

Urban planning and development for health: key principles to guide action and change

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Introduction

Urban environments have emerged as the dominant habitat for humans over the past century, with over 50% of the world's population now living in urban environments. This figure is predicted to increase to 68% by 2050.¹ Urban environments are now a key driver for the health and wellbeing of the majority of humans on the planet. The impact of urban environments on human health and wellbeing, particularly inequity in health, is increasingly being documented. Evidence shows that while health and health service provision tend to be better in urban than in regional and rural areas, these differences often mask wide disparities between more and less disadvantaged populations within urban areas.^{2,3} Evidence also suggests that urban environments have disproportionate effects on the sustainability of the natural environment on which all life on the planet depends (for example, they emit 70% of global greenhouse gases and produce 70% of global waste) and are susceptible to the rapid succession of shocks like bushfires, storms, floods, heatwaves and global pandemics.⁴

Given its prominent role in the world's population, urban planning and development processes are increasingly being recognised as a mechanism for improving population health and wellbeing, and reducing the impact of urban environments on planetary health.^{2,5,6} Steadily, health guidelines within Australia⁷ and internationally⁸ highlight that the boundaries of the current health system need to rapidly expand and evolve to inform decisions that shape urban environments and ways of life to ensure and sustain the health and wellbeing of individuals and communities. At the same time, it is acknowledged that urban planning and development need to prioritise health and focus on creating places that help promote good health and wellbeing for all^{2,8}, with the promotion of health being recognised as part of the ethical and professional standards for planners.⁹ This increasing alignment between

health and urban planning and development has seen a gradual imbrication of approaches, such as the social determinants of health, which emphasise the ecological foundations of health and sustainable development approaches within urban contexts.^{1,2,5,10}

The papers in this special issue of the journal focus on urban planning and development for health and were produced in partnership with the Healthy Populations and Environments Platform within the Maridulu Budyari Gumal: Sydney Partnership for Health, Education, Research and Enterprise (SPHERE). They include contributions from a broad range of Australian and international experts from diverse professions in health, architecture, urban planning, urban design, demography, public policy, geography, economics, computer science, and geospatial analysis, working in partnership with government, industry and communities.

Principles to guide research translation and implementation initiatives

Internationally^{2,8}, within Australia⁷ and regionally^{3,11}, there is increased recognition that putting human and planetary health at the core of the planning and development of our urban environments depends on three key principles: cross-sectoral leadership and co-production; evidence and tools for implementation and prioritisation; and addressing inequalities.

Firstly, sustained intersectoral actions between the health, planning and development, and other diverse sectors are seen as essential to using planning and development to manage the human and planetary health impacts of urban environments.^{2,6,8,11,12} Furthermore, co-production models between researchers, policymakers, healthcare professionals, consumers, and special population groups, including First Nations peoples, are paramount to ensure appropriate translation and knowledge exchange.^{7,11}

Secondly, using urban planning and development as a platform to support human and planetary health requires us to continue to build evidence about the relationship between policy, environmental, economic, and social factors in urban environments and health outcomes.^{7,8,12} This includes tools that can readily assist with the appraisal and management of the relationship between urban environments, health, and health equity (for example, health impact assessment, risk assessment and system mapping tools).^{2,11}

Finally, addressing inequalities is seen as essential to using urban planning and development as a platform to support human and planetary health due to unequal disease, mortality, and wellbeing burdens experienced by populations across urban environments as a product of the unfair distribution of the wider determinants of health.^{2,7,8,11}

The papers in this special issue are part of a call to action based on the need for research translation and implementation initiatives focused on urban environments and health driven by these three key principles.

Cross-sectoral leadership and co-production

Working across urban planning, development, and health sectors – and ensuring the coherence of policies and interventions – are key to creating urban environments that support population health and wellbeing. A coherent approach enables the wider environmental, social, economic, structural and cultural determinants of health to be addressed. It ensures that health considerations associated with urban environments are effectively integrated into urban planning and development processes.

Rather than siloed processes, the articles in this special issue highlight the importance of prioritising the co-production of research, knowledge translation and its implementation. As [Prior et al.](#)¹³ highlight, integrated processes and jointly prioritising interventions can mesh together the disparate knowledge of urban development and public health professionals who seek to create urban environments that support and enable positive health outcomes. [Haigh et al.](#)¹⁴ note that such co-production requires approaches that build health practitioners' capacity to integrate health into urban development agendas and policymaking processes. These co-production processes should also be grounded in community, as [Gorman-Murray et al.](#)¹⁵ and [Yashadhana et al.](#)¹⁶ underscore, centring on communities that are typically under-represented in urban decision-making, notably those of First Nations backgrounds and lesbian, gay, bisexual, trans, queer, intersex and asexual (LGBTQIA+) identities. Furthermore, co-production requires effective models for communication that respect varying cultures and knowledge to enable interaction in urban decision-making, for example, through the use of yarning circles to enrich and promote collaborative ways to communicate and respectful places to be heard and respond.¹⁶

Evidence and tools for implementation and prioritisation

The effective mapping and synthesis of evidence on existing urban health research and interventions, their enabling factors, and their health impacts are key to creating urban environments that support and enable positive health outcomes. The scoping review by [McIntyre et al.](#)¹⁷ spotlights how urban environmental exposures during the first 2000 days of life can shape lifelong health outcomes. Specifically, it emphasises that it is fundamental to identify the quantity and characteristics of research in the topic area, methods used, and knowledge gaps to inform and prioritise future research and, importantly, to inform appropriate intervention.

