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Introduction: Defining Urbanization and Urban Health

As of 2007, and for the first time in history, more than half of the planet’s population is classified as ‘urban,’ as distinct from ‘rural.’ Physically, urban living entails living in comparatively high-density settlements. The range of population sizes and densities that fit within the definition varies widely among nations. Despite variations in the official definitions of the term urban, the direction of the overall population trend is unmistakable. Between 2000 and 2030, the world’s population will increase by approximately 2.2 billion (from a base of approximately 6 billion). Over 95% of that growth, or 2.1 billion people, will be urban. By 2050, it is estimated that almost two-thirds of the entire global population will live in urban places (see Figure 1). Furthermore, the bulk of this urban population expansion is anticipated to occur in the cities and urban settlements of the poorest countries in the world.

Economically, urban residents earn the bulk of their livelihood through the production and trading of goods and services, not the cultivation of food. Socially, urban populations are ethnically and racially diverse and oftentimes, there are great disparities in income, wealth, and well-being among people living in close proximity to one another. Given the social and economic heterogeneity of urban populations, urban life is, of necessity, governed through politically complex formal and informal arrangements and balances of power among these socially and economically diverse populations.

When people consider the social and physical determinants of the health status of the world’s urban populations, they are in effect considering the range of services and amenities associated with urban living. When they are delivered in adequate quantity and quality, they protect urban populations from a range of external risks to their mental and physical health. Safe drinking water and good systems of sanitation are the most obvious examples of urban services that impact population health. But it is important to bear in mind that other services such as education, housing, and transport are also significant population health determinants.

The physically dense and socially and economically intricate and networked nature of urban life both intensifies the health risk exposures of urban populations and also makes the ability to estimate them more difficult than in a more rural setting. An individually itemized list of the health risks that threaten urban populations would look similar to a comparable list for

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**Figure 1** The urban and rural population of the world, 1950–2050. Based on data from United Nations Population Division, 2008.
Risks and the Health Status of Urban Populations

Threats to the health of urban populations arise from two interrelated sources: natural hazards and socially generated hazards. These hazards are the basis for risks. Risk takes into account vulnerability (a socially generated factor) and the probability of disaster (a natural hazard). Social factors include broad-based institutional constructs such as the degree of poverty and social inequity as well as more focused public policy manifestations such as those that determine land use regulation, all of which are strongly linked to urban population health. It is often difficult to parse the purely natural from the purely social. As an example, consider the serious problem of climate change. Since much of climate change is a result of anthropogenic activity, the very idea of climate change-related hazards and disasters as being natural has been called into question. What is clear is that an event such as a severe storm is not automatically a disaster but it can quickly become one if a population is excessively exposed and lacks the capacity to cope with it. It is quite common for urban places that already carry the heaviest burden of disease to also be the most at risk to the impacts of climate change. Minimizing exposures and increasing coping capacity at the local level will be crucial in reducing urban population health risks.

Environmental risks include exposure to contaminants found in the air, soil, water, and food supply; vector-borne diseases; and severe weather and seismic events. The socially generated risks include those of death, injury, and service and supply disruptions resulting from civil and international conflicts; lack of access to affordable and decent essential urban services such as safe drinking water and sanitation systems, education, transportation, and shelter; exposure to crime and violence; risks of death and injury from unsafe conditions in the urban environment such as poor roads and lack of traffic and pedestrian safety; illnesses related to improper nutrition; the interpersonal transmission of viral and bacterial diseases; indoor air pollution; and stress-related illnesses.

The relationship between environmental and socially generated risks manifests itself most strikingly in the condition of the urban poor, particularly in the low- and middle-income countries commonly referred to as the Global South. For example, unable to afford better alternatives, these populations settle on the least desirable sites—places that are unsuitable for healthy human development, such as those prone to landslides and flooding, along railroad tracks, or on contaminated landfills.

They are less likely to have access to clean water and decent sanitation. Although many of the world’s urban poor have developed innovative coping mechanisms, there are underlying social reasons as to why they are more vulnerable in the first place and that reality needs to be addressed if urban population health is to significantly improve. It is important that the coping strategies of these groups is recognized and incorporated into any plans to improve urban health. Currently, the intersecting environmental and social factors that define urban life are leading to decreased quality of life and higher rates of mortality and morbidity for at least half of the world’s urban residents.

