



Global health in an increasingly urban world

Over the past few decades, urbanization has been increasing rapidly across all regions of the globe. According to the United Nations (UN), today more than half of the world's population—more than 4.3 billion people—lives in urban areas (1). By 2050, it is expected that about 70% of the global population will be urbanized (2), and nearly 99% of new urbanization will take place in the developing world, largely Africa and Asia. This unprecedented growth is making cities focal points for numerous environmental and public health hazards. The UN's Sustainable Development Goal (SDG) #11 is to “make cities inclusive, safe, resilient and sustainable” (3). To achieve this goal, and to protect and promote health, we must carefully consider the role of urban environments in shaping population health.

Physical, mental, and social health are affected by living conditions, such as housing, work environments, and recreational spaces. For example, where we live and work may increase our exposures to hazards such as toxic chemicals (i.e., lead, mold, and asbestos), pollution (i.e., noise, indoor and outdoor air pollution), infectious diseases, and accidents. In addition, we know that unhealthy behaviors are also common in urban populations, where residents adopt more sedentary lifestyles and changes in dietary patterns that shift towards processed, convenience foods. Lack of safe spaces for walking and active living also are major drivers in the world's growing rates of non-communicable diseases. Urban sprawl, a term used to describe when a city's population is dispersed over an increasingly large area, is problematic because it marginalizes poor people by forcing them into densely populated, informal settlements of slums in remote or peripheral parts of cities. Many people in slums live in extreme poverty, lacking access to the basic necessities of life, such as safe water and sanitation, healthy food, and healthcare facilities (4). Cities also face enormous problems with poverty and overcrowding, violence, mental health issues, and heightened vulnerability to the consequences of natural disasters. Cities are also major contributors to climate change; about three-fourths of all greenhouse gas emissions are tied to human activity in urban areas, and are also responsible for 60–80% of all energy consumption despite only occupying 3% of the planet's surface.

Sustainable development is highly dependent upon the effective management of urban growth in both developed and developing countries (5). In 1950, only two cities were megacities (New York City and Tokyo), defined as cities with more than 10 million residents. By 2010, there were over 20 megacities and now there are close to 40, most of which are located in the global South. We expect that just in the next few years, we will reach 9% of the world's population living in a megacity. As urban populations grow and cities expand, the urban environment will play an increasingly important role in global health and sustainable development.

But the implications of urbanization are not all negative. In fact, the rapid expansion of cities, especially in developing countries, can lead to enormous positive social, economic and environmental transformations. Urbanization can contribute to economic growth, heighten population well-being, and improve resource efficiency. For example, there is a powerful link between urbanization and economic growth; more than 80% of global gross domestic product (GDP) is generated in cities. Urbanization can contribute to increased productivity and social mobility by facilitating innovation and new ideas and a wealth of opportunities (6), including access to education and jobs, especially for girls and women. On average, living standards are better in urban populations than in rural. For example, access to electricity, and improved water and sanitation is generally higher in urban areas. A well-designed urban environment can promote physical activity and other healthy habits, encourage social connectedness, and prevent injuries and promote safety. Further, the UN says that urban living “has the potential to use resources more efficiently, to create more sustainable land use, and to protect the biodiversity of natural ecosystems”. For example, heating an apartment building that houses 100 people requires less energy than heating 100 separate homes. And a subway uses far less energy to transport commuters than cars. Cities can become part of the climate solution by promoting urban forests and green spaces, which help to capture carbon emissions and induce a cooling effect that reduces energy demand (7).

This special series of *JPHPE* focuses on urbanization and health. The Association of Pacific Rim Universities (APRU) was created in 1997 and the Secretariat is based in Hong Kong. As a network of leading universities linking the Americas, Asia, and Australasia, APRU brings together thought leaders, researchers, and policy-makers to exchange ideas and collaborate on practical solutions to the challenges of the 21st century. The APRU Global Health Program, housed at the University of Southern California, organizes an annual conference to bring together experts from around the region to exchange ideas and knowledge relating to global health. The articles included in this series were all invited papers that were presented at the 2021 APRU Global Health Conference, which was hosted by the University of Hong Kong in Nov 2021. Over 700 delegates from

33 economies, 27 APRU universities, and 94 worldwide organizations participated in the conference, which focused on global urban health. The articles included in this special series feature a wide range of topics, from non-communicable diseases and mental health to infectious diseases and healthy aging.

In summary, urbanization is expected to continue to increase around the globe. Global health researchers and leaders must join forces across disciplines and geographical spaces to ensure urbanization contributes to the health and well-being of global populations and the environment, instead of detract from them. Our work in global health is more relevant and essential than ever before.

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