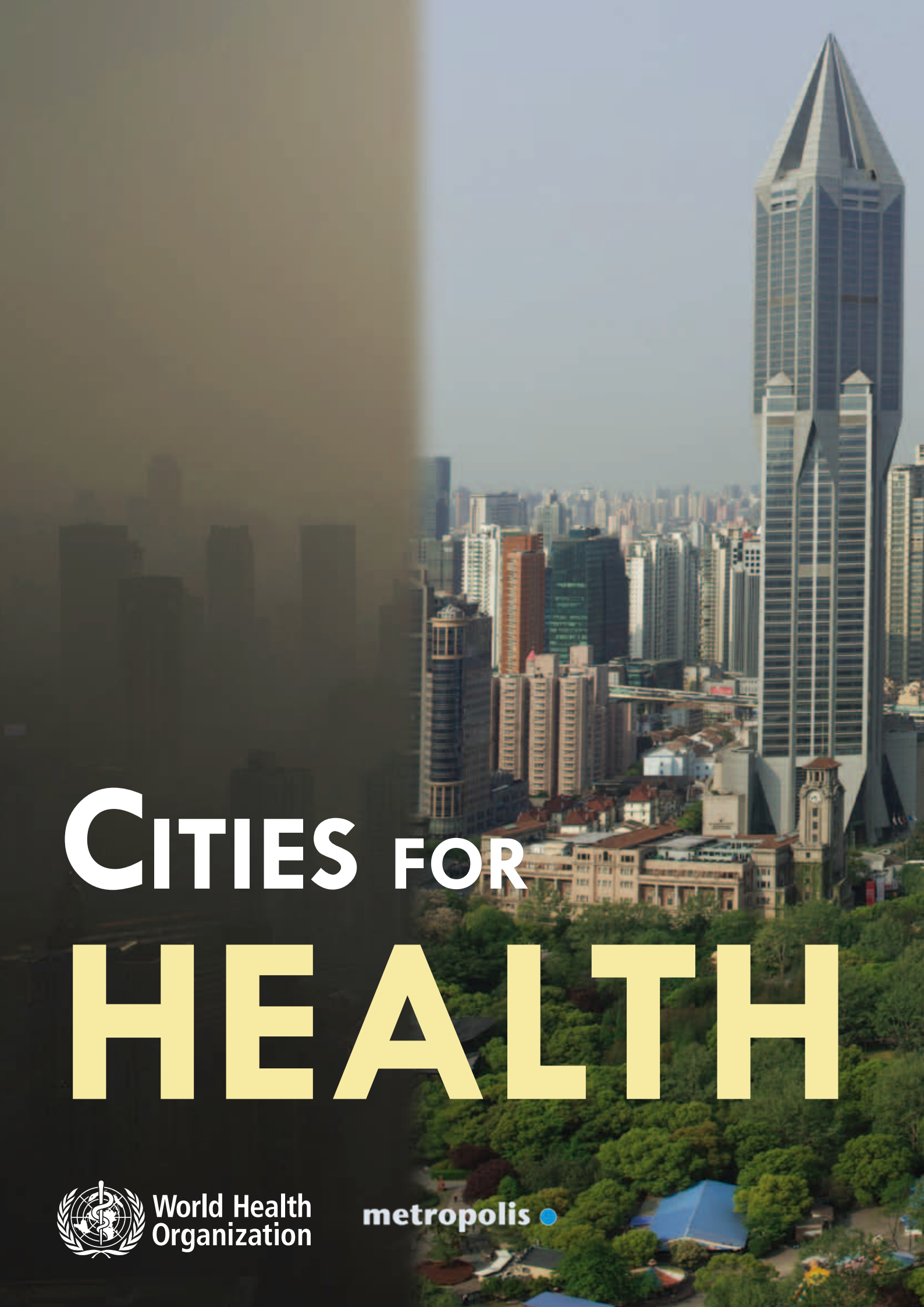

CITIES FOR HEALTH

World Health Organization

metropolis

CITIES FOR HEALTH

World Health Organization

metropolis

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Contents

Foreword

The concept of "Cities for Health" illustrates that at the core of the dynamism and transformative nature of cities are people – healthy people. To ensure this goal, we must ensure that all citizens, regardless of income, social status, or gender, have access to the quality health services they need with sufficient financial protection. A healthy population is the foundation of a city's, and ultimately a nation's, sustainable economic growth, social stability, and full realization of human potential.

