed at encouraging physically active transport and outdoor recreation during the working day.

Adelaide City Council, along with an expanding number of planning bodies, has also acknowledged the great importance of children and young people interacting with nature throughout their development. Interacting in nature encourages more physical activity and can be a good alternative for counteracting increasingly sedentary indoor lifestyles. Children are far more likely to be active in the outdoors in their older years if they had played outdoors in their childhoods, and they are also more likely to become greater advocates in adulthood for the preservation of urban green and open park spaces. "Nature Play WA," a Western Australian government initiative, is aimed at encouraging children back into unstructured outdoor recreation for their physical development, cognitive development and functioning, relationship development and, of course, imagination. Through this sort of promotion and engagement, it is hoped that the children of today will be the healthy and environmentally aware men and women of tomorrow.

Engaging Young People and Children

In 2010, the South Australian State Government consulted young people and children as part of the "SA State Strategic Plan" visioning for the year 2020. A number of important issues were identified by children throughout the consultations, with the main themes identified being: the environment; family, friends and people; activities and playing; and other points, such as animals and creatures, food, participation and the future. The environment was the





strongest theme identified by the children, and can be categorised further into two sub-themes - the natural environment and the built environment. Throughout the consultations, young children reinforced the importance of being outdoors and in touch with nature, enjoying and discovering their surroundings and appreciating the environment. There was a strong sense of responsibility in looking after the environment and a desire for less noise and litter. Large open spaces were identified as being very important, while the visual beauty of nature was also a key aspect of this theme.

Million Trees Program

Programmes that encourage the population to be healthy through meaningful physical activity and to care for their local natural environment can also achieve outcomes of urban renewal, population health promotion and healthy ecologies. The success and sustainability of these programmes rely on significant investments by both governments and the private sectors. The “SA Urban Forests - Million Trees Program” was created by the South Australian Government to return three million local native trees and associated understorey plants to the Adelaide metropolitan area. The return of local native plants can assist in restoring habitat for local wildlife, sequestering carbon, improving air and water quality and creating quality green spaces for population enjoyment. Enabling active community participation in landscaping and maintenance of green spaces by groups, such as students, volunteers and other community members, also creates greater usage of these spaces and advocacy for other such areas.

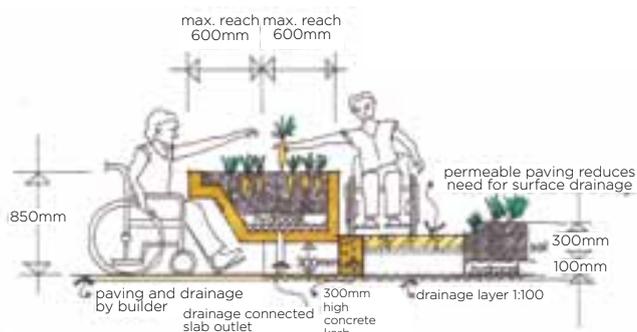
Health Benefits of Engaging in Green Spaces

Being active and engaging or interacting in green spaces has been shown to benefit mental health. “Beyond Blue” is the Australian national depression initiative, a collaboration between Federal and all state governments. In the 2010 Executive Summary *Beyond Blue to Green*, Associate Professor Mardie Townsend and Ms. Rona Weerasuriya of Deakin University highlight the multiple links benefiting population health and wellbeing and the population’s engagement with the natural environment. Also highlighted are the roles of nature in preventing disease and in helping people recover from illness. The comprehensive bibliography highlights the many existing and growing number of scientific research initiatives throughout the world that describe the beneficial links between nature and mental health and wellbeing. Other Australian state government programmes, such as “Nature Play” in WA and “Healthy Parks/Healthy People” in Victoria also acknowledge this link and seek to further encourage population health through active engagement in nature. In the city environment, this contact is most often in parks and gardens. Research stated in *Beyond Blue to Green* recommends that people should have access to green spaces of greater than two hectares within 300 metres (or five minutes of walking) of their home environment for the maintenance of their physical and mental health and wellbeing.

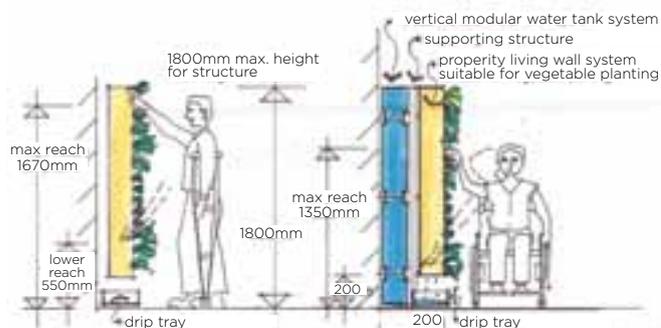
The use of parks and gardens as an active component within the South Australian health system is gaining momentum as the popularity and evidence surrounding their benefits increases. Active engagement with community and encouraging people into urban green spaces for their health benefits are crucial to the success of any project in this field. Understanding the theory behind the benefits is one aspect, but the transfer of ideas and knowledge into a critical mass of community health involvement requires facilitation by project specific human resources. In 2008, a



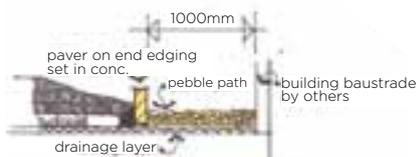
OPPOSITE, CLOCKWISE FROM LEFT Children engaged in sport in the Adelaide City Parklands (Photo: P. Groves, APPA); Community engagement and health promotion at Southern Primary Health – Inner Southern garden (Photo: SA Health); Displaying root depth for common vegetable plants to be grown on GP Plus Marion roof garden (Photo: Fifth Creek Studio); Client Consultation for GP Plus Marion roof garden development (Photo: Fifth Creek Studio).