Health Care and Medical Resources

In terms of improving urban population health, the steps taken to mitigate risks and exposures are most critical in impacting overall population health status. However, the quantity and quality of available health care resources to offset the damage done by the environmental and social threats is an important second-order consideration. Health care includes such familiar public health steps as universal vaccinations, health promotion programs, concerns with prenatal, maternal, and neonatal care, and annual check ups. Medical care for illness that goes beyond primary prevention all the way to the tertiary and highly technical levels of care is also needed on a widespread basis. These resources are generally available in the cities of the Global North, but not the Global South. The ex post interventions associated with medical care are important ameliorative interventions. However,
focusing on the *ex ante* steps taken to improve urban living conditions and public health interventions is always the more efficient and effective way to improve the overall well-being of urban populations.

Two problems are of particular concern in terms of creating viable health care and medical resources in the urban (and rural) settlements of the Global South: trained personnel and equal access to existing care.

There is a significant deficit of trained health professionals practicing in the Global South, which is only partly due to lack of training capacity. Countries such as India, the Philippines, and Nigeria train large numbers of health professionals every year, only to see them migrate to countries such as the United Kingdom, the United States, and Canada to practice in their respective health fields. This phenomenon, commonly known as brain drain, is one of the effects of globalization, which is partially characterized by increased freedom of movements of people, goods, and services. The reasons for brain drain are numerous and in-depth discussion of them is beyond the scope of this article. Suffice it to say that the health professionals who practice in the Global South are often up against tremendous challenges—they are outnumbered by the populations that desperately need them, working conditions are often unsafe, and modern or even adequate health care facilities are scarce, as are medications. When medications are available, the capacity to store them properly (e.g., refrigeration) or transport them safely along poor transport routes is often inadequate. Finally, compensation is meager compared to the opportunities in the Global North.

Although adequate quantity and quality of urban health care and medical resources are necessary, they are not sufficient. It is too common for the urban poor to live within steps of fine health facilities and have no effective access to them. In some cases, this is simply because they cannot afford them. In others, discrimination on the basis of such classifications as gender, age, race, and class exclude specific urban populations and individuals from health services.

One way in which urbanization and the population density by which it is characterized provide the opportunity to improve population health is via better and more health care options for broader cross-sections of the urban population. In addition, medical research and innovation, which lead to improvements in the quality of care and the range of treatable diseases, typically occur where both researchers and patients cluster—in urban areas. Improved health interventions can mean longer lives of better quality for more people. For this to happen, an urbanization process should be rooted in policies of social inclusion for all urban residents, regardless of whether they are there as a result of in-migration or the natural rate of urban population increase.

**Migration and Urban Population Health**

The essence of urban life is social diversity. Cities have always been places where people have come from somewhere else. Understanding the patterns of migration through which people arrive and depart urban areas is therefore a vital consideration for the field of urban health. The modern, urbanizing world is one in which populations move over vast distances both intra- and internationally in complex patterns. Until about the middle of the twentieth century, large urban population migrations were typically unidirectional. People migrated from some place to establish new lives for themselves in the new urban location. There was little return movement, as either migrations or visits. Although this process still occurs, migratory labor is becoming an increasingly common global norm. Rural workers, typically men, leave villages for stints of work in cities that can sometimes last for years or they can travel during the course of a single year among agricultural regions and urban places following a varying seasonal demand for labor, returning home only for special annual visits. For others the path is an everyday ritual, people commute daily from rural or periurban areas to urban centers. Sometimes the circuit is national, but increasingly it is international. There are two important implications from this new reality. The first is that the rigid rural/urban divide that has traditionally defined approaches to national and international health policy is becoming increasingly irrelevant. In a world where people move easily between rural and urban places in complex circuits and where cities are developing *in situ*, it is important to spatially reconceptualize population health and health delivery issues as addressed to shifting points on a flexible rural-urban continuum.

The second implication is that from a population health perspective, urban services are also required along a similar continuum. It does not suffice to have safe drinking water in the cities where people spend part of their time, but not in the rural or periurban places where they spend the rest of it. Preventative health care and health care delivery systems must be conceived in similarly fluid spatial terms, adapting to the migratory patterns of the population. It can never work the other way around. In order for antiretroviral drugs to improve the lives and labor force of human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS)-infected urban workers, trained professionals and local residents who have knowledge of the disease and understand how to prevent its spread must be present at both the workers place of residence and place of work. There must also be a supply of medications in both places along with health workers able to deliver the drugs in good condition and in a timely manner. Finally, people with depressed immune systems are particularly
vulnerable to the health threats associated with lack of decent shelter, clean water, and sanitation systems, as well as lack of adequate nutrition.

