The Impact of Urbanization on Public Health

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ABSTRACT
Urbanization has altered human habitation by concentrating inhabitants in cities, which provides both benefits and challenges to public health. Urban environments improve access to healthcare, sanitation, and social services, but they can worsen health inequities, environmental dangers, and disease transmission. This paper investigates the dual nature of urbanization's impact on public health, looking at historical trends, major health challenges, and measures for reducing health disparities. The study examines how rapid urbanization affects health through environmental pollutants, socioeconomic inequality, and urban planning. The study concludes that effective policies that combine urban planning, healthcare infrastructure, and social interventions are required to address these issues and promote equitable public health in urban areas.
Keywords: urbanization, public health, health disparities, environmental pollution, infectious diseases.

INTRODUCTION
Despite having been the norm for the majority of human history, in 2008 global statistics revealed that for the first time in history, more than half of the human population dwelled in urban environments. The almost unprecedented wave of migrants to the cities caused a series of effects such as making habitations denser, some diseases becoming exclusive to urban environments, and a huge acceleration of discoveries and inventions. If there are so many immediate effects of humans dwelling in large groups, it is imperative that the mechanisms of physically living in a large agglomeration are understood to be firm ground [1, 2]. The impacts of urban structures on public health are rarely given the necessary depth for a full understanding of cause-and-effect relationships. It is obvious that closer proximity to a larger number of people will increase the probability of microorganisms being transmitted among individuals and therefore generating new epidemics. The cause of these live cells is significant. Furthermore, research has shown that areas with a higher population density can have a great variety of diseases, as the quick spread of infectious agents gives the microorganisms the ability to create new virions and, consequently, mutants. However, there is an overwhelming amount of positive occurrences in urban environments such as a greater offer of medical aid and medications, an intensification in trash collection, a greater quantity of educational facilities and services, proper sewage care, and good housing infrastructure provided for its inhabitants. The cities being complex environments make them much less predictable than rural zoned places [3].

Historical Trends in Urbanization and Public Health
Urbanization has deep historical roots, shaping the lives of humans in the millennia before the Common Era when ancient civilizations flourished in Asia and Europe. The last century, however, has been without precedent in the scope and pace of urban growth. In 2019, over half of the world's population resided in cities for the first time, representing an increase from just 30% in 1950. Cities represent diverse economies, cultures, politics, and ecologies, yet their historical trajectory is united by the quest for individual and community health [4]. The forces driving historical urbanization share certain consistencies, including the positive draw of urban wages and lifestyles alongside the negative push of conflict, persecution, and environmental change. Urban populations have tended to be younger and healthier than those in rural environments. Most urban growth from classical antiquity through the 17th century occurred from migration into cities from their rural hinterlands, rather than being driven by the population-level expansion of urban areas. Mass rural-to-urban transition increased during the Industrial Revolution of the late 18th and 19th centuries, followed by urban growth via high natural increase rates and some immigration. These patterns continue to play a vital role in rural-to-urban transitions in many

of today's low-income countries. Such transitions enabled rapid decreases in total deaths by reducing the absolute size of rural subpopulations with historically extremely high mortality rates. Classic individuals susceptible to negative health impacts by migration include the young, elderly, and those weakened by dysfunction or disability. Rural-to-urban migrants face a health transition in which their previous rural pattern of high mortality due to infectious diseases and childbirth is replaced over time by a high prevalence of non-communicable diseases and associated disability. Increases in diseases of poverty such as malnutrition, tuberculosis, and HIV increase in crowded urban slums or during responses to conflict and disaster. The philosophy and evidence base of major public health and clinical fields arise from the examination of urban populations and their health needs. Public health and clinical medicine may be especially visible in board-certified professionals working for local and state health departments, as law enforcement, in clinics and hospitals, as health educators, or equivalent. Other students may be or become attorneys, legislators, social workers, insurance professionals, community advocates, or serve in local and state zoning, planning, or emergency management functions. This section summarizes basic concepts of epidemiology, concerned with the distribution and determinants of disease, and health care essentials [5, 6].

