CENTRE for
LiveableCities
SINGAPORE

IN THIS ARTICLE

Singapore's systems approach to urban planning has resulted in a clean city with an attractive and healthy environment that serves the needs of her people across life stages. As urban and social environments shape the health of a city's people, this commentary explores how bringing together health and well-being with urban planning, design and other systems at a district-level can help address future health challenges.

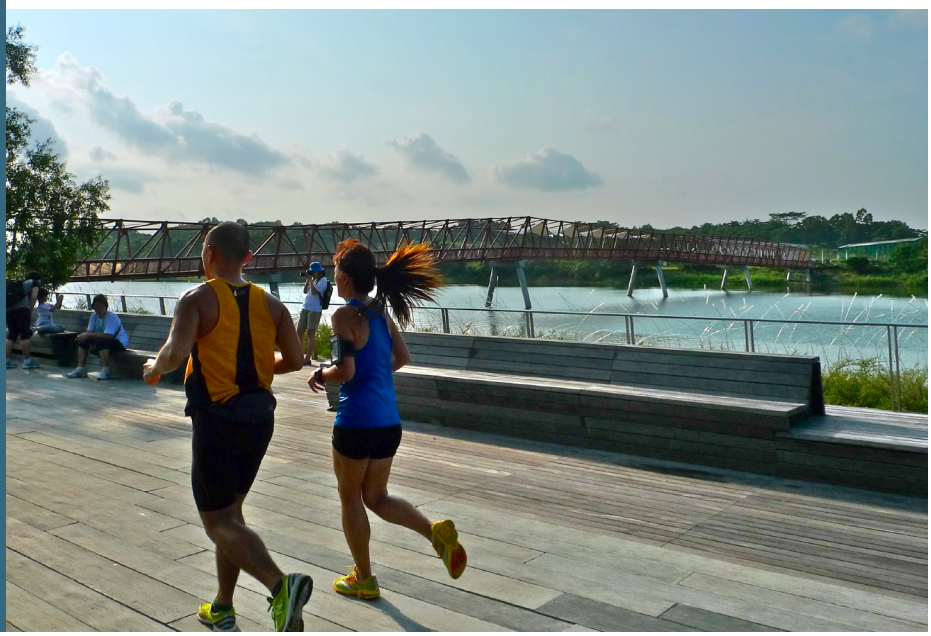

Figure 1: Singapore's parks and park connector networks make it easier for residents to stay active and healthy. *Source: Eric Tee*

Health Districts: Converging health and well-being with planning and other urban systems

A SHIFTING PARADIGM IN CITY PLANNING—FROM HEALTHCARE TO HEALTH

Studies have shown that less than half of what improves health has to do with access to healthcare services. The urban and social environment where we live, work, learn and play perform a larger-than-expected role (Figure 2). Hence, a city that is 'good for health' also depends on how well it is planned and designed, and how it operates day-to-day.

In recent years, there have been growing calls for city planning to focus on health. A recent BBC article quoted Layla McCay, Director of the Centre for Urban Design and Mental Health, as saying that "for the resilient, sustainable cities we all want and need, urban plans need to be designed, evaluated and approved using a health lens."[1]

However, this isn't news for Singapore. Since independence, our leaders have recognised that urban plans and policies need to be designed with the population's interest in mind, including health. And to do so involves various urban systems such as sanitation, water, healthcare infrastructure, nature, housing and transport, to name a few. Beyond a clean living environment, access to clean water and investments in healthcare facilities, urban environments must be designed to make healthy living a way of life.

SINGAPORE'S JOURNEY TO A LIVEABLE, INCLUSIVE AND HEALTHY CITY

Singapore's transformation since independence has highlighted the importance of a systems perspective to planning to achieve health outcomes.[2] This section outlines the four pillars that have helped the city achieve a liveable, inclusive and healthy environment for all.

a. Cleaning the City for Environmental Health

Singapore has systematically pursued cleanliness as the foundation to a healthy city. This meant building homes with sanitation facilities, citywide sewage systems, providing

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clean drinking water, building hawker centres, cleaning the Singapore River, vector control and containing outbreaks.