Because the thread of health and disease runs so powerfully through many urban service sectors, such as transport, housing, water, and sanitation, and is inextricably linked to them, the scope of what needs to be done to improve the health of urban populations must connect prevention to the planning and delivery of the various services and sectors that define urban life. Inequitable urban development patterns – spatial, social, and economic – that characterize contemporary urbanization severely challenge the notion that the wealth generated by cities will necessarily lead to poverty reduction and improved health.

**Urbanization in the Twenty-First Century: The Challenge of the Global South**

The urbanization story in the Global South can be summed up simply as the reality of massive urban population inflows and natural population increases running well ahead of urban infrastructure and urban public services. Some of the consequences of this rapid, unplanned growth are felt by all who live in or travel to these cities – for example, an overburdened transport system affects everyone on their way to work, school, shop, etc. But those who feel the sting of this rapid growth most sharply are the urban poor who resort to living in what are sometimes called informal settlements, or slums. Slums are characterized by crowded living conditions in structures that are often not durable or lack ventilation and sunlight; and lack of access to clean drinking water and decent sanitation. Slums are often situated on land that is not suitable for development – on land that is vulnerable to hazards – for example, low-lying flood-prone areas, prone to mudslides, and areas along railway lines. Climate change is already affecting these areas, as they are often most vulnerable to its effects. The health consequences of these vulnerabilities are serious.

Over one billion people, or one-third of the world’s urban population, live in slums and much of population growth in the next decades will manifest itself in the form of slums. By 2030, if trends continue, the number of slum dwellers will double, increasing the proportion of slum dwellers to two of every five urban residents. Urban slums are typified by high incidences of communicable and noncommunicable disease and injuries. These lead to unacceptably high morbidity and mortality rates. Diarrhea and respiratory illness are major killers, particularly among children under five. Urban violence and traffic injuries also have a significant effect on the health and productivity of slum dwellers. Additionally, noncommunicable, chronic diseases such as heart disease and mental illness are on the rise and are expected to make up a significant portion of the disease burden in the Global South in the next three decades. In essence, the Global South is experiencing a ‘dual burden’ of disease – communicable and non-communicable. If the problem of brain drain is included, it becomes a ‘triple burden.’ The major burdens of disease in the Global North are noncommunicable illnesses such as heart disease, obesity, and mental illness – they make up 95% of the total disease burden. In Sub-Saharan Africa – the world’s most rapidly urbanizing region – non-communicable diseases make up 40% of the disease burden. The burden of noncommunicable diseases in other parts of the Global South is greater, but still significantly less than that in the Global North.

Cities are often the engines of national economic growth and social development, yet typically the urban health agenda is viewed separately from the local and national development agendas. However, it is clear that urban population health is integral to the success or failure of national economic and social development strategies and these strategies in turn are highly dependent on the success or failure of urban development efforts. This is not to say that economic development is an end in and of itself, but rather, as Amartya Sen argues, “it is a means for extending freedoms to excluded populations and to addressing issues such as poverty and lack of opportunities that affect the billions of poor in the Global South.” Health is a more egalitarian measure of development than GDP, as it exposes the deep inequities within and between cities, in both the Global South and the Global North. Any international, intra- and intercity comparison of under-five mortality is a more powerful statement of comparative social equity and level of well-being than the more typical standard comparative metrics of income or GDP per capita. Table 1 lists the disparities in health status that exist within Nairobi and in Kenya, Sweden, and Japan. Notably, an average of 62 of 1000 children will die before the age of five in Nairobi, whereas 254 of 1000 children in the Nairobi slum of Embakasi will not live to see their fifth birthday. Urban averages distort the tremendous disparities within cities, hiding the severity and pervasiveness of urban poverty and ill health within estimates heavily skewed by the wealthy few at the top of the social pyramid. As a result of the use of averages, much of the global urban poverty and health problem remains largely unacknowledged. Adding to that complexity is the fact that many of the urban poor live in settlements that are not even counted in official data because they are declared to be ‘illegal.’

