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Realising the value of greenspace: A planners' perspective on the COVID-19 pandemic

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Figure 1: Realising the potentials of urban greenspace through planning and design interventions that can lead to a healthier post-pandemic world (Source: Authors' own)

While the current trends of rapid urbanisation and globalisation have improved the lives of many people worldwide in the last few decades, the negative side effects of such trends are becoming more apparent. Physical and mental health issues, for example, are emerging at a rapid pace and health systems around the world, particularly in densely-populated areas, often do not have the adequate capacity to address the issues (Barton and Rogerson, 2017; Douglas

et al., 2017). The COVID-19 pandemic has exacerbated these issues further as millions of people around the world have been living under various degrees of travel restrictions that might last for a considerable period of time (Pfefferbaum et al, 2020). In an attempt to curb health-related issues, planning and design interventions concerning the allocation of space in urban settings has recently gained traction (Barton and Grant, 2013). Access to greenspace has been identified as a necessary component of healthy urban life as such spaces are proved to have positive impacts on the health and wellbeing of individuals and communities (WHO, 2017; Sallis et al., 2016; PHE, 2017; Sanchez and Liamputtong, 2016). Previous studies have identified the positive correlation between increased health issues and the absence of greenspace in urban contexts (Barton and Rogerson, 2017). Type-II diabetes and heart diseases are some of the so-called 'lifestyle diseases' that are prevalent in areas where greenspace is absent. This is often due to poor planning and design interventions, as well as the neglect or lack of knowledge of their necessity. The England Healthy New Towns programme implemented by the National Health Service (NHS) of England emphasizes the value of including greenspace when planning and designing urban communities, as they aid with the prevention of health issues (NHS, 2019).

The COVID-19 virus has quickly become a top risk for public health worldwide, with quarantine and self-isolation as its main measures of prevention. While it is necessary to prevent further infections and protect the population, the considerable impact of such measures on health and wellbeing of people is undeniable (Pfefferbaum et al, 2020). Lockdown measures have limited the access of people to services and facilities outside of their local areas, whilst lowering the intensity of their usual physical activity. As a result, the greenspace within neighbourhoods has become more important than ever in hosting people's outdoor activities

(See Figure 2). Difficult and uncertain times as these show the importance of urban planning and design and the need for the inclusion of greenspace when designing neighbourhoods. Of particular importance are the proximity and quality considerations of greenspace, which can have significant impacts on physical and mental health of individuals and communities.



Figure 2: People in Chelmsford Central Park, Essex, UK (Source: Authors' photograph)

The proximity of greenspace

The proximity to greenspace (i.e. the state of being near to greenspace) is one of the focus areas when studying their effects. Existing studies have explored the correlation between the access of individuals to greenspace and their levels of health and wellbeing. There is a consensus among scholars that access to greenspace in urban areas positively affects individuals, resulting in higher levels of physical activities, healthier habits and behaviours as well as improved health outcomes (Barton and Rogerson, 2017). There has been research which attempts to answer the question of the correct proximity of greenspace to residential areas that are most beneficial to the surrounding population (Ord, Mitchell, & Pearce, 2013). The

COVID-19 pandemic has highlighted the existing issues of urban planning and design, that have failed to address the scarcity of greenspace. During the pandemic, many countries restricted traveling and only allowed people to stay in their locality. However, urban greenspace is not equally distributed among individuals and communities. Those who live near greenspace can receive the full benefits associated with greenspace, but not all people have a neighbourhood park within a 10-minute walk from home. Such proximity is of particular importance for older people, children, and people with disabilities. The communities where greenspace was not prioritised or accounted for, will not be able to reap the benefits required for their physical and mental health needs.