Major Factors Contributing to Urban Health Challenges

Urbanization impacts public health by influencing access to healthcare resources and services. Efforts to improve and protect public health often center on infectious diseases and environmental safety. Urbanization exacerbates environmental issues by creating concentrated spaces for pollution, increasing air and water contamination, and complicating waste and sewage management. Urban areas also concentrate wealth, and therefore overall socioeconomic status can alter access to healthcare service availability, contributing to health disparities. Urban planning also determines where healthcare resources are sited. Some health facilities provide services on a community or bedside basis and are thus located near where people live and work. Some urban areas have limited healthcare service availability due to the need for more specialized or rare facilities. Mental health is also generally worse in urban centers and can have a bidirectional effect on population health [7]. Finally, urbanization occurs at the confluence of a desire for change and a move from the rural sector, along with push factors associated with the economic imperatives of instability in poor or rural resource allocation. Rapid urbanization strains policy resources and can create health vulnerabilities. While environmental issues are a problem in any concentrated population, they are more pronounced in many urban settings than in more rural environments. This is in part due to higher nonwhite racial concentrations in urban centers and the concentration of industry and, in some cases, food outlets in urban cores. Cities also create temperature and co-pollution issues, which combine to make urban citizens disproportionately vulnerable to climate change [8].

Health Disparities in Urban Areas

Urban areas are often more heterogeneous than rural and suburban areas. Research shows substantially different health outcomes, often calculated with respect to urban and rural settings or disparities within urban areas among various demographic groups comparable to urban and rural areas. Studies establish that significant health differences and life expectancies exist within states and most urban areas based on ethnicity, income, and education. For instance, in the Denver metropolitan area, residents of predominantly Hispanic West Denver have a life expectancy that is 10 years shorter than nearby predominantly white areas to the east. In urban Hartford, Connecticut, babies born in the north-central part of the city, which is predominantly Latino, are three times more likely to die during their first year than babies born in the largely white, upscale neighborhood of West Hartford [9, 10]. Latino children have asthma rates 165 percent higher than white children, even when their income, education, and English proficiency were the same as white Americans. Not only is health influenced by economic and social factors, but other neighborhood and environmental factors, notably hazards, may further negatively affect the health of many urban residents. More low-income groups, affecting a high percentage of urban residents, are less likely to get adequate health care. Research indicates that the social determinants of health can account for between 60 and 80 percent of health outcomes, with healthcare accounting for only a small percentage of the remainder. Social determinants of health help to illustrate why some populations may have a greater burden of a particular health problem than other populations. Within the urban environment, it is frequently evident that some populations are disproportionately affected when compared to the general population. Given limited resources, targeted interventions can seek to lower health disparities. Strategies promoting intervention and planning may have an urban focus, or at least be most efficient in urban areas. Any approach to public health policy that deals with health equity must be founded on this fundamental understanding [11].

Strategies For Improving Public Health in Urban Settings

Overall, the development of healthy urban lands strives to include public health considerations in the implementation of the urban form. Integrative urban planning supports the common interest of monofunctional and multifunctional land uses governed by common guiding principles and standards. Foremost, priorities should be the provision of shared public and green spaces, fundamental to mental and physical health; clean air and water for all; and protection from physical hazards by ensuring the safety and resilience of all major infrastructure components. Here, public health professionals can work with urban planners to zone and form the compact, mixed-density, mixed-use urban configurations conducive to social interaction, physical activity, transit, and walking prevalent in healthy cities [12, 13]. With community-based participatory research and efforts serving as guides, a foundation can be established. Furthermore, it is critical to analyze areas that have abundant health services but lack good health or health care, such as household, community, or primary care. Policies that support healthy urban communities are vital, including integrating public health into land use planning. Transportation and health visions also need to be developed and implemented, embedding health considerations in the urban realm. Additionally, social disparities should be held in check with policies and interventions in the social determinants of health. The governance of a healthy city and a human settlement requires a whole-of-community approach and involves all three levels of government, relevant services, and nongovernment and community-based organizations. This includes a governance dynamic that supports intersectoralism: its players form partnerships and engage, communicate, negotiate, and, above all, are committed to mutual understanding and respect and driven by a shared vision. Finally, employing new technology, obtaining and using high-quality data, and disseminating best practices facilitate a transformation in urban health [14, 15].

CONCLUSION

Urbanization has dramatically altered the landscape of public health by creating both opportunities and risks for urban populations. While cities facilitate improved access to healthcare, sanitation, and other essential services, they also pose unique challenges such as health disparities, pollution, and the rapid spread of diseases. To address these challenges, urban health strategies must integrate equitable healthcare access, sound urban planning, and policies addressing socioeconomic disparities. Sustainable urban development, including the incorporation of green spaces, clean air, and efficient infrastructure, will be crucial in mitigating health risks and promoting healthier urban living conditions for all residents.

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