**Climate Change and Urban Health**

Impacts of climate change, such as the increase in severe weather events like floods, droughts, and heat waves, are...
Table 1  Infant and under-five mortality rates in Nairobi, Kenya, Sweden, and Japan

| Location                        | Infant mortality rate (IMR) | Under-five mortality rate (U5M) |
|---------------------------------|-----------------------------|---------------------------------|
| Sweden                          | 5                           | 5                               |
| Japan                           | 4                           | 5                               |
| Kenya (rural and urban)         | 74                          | 112                             |
| Rural                           | 76                          | 113                             |
| Urban (excluding Nairobi)       | 57                          | 84                              |
| Nairobi High-income area,       | Likely < 10                 | Likely < 15                     |
| Nairobi (estimate)              |                             |                                 |
| Informal settlements,           | 91                          | 151                             |
| Nairobi (average)               |                             |                                 |
| Kibera slum in Nairobi          | 106                         | 187                             |
| Nairobi Embakasi slum in Nairobi| 164                         | 254                             |

Note: IMR = death per 1000 new born; U5M = deaths per 1000 children.
Source: APHRC, 2002 in World Health Organization Centre for Health Development, Kobe (2008) Report of the Knowledge Network on Urban Settings, WHO Commission on Social Determinants of Health. Our cities, our health, our future: acting on social determinants for health equity in urban settings.

already being felt around the world. These events are expected to increase in frequency as well as severity over time. Even if anthropogenic emissions of greenhouse gases are drastically reduced today, warming processes are already in motion and are continuing via feedback loops. So although it is important to mitigate climate change and strengthen the efforts to do so, it is also vital to prepare for the effects of climate change and develop adaptation strategies focused on risk reduction.

Though natural disasters are known for the loss of life experienced while they are occurring, it is in their wake that morbidity and mortality rates tend to be the highest. Damage to/destruction of health care facilities, blocked or damaged transport routes, and power and communication outages are some of the more obvious reasons for increases in morbidity and mortality rates. In addition, overloaded drainage systems and damage to water supply and sanitation systems directly impact health. In areas prone to flooding, standing water quickly becomes a breeding ground for infectious disease. Cities, particularly those located in low elevation coastal zones, such as New York (USA), Mumbai (India), Shanghai (China), and Dhaka (Bangladesh) will need to prepare for rising sea levels and increased storm severity. Cities are also rapidly growing in coastal areas, such as in China’s special economic zones.

A crucial first step in preparing for climate change is assessing which areas/populations/infrastructure are most vulnerable, or at risk, to increasing natural hazards. The next step is to develop mechanisms to address these vulnerabilities. Although reducing vulnerabilities through measures such as strengthening or even moving or designing infrastructure that is better equipped to withstand storms and floods may be challenging for the urban regions of the Global North that have the wealth and at times the political will with which to address these problems, it is even more challenging when there is no infrastructure to begin with, as is the case in much of the Global South. The urban poor in the Global South are particularly vulnerable to the effects of climate change. They not only lack water, sanitation, and drainage infrastructure, but they are already more vulnerable to the infectious diseases that arise in postdisaster areas. Adding to this complexity, slums, as mentioned earlier, are often situated in areas that have been classified as unsafe or undesirable for development, such as floodplains, so they are already at greater risk.

Transportation and Urban Population Health

Road traffic injuries are among the five top leading causes of mortality and disease burden among adults worldwide. The number and impact of road traffic injuries on those living in cities is tremendous. Traffic accidents are caused by a number of factors but they are essentially a result of an interaction between people, vehicles, and the road environment.