Similar to other public goods, public parks will be underprovided without interventions in the market. In other words, given public parks do not bring monetary value and take up large swaths of land, there is little incentives for self-interested private developers to provide them within a free market with no government intervention. As a result, the land uses that create higher land values (e.g. housing and commercial uses) are often prioritised, with the costs of shrinking green and open spaces. This has led to the shortage of greenspace in many city centres which also come with reduced levels of mental health and physical activities (Ord, Mitchell, & Pearce, 2013). In a situation that travelling outside people's locality is discouraged or prohibited, the access to greenspace has become even more challenging, or even impossible, for some people (See Figure 3). This can potentially lead to major impacts on people who are isolated and do not have space for a proper outlet. Although this is a more serious issue 'during' the pandemic, it will not simply disappear 'after' the pandemic, when the restrictions are lifted. The negative effects might not be easily noticeable, yet the issue will persist, and planning

policies should be implemented to help create greenspace for neighbourhoods that do not contain them. This pandemic has brought to our attention the impacts of social inequality on public health and exposed the social and economic differences of quality of life. Those people who live in deprived areas are disproportionately influenced by lack of access to greenspace (The Guardian, 2020). Also, large numbers of people are observed entering parks sometimes against guidelines, which highlights the problem of not having enough greenspace in a local level for a rapidly growing population (See Figure 4). The proximity of greenspace is not the only concern when designing and planning an urban greenspace, quality of the space is just as important.



Figure 3: People who do not have access to local greenspace use their balconies for their physical activities, Chelmsford, Essex, UK (Source: Authors' photograph)



Figure 4: large numbers of people using greenspace in Chelmsford Central Park, Essex, UK (Source: Authors' photograph)

The quality of greenspace

The other factor that is accounted for when looking at greenspace is its quality. Studies show that quality is just as important as the amount of space available, if not more important (Feng and Astell-Burt, 2018). This information is valuable for urban planning as it allows us to compare greenspace in wealthy and poorer communities, allowing to differentiate the data and better understand how to improve the wellbeing of communities. Communities with lower socio-economic status are usually surrounded by poorer quality greenspace and receive fewer benefits that are obtained from greenspace. This means that just because a neighbourhood has many parks or large parks in its proximity, it does not automatically acquire all of the benefits that come with greenspace. For example, when a park is large, but it is littered and all of its commodities are poorly maintained it is much less effective at delivering the positives associated with greenspace. On the contrary, a smaller park that is regularly cleaned and well-maintained will be much more effective in providing benefits to the surrounding population. The result of a study conducted by Sugiyama et al. (2008) showed that individuals that had perceived their local greenspace quality as high, often had higher physical and mental scores. They used survey data along with mental and physical health scores. The scores were derived from several variables: perceived neighbourhood greenspace quality; walking for recreation and transport; social coherence; local social interaction and socio-demographic variables. This contrasts with the present situation of the COVID-19 pandemic in which public services (e.g. schools and community centres) are cut back to protect the citizens and people are left with limited opportunities for socialising and support. Yet the adverse effect is the increase of stress, anxiety and other mental issues. These studies show that planning and design intervention can

alleviate the pressure from health system by having positive effects on community members, simply through the use of available greenspace. Although it is difficult to calculate an exact monetary value of the availability of greenspace, for example in terms of a reduction in the need for medical services, the studies show that the average community health will improve along with the availability of quality greenspace. Yet, the last decade has seen major budget cuts to parks, meaning not only is the quantity a problem in countries like the UK, but also the quality is also suffering (The Guardian, 2020). As lack of funding at a local authority level is forcing staff cuts and reducing basic maintenance of benches, tables, and playgrounds, the quality of greenspace rapidly declines. Now during a pandemic, at a time that greenspace is extremely valuable to keep up the morale of communities, the value of proper planning, designing, and managing of greenspace is evident.

