



“We cannot address this or any future health or environmental emergencies without addressing their social, economic and political determinants. It is as short sighted to focus on urban development at the detriment to health, as it is to focus on health at the detriment to ecological boundaries.”

– Tolullah ONI, Univeristy of Cambridge

Image Source: Fragile permafrost, overlooking Yakutsk on a late spring day, Yakutia, Russian Federation. Image by Nicolas J.A. Buchoud, all rights reserved ©.





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## Planetary health: refreshing the perspective one year after the COVID-19 pandemic outbreak

Health is everybody's business. That much has become apparent over the year 2020 as the Sars CoV-2 virus spread across the globe. The consequent pandemic, disproportionately playing out in cities, caused whole-of-society disruption with its tragic consequences on health and livelihoods and with all sectors explicitly tasked with creating health and reducing disease risk.

This unprecedented challenge to orthodoxy can be unsettling and overwhelming. However, there has been a rapid increase in social experimentation and solution design to mitigate the immediate short-term effect of the pandemic and public health response. To achieve long term inclusive health, this embrace of innovative solutions will need be extended to re-calibrate systems for health, bringing more diverse innovators into the health and health-adjacent urban sectors.

Achieving population health will also require a focus on urban areas because:

Rapid urbanisation, particularly across Africa and Asia, is characterised by a growing number of people are living in dense informal settlements with unsafe human settlements and inadequate waste and water infrastructure that increase disease vulnerability and the risk of transmission and persistence of infectious and non-communicable disease.

The large sprawl of these rapidly growing settlements is pushing the boundaries of human settlements and contributing to re-emergence of infectious disease and zoonotic disease transmission as human and animal environments intersect in new ways.

COVID-19 has revealed significant flaws in our existing urban infrastructure, with systems that reduce resilience to food insecurity and streets that prioritize motorised traffic making physical activity for leisure or travel unsafe in many cities.

These urban flaws can be considered to influence health and perpetuate inequalities along four dimensions: Exposure, Vulnerability, Consequence and Access to care.

Of these four dimensions, access to care is perhaps the most intuitive as considering health in urban infrastructure

most often conjures consideration of access to adequate healthcare infrastructure. It is worth considering that beyond geographical access, it is critical that urban infrastructure planning activities consider other domains of access including appropriateness and accommodation (to ensure the social and cultural needs of the population are served).

Our improved understanding of the epidemiology of the pandemic also revealed that vulnerability to severe disease and death is associated with exposures like air pollution and co-morbidities like obesity (at the end of 2020, COVID-19 mortality rates were more than ten times higher in countries where overweight prevalence exceeds 50% of adults compared with countries where overweight prevalence is below 50% of adults (<https://www.worldobesity.org/resources/resource-library/covid-19-and-obesity-the-2021-atlas>)). Beyond individual choice, we know that obesity prevalence is associated with the food environment and access to safe space for physical activity. And yet, in many particularly deprived parts of the UK, urban planning and development is not sufficiently considered a route to improving population health resilience resulting in inequitable access to healthy foods and public spaces.

While the initial rhetoric at the start of the pandemic was that we are all in this together, across the world, we have noted that certain population groups were more likely to be exposed to the virus. A better understanding of the modes

of transmission of the virus revealed that household transmission comprised a significant source of infection. As such people living in poor quality, overcrowded housing were much more likely to be exposed to the virus. In the UK, this population group was much more likely to be deprived, from minority ethnic groups, and household members were much more likely to work in public facing essential work.

Furthermore, the fabric of the urban form plays a role in how communities shoulder the consequence of movement restriction measures to curtail the spread of the disease. The differential ability of individuals to abide by the spatial measures to mitigate risk such as self-isolation due to overcrowded households, built environments not conducive for social distancing, safe physical activity or embracing active modes of travel such as walking or cycling, and precarious livelihoods bearing severe economic consequences of lockdowns have exposed inequalities and systemic social, economic and environmental governance flaws in desperate need of repair and re-design for health and equity.

