

# URBAN PLANNING AND DESIGN FOR THE COVID-19 ERA: A RAPID REVIEW FOR POLICY AND PRACTICE PROJECT SUMMARY

Urban areas can be the epicentres of transmittable diseases. The current COVID-19 pandemic is a clear case in point, where transmissions are often higher in more populated settings. This, therefore, requires joined up public health and social policy measures (non-pharmaceutical countermeasures) to minimise transmission.

Together with health practitioners and administrators, we co-developed and conducted an interdisciplinary rapid review on how governments internationally responded to previous pandemics, to draw out and collate valuable lessons that can facilitate speedy decision-making for the COVID-19 and other future pandemics.

## The problem

Urban planning arose out of public health and social policy concerns with disease transmission. History shows that changes often took time and were aligned to political ideologies of the time. The rapid and global spread of the current COVID-19 pandemic, however, requires a more timely, multi-level response to curtail its continued transmission, and safeguard the population of similar future pandemic. Our responses to previous pandemics—in policy measures, governance, infrastructure provision, and housing and urban design—can serve as important lessons so we can develop responses to future pandemics effectively and equitably (in health and in socioeconomic).

While recounts of responses to previous pandemics are abound, there have been few systematic approaches to collating the information that could facilitate speedy decision-making in a fast-changing environment. Further, urban planning and design-based responses are seldom considered even though these features—at community, local, regional, federal and international scales—notably impact the transmission of diseases.

## Our research

To fill this knowledge gap, we conducted a rapid review of health, policy, planning, and design

responses to previous pandemics following a PRISMA reporting structure. Literature inclusion criteria were:

- Published in English
- Focussed on OECD countries or regions with comparable populations (may vary over history)
- Focussed on respiratory disease pandemics and/or droplet viral respiratory pathogens and: planning, urban studies, housing, built environment, or public health
- Accessible via the UNSW, WSU and UTS libraries

Core MESH search terms were also mapped and covered the following topics to serve as the basis of key term searches:

- Droplet viral respiratory pathogens and/or respiratory pandemic related terms
- Transmission, reduction measures, and exposure related terms
- Urban dimension-related terms
- Vulnerable populations, equity and disadvantage related terms.

Outcomes of this rapid review has been published as a journal article, which you can access here:

<https://www.sciencedirect.com/science/article/pii/S0264275122002062>

## Translational impacts targeting health practices and policies

This project presented one of the first ever interdisciplinary rapid reviews, uncovering and collating pandemic responses relevant to cities from public health, urban studies, microbiology, security and emergency management, land use, environmental health among others.

The collated evidence is broadly grouped into overlapping themes, each with notable policy or practice implications concerning:

- design and built form
- governance and deliberation
- modelling
- non-pharmaceutical interventions
- socio-environmental causes
- supra-urban issues
- system preparedness
- system response
- vulnerable populations
- urban planning and design systems and actions

This rapid review was co-developed with health practitioners and administrators, with all partners engaged throughout the process. This ensures our

search are relevant current policy and practices, and findings appropriate for response development.

The findings of this rapid review can inform the continued development of pandemic responses, and influence everyday practices that can minimise the occurrence and/or transmission of diseases. These include:

- inform building and infrastructure designs, such as hospitals and aged care facilities
- promote whole-of-system pandemic responses, including the use of non-pharmaceutical interventions for safeguarding physical and mental health
- promote non-pharmaceutical interventions to facilitate distancing requirements and ease behaviour transitions
- inform public agencies on planning at scale. This includes connectivity across population nodes in local, regional and international networks, and disease transmission and/or prevention while in transit
- inform joined-up approaches across different agencies and scales. COVID-19 has highlighted this need in joint solution development, such as housing people experiencing homelessness as part of a broader prevention strategy
- further develop standardised approaches to data and information collation as well as for improving communication and engagement avenues

## Future agenda

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## Project team

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## The Healthy Urban Environments (HUE) Collaboratory

The HUE Collaboratory exists to improve the health of Australians living in urban environments

We achieve this by facilitating partnerships between those who shape and have an impact on cities.

These partnerships undertake research and activities to build our understanding of how urban environments can deliver better, more equitable health outcomes.

We'll use this understanding to inform government policy and practice in the planning and development of urban areas.