In 2012, the National Environment Agency (NEA) formed the Department of Public Cleanliness (DPC) to improve the quality of cleaning services in public areas. Besides progressively incorporating higher performance standards, the DPC also manages the clean-up of public places after emergencies such as road spillage, coastal oil spills, floods and infectious disease outbreaks.

b. Planning for Healthcare Infrastructure

Singapore plans for adequate provision and accessible distribution of healthcare facilities such as hospitals, clinics and nursing homes. Singapore's healthcare system is organised into three regional health clusters, each providing a range of facilities, capabilities, services and networks, paralleling how the regions attain self-sufficiency in residential, commercial and recreational spaces. Today, 9 in 10 HDB dwellers live within 15 minutes by public transport of a polyclinic or a Community Health Assist Scheme (CHAS) Clinic.[3]

c. A City for Healthy Living

Developing a City for Healthy Living requires a systems approach to urban planning. Health is impacted by a variety of social and environmental determinants. Hence, the different systems of the city need to be well integrated in order to promote health and healthy behaviours.

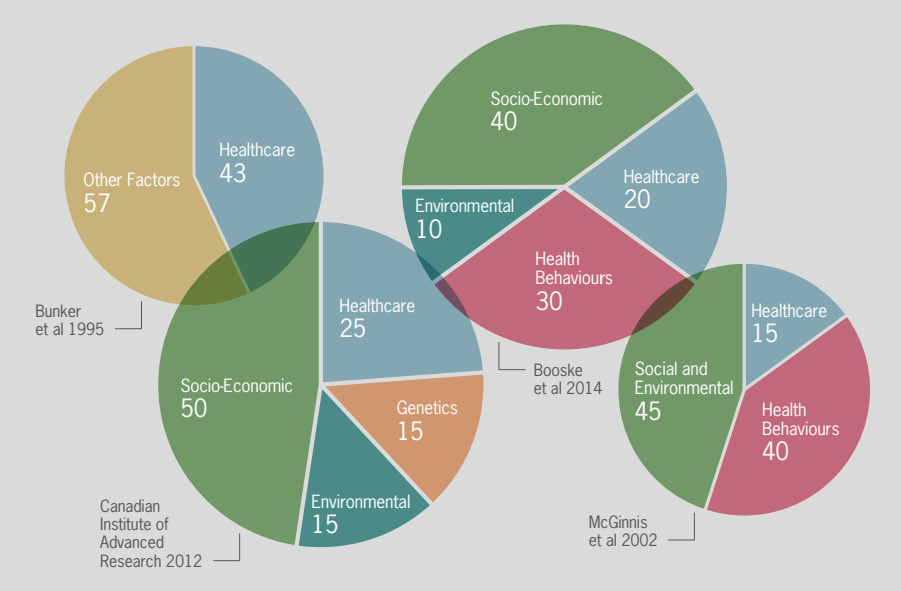

Figure 2: Socio-economic and environmental factors account for more than half the variation in population health outcomes. *Source: Adapted from Buck D, Baylis A, Dougall D, Robertson R (2018)*[4]

The greening of Singapore is one such key system. Founding Prime Minister Lee Kuan Yew believed greenery was crucial to people's wellbeing. In his words, "A blighted urban landscape, a concrete jungle destroys the human spirit. We need the greenery of nature to lift our spirits".

His vision has been translated into the ubiquitous greenery that now characterises Singapore. More than 40% of the island is covered in green, thanks to trees planted over the decades, with a dense network of national, town and neighbourhood parks linked by park connectors.[5] Singapore plans for people to live within 10 minutes of an open space or park, which serves as a visual and physical relief from the high-density environment, with a park provision ratio of 0.8 hectares (8,000 m^2) per 1000 persons.[6]

Singapore's urban mobility strategy also adopts a systems approach in contributing to a healthier living environment. In the 1970s and 1980s, the demand for public transport was projected to increase. Despite a higher capital investment cost, Singapore built and developed a network of rail systems known as the Mass Rapid Transit (MRT) and Light Rail Transit (LRT) systems to move people in a clean and efficient way, compared to expanding the city's fleet of buses which would result in a degradation of our air quality and public health.

Today, our train network of MRT and LRT lines is planned to double to 360 km by 2030 and there are plans for

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8 in 10 households to live within a 10-minute walk of a train station.[7] This will continue to encourage people to walk more and use public transport versus private cars. The National Cycling Plan will see 1,320 km of cycling paths built by 2030.[8] These efforts are complemented with activities such as Car-Free Sundays where the public can use roads in the Central Business District (CBD) and the Civic District for activities such as jogging, cycling and other activities. The CLC-Urban Land Institute (ULI) collaboration, "Creating Healthy Places through Active Mobility", has also presented research and site study findings to inform future active mobility programmes in Singapore.