[Marjanovic et al.](#)¹⁸ also highlight the importance of synthesising and appraising evidence on access to health services, methods of engaging local health systems, and their effects on urban health outcomes, including evidence on how urban living conditions affect health. Focusing on the health impacts of poor healthy food access in Sydney, Australia, and beyond, their systematic review of community-based food access interventions in high-income countries identifies the effects of interventions on dietary behaviours and health outcomes and recommends ways to strengthen their effectiveness.

While research in some domains is highly developed, others – such as the impacts of climate change on health – remain nascent. Further evidence and research tools are required to better understand health-related climate outcomes and effective interventions across urban contexts. This is especially important for understanding climate change impacts on vulnerable urban populations and effective measures to reduce vulnerability and enhance health among these groups. The Climate Change Inequality Health Impact Assessment framework for health services developed by [Haigh et al.](#)¹⁴ addresses this need by providing a systematic process to assess potential unequal health impacts of climate change on vulnerable and marginalised populations and places. This process can support effective planning to address these impacts and develop contextually appropriate local strategies. There is also a need to strengthen the evidence on effective strategies to prepare, respond, and adapt to emergencies in urban environments, including disease outbreaks and extreme weather events. As [Conaty et al.](#)¹⁹ explain, while many Australian and international studies have established the substantial morbidity and mortality associated with heatwaves, current time series epidemiological studies based on routine data sources do not and cannot identify individuals who may be more vulnerable to such conditions. Consequently, their research identifies and pilots a tool to collect data within emergency departments, proposing a more detailed person-based, residential, and environmental information approach to more effectively identify specific heatwave vulnerabilities.

Adopting systems approaches and other tools is an important mechanism for generating actionable pathways for prioritising interventions within urban environments. For example, [Prior et al.](#)¹³ highlight how a participatory system mapping process involving a modified Delphi technique can be used to integrate the collective intelligence of urban development and health professionals to map the complex relationships between features of the urban environment, determinants of health, and pre-clinical and clinical health outcomes, and ultimately premature mortality. This approach can be used to help prioritise the most effective leverage points for interventions within an urban environment.

There is also a need to prioritise research into interventions that can achieve sustained impact over

longer periods and benefit future generations. A case in point is the work by [Standen et al.](#)²⁰ to develop and pilot methods for longitudinal studies that can measure and assess how the redevelopment of a large social housing estate affects the health of its tenants and how to provide support appropriately. Several papers in this special issue^{13,15,18,20} also emphasise that long-term sustainable approaches need to properly engage and build the capacity of key stakeholders from governments, communities, and academia in developing the tools. These tools must also be user-centred, with input through meaningful community engagement, knowledge sharing, systems thinking, and monitoring incorporated throughout the policy development and intervention implementation processes.

Addressing inequalities

Urban environments are both a cause and solution for population health and wellbeing inequalities. Issues of equity are central to any attempt to plan and develop urban environments. Such planning and development needs to address the unequal burden of urban environments on health and, in particular, promote the health and wellbeing of vulnerable populations, including, for example, children and adolescents, LGBTQIA+ people, and First Nations peoples. This focus on equity is evident in [Haigh et al.](#)'s¹⁴ development of a Climate Change Inequality Health Impact Assessment framework for health services. [Marjanovic et al.](#)¹⁸ draw attention to the geographic inequalities of poor healthy food access within urban environments and the role of land-use planning in facilitating access to fresh and healthy food options. [Gorman-Murray et al.](#)¹⁵ highlight the importance of investigating the relationship between physical and social urban environmental changes, exposures, policies and outcomes for specific population subgroups, including women and girls, older persons, youth, and LGBTQIA+ populations. They suggest ways in which land-use planning processes and zoning regulations can be used to enhance the wellbeing of these vulnerable populations through effective provision of public spaces. Together with [Yashadana et al.](#)¹⁶, they also remind us how past policies and legislations, especially ones that were discriminatory and restrictive, can continue to impact the health and wellbeing of particular population groups to this day.

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Author contributions

JP and EL wrote the original manuscript, and all authors were responsible for the review and editing of the manuscript.

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