We live in a remarkable time in which an unprecedented 54% of the world's population lives in cities – and will grow to 67% in 2050. Yet, for all of the promise of urbanization, the disparities and inequities within cities continue to undermine the realization of their promise. With nearly a billion people living in slums and informal settlements, optimal health outcomes for these populations cannot be realized, and health risks increase for the entire community. The rapid growth of cities and urban populations, along with demographic transitions such as rapid ageing and, for some countries, low birth rates, require enhanced planning, understanding, and novel solutions.

For over a decade, the WHO Centre for Health Development, located in Kobe, Japan, has led WHO's work to promote urban health, and in particular to help cities measure and act upon health inequities. In so doing, we use a multidisciplinary approach that stresses attention to the social, political and economic determinants of health, their consequences, and implications for health policies, as well as to promote engagement of all sectors and actors in society.

We hope that this publication inspires and catalyzes action to truly achieve the vision of Cities for Health. We are thankful to METROPOLIS for collaborating with us in advancing the inclusion of health in broader discussions amongst municipal governments, and to participate in the XI METROPOLIS World Congress. The World Health Organization looks forward to working with everyone to achieve the vision of "Cities for All".

Alex Ross
Director, WHO Centre for Health Development
Kobe

Foreword

A city for all should be a place where access to health services is available for each and every inhabitant of the metropolis.

Saying that is the first thing to do. It is, however, not the most difficult. Most importantly, we have to always remember that it is a priority. This is the challenge of national, regional and local authorities in partnership with the private sector and civil society.

It is natural for members of METROPOLIS, including those that gathered in the XI METROPOLIS World Congress in Hyderabad to express their interest in such an important issue as health. There can be no dynamic cities without a healthy population.

The complexity of the subject needs to be carefully approached. The Ebola epidemic crisis that is currently gripping Africa shows us once again that our societies still have a lot of work to do to organize and implement ways to secure health for all.

Alain Le Saux
Secretary General, METROPOLIS
Barcelona

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This publication is the result of a joint initiative of the World Health Organization (WHO) and METROPOLIS. It was originally prepared for release at the XI METROPOLIS World Congress at Hyderabad, 7-10 October 2014. In this regard, the essays collected in this publication were focused at an audience of municipal leaders, planners, and civil society who are not necessarily health specialists.

The development of this document has been coordinated by the WHO Centre for Health Development based in Kobe, Japan. We are very grateful to the authors of the various essays for this publication for having volunteered to share their perspective despite their extremely busy schedules. We believe that their contributions will be highly valued by readers and will engender further debates and actions around their proposals. The views expressed in this publication are solely those of the authors and do not represent the official views of their respective organizations.

This document has been edited and designed at the WHO Centre for Health Development. The team members involved in editing and designing this publication are Amit Prasad, Megumi Kano, Paul Rosenberg, Doohee You and Jinhee Kim. The team at METROPOLIS, especially Agnès Bickart and Sunil Dubey, have been instrumental in facilitating the production process of the publication.

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An Apology for Data: Identifying the extent of health inequities in cities

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Universal Health Coverage: How can cities play a leading role?

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Working across sectors for health equity: The case of New York City

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13th Compound, Dharavi, Mumbai. Photo: Akshay Mahajan. Licensed under Creative Commons 2.0

Cities for Health, Health for All

Amit Prasad, Megumi Kano, Paul Rosenberg, Jinhee Kim and Doohee You

WHO Centre for Health Development, Kobe, Japan

One billion people have been added to urban areas, globally, in just 14 years since 2000 *(1)*. While this is an unprecedented increase in urban population, it is unsurprising at the same time. Cities are centres of economic, political and cultural opportunities *(2)*. They concentrate wealth, jobs and investments that attract new residents. Just 600 cities, for instance, account for 60% of global output[1] *(3)*.