The Healthy Living Master Plan Taskforce was formed in September 2012 to formulate a plan to make healthy lifestyles seamless and integrated with daily living.[9] Its various initiatives include making health-promoting facilities and services conveniently accessible to workplaces and residential areas and encouraging food and beverage players to supply healthier meals in schools and the community.

d. A City for All Ages

Recognising the need to prepare for an ageing population, a Ministerial Committee on Ageing was established in 2015 to coordinate related government policies and programmes.

In 2015, the Committee launched an Action Plan for Successful Ageing that charted over 70 initiatives in 12 areas, including senior-friendly towns and homes.[10] Specific ideas include wheelchair-friendly buses, silver zones as safe traffic junctions for older adults, priority queues on public transport, and senior-friendly parks and therapeutic gardens.

The City for All Ages (CFAA) project also empowers the community to come together to create caring and safe environments for seniors. It identifies specific precincts as living laboratories to assess the needs of seniors and test ideas ranging from elderly-friendly infrastructure (e.g. larger block numbering, levelled void decks and longer green-man time at pedestrian crossings) to providing health checks and volunteer networks to support seniors. Day Rehabilitation Centres and Senior Care Centres, as well as Social Day Care Centres and Senior Activity Centres have been created for seniors in town centres or at void decks, enabling residents to receive these services within a familiar environment close to their homes.

Within homes, the Enhancement for Active Seniors (EASE) programme supports improvements to make flats elderly-friendly and enhance the safety, mobility and comfort of elderly residents. Improvements include slip-resistant treatment to existing floor tiles and grab bars in toilets, as well as ramps within or at the entrance of flats.

Figure 3: The public healthcare landscape is structured into three clusters, each encompassing a full range of services. Khoo Teck Puat Hospital is part of the Central cluster, sited within a HDB neighbourhood and is highly accessible to the residents. *Source: William Cho*

DEVELOPING A HEALTHY CITY IN THE FACE OF NEW CHALLENGES

Singapore has made significant progress in building a healthy and inclusive city. Looking ahead, there is a need to continually develop and systematically implement solutions with health outcomes in mind, especially as we grapple with the threats of communicable and vector-borne diseases, rising chronic

illness as well as mental and cognitive health issues.

Due to globalisation, urbanisation and climate change, infectious diseases are on the rise globally. These include outbreaks of SARS in 2003, H1N1 in 2009, Zika virus in 2016, the occurrences of Dengue and, more recently, the COVID-19 pandemic.

Chronic illnesses are another pressing threat. Between 2010 and 2017, the prevalence of diabetes, high blood pressure and cholesterol increased by 4%, 14% and 33%, respectively, among adults aged 18 to 69.[11]

Alongside an ageing population, age-related cognitive impairment is another challenge. Currently, about 1 in 10 persons aged 60 and above in Singapore suffers from dementia, and this ratio is expected to increase with longevity.[12]

Mental illness is also an area of concern, with 1 in 7 people in Singapore having experienced a mood, anxiety or alcohol use disorder in their lifetime. Stigma and discrimination associated with mental illness often causes people to delay seeking treatment. A 2016 study in Singapore showed that more than three-quarters of people experiencing a mental health issue in their lifetime did not seek any professional help.[13]

In recent years, several agencies have stepped up to address these challenges and opportunities in different parts of the urban system in order to ensure Singapore remains a healthy and inclusive city.

In response to the COVID-19 pandemic, **Healthcare Infrastructure** has been beefed up for disease containment through adaptive reuse of buildings. For example, hotels have been repurposed as quarantine facilities, exposition halls used for isolation, and care facilities and military camps have served as recovery facilities. This is possible in part due to existing multi-use community buildings with a variety of spatial configurations that could easily be adapted as temporary accommodations, and because of long-standing goodwill between Singapore Tourism Board and the hotel industry, which aided the rallying of operators to contribute to a critical national cause.