In cities where walking and cycling are dominant modes of transport, pedestrians and cyclists are particularly at risk to road traffic injuries and deaths unless policies are in place to protect them. In urban areas around the world, there has been an increase in concern for the safety of pedestrians and cyclists and for making cities more livable in general. This has elicited policy responses such as the creation of bike lanes, road improvements, widened sidewalks, and the establishment of pedestrian zones. Bogota, Colombia, was transformed by these processes, which also included park revitalizations as well as the implementation of the TransMilenio bus rapid transit system. The benefits of these improvements are numerous and an in-depth analysis of them is beyond the scope of this article. Suffice it to say that not only are fewer pedestrians and cyclists maimed or killed when these improvements are made but more people are likely to walk and cycle when these improvements are made but more people are likely to walk and cycle when these modes of transport are made safer and more enjoyable, making increased exercise an obvious health benefit of these changes. Safety here can extend beyond road traffic into protection from violence and crime (e.g., neighborhood watch groups and policing). Fewer cars on the road can of course also be linked with decreasing dangerous car emissions, helping to mitigate climate change and improve health.
Importantly, the infrastructure improvements in Bogota were accompanied by education campaigns and tough laws, some of which were quite unpopular but a strong local government was able to enact and enforce them. Admittedly, the process of designing and implementing the TransMilenio project was not a participatory one and there is debate as to how systems such as the TransMilenio can be put in place using processes that are both efficient and participatory. However, using the framework of a social determinants approach to health, the benefits of Bogota’s infrastructure improvements, accompanied by policy reform and well-enforced laws, extend to more and better transport options, which can help people access places of employment, education, and health care facilities and help to reduce some of the underlying inequalities that lead to worse health outcomes for the urban poor. Bogota is a powerful example of what can be done but it is far from the norm, particularly in the Global South.

A more typical situation in cities in the Global South is characterized by poor road and traffic conditions and few safe places for pedestrians and cyclists to go about their daily activities. For example, in Nairobi, Kenya’s capital, narrow streets are poorly lit and poorly maintained and drivers often speed and overtake other cars in an unsafe manner with little regard for cyclists and pedestrians. Larger roads leading in and out of the central business district are chaotic, when they are not completely clogged, drivers speed and there is little opportunity for pedestrians to cross safely. Car emissions, particularly along congested streets, pose significant threats to both health and climate. There are few sidewalks and even where they do exist, they are blocked by vendors.

At the same time, although road infrastructure is quite good in Cairo, Egypt, there is little regard for pedestrians, they cross the street at their own risk and are not even safe on sidewalks, which are sometimes used by drivers as passing lanes. Further east, the introduction of the world’s cheapest car – the $2500 Tata Nano – was met with much fanfare in India and has captured attention worldwide. But as it turns out, many of those buying the car have inadequate education and are entering the already-chaotic and dangerous fray of traffic in cities like New Delhi, increasing the risk of road traffic injuries, not to mention the general traffic congestion.

In essence, road traffic injuries already pose a significant health threat that is likely to continue to increase, particularly in the rapidly urbanizing Global South. The ways in which cities and their surrounding areas address this challenge will significantly impact social, as well as economic, development. Good road conditions and networks, traffic safety, educated drivers, and pedestrians are critical not only to the movement of people but also to the movement of goods. But these are not ends in themselves. These reforms must be done in the context of comprehensive urban land use and transport plans for the growing cities that privilege walking and nonmotorized transport first, public transport second, and private motorized transport third.

### Evolution of ‘Urban Health’

Although ‘urban health’ did not become an officially recognized discipline until the mid-1980s, when it emerged as a subdiscipline of international public health, the linkage between urban life and population health has long been known. Throughout history, scourges have spread rapidly through urban areas and across continents with the advent of trading via land and sea. The phenomena of disease epidemics and (potential) pandemics such as the emerging severe acute respiratory syndrome (SARS) or tuberculosis (TB) are not new either – ancient mummies provide evidence of tuberculosis. Plagues, such as the Black Death that ravaged Europe in the mid-fourteenth century, are well documented. Records of the time indicate that the plague was concentrated in cities and that residents fled to the countryside in efforts to escape it. One of the most famous depictions of this phenomenon appears in The Decameron, whose tales are framed on the premise of the flight of several residents of plague-stricken Florence to a countryside villa.

More recently, at the turn of the twentieth century, squalid living conditions in the cities of the United States and other industrializing countries gave rise to cholera, TB, and typhoid epidemics that killed millions. The social unrest that followed these outbreaks led to a call for local and state and national governments to respond. Improvements in sewage, waste removal and water supply systems, and transport followed. These reforms were the key components of the success of the industrializing cities of the nineteenth and twentieth centuries.

