

## Urban health — What it is and Why We Should Care

Tushar Sood<sup>1</sup>, Bianca Mammarella<sup>2</sup>

1. McMaster University, Honours Integrated Science (Biology Concentration), Class of 2023

2. McMaster University, Honours Integrated Science, Class of 2024

Received | 7 February 2021

Accepted | 28 February 2021

Published | 12 April 2021

### SUMMARY

Urban health studies show how two interdependent factors, urbanicity and urbanization, impact the overall health and wellbeing of individuals who reside in cities. As an emerging discipline in the world of academia, urban health holds many potential opportunities for practice and research, including forming the foundation of new and innovative subject areas. It has promise to tackle health challenges in an urban context, including growing disparities and inequitable access to care. This piece concludes with a discussion of some recent advances in this area, which aims to shed light on future directions in the field of urban health.

### ABSTRACT

Urban health is a field of study that draws upon multiple disciplines including sociology, public health, epidemiology, and geography among others. This piece argues for the further development and prioritization of urban health as an area of research. This is discussed with respect to structural health inequalities, urbanization and urbanicity, and demographic change. Urban health is inherently complex and needs a multifaceted approach to tackle unique public health problems. This complexity, alongside its potential to inform emerging areas of scientific research such as neurourbanism, makes developing urban health of utmost priority.

**Keywords:** Urban health, vulnerable populations, social determinants of health, public health, health disparities

Urbanization is arguably the single most significant demographic shift in our history.<sup>1</sup> It represents a substantial change in how most of the world's population has lived over the past several millennia.<sup>1</sup> While over 55% of the world's population lived in urban areas as of 2018, this proportion is expected to approach 70% by 2050, largely due to increasing urbanization in developing nations.<sup>2-6</sup>

It has long been appreciated that cities can impact community health.<sup>2</sup> When Europe was rapidly urbanizing, not only was there an increase in population density, but there was also an increase in the prevalence of marginalized populations, pollution, and crime.<sup>1</sup> In many cases, the effects of urbanization resulted in worse health outcomes for urban residents relative to those living outside of cities.<sup>1</sup> This makes it apparent that urban environments are unique health contexts, worthy of further study.<sup>2</sup>

Urban health accounts for how two complementary dimensions, urbanization and urbanicity, affect health and wellbeing.<sup>3</sup> Urbanization refers to the change in a location's composition over time (i.e., to a denser built form), whereas urbanicity refers to the impact associated with residing in urban centres at any given time.<sup>3</sup> As an area of study, urban health considers the relationship(s) between characteristics of the urban envi-

ronment and population health through studying the physical environment, the social environment, and the often-inequitable access to health and social services.<sup>1,3</sup>

Due to limited research thus far and the inherent complexity of this topic, urban health faces many methodological and conceptual obstacles.<sup>1</sup> There is no common language; instead, there are inconsistent definitions of key subject-area terms.<sup>1,4</sup> Further, it is difficult to conclusively identify causation in the urban context and, thus, to choose an appropriate study design.<sup>1</sup> Despite these barriers, urban health has the potential to bring together scholars from various schools of thought and methodological backgrounds.<sup>4</sup>

Urban health is generally deemed a multidisciplinary field of study that is united by a common topic rather than a shared methodology; however, some propose classifying it as a standalone discipline which may have implications for its identity as an area of research.<sup>4</sup> Regardless, as it is already being studied by experts of various backgrounds including urban planning, sociology, and epidemiology, urban health will continue to be a fertile ground for cross-disciplinary research.<sup>2,3</sup> Deeming urban health as an area of focus may facilitate greater research advances through contributions such as new infrastructure and frameworks,

which are elements this emerging field has already started to see.<sup>3</sup>

The importance of studying urban health is exemplified in past epidemics where millions of deaths occurred due to poor sanitation and living conditions in cities.<sup>2,3</sup> Even in wealthier countries, crowding was associated with a higher risk of infection.<sup>2</sup> By the mid-20th century, health disparities were increasingly observed between urban and rural or suburban residents.<sup>2</sup> Years later, the HIV epidemic and rise of violence led to a greater burden of disease in city centres, bringing forth the notion of an “urban penalty”—the idea that urban residents experience worse health outcomes than others.<sup>2</sup> Nowadays, urban centres are home to growing disparities, illuminated by higher HIV rates and illicit drug use. Such disparities became more apparent in the 1990s when experts declared that, despite neighbouring affluent districts, the mortality rate in low-income urban neighbourhoods in developed countries was greater than the mortality rate in some developing nations.<sup>3</sup>