To achieve the goal of a **Clean City for Environmental Health**, and even more so during this current public health situation, the SG Clean Taskforce has stepped up efforts to enhance public hygiene and cleanliness through the introduction of mandatory cleaning standards, community engagement to encourage good public hygiene habits, and adjusting of social norms to make SG Clean a way of life. Various agencies are also using technology to geospatially map out crowd levels to facilitate social distancing to contain COVID-19.[14]

To create a **City for Healthy Living**, there are initiatives to leverage our understanding of behavioural science and technology to nudge healthier behaviours via the physical and social environments. As Singapore's master planner and developer of HDB townships, HDB has launched a new roadmap titled "Designing for Life – Live Well, Live Green, Live Connected" in 2020. This roadmap takes a more resident-centred approach, and focuses on planning and designing around residents' physical, mental and social needs, to create homes that contribute to their physical health, promote positive behaviours, and encourage social connections. In addition, the Ministry of Health Office for Transformation (MOHT) leads efforts to understand the links between socio-environmental determinants in selected precincts and the health behaviours of residents in order to address and improve them. The need to understand how to encourage healthy behaviours within the neighbourhood has been made more pressing as COVID-19 circuit breaker measures have driven the move towards 'hyper-local' living.

To help build a **City for All Ages**, there are plans to further integrate healthcare into the urban and social fabric. Kampung Admiralty, for example, is the first integrated public development that brings together a mix of public facilities and services. The HDB and MOH have also worked closely together to integrate "fenceless" Nursing Homes in HDB estates, designed to assimilate into housing neighbourhoods.[15] MOH is piloting new models of housing + care with MND, HDB and URA to broaden housing options for seniors to age-in-place. In 2017, CLC facilitated a workshop for government and other stakeholders, that discussed assisted living as a way to organise housing and care for seniors who are still fairly independent but require assistance as they age. Ideas from the workshop are being realised in the new Community Care Apartments pilot in Bukit Batok, where each HDB block will be designed with communal living spaces, and each dwelling unit is designed and provided with a package of care features and services.[16] Amidst the ongoing COVID-19 situation, there is a need to consider how our communal facilities can strike a balance between safe distancing and socialising, the latter of which is so important for our mental well-being for residents of all ages.

The Agency for Integrated Care (AIC) and CLC are also conducting research on Dementia-Friendly Neighbourhoods to develop planning and design guidelines to enable elderly residents with dementia to age in place within familiar surroundings. This will enhance our universal guidelines to address the needs of both physical disability and mental impairment, to truly achieve an inclusive environment for all.

> Health Districts seek to explicitly integrate health outcomes and healthcare professionals into the planning process.

HEALTH DISTRICTS

What is a Health District?

This commentary proposes Health Districts as one way to apply a systems approach to shape our city for health at a district-level. While the Health District is a relatively new concept, such districts have been developed in cities such as Baton Rouge and Kashiwa-no-ha Smart City (see Box Stories).

When it comes to planning a district for health and wellness, the various pieces of the puzzle are not new. The levers that urban planners have—more parks, greenery, active mobility infrastructure and push for eco-friendly buildings—are already considered best practices of sustainable cities.

Baton Rouge Health District

Louisiana, United States

Figure 4: The current 7-lane, congested, and car-oriented Essen Lane at the heart of the Baton Rouge Health District. *Source: Perkins and Will*

Figure 5: Artist's rendering of how the same area can be transformed as part of the Baton Rouge Health District. *Source: Perkins and Will*

At the time of planning for the Baton Rouge Health District, Louisiana was ranked last among American states in population health.[17] Parts of Baton Rouge, Louisiana's capital, have been described as a 'food swamp' filled with unhealthy food choices and lacking green spaces and alternatives to driving. Unsurprisingly, the city has a high prevalence of chronic illnesses such as diabetes and obesity.

In this context, the Baton Rouge Health District was established in the south of the city, with a view to address chronic illnesses and improve population health outcomes.

Demonstrating the convergence of healthcare and urban planning, the district masterplan was developed with input from a large coalition of the Baton Rouge medical community, including three regional hospitals, a medical school, and a biomedical research centre located within the 400-hectare district boundary. The masterplan seeks to improve health outcomes at multiple levels by making significant investments in pedestrian infrastructure, green spaces, transit, and jobs. Complementing these are plans to support access to quality healthcare, expanded medical education and R&D, and clinical trials.

Baton Rouge hospitals currently invest a limited amount of their revenue to enhance population health. This is due to the slow and controversial shift in the US from the decades-old "fee-for-service" payment model that

incentivises medical treatment towards a "value-based" payment model that incentivises quality of care and health. Crippled by the high cost of treating uninsured and under-insured patients, hospitals and health systems are increasingly looking for ways to reduce the disease burden in the population.

The Baton Rouge Health District Master Plan identified ways the anchor hospitals could transform their own campuses and partner with local and state governments to build a healthier district environment. The Master Plan vision called for the addition of new street connections, a 12-km trail loop, and zoning updates to create a more walkable environment and to promote outdoor activity. The Plan also outlined the programme for a non-profit Diabetes and Obesity Center that would enable District partners to collectively address the chronic disease epidemic in the community.