PLANTER BOX AND CONCRETE KERB



LIVING WALL AND WATER TANK SECTION



PERIMETER PATH DETAIL



garden programme commenced at “Southern Primary Health - Inner Southern,” a health service in Adelaide’s south, with the aim of promoting health amongst a disadvantaged population living in Supported Residential Facilities and encouraging them to access support for health issues. In this population, there are high levels of mental health issues, chronic disease, unhealthy behaviours and social disadvantage. The project is a community development in an urban garden setting, where participants meet others, grow organic food and learn about healthy lifestyles through contact with health staff.

A new Health Hub - the GP Plus Health Care Centre Marion

As part of a major revolution in health service delivery in South Australia, Southern Primary Health - Inner Southern will relocate to a newly built primary health hub, the “GP Plus Health Care Centre Marion,” in May 2011, along with four other previously separate health agencies. As part of this move, the existing garden project will be re-established at the new building as an active and intensive roof garden, including multiple green walls. The community engagement strategy is highly effective and has potential to continue to grow in popularity, pending adequate funding for community engagement, staff and support.

The incorporation of an active, user friendly and functional roof garden into the building is the first of its kind in the state and quite possibly in Australia.

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OPPOSITE GP Plus Health Care Centre Marion roof garden structural components. Community engagement to determine current usage and describe plan for GP Plus Marion roof garden (Photo: Fifth Creek Studio).

LEFT GP Plus Health Care Centre Marion roof garden space during the developmental phase. The garden will feature green walls, raised beds, an extensive open vegetable cropping area, green pergola feature and disability access (Photo: SA Health).

Throughout the design development process, consultation was actively encouraged for the existing garden users to contribute their ideas so that a comprehensive design that ticks all the boxes could be achieved.

Building on client input, Graeme Hopkins of landscape architect firm Fifth Creek Studio designed the rooftop garden, incorporating a number of innovative urban agriculture and living wall technologies to maximise the aesthetic and functional use of the available space. Certain aspects of the building structure created design challenges, which required a fresh approach to recreational and functional green roof design. For example, no penetrations could be made through the waterproofing layer on the existing roof surface, so a system of freestanding living walls enclosing slim vertical rainwater tanks was devised. The tanks will not only collect and supply rainwater for maintaining the living walls and gardens, but will provide structural integrity to freestanding green walls. A shade pergola to be planted with edible climbing plants is augmented with a foldout awning for additional shade to protect the rooftop gardeners from Adelaide's hot summer sun. As with the living walls, this pergola has been structurally designed without being fixed through the waterproofing layer.

The functionality of the garden has been designed for multiple uses by a range of clients. There are raised garden beds at a convenient height for people in wheelchairs, while vertical living walls suitable for crops are within easy reach of a standing adult. A garden area for growing and rotating vegetable crops will be accessed via a ramp, with bench seating around the garden. Several fruit trees will add to the range of nutritional food that the garden provides, which is an important aspect of the multi-pronged health agenda for this project. Inside the building, adjacent to the outdoor space, is a kitchen for community-based health programmes. An enclosed, lockable service yard will contain a worm farm, compost bins, gardening tools and a portable barbeque. All structures on the roof were certified by an engineer to withstand the extra wind loadings that may apply to this elevated and exposed location.

The GP Plus Health Care Centre Marion rooftop garden will not only provide functional and health benefits to gardening participants, it has also been designed to offer the building's staff an attractive connection with nature. From the building foyer, there will be a vista of a living wall planted with leafy green plants. This will provide a refreshing atmosphere under the pergola for health staff and clients to relax. The outdoor breakout space from the offices will be open to the north sun and separated from the vegetable garden by a backdrop screen of fruit trees and lush ground cover plantings.

This project aims to demonstrate that increasing city densities and high-rise lifestyles are no barrier to a healthy connection and interaction with nature. Even in a commercial office precinct, the benefits of gardening and growing food locally can be achieved with careful planning. Aesthetically pleasing green spaces can be created almost anywhere, providing all the environmental, social and public health benefits of nature for the whole community to enjoy. As with any similar project, to successfully realise these outcomes, adequate staffing provisions for ongoing facility management and community engagement must remain considered essentials.

Conclusions

Managing a population's health is cheaper than dealing with the consequences of not managing it. Furthermore, it is becoming quite clear in the mainstream that how we act as a society today will direct the requirements of our future spending, with the costs of physical inactivity and other poor lifestyle choices adding up as time goes on. An individual's health is often taken for granted until it is compromised, particularly in today's modern societies. Yet, many afflictions can be averted purely through healthy lifestyle choices. Often the only thing lacking is the motivational human force to encourage people into making these choices before the negative health outcomes become apparent.

Community engagement and health promotion in parks and gardens can greatly assist in sustaining population health and cost-effectively address multiple issues of negative health. Mental and physical health, childhood and youth development, healthy ageing and community participation are greatly benefited from the population's engagement with nature and green spaces. Such health developments require community engagement workers and programmes to educate and promote a holistic lifestyle message toward a healthy and active population.

When a population actively involves itself in the promotion, development and maintenance of green community spaces, it achieves empowerment and ownership of space. These natural environment based population health activities also assist in addressing environmental issues, such as carbon sequestration, pollution and the urban heat island effect by encouraging further green development and greater advocacy for community green spaces in the city environment. 

References:

- <http://www.hphpcentral.com> (Health Parks Health People)
- <http://www.beyondblue.org.au> (Beyond Blue National Depression initiative)
- <http://www.natureplaywa.org.au> (Nature Play WA)