Despite these easily recognisable opportunities to improve health through integrating health considerations in urban design, the fact that these urban sectors are rarely or never held accountable for population health means that this opportunity is rarely embraced. For example, a radical reform of the planning system was announced to build more homes as part of pandemic recovery in the UK, bypassing normal planning requirements of minimum

space, ventilation and lighting requirements and the need to consult local authorities or communities about what development they want (<https://www.ft.com/content/3f7a55c9-6757-4a73-9d50-962212d3d379>). The association between these very built environment characteristics and health is illustrated by research from Wales conducted over a 10 year period that found that improvements to housing quality was associated with an almost 40% reduction in emergency hospital admissions (<https://jech.bmj.com/content/jech/early/2018/06/20/jech-2017-210370.full.pdf>).

Creating inclusive sustainable health in cities will therefore require a focus on systems for health, an umbrella term for factors and systems that determine health. Within this umbrella, the healthcare system, a necessary and vital component, is part of the broader systems of health that influence health such as urban development. Critical to the effectiveness for such a systems approach is embedding accountability mechanisms for health, cognisant of the disconnect in time and space between urban exposures and health outcomes.

The interconnected nature of the systems that influence health and the planet mean that policies that target one part of the system to create health may have unintended second-order consequences on other parts of the system that could be deleterious to health. This complexity highlights the importance of taking a planetary health approach to shaping cities, cognisant that disruptions in the delicate

balance between human health, human activities in the built environment and the natural ecosystems we depend upon have significant implications for health and sustainability.

It is important that the timely and responsive commitments to addressing the acute manifestation of the consequence of systems failures, demonstrated in the emergency responses to the COVID-19 pandemic, are extended with the same degree of urgency to health foresight.<sup>6</sup> In the long term, health foresight endeavours should aim to address the social, economic, political and ecological emergencies that contribute to current and future health emergencies. It is vital that we grapple with complex evolving realities and environments that increase risk of persistence of old, and emergence of new diseases, and the delicate balance between human and ecological wellbeing. In so doing, we quickly realise that:

We cannot address this or any future health or environmental emergencies without addressing their social, economic and political determinants.

Response cannot be restricted to the health sector but instead a whole-of-society approach required, with unprecedented collaboration and cooperation across sectors, cities, countries and regions.

It is as short sighted to focus on urban development at the

detriment to health, as it is to focus on health at the detriment to ecological boundaries. From unprecedented collaboration between sectors (including transport, housing, business and health) to transformational adaptations in our work and study patterns over incredibly short periods, it has become apparent that initiatives previously considered unthinkable or radical have emerged as sensible and even popular strategies and policies. This is a lesson in what is possible when the situation is considered sufficiently urgent. And because health does not trickle down from good intentions, it will be crucial to develop robust data and metrics to measure the impact of innovative urban policies and strategies on human and planetary health.

While COVID-19 presents a new and acute health emergency, we would be remiss to not consider the sustained health emergencies that have plagued (particularly low and middle-income) countries for a long time. As such, efforts to build resilient and inclusive systems for health should consider that many of the shocks and stressors that drive acute and protracted health emergencies arise out of intentional choices by actors across sectors from local to global. Therefore, critical to building resilience is not simply adaptation to cope with shocks and stressors as an endpoint, instead confronting the upstream choices and decisions that weaken resilience by driving the system towards disease and ecological disruption. In this context, efforts to build resilient systems for health would focus on strengthening the ability of systems (and all actors within these systems)

to create sustainable, sustained and inclusive human and planetary health.

Since the COVID-19 pandemic was declared, the world has witnessed unprecedented collaboration across society to fight the pandemic. For the first time in modern times, health has become everyone's business. This momentum, with its tragic impact of human lives worldwide, presents an opportunity to build on this cooperation and collaboration beyond reacting to the pandemic to accelerate innovative efforts to future-proof health by reducing vulnerability to, and mitigate impacts of future pandemics, challenging the boundaries of social possibility towards a re-imagined future.

Beyond addressing the immediate health emergency, post-COVID-19 planning and re-set requires that we focus on long-term solutions. There must not be another return to business as usual. We need to start building robust, inclusive systems that account for all the social determinants of communicable and chronic diseases, which will continue to plague the poorest and most marginalized communities around the world.

1. <https://qz.com/africa/1839019/covid-19-how-to-plan-for-africas-next-health-emergency/>  
[https://link.springer.com/referenceworkentry/10.1007/978-3-030-05325-3\\_106-1](https://link.springer.com/referenceworkentry/10.1007/978-3-030-05325-3_106-1) <https://www.weforum.org/agenda/2020/05/here-s-how-science-diplomacy-can-help-us-contain-covid-19/>