A District umbrella organisation consisting of fifteen district partners was incorporated soon after the completion of the masterplan to oversee its implementation and guide future collaborations. Execution of the plans has been slow and delayed, in particular, by the catastrophic flood of 2016. Yet, Baton Rouge's model of focusing on health outcomes, bringing together urban planners and healthcare, academic and research institutions, and partnering to improve the built environment and community health, remains a useful reference case to watch.

It would also be useful to consider how the district could measure its performance. Currently, health behaviour and outcome metrics are available, down to individual zip codes. While challenging, it may be instructive to consider how to measure the longitudinal effects of the Health District interventions on healthy behaviours and outcomes.

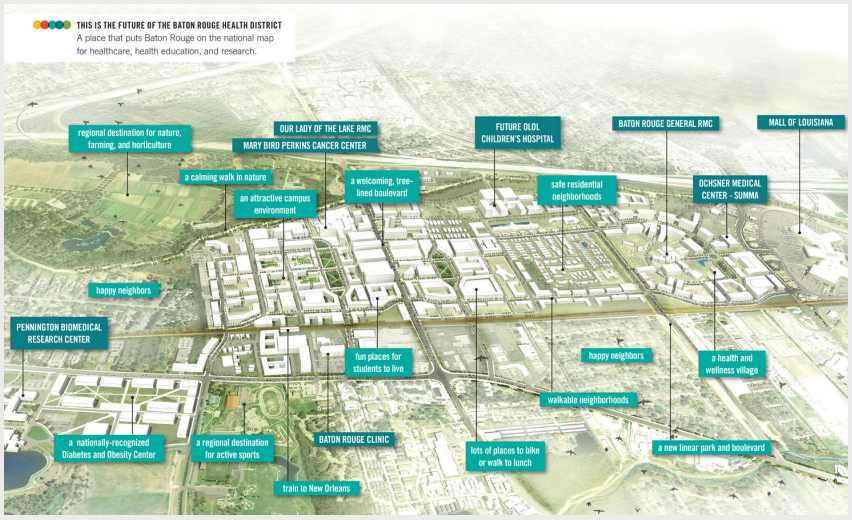

Figure 6: An aerial perspective of the Baton Rouge Health District Vision Plan.
Source: Baton Rouge Health District