Since 2008, a majority of the world's population lives in urban areas. Rapid urbanization is expected to continue until 2050 when two in three people will be living in urban areas. Ninety percent of this future growth will take place in low- and middle-income countries[2].

Urbanization is commonly a sign of economic progress. It signals a shift in production from an agrarian economy to an industrialized and services-based one. All high-income countries are highly urbanized. Low-income countries, on the other hand, have less than a third of their population living in urban areas. Yet, cities account for 55% of their national output.

The World Health Organization (WHO) identified urbanization as one of the key challenges for public health in the 21st century *(4)*. But if urbanization is a sign of economic success, is it appropriate to consider it a challenge for achieving better health? If so, what are the challenges? In this essay we will attempt to answer these questions by analysing the benefits and hazards to health faced by people living in cities.

The Urban Advantage

Evidence shows that there is an urban advantage with respect to availability and physical accessibility of health services vis-à-vis rural areas. Closing the rural-urban gap in access to resources occupies a high priority on national and international development agendas *(5)*.

For example, on average, women in urban areas are twice as likely as women in rural areas to receive professional care during child birth in low- and middle-income countries *(6)*. In some Sub-Saharan African countries, more than 90% of HIV/AIDS-related health services are concentrated in urban areas *(7)*. Large hospitals with specialized care units and high-technology medical equipment are often available only in cities.

These advantages are facilitated by urban characteristics such as better infrastructure, proximity to services, and an abundance of human resources. For example, storage for medications such as antiretroviral drugs requires refrigeration. Refrigeration requires a steady supply of electricity, which in many low-income countries can only be guaranteed for cities. Facilities for HIV/AIDS treatment are, therefore, concentrated in cities.[3]

In addition, people in urban areas generally have better opportunities for getting educated and becoming wealthy. Higher education or income usually has a positive impact on health-promoting and health-seeking behaviours, which are in turn positively correlated with health outcomes.

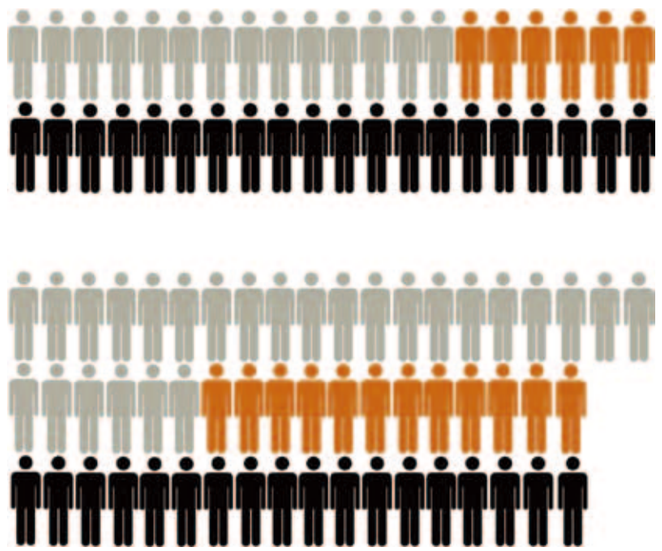
The urban advantage is such that, at the outset, urbanization should be a cause for celebration. People who live in cities certainly appear to improve their chances to achieve a better quality of life, health and wellbeing.

[1] Gross Domestic Product (GDP) is the measure of output.

[2] The World Bank defines low-income countries as those with a Gross National Income (GNI) per capita of US$ 1 045 or less; while middle-income countries are defined as those with a GNI per capita more than $1 045 but less than $12 746.

[3] There are additional factors such as the availability of skilled human resources in cities that also help determine the location of facilities.

