

Health, Wellbeing, Gardens and Greenery



Population health and nature in Singapore

Introduction

In August 2010 Senior Project Officer Adam Dwyer of Southern Primary Health – Inner Southern (SPH-IS) travelled to Singapore to investigate gardens, green spaces and green roofs. Of special interest was the incorporation of green spaces in the Singapore health system to promote and encourage population health and wellbeing.

The green space research was funded as part of the 2009 Premier's Award prize. The findings can be applied to current and future health service projects, particularly the roof garden development at the GP Plus Health Care Centre Marion. The health care centre's roof garden and the community engagement strategy can benefit people living in supported residential facilities, as well as high health-need populations, staff and the wider community.



Guava tree planted by a staff member in the rooftop garden at KTP Hospital, Singapore 2010.

Healthy Environment, Healthy People

Green spaces benefit the health and wellbeing of populations through aesthetics and sensory engagement – sight, smell and sound. These spaces also provide cooling, promote biodiversity, assist the management of storm-water runoff, reduce energy consumption and improve air quality.

Through effective green space inclusion and community engagement, the qualities and accessibility of health service delivery can be improved, having far reaching appeal in the community. Health promotion, recovery, rehabilitation and related therapies can all be positively affected by community green spaces.



“Let’s make Singapore our Garden.

We strive to provide you with an environment that is visually stimulating, physically nourishing and emotionally uplifting. Along this journey we hope to contribute to a Healthy, Happy and Enviably Singapore.”

Singapore National Parks



Green walls at Singapore’s HortPark, a collaboration between government, industry and community. HortPark combines garden related leisure, recreation and research. It is aimed at developing, promoting and nurturing garden culture amongst the population.

Green roofs at Singapore Botanic Gardens.

Extensively landscaped, low maintenance green roofs above multi-storey car parks provide leisure and meeting spaces for residents as well as an aesthetic and cooling purpose for surrounding buildings.



Centre for Urban Greenery and Ecology (CUGE)

Vision – to be a regional centre for advancing and sharing knowledge and expertise in urban greenery and ecology to enhance urban living environment.

CUGE was established by Singapore National Parks Board as a strategic initiative for development in the landscape industry. It has accumulated a critical mass of knowledge and expertise in the areas of urban greenery and ecology. It now serves as a repository of best practices to advance urban and green living environments. The majority of roof gardens in Singapore are low maintenance, for public or private enjoyment and cared for by specific staff or contractors. The most common design purposes are for cooling and aesthetics. Incentives offering increased gross floor area allowances are offered by Singapore National Parks and the Urban Redevelopment Authority (URA) to encourage designers to incorporate greenery into new and existing buildings designs. This can be done at the planning stage or through retro fitting of green roofs/walls.

‘Communities in Bloom’

The Communities in Bloom program was set up by Singapore National Parks in 2005 to foster a gardening culture among the people of Singapore. It is a collaboration between town councils, the Land Authority, people associations, the Housing Development Board, NGOs and the private sector. In Singapore, the community gardening network now comprises over 400 groups based in residential estates, schools and organisations. Singapore National Parks assists start-up community garden groups with planning and informational support and also organises national awards for groups and individuals, festivals, regular talks, gatherings and networking events at Singapore HortPark. There is also a website and helpline number to assist community garden groups.

‘The benefits of gardening are plenty. Lifting the shovel to dig and using the garden fork to loosen the garden bed helps to improve blood circulation. It provides the strength training to improve muscular control and maintain bone density. Studies have revealed that just looking at the garden has healthy psychological benefits. The colours and scent of flowers in a garden stimulate the senses and soothes the mind. Gardening together, as a community, with neighbours and friends brings even more benefits. It brings people together in a friendly environment where they can grow their favourite plants together and at the same time cultivate their friendship. Sowing seeds, nurturing them into maturity and sharing the harvest together bring plenty of joy.’

COMMUNITIES IN BLOOM



Alexandra Hospital

Restructuring, renovating and re-landscaping Singapore's Alexandra Hospital commenced in 2000 after a drawn out period of decline and deterioration during the 1990s.

The restructuring included a community based redevelopment of the hospital grounds which was led and facilitated by project specific staff. The hospital continues to employ staff for garden maintenance and facilitation/coordination of community volunteer engagement.

Also included as part of the therapeutic and aesthetic qualities of the hospital grounds are: a medicinal garden, fragrance garden, water features, butterfly and bird trails, eco pond and banana grove.

People often come to the hospital grounds to enjoy the natural surrounds and to be involved in community. This is rather than the hospital solely being used by the population for its clinical services. In this way the garden space also serves in making connection between 'unwell' or rehabilitating hospital clients and the wider community.

The success of the Alexandra Hospital redevelopment has led to the concept's inclusion and development at the recently opened Khoo Teck Puat Hospital at Yishun, Singapore.



More than 75 different species of butterfly have been recorded in the Alexandra Hospital grounds by various butterfly societies since the community based redevelopment. Bird watching clubs and other groups have also been involved in the regeneration of the hospital grounds as well as schools and hospital clients.

Khoo Teck Puat Hospital

Singapore's Khoo Teck Puat Hospital includes extensive community and hospital operated greenery and green roofs for diverse purposes. Design beautification, cooling, aesthetics, therapy, staff and community engagement and food production for the hospital cafeteria are all part of the hospital greenery and natural environment. The coordination and facilitation of community involvement and green spaces is overseen by project specific staff employed by the hospital.

All three towers of the hospital have green roof components, as do the multi-story connecting buildings. The surrounding grounds are landscaped for natural beauty, ecology and cooling. Window greenery, particularly adjacent to the subsidised wards, offers aesthetics and low cost, effective cooling.

Inside the hospital building and on the balconies and walkways are potted plants to soften hard edges and corners and to encourage pleasant thoughts and a relaxed state of mind. Café style seating areas are also provided for respite. People's senses are repeatedly greeted by nature, ensuring a therapeutic and enjoyable health service experience.

Engaging and accessible health promotional material at the hospital is largely aimed at promoting healthy lifestyle choices. General waste is managed by recycling and includes paper, plastic, metal and compost recycling options.



Changi General Hospital

During the 1990s Changi General Hospital commenced an initiative to grow food on the previously unused and exposed mid level roof using an aeroponic system of urban agriculture. The purpose was to address the heat island effect of an exposed cement roof top and also to grow food for the hospital facilities.

In the early 2000s the rooftop was again redeveloped into an aesthetic and fully covered roof garden, complete with trees, water feature, running track and exercise facilities for staff. Patients and the general public do not have access to the garden but can see it and feel the cooling and air quality effects from the subsidised wards adjacent and above the garden. CGH is primarily for acute hospital care, with rehabilitation occurring off-site following discharge to surrounding community hospitals.

The CGH roof garden is pleasing to the eye and enables better building and air cooling for patients and staff than the previous system. The current green roof also requires less maintenance and can be managed by the site maintenance crew.



Use of health services can be an engaging and uplifting experience for the public. Measures taken to promote health services as pleasant, therapeutic and inclusive can assist with improving service quality and increasing the proliferation of relevant health messages. Ideally this can serve to inform healthier lifestyle choices amongst the population, reaching out beyond the hospital walls.



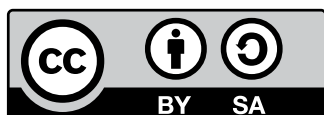
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