### Protection against Infectious Diseases

Throughout history, governments have often played a crucial (if sometimes misguided) role in protecting their citizens, and in turn social and economic systems, from the ruins of disease. The use of quarantine – the separation of the diseased from the healthy – dates back to medieval times, when it was feared that the horribly disfiguring illness of leprosy was highly contagious and those afflicted by it were removed from society indeterminately. The actual word quarantine and its more known usage originated from the Italian words quaranta giorni, or 40 days. This referred to the time ships coming from infected ports were required to hold anchor before landing on the coast. It played an important role in efforts to limit disease outbreaks, particularly in coastal cities, as...
trade increased movement among and between populations. Since little was known about the causes of disease at the time, nor how they spread or how to treat them, the best public health response was simply to try to prevent them from landing on a city’s shores in the first place. Their arrival could cause not only widespread illness, but also political and social upheaval, which could undermine the legitimacy of ruling governments and an entire city–state’s stability.

As the practices of modern medicine and biology evolved, so did public health responses to communicable diseases. In the 1960s, the success of antibiotics and vaccinations created a widely held notion that infectious diseases had been conquered and that essentially, the books could be closed on them. This idea, which has since proven to be false, applied mostly to higher income regions where industrialization and urbanization went hand in hand with rapid economic growth, and these processes were successfully mediated by progressive public health and public service interventions. Today, communicable diseases in those higher income regions make up less than 5% of their total disease burden, whereas they make up over 60% in Sub-Saharan Africa and almost 50% in North Africa. HIV/AIDS, a disease that emerged after the 1960s, plays a significant role in this statistic. Those who suffer from it are more susceptible to infectious respiratory diseases such as TB. But those infected with HIV/AIDS in prosperous regions, such as North America and Europe, typically have much better access to medical care and medications that can extend lives and improve quality of life for those with the virus. They also typically live in healthier environments, with access to clean water, decent sanitation, and improved nutrition.

By their very nature, urban areas are densely populated, and the concentration of people allows for infectious diseases to spread quickly among them. In a globalized world, although people are easily connected by communication technologies such as cellular phones and the Internet, the number of people traveling has increased and they are traveling more than ever before thanks to lower-cost air transportation. Increased ease of population movement means that in many cases, communicable diseases are diseases without borders. Some of these are newly emergent forms, such as SARS; others are older diseases reemerging in more drug-resistant forms such as tuberculosis. As a result of the easy movement of large numbers of people all over the world, the status of a local epidemic can quickly transform into a global pandemic. At the same time, climate change and changes in land use (e.g., deforestation) are impacting vector-borne diseases such as malaria. Typically classified as a tropical disease, it too is emerging in regions where it was not known to exist, as well as reemerging in regions where it had previously been eradicated by the use of pesticides.

### The Power of Data

The problems of urban population health will never be solved until a firm commitment is made to carefully measure the extent of the underlying problems. Indeed the very act of making a commitment to measuring the extent of a problem implies a commitment to solving it. Although the general outlines of the challenges of urban population health are well understood, the vital city–city and neighborhood-by-neighborhood details are at best inadequate and at worst nonexistent. The reason for this situation derives from the fact that the poor, who bear the brunt of the urban health challenge, tend to be socially devalued in most societies to such an extent that they often become invisible to all but the most discerning investigators. The lives of urban slum dwellers, because they are often declared to be ‘illegal,’ cannot improve so long as this ‘illegality’ makes them officially ‘invisible.’ Societies only address problems they deem to be ‘important’ and visibility is a precondition to ‘importance.’ The first step then in making the invisible visible and highlighting the need for action requires efforts to systematically collect data on urban health to make the problem ‘important.’

There is nothing new in this. The first steps taken by civic groups responding to the horrors of the late nineteenth century industrial city was to survey the problem. The New York City Citizen’s Association, comprising the city’s elite – wealthy merchants and city leaders – came together in an effort to address city problems such as political corruption and ill health. They saw these urban problems as a threat to the well-being of the entire city. Health problems such as cholera were not localized at the time, so they had the potential to affect everyone – rich and poor. With this in mind, they organized a massive data collection effort on a ward-by-ward and block-by-block basis to determine the housing and sanitary conditions of different neighborhoods. They essentially mapped these neighborhoods. This highly disaggregated data proved to be a powerful tool in compelling local and state governments to respond to the public health concerns of the city. From these beginnings, building codes, sanitary systems, public water supplies, etc., came into being.