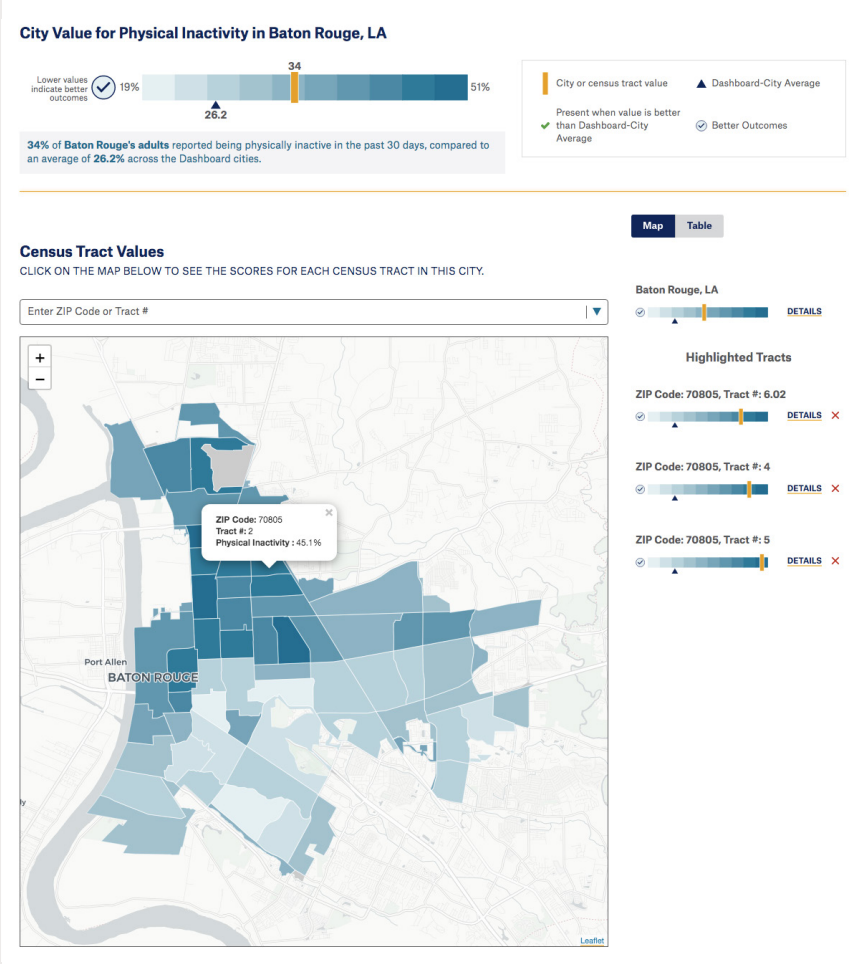

Figure 7: Physical activity across Baton Rouge by zip code. The City Health Dashboard provides these and a myriad of health and health behaviour-related data for cities across the US, mapped by zip code.
Source: City Health Dashboard

Kashiwa-no-ha Smart City
Japan

In Japan, a 273-hectare development in the northern part of Kashiwa City was initiated in 2000 as the Kashiwa-no-ha Smart City, with a key aim to improve the health of its ageing population.

The district has been designed in a compact manner to encourage walking and cycling, with mobility stations that allow residents to rent bicycles and hail buses on-demand. To further promote healthy behaviours, Kashiwa-no-ha's Town Health Station is a one-stop centre for information on diets and exercise, and also offers non-strenuous job opportunities for the elderly.

From the outset, the city understood that it had to work together across public and private sectors and the community. The city brought together various stakeholders, including the Chiba Prefecture government and the Kashiwa City government, private-sector companies such as Mitsui Fudosan, the Metropolitan Intercity Railway Company, the University of Tokyo, the Chiba University as well as non-profit organisations.

A key platform developed was the Urban Design Center Kashiwa-no-ha (UDCK), an independent organisation formed, managed and funded by public and private partners. It functions as a research think tank to develop new urban planning proposals, a coordinator for collaboration on actual development projects, a place management agency, and a knowledge centre.

Major research projects undertaken by UDCK include advanced transportation-oriented development, urban regeneration and urban development in an ageing society. UDCK is also the think tank behind key urban planning proposals for the district.

Figure 8: The Urban Design Center Kashiwa-no-ha (UDCK), which functions as a research think tank to develop and coordinate development projects, a place management agency and a knowledge centre. *Source: Wikicommons*

Figure 9: Community engagement and design activities at the UDCK. *Source: Mitsui Fudosan*

UDCK brings community and business interests together as the district develops. For instance, it organises developers to subscribe to site and building guidelines for sustainability and to meet the community's desire for more active and liveable neighbourhood spaces. UDCK also connects leading-edge technology providers with the community in Kashiwa-no-ha.

UDCK even plays a role in community building, through placemaking initiatives and working with grassroots organisations to promote healthy living. In tough times, UDCK even works with the community to adapt to economic stresses and unexpected disasters.

However, Health Districts go one step further by seeking to **explicitly integrate health-related considerations and outcomes into the planning process**. Also characterising Health Districts are **public-private-people partnerships**—such as with institutions, non-government organisations (NGOs), the private sector and local communities—to create solutions to enhance the health and well-being of residents across life stages (see box stories). Health Districts can also serve as platforms to **promote testing and scaling up of new ideas** by the public sector, as well as private and people sector.

INITIATIVES ADOPTING A HEALTH DISTRICT APPROACH IN SINGAPORE

In Singapore, there are various ongoing initiatives to adopt the Health District approach, with health outcomes and healthcare professionals explicitly integrated into the planning process, with public-private-people partnerships, as well as the testing and scaling of ideas.

Health District @ Queenstown

The Housing & Development Board (HDB), the National University Health System (NUHS) and the National University of Singapore (NUS), together with stakeholders from the public, private and people sectors, have embarked on a pilot Health District @ Queenstown. Queenstown is Singapore's first satellite town, and currently has one of the oldest populations in Singapore, and its demographics closely mirror Singapore's national demographics by year 2030.

The Health District @ Queenstown aims to promote healthy longevity, enable purposeful longevity, promote intergenerational bonding, and enable a community of all ages. It will do this by developing integrated approaches, co-creating solutions with the community, and piloting evidence-backed initiatives to enhance the health and well-being of residents across their life stages. These approaches and initiatives will be co-created with the community.