The face of cities is changing worldwide, and future research needs to account for this. Urban health tackles systemic health disparities fuelled by social determinants of health including race, ethnicity, socioeconomic status (SES), sex, gender, and geography among others. These disparities are population-level differences with respect to access to care, procedure of care, and health outcomes.<sup>4</sup> Urbanization, particularly the resulting population growth, has contributed to a strain on available jobs, thereby devaluing the hourly wage and sparking higher unemployment.<sup>3</sup> The resulting dynamic SES composition of urban centres can be considered a unique determinant of urban health, where a lower SES is generally associated with limited access to healthcare and worse health outcomes.<sup>3</sup> Further, growing immigrant and minority populations face different stresses and barriers than dominant groups.<sup>5</sup> Crime is more prevalent in cities, with homicide and substance use more commonplace than in rural areas.<sup>3</sup> Coupled with a 38% increase in the likelihood of having a mental disorder and more substantial effects of pollution on respiratory health in cities than in non-urban areas, it quickly becomes clear that there is a growing need to study urban health and to develop this area of research.<sup>1,5</sup>

Urban health has many potential directions for research, practice, and related subjects.<sup>1,5</sup> Consider neurourbanism which, as an emerging academic discipline, draws on areas ranging from epidemiology to urban prevention and therapy research to study the relationship between the urban environment and neuroscience.<sup>5</sup> It has far-reaching implications on how we plan our cities, improve the mental health of communities, and support high-risk individuals.<sup>5</sup> Urban health can inspire and inform the foundation of new disciplines such as neurourbanism, potentially reshaping how we study public health and medicine in an ur-

ban context.

Developing urban health as an area of research would bring together experts from a variety of backgrounds, each with their own methodological and conceptual frameworks. The ability to develop innovative and unique ideas to combat modern urban health concerns may effectively solve these challenges in the future. Prioritizing the development of this field is crucial; after all, urban health is an important extension of public health, arguably worthy of a dedicated suite of academics. Cities provide a unique context for many urban health determinants. Thus, the development of this area may help researchers better analyze and interpret health disparities to encourage the formulation of appropriate solutions through more robust discipline-specific data collection and analysis methodologies. More awareness, accompanied by research advancements made into the relationship between urban environments and population health, may indirectly contribute to the improved health and wellbeing of urban communities. The further study of urban health determinants may inform public health policy, shape social programs, and change the rhetoric behind society's most vulnerable populations. It brings forth and solidifies the notion of intersectionality in medicine, from access to care to clinical outcomes. Now, it is time for the scientific community to prioritize urban health as an area of research and work towards a brighter future.

## ACKNOWLEDGMENTS

We would like to thank Dr. Chad Harvey for his support. There is no funding or competing interests to disclose. Both authors contributed equally to this piece.

## REFERENCES

- (1) Galea S, Vlahov D. Urban Health: Evidence, Challenges, and Directions. *Annu Rev Public Health* 2004;26(1):341–65.
- (2) Vlahov D, Galea S. Urban health: a new discipline. *The Lancet* 2003;362(9390):1091–2.
- (3) Vlahov D, Galea S. Urbanization, urbanicity, and health. *J Urban Health* 2002;79(1): S1–12.
- (4) Guyer B, Gibbons MC. Urban health: Discipline or field—Does it matter? *J Urban Health* 2004;81(2):165–7.
- (5) Adli M, Berger M, Brakemeier EL, et al. Neurourbanism: towards a new discipline. *The Lancet Psychiatry* 2017;4(3):183–5.
- (6) United Nations. 68% of the world population projected to live in urban areas by 2050, says UN [Internet]. 2018 [cited 2021 Feb 27]. Available from: <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

## ARTICLE INFORMATION

### Senior Editor

Reza Khorvash

### Reviewers and Section Editors

Keerat Grewal, Zoya Adeel

### Formatting and Illustrations

Angelina Lam