The parallel with the present is striking. Today, across cities in the Global South, slum dwellers are self-organizing and through the act of very similar local data collection and community mapping processes, they are empowering themselves to demand public services to improve urban health. Aside from the benefit of accurate data collection, this helps communities to organize themselves politically, and to build/strengthen community cohesion. The social empowerment these processes generate is crucial in reducing gaping inequities in the more general process of social development itself.
An important lesson to be derived from these experiences is that mapping should be generated by, or be inclusive of, communities, but the process should also include local governments and technical expertise at more macro levels. Not only does this help to foster partnerships, but the knowledge generated help level the playing field by allowing the poor to come to the table with important information. Such exercises also help others (i.e., local and national governments, financial institutions) better understand more typically overlooked populations, their assets, their capacities, etc. The information and the participatory process by which information is collected also aids in giving communities voice in the planning process. It also allows governments to better prepare and respond to the complexities, as well as to take advantage of the opportunities that increasing urbanization will bring.

The data collected can help drive evidence-based action that prioritizes health expenditures to reduce burdens of disease as well as expenditures from other sectors that play a role in determining health. Although health sector interventions are important, they alone cannot effectively address the social development challenges that drive urban population health. These can only be addressed through access to affordable and decent health care, education, transportation, employment opportunities, safe drinking water, etc.

Collecting and organizing more and better data on slums will also help make it possible to make better intra- and intercity comparisons, which are important in determining which interventions are appropriate where, allowing for global replication and scalability. Sharing data across slums can help slum dwellers themselves begin to look to those whose situations are better than theirs and learn from each other how improvements were made, how others organized themselves, etc.

**Conclusions: The Roles of Local Governments and Local Partners**

The challenge of improving urban health is not new; it is just more pressing because the urban condition will be the modal living condition for about two-thirds of the world’s population by the middle of the present century. Because urban population health manifests itself at the local level and interventions to improve it are implemented at that level, it affords an opportunity to recast the ways of governance. Although the social empowerment of the poor mentioned earlier is an integral part of reducing poverty and improving urban health (and can be an end in itself), the burden of responsibility for these changes does not and cannot rest solely with community groups. Sir Michael Marmot, Chair of the World Health Organization’s Commission on the Social Determinants of Health, points out that although the diseases and their proximate causes in East London (UK) and Harlem (USA) may differ from each other and from those in the slums of Nairobi (Kenya), there is a link. “The unnecessary disease and suffering of disadvantaged people, whether in poor countries or rich, is a result of the way we organize our affairs in society,” he explained in a 2006 lecture. In other words, there is a societal responsibility to alleviate poverty. The way people organize their affairs refers to the ways in which they choose to govern themselves. That is ultimately going to mean devolution of power to more local levels of government, as well as a shift to governance that is inclusive of the urban poor.

One of the major problems with international efforts to address urban health is that they by definition target nations, which is reflected in financing flows. Yet the problems manifest themselves at a local level and strategies to address them effectively must also be implemented and managed at the local level. In essence, if people are serious about solving the population health problem of the twenty-first century, local governments need to be central to the effort of addressing the vulnerabilities of the urban poor and this effort must become central to the urban development agenda. Such centrality in turn implies a need to develop local capacity to act in terms of technical ability as well as through fiscal resources. But like community groups, local governments cannot act alone. Local governments, in collaboration with local partners (i.e., community-based organizations and nongovernmental organizations (NGOs)), must play a strong role in advocating/elevating the urban health agenda, particularly as local actors are often the best placed to understand conditions on the ground. (The World Health Organization’s (WHO) Healthy Cities Project is an example of a global initiative that seeks to engage local governments and partners in a comprehensive (i.e., intersectoral) approach to health development. The project focuses strongly on the environmental, social, and economic conditions that determine health status and outcomes, with particular emphasis on vulnerable populations. Originally initiated by cities in the Global North in the late 1980s, it began spreading to cities in the Global South in the mid-1990s. Although the Healthy Cities Project has the potential to bring about tremendous change and has met some success in the Global North, more evaluation is needed to determine its effectiveness in the cities of both the Global North and the Global South.)

See also: Animal and Human Waste as Components of Urban Dust Pollution: Health Implications, Physical Infrastructure Service and Environmental Health Deficiencies in Urban and Peri-Urban Areas, Physical Urban Environment, Urban Environmental Quality: Perceptions and Measures, Urban Environments and
Health, Urban Planning, the Natural Environment, and Public Health, Urban Social Environment.

**Further Reading**

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