Figure 1. Rapid urbanization will be matched by rapid slum growth



The Urban Penalty

The question is whether people actually improve their opportunities for achieving better health by living in cities? To answer this question, we will review various facets of urban areas that may have an adverse impact on health.

Slums

Let's start with the obvious. More than 850 million people lived in slums or informal settlements worldwide in 2012. Slums are characterized by extremely overcrowded conditions, low access to safe drinking water or sanitation, poor housing conditions, and lack of secure tenure *(8)*.

Take the slum of Dharavi in Mumbai, India, for example. A million people are estimated to live in an area barely two thirds of the size of Central Park in New York City. Ninety percent of the housing is considered illegal. There was only one toilet for each of its 1 440 residents in 2006. A number of public health epidemics in dysentery, cholera and typhoid have been reported over the past century in Dharavi *(9, 10)*.

90% of people in urban centres breathe air that fails to meet levels deemed safe for their health, according to a WHO survey of 1,600 cities in 91 countries.

In short, slums are recipes for public health disasters. The latest estimates indicate that slums account for three in five people in Sub-Saharan Africa, one in three people in urban Asia, and one in four people in urban Latin America and the Caribbean. The United Nations projections show that two billion people will be living in slums in 2050. As shown in figure 1, this will be close to one third of the total projected urban population of 6.4 billion *(1)*.

Urban lifestyle

A second well-recognized facet of cities is the urban lifestyle. Cities tend to promote unhealthy lifestyles like sedentary behaviour, and cheap and convenient diets that depend on processed foods rich in fats and sugar, yet low in essential nutrients.

The WHO estimates that 3.2 million deaths can be attributed to insufficient physical inactivity, annually *(11)*. Data for 50 low- and middle-income countries reveal that urban women are nearly three times more likely to be obese than women in rural areas *(6)*. Obesity and lack of physical activity are linked to the rise of noncommunicable diseases like heart disease, stroke, some cancers and diabetes.

Noncommunicable diseases kill more than 36 million people each year. Nine million of these 36 million people die prematurely before the age of sixty. The WHO warns that global demographic trends such as urbanization and globalization are the key driving forces in the increasing burden of noncommunicable diseases *(12)*.

Climate change and disasters

Climate change-related health impacts are creating additional hazards for cities. Cities will likely experience an increasing frequency of heat waves, air pollution, severe storms and infectious diseases. The impacts of such adverse events are amplified for marginalized populations, even in the richest countries *(13)*.

In 2005, Hurricane Katrina struck the Southeast United States of America (USA). In New Orleans, the city worst affected, nearly 1 500 people died, and tens of thousands were displaced. Many people who died were unable to evacuate the city on time due to lack of access to private vehicles *(14)*.

The combined effects of climate change, mass use of private motorized transport, and proximity of highly polluting industries have created new risks in cities. In Asia, for example, 351 of 504 cities, or 70% of cities for which data are available, have a PM10 level[4] higher than 50 µg/m^3, which is considered to be a risk factor for chronic

[4] Particulate matter (PM) refers to particles of solid and liquid matter suspended in the Earth's atmosphere. PM10 refers to particles with a diameter of 10 micrometres or less. Such particles have the ability to penetrate deep into the lungs and blood streams unfiltered, causing heart attacks and premature death.

Floods in Bangkok, 2011: young Thai family with dog paddling through a flooded street. Photo credit: Geri Dagys via iStockphoto

respiratory and circulatory diseases *(15)*.

The close interconnectivity of cities around the world through a vast network of bus and train stations, large international airports and seaports play an important role in the spread of disease and pandemics. The H1N1 outbreak in 2009, declared a pandemic by WHO, is a case in point. The virus spread rapidly to 214 countries and resulted in 18 000 deaths within a year *(16)*.