Examples of efforts that will be pursued in the Health District include improving residents' access to preventive health services through an enhanced My Health Map programme, courses to equip residents with skills and knowledge to live a purposeful life, planning and design solutions to enhance residents' physical, social, and mental well-being, and the co-creation of affordable and useable technology to improve residents' lives.

In the long-term, the Health District @ Queenstown will help to identify successful programmes and solutions that can be implemented sustainably and scaled across Singapore to meet the evolving health and well-being needs of the city's population.

Figure 10: MOHT's Healthy Precincts framework. *Source: MOHT*

MOHT's Healthy Precinct Framework

To help Singaporeans attain good physical, social and mental health, MOHT seeks to address the socio-environmental determinants at a precinct level with key stakeholders. Broadly, it uses a whole-of-society approach to align public and private sector stakeholders at a systems level, with a mission to foster sustained behavioural change at the precinct level.

The key behaviours are currently focused on physical activity, healthy eating, socialisation and sleep. Evidence-guided methodologies are then used to co-create, implement and evaluate interventions in the specific precinct, with a view to scale the most effective interventions.

One of the tools to be tested is that of a Healthy Precinct Framework—a behaviour-driven framework that

hypothesises relationships between social and environmental determinants of health and key healthy behaviours. The framework aims to guide collaborations between stakeholders to collectively improve precincts as well as key healthy behaviours among residents.

MOHT's Healthy Precincts Framework also intends to track and evaluate the effectiveness of interventions on healthy behaviours and outcomes. In the medium-term, it may be worth considering making available a database of longitudinal, place-based health outcomes (e.g. by postcode). This will serve as a basis for government agencies, research institutes and community stakeholders to 'measure' the effectiveness of various interventions.

Dementia-Friendly Communities

Led by AIC and working with key partners, Dementia-Friendly Communities (DFCs) demonstrate the collaborative aspects of a Health District. DFCs are communities where residents, businesses and services have a greater awareness of dementia and are able to provide better support to persons with dementia and their caregivers. Within each DFC, the community is educated on the signs and symptoms of dementia and preventive care. Persons with dementia and caregivers are supported with resources and support services such as Go-To Points that also function as "safe return" points to reunite persons with dementia with their caregivers when persons with dementia are lost. There are currently eight DFCs in Singapore—Yishun, MacPherson, Hong Kah North, Bedok, Queenstown, Fengshan, Bukit Batok East, and Woodlands—and AIC has plans to expand these to 15.[18]

CONCLUSION

Drawing reference from the Baton Rouge and Kashiwa-no-ha Health Districts, planning for health and wellness has been done purposefully in other parts of the world over the last two decades. The case studies demonstrate that the successful creation of Health Districts requires focus in integrating healthcare requirements and desired general population health outcomes into the upstream stages of the planning process. The convergence of health and wellness with urban planning and design brings about a closer dialogue between healthcare professionals and urban planners. However, to fully achieve the full potential of Health Districts and bring about transformative change, a systems approach would require further integration of other fields including community and social programming, businesses, services, transport and supply chains.

Singapore has always planned its city with public health as an implicit goal and sought to achieve this through a systems approach. With growing threats such as communicable diseases and chronic illnesses, there is a need to continually apply a systems approach in planning.

Figure 11: Post COVID-19, building standards and urban design guidelines would need to be relooked at to support safe distancing. *Source: Jnzl's Photos/flickr; foam/flickr*

Cleaning the City

As highlighted earlier, amid the COVID-19 public health situation, the SG Clean Taskforce has already enhanced public hygiene and cleanliness through the introduction of mandatory cleaning standards, community engagement to encourage good public hygiene habits, and adjusting of social norms to make SG Clean a way of life.

In the medium-term, building standards and urban design guidelines would also need to be relooked to support qualities such as enhanced ventilation, contactless designs and safe distancing within buildings and in public spaces.

Healthcare Infrastructure

Singapore's regional health cluster planning approach has demonstrated its value in addressing public health needs during the COVID-19 pandemic. For example, polyclinics and the reactivation of Public Health Preparedness Clinics (PHPCs) have played an important role in detecting and managing infections.

The availability of multi-use spaces that can be readily converted into temporary care facilities, such as the Singapore Expo, is also an example of flexible or redundancy planning that should continue to be factored into medium-term land use and neighbourhood plans. Beyond physical infrastructure, our digital infrastructure plays a complementary role in enabling tools such as the SafeEntry and TraceTogether apps to help in effective contact tracing and early detection. Going forward, there is a role for policy to examine both the physical and digital infrastructure in a holistic and comprehensive manner to enable expedient, effective and efficient delivery of healthcare outcomes.

