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A call to action: improving urban green spaces to reduce health inequalities exacerbated by COVID-19

Geary, R.S., Wheeler, B., Lovell, R., Jepson, R., Hunter, R., Rodgers, S.

Health is not equally distributed across society; there are avoidable, unfair, systematic differences in health between population groups(1). Some of these same groups (older people, BAME communities, those with some non-communicable diseases (NCDs)) may be particularly vulnerable to risk of exposure and severe COVID-19 outcomes due to co-morbidities, structural vulnerabilities, and public-facing or health and social care jobs among other factors(2,3). Additionally, some of the restrictions designed to reduce SARS-CoV-2 spread impact specifically on these same groups by limiting their activity and access to preventive or health promotion services(4).

Living close to high quality urban green and blue outdoor spaces (e.g. parks, gardens, trails, ponds, lakes, rivers) is associated with positive impacts on health outcomes including physical and mental health and child development(5). Populations living in greener environments also have lower levels of health inequality related to low-income(6). More than half the world's population lives in urban settings (54%), often with limited contact with the natural environment. With many indoor recreational spaces closed due to COVID-19 restrictions, the role of public greenspaces in population health is amplified during the pandemic.

Contact with green and blue spaces may particularly benefit low income populations, having the potential to reduce health inequalities(6,7). However, low-income urban households often face multiple disadvantages in their access to greenspace with less access to private gardens (12% of households in Britain have no garden, higher among Black and Minority Ethnic (BAME) households) and public parks. In London, a third of land in the wealthiest 10% of wards is private gardens with another third public outdoor space, while in the poorest 10% of wards a fifth of land is private gardens and a quarter is public outdoor space(8–12). Furthermore, with greater population density in poorer areas more people share less space. Inequalities also exist in perceptions of greenspace; those living in more deprived areas are more likely to perceive their local greenspaces as unsafe, with associated lower levels of use of these spaces(13). Taken together, these inequalities in access to greenspace suggest that people living in the most deprived areas would be disproportionately affected by closures of public greenspaces, which occurred early in the COVID-19 pandemic. Closures of public greenspaces may also increase use of spaces less suited to social distancing, leading to disease transmission, or use of unsafe spaces (e.g. walking on roads). Research on the impacts of different urban greenspace COVID-19 management strategies (closures, restricting numbers, one-way routes, closing amenities), and the availability and quality of different types of greenspace, on inequalities in use, experience and benefits of using these spaces by different groups should be commissioned.

Greenspaces, accessed with appropriate social distancing in addition to cleaning and hygiene procedures, may mitigate some of the predicted negative health effects of COVID-19 restrictions on mobility and social interaction(3). SARS-CoV-2 transmission rates appear to be lower outdoors than indoors, although evidence is limited, so populations have been encouraged to socialise, exercise and work outdoors(14,15). Large, open greenspaces may more easily facilitate social distancing, however, small urban greenspaces may be particularly important for children, older people and those with mobility limitations(16).

The pandemic has changed the way populations interact with their local environments and may change the type and distribution of greenspaces populations want(17). Data on the use

of public urban greenspaces during the pandemic may provide planners and decision makers with evidence to justify the protection, improvement, management and funding of urban greenspaces that are suitably located to promote equitable access to the outdoors, potentially also encouraging physical activity, while maintaining social distancing. Increased understanding of the role of public greenspace, and outdoor transmission rates, in mitigation strategies is essential learning from the COVID-19 pandemic to promote resilience in future disease outbreaks.

Maintaining or increasing publicly accessible urban greenspaces, particularly for marginalised groups, is reflected in the Sustainable Development Goals (SDG 3: good health and wellbeing and SGD 11: sustainable and resilient cities), and its importance amplified in the COVID-19 pandemic. A decade of substantial, inequitable, cuts to public services in the UK (and other countries) severely impacted public greenspace management, exacerbating inequalities in access to well-maintained public spaces(18). Efforts to improve greenspace access should aim to avoid “green gentrification”, where property values rise in response to greening efforts, displacing low-income residents(10). Promotion of greenspaces should also be sensitive to differential effects and the potential to alienate some groups from spaces further. All research should seek to involve those who could benefit disproportionately from greenspace changes (children, older people, more deprived groups). Importantly, these same groups would disproportionately suffer from ill-conceived interventions, and are often less well-represented in decisions affecting local spaces(19). To avoid widening inter-country inequalities, consideration must be paid to low- and middle-income settings.

Urban greenspaces should be considered not only a public health and social investment but a chance to rebalance our relationship with nature to protect against future pandemics(20). By investing in urban public greenspaces, additional benefits (job and food creation, biodiversity promotion, carbon sequestration) may coincide with health benefits. Realising these benefits requires a shift in the balance of decision making to place weight on protecting, enhancing and providing more appropriate greenspaces designed with local communities. The current pandemic is a stark reminder that humanity placing too many pressures on nature has damaging consequences. COVID-19 economic recovery programs present an opportunity for sustainable transformation if they can be leveraged to simultaneously protect and restore nature and tackle climate change(20). Reducing health inequalities should be central in our just, healthy and green recovery. We must not squander this opportunity.

We declare no competing interests.

* Rebecca Geary, Benedict Wheeler, Rebecca Lovell, Ruth Jepson, Ruth Hunter, Sarah Rodgers
r.geary@liverpool.ac.uk

Department of Public Health, Policy and Systems, University of Liverpool, Liverpool, UK (RG, SR); European Centre for Environment and Human Health, University of Exeter Medical School, Truro, UK (BW, RL); School of Health in Social Science, University of Edinburgh, Edinburgh, UK (RJ); Centre for Public Health. Queen’s University Belfast, Belfast, Northern Ireland, UK (RH).

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