Violence and injuries

Violence is a public health epidemic concentrated in cities. Take Brazil for example. Homicide rates are especially high in the largest cities in the country. In 2011, the average homicide rate among the 10 largest cities of Brazil – 97.6 deaths per 100 000 population – was three and a half times higher than the national rate (27.1 per 100 000). Not surprisingly, in a 2010 national survey, the top response among youth, 18–24 years old, to the question "What's your dream for Brazil?" was "less violence" *(17)*.

In addition, violence can be targeted at specific subgroups. In India, incidents of violence against women in cities are reported nearly daily by the media. Although this has resulted in increased civil society activism, politicians remain largely indifferent to the issue *(18)*.

Road traffic injuries, which currently account for 1.3 million deaths annually, are another major concern in cities. Unprotected road users such as cyclists, motorcyclists and pedestrians are most vulnerable to death and injury in cities of developing countries. In urban areas, speeds of less than 50 km/h are considered best practice for speed limits. One third of the countries surveyed by WHO in 2012 on legislation to reduce road traffic injuries had not yet applied such a speed limit *(19)*.

Clearly, despite better infrastructure and concentration of human resources, there is much to be concerned about when it comes to managing and improving our health in cities. While some better-off sections of the population are profiting from the urban advantage, it is clear that these benefits are not shared with large sections of the urban population.

Equity

Rapid population growth in cities, especially in low- and middle-income countries, has resulted in pressure on municipal capacity to provide the infrastructure and services to cater to the needs of all. In China, the *hukou*, or household registration record, restricts rural migrants from accessing social and health services in the cities where they live but are not officially registered in *(20)*. A similar or worse scenario exists in many other countries. Not only do many people not have access to health services, but they are also deprived of access to education, employment, housing and other essential resources that impact on health.

These inequalities in access result in inequalities in health outcomes. For example, children from the poorest fifth of urban households are nearly thrice as likely to be malnourished than children from the richest fifth, based on data from 56 low- and middle-income countries. They are also two and a half times more likely to die before their fifth birthday *(6)*.

Inequalities in access to health services, and to determinants of health such as education, employment and housing, lead to inequalities in health outcomes.

Importantly, these inequalities cannot only be viewed as a problem of the gap between the richest and the poorest. Inequalities are systematically present along the socioeconomic gradient across the whole population. A lower socioeconomic level usually indicates worse health status.

Low socioeconomic status is not the only source of vulnerability in cities. For instance, HIV prevalence among women in urban areas is twice that of urban men, on average, in Sub-Saharan Africa. It is also two and a half times that of rural women. This vulnerability is further aggravated for poorer women in urban areas *(6)*. Disadvantage, or vulnerability, may also relate to race, ethnicity or age, depending on the context.

These systematic inequalities are not inevitable. They can be reduced by policy and action, which has been successfully demonstrated in different parts of the world. These inequalities are, therefore, systematic, unfair and modifiable. Such inequalities are called inequities *(21)*. It is these inequities in health, and inequities in the determinants of health, that city authorities together with civil society must strive to reduce.

Leadership for Action

Equity is a matter of social justice. Its pursuit is a moral imperative *(22)*. It is also an economic one. There are enormous reductions in health care costs, present and future, associated with promoting healthier physical and social environments for all.

A more equitable society also contributes to maintaining social harmony and developing a future society of economically productive individuals. The WHO Commission on Macroeconomics and Health, in 2001, estimated that productivity gains from an investment of US$ 27 billion a year in health, with a pro-poor focus, would yield US$ 186 billion a year, globally *(23)*.

The link between health equity, economy and social harmony has captured the attention of visionary leaders. Some mayors and city officials have been at the forefront of implementing innovative solutions to improve health equity. Take New York City, USA, for example. Since the 1990s, mayors and city officials have actively intervened to improve conditions and outcomes for health. As a result, homicide rates in New York City fell by 76% between 1990 and 2004. Smoking rates among mothers fell by 83%, and mortality due to heart disease and HIV/AIDS, too, fell sharply in the same period *(24)*.