Lessons to learn from the pandemic about the necessity and value of greenspace

What is obvious from this collection of studies is that without a doubt, greenspace provides benefits for people's health and wellbeing that are difficult to obtain through other ways. Hopefully, this pandemic will increase the appreciation of parks, trails, and nature in general, resulting in greenspace being more highly considered in future urban planning and design. The National Health Service (NHS) in England has already begun looking into the importance of healthy towns, but it should be implemented on a larger scale to promote healthy lifestyles and habits. After the pandemic, and once social distancing is a thing of the past, initiatives such as community gardens would greatly benefit all citizens, as shown in

numerous studies. Some of the benefits from community gardens are social cohesion, improved physical capability, and healthier eating, and living habits among many others (Sanchez, Louise and Liampattong, 2016). In addition to improving future urban planning, cities should look into creating greenspace in existing communities in areas where a shortage of greenspace has been identified. This would increase the overall health of the community and improve living standards. The urban lifestyle is defined by rumbling grey cities with skyscrapers and massive buildings; however, it is undeniable that humans require greenspace to properly function and maintain good mental and physical health. In a post-pandemic world, urban planners and designers must prioritise greenspace in their plans and designs.

References:

- Barton, H. and Grant, M., 2013. Urban planning for healthy cities. *Journal of Urban Health*, 90(1), pp.129-141.
- Barton, Jo, and Rogerson, Mike., 2017. "The Importance of Greenspace for Mental Health." *BJPsych International*, The Royal College of Psychiatrists, 1 Nov. 2017, www.ncbi.nlm.nih.gov/pmc/articles/PMC5663018/.
- Douglas, O., Lennon, M. and Scott, M., 2017. Green space benefits for health and wellbeing: A life-course approach for urban planning, design and management. *Cities*, 66, pp.53-62.
- Feng, Xiaoqi, and Thomas Astell-Burt. 2018. "Residential Green Space Quantity and Quality and Symptoms of Psychological Distress: a 15-Year Longitudinal Study of 3897 Women in Postpartum." *BMC Psychiatry*, vol. 18, no. 1, 2018, doi:10.1186/s12888-018-1926-1.
- NHS England, 2017. Healthy New Towns Programme. Available at <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/> (Accessed 10/05/2020).
- Lee, Andrew Chee Keng, et al. "Value of Urban Green Spaces in Promoting Healthy Living and Wellbeing: Prospects for Planning." *Risk Management and Healthcare Policy*, Dove Medical Press, 27 Aug. 2015.
- Pfefferbaum, Betty, et al. "Mental Health and the COVID-19 Pandemic: NEJM." *New England Journal of Medicine*, Massachusetts Medical Society, 7 May 2020.
- Public Health England, 2017. Spatial Planning for Health—An Evidence Resource for Planning and Designing Healthier Places. Public Health England, London.
- Richardson, E.A., Pearce, J., Mitchell, R. and Kingham, S., 2013. Role of physical activity in the relationship between urban green space and health. *Public health*, 127(4), pp.318-324.
- Sanchez, Erin Louise, and Pranee Liamputtong. "Community Gardening and Health-Related Benefits for a Rural Victorian Town." Taylor & Francis, 29 June 2016.
- Sugiyama, et al. "Associations of Neighbourhood Greenness with Physical and Mental Health: Do Walking, Social Coherence and Local Social Interaction Explain the Relationships?" *Journal of Epidemiology & Community Health*, BMJ Publishing Group Ltd, 1 May 2008, jech.bmj.com/content/62/5/e9.
- Sallis, J.F., Cerin, E., Conway, T.L., Adams, M.A., Frank, L.D., Pratt, M., 2016. Physical activity in relation to urban environments in 14 cities worldwide: a cross-sectional study. *Lancet*. 387 (10034), 2207–2217.
- The Guardian (2020), Coronavirus exposes how riddled Britain is with racial inequality. <https://www.theguardian.com/commentisfree/2020/apr/20/coronavirus-racial-inequality-uk-housing-employment-health-bame-covid-19>
- WHO, 2017. Urban Green Space Interventions and Health - a Review of Impacts and Effectiveness. WHO Europe, Copenhagen. Available at http://www.euro.who.int/__data/assets/pdf_file/0010/337690/FULL-REPORT-for-LLP.pdf?ua=1 (Accessed 16/05/2020).