A City for Healthy Living

Singapore's approach to urban and programmatic planning, and the design of our housing estates, have also demonstrated their value in meeting residents' daily needs during the circuit breaker period. Today, residents can access parks and open spaces within walking distance, or food, basic necessities and clinics at their nearest neighbourhood centre or town centre. The distribution of face masks was also facilitated and enabled by the network of community clubs, community centres and Residents' Committees (RC) centres across housing estates. Such proximity, accessibility and conveniences did not happen by chance, and are testimony to the consistent long-term planning efforts over the years.

The COVID-19 situation has highlighted several key lessons that point to the urgency and importance of adopting the Health District approach to planning and designing our neighbourhoods and towns. With COVID-19 circuit breaker measures driving the move towards 'hyper-local' living, the need to understand how to encourage healthy behaviours within neighbourhoods has become more pressing.

Figure 12: A more granular and sensitive approach to placemaking within neighbourhoods can foster a greater sense of identity, neighbourliness and community resilience. *Source: Jnzl's Photos/flickr*

For example, there is anecdotal evidence that people are cooking and eating at home more. Hence there is a need to ensure access to fresh produce and groceries to make healthy meal choices.

"In the past it was (about) the choice of food in restaurants or hawker centres, in the future it may be around grocery buying, ingredients and the knowledge and ability of how to cook healthy meals," MOHT's Dr Loke Wai Chiong said at a CLC Webinar on "Beyond Good Healthcare" on 21 May 2020[19]. "The availability of healthy food around everyone's neighbourhood, within walking distance, is going to be more and more important, and the principle of building healthy precincts will be even more important than before."

Perhaps, this need will also be magnified by an impetus for more local urban farms to build food resilience and a supply of fresh produce with lower carbon footprint. There is potential to study different typologies for urban farming, and how policies and programmes can encourage a shift towards healthier and fresher food choices.

While recent polls have shown that Singapore residents desire to maintain their new exercise routines even after the circuit breaker period, how do we encourage physical activity for those who are home-bound? The goal is for healthcare professionals, planners and designers to reinforce such healthy behaviours and lifestyles through better provision and distribution of such amenities, services, parks and open spaces.

With people spending more time within their neighbourhoods, an emphasis on placemaking for neighbourhoods and precincts at a more local, granular scale can also foster a greater sense of identity, neighbourliness and community resilience. A denser network and distribution of more small, open and communal spaces (taking into consideration safe management measures) and community nodes (such as food banks, urban farms) will help build up a stronger level of social capital, forge community networks and

> By planning and designing for better well-being and healthy behaviours and lifestyles, Health Districts can create the continuum of care necessary for every person in Singapore and to help us better weather the next health crisis.

resilience, and improve both physical and mental health outcomes. This calls for a re-think of current policies, distribution and provision norms, as well as a more granular and sensitive approach to understanding the particular needs of the community and to address them by leveraging their unique community assets.

A City for All Ages

As we adjust to a 'new normal', other questions come to mind. For instance, to continue delivering on healthy living environments, it will be timely to re-examine guidelines and best practices for 'healthy buildings' and 'healthy communities'. To further support a City for All Ages, there may be benefits to incorporating more working and co-working spaces for all ages, to enable purposeful longevity and create a vibrant neighbourhood centre throughout the day.

To promote intergenerational bonding and strengthen community networks, we could encourage a higher proportion of assisted living units and blocks in new estates. To encourage healthy lifestyles and activity levels, there is more impetus than ever to enhance seamless, active mobility connections between spaces and uses within neighbourhoods, and to weave in biophilic elements from parks and green corridors not just along building frontages, but also within the neighbourhoods.

The COVID-19 crisis has presented Singapore the opportunity to respond and rethink urban planning and design for public health and wellness.

Speaking at a CLC Webinar in 2020, Prof Lam Khee Poh, Dean of the NUS' School of Design and Environment, noted that 60% of our health outcomes are dependent on social and environmental factors, yet the built environment currently gets less investment in research and design as compared to the healthcare and pharmaceutical sectors. Herein lies the opportunity for more cross-disciplinary efforts to find fresh approaches to encourage healthier environments, behaviours and lifestyles.

Through greater integration of planning and designing with other disciplines, Health Districts can create a more holistic environment that enables better health and well-being and help us better weather the next health crisis.

Notes

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