Over the past decade, mayors of Bogotá, Colombia, have pioneered cycling lanes, encouraged physical activity, and developed new public transit systems with an eye on improving health for all. These interventions have been admired and emulated in cities around the world. In 2004, actions by local authorities of Liverpool, England, to make the city smoke-free were instrumental in the passing of national legislation in 2006. More recently, mayors have even provided leadership for global public health issues such as anti-tobacco campaigns and promotion of healthy diets.

Civil society has played an increasingly important role since the middle of the 20th century in defining the development agenda and sustaining action on the ground. Participatory governance models in Porto Alegre and Belo Horizonte in Brazil are being adopted and adapted by many cities globally.

Universities, too, are often located in cities. Academics and researchers are an important human resource who can inform development debates with high-quality evidence. For example, public health observatories set up within, or in partnership with, local universities in Ciudad Juárez (Mexico), Cali (Colombia) and Barcelona (Spain) have been actively producing quality research and evidence on issues of local interest.

However, the unequal distribution of wealth and power, nationally and locally, threatens meaningful civic participation. In the USA, for instance, the richest 10% of the population accounted for 70% of national wealth[5] in 2010. The richest 1% alone accounted for 35% of national wealth, thereby forming a small, wealthy elite with substantial influence and power over decision-making *(25)*.

While this lends support to the enthusiasm for broader civic participation in decision-making, there is no guarantee that the concerns of marginalized populations are, or will be, taken into account. We need to ensure that, in the future, participatory governance is not just lip service.

Much can be learned by sharing information and resources. What works, what doesn't, and in which contexts are important questions that people like to have answers to. This is where international organizations play a vital role. In gleaning best practices, convening cities, and promoting the use of evidence-based tools and interventions to tackle health inequities on a global scale.

The WHO Centre for Health Development in Japan, for example, has been working with cities around the world for over a decade on improving health equity. The Centre emphasizes the use of participatory governance models and develops innovative methods for using metrics to inform action. The Urban Health Equity Assessment and Response Tool (Urban HEART), in particular, has so far been used in cities of more than 40 countries to track and act on inequities in health and its determinants *(26)*. Together with its various partners, the Centre strives to continue supporting cities to achieve their ambitions of being healthy and equitable.

Conclusion

Where people live influences their health. The transition from rural to urban environments has been challenging for many. Inequities, whether in economic or health terms, are especially appalling in urban areas. The bad news is that current trends will lead to even greater inequities in the future. While the concentration of wealth will increase, two billion people will be living in slums by 2050.

The good news is that technical solutions for many of our challenges exist. Participatory approaches of using evidence to inform and sustain corrective actions are also gaining momentum. But progress is slow. Politics is the biggest barrier. Politics is also the primary solution. Irrespective, outcomes for billions of people can be improved by leaders and civil society alike, by making the right choices. It is now up to us to do so.

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[5] Wealth refers to the value of the stock of land, buildings, financial assets etc.

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The poster above is in French. In English it would translate into:
"I participate
you participate
he/she participates
we participate
you participate
they profit / they benefit"

"Je participe, tu participes, il participe, nous participons, vous participez, ils profitent". The poster was created in 1968 by French students. Atelier populaire ex-Ecole des Beaux-Arts (main au pinceau) Source: gallica.bnf.fr Bibliothèque Nationale de la France.

Bringing Stakeholders Together for Health Equity: What comes first?

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Centre for Research on Inner City Health, St. Michael's Hospital, Toronto, Canada

"The case for radical transformation is irrefutable."

– Advancing Regional Recommendations on the post-2015 Development Agenda, United Nations Non-Governmental Liaison Service, 2013

In this paper we were asked to identify strategies through which city leaders and the public can work together to achieve better health for all. In particular, we were asked to identify tested strategies for bringing together various stakeholders to tackle urban health inequities. While we provide an example of a promising case in the latter half of this paper, our survey of the literature indicates that a lack of technical solutions is not the primary obstacle to the implementation of successful stakeholder engagement processes. Instead, we identify a shift in power relations as a necessary precursor to the widespread implementation of the truly participatory processes that would lead to urban health equity. We also contend that where there is genuine political will to include urban stakeholders in processes to improve health equity—political will which is often developed as a result of pressure and leadership from these same stakeholders—it is possible to see the emergence of creative and context-specific strategies.

In developing this paper, we selectively reviewed

peer-reviewed and gray literature on stakeholder engagement, citizen participation, health inequalities, urban social movements and critical urban geography, as well as a number of documents produced by the World Health Organization (WHO) related to the Commission on Social Determinants of Health (CSDH). Additionally, we reviewed a 2013 document outlining recommendations from civil society related to the post-2015 United Nations development agenda, and materials related to the WHO's Urban Health Equity Assessment and Response Tool (Urban HEART). Our conclusions with respect to the utility of suggesting specific strategies and the preconditions to implementation emerge from the reading of this broad literature.

City Life and Growing Inequities

The trend toward global urbanization necessitates that cities be equipped to provide healthy, equitable environments for residents to thrive. When cities are unequal, some people have more access than others to elements that are fundamental to individual and community health. These elements, often referred to as the social determinants of health, include safety, quality housing, healthy food, clean water, sanitation, education, transportation and work. Rapid population increases have often been blamed for inequitable access to the social determinants of health and for specific crises such as the growth of concentrated areas of inadequate, overcrowded, un- or under-serviced and often dangerous housing. These problems, however, are driven instead by the unequal distribution of resources, with power over these resources increasingly concentrated among a small wealthy elite. For example, Gita Verma *(1)*, in commenting on city slums in India, notes, "It is widely accepted that inequitable land distribution is a major factor in the emergence of slums… [and therefore] the root causes of urban slumming seem to lie not in urban poverty but in urban wealth"*(2,* p.3*)*. The same could be said about many cities around the world, as well as in relation to inequities between countries and regions.

> **"...the root causes of urban slumming seem to lie not in urban poverty but in urban wealth."**
>
> **- Gita Verma** *(1)*

Scholars, inter- and non-governmental organizations and civil society groups have recognized that when people and communities do not have access to the social determinants of health, it is not by choice, but rather that they are prevented from exercising meaningful input into decisions affecting the distribution of resources and shape of the society *(3–5)*. As a result, the issue at the core of urban health inequities is the inequitable distribution of power, a view shared by Richard Horton et al. in the Lancet's recently published "manifesto for transforming public health" which acknowledges that, "We have created an unjust global economic system that favours a small, wealthy elite over the many..."*(6,* p.847*)*.

There are many overlapping dynamics that contribute to the inequitable distribution of power and consequent urban health inequities. These include but are not limited to historical and current processes related to colonization *(7)*; racism *(7,8)*; misogyny; and discrimination due to age, perceived ability, gender identity, sexual orientation, health status, mental health status, migration status, ethnicity, religion or class. On a global level, civil society groups have identified neoliberal economic processes as key to ever-deepening inequalities in power relations that lead to ever-widening disparities in health. As outlined during United Nations consultations with civil society related to the post-2015 development agenda *(9,* p.6*)*:

> Civil society networks identified that blanket policy prescriptions, such as indiscriminate financial and trade liberalization, deregulation and privatization, export- and foreign investment-led growth, and a reduced role of the State, have led to tremendous concentration of wealth and power, exacerbated inequalities, and increased poverty.

Thus, for stakeholders to work together to achieve health equity in cities, the impacts of neoliberal practices at various scales cannot be ignored. Indeed, neoliberal practices can run directly counter to prescriptions for improved health equity. For example, while the CSDH identified a strong public sector as key to the achievement of health equity *(5)*, some cities, along with regional and national governments, are adopting or expanding the neoliberal practice of contracting out public services to nonstate actors like private vendors and not-for-profits *(10)*, including processes related to the work of deliberative democracy itself. At the same time, neoliberal economic practices must be recognized as deeply intertwined with the overlapping dynamics described above, and in dynamic interaction with power relations as they play out in local contexts.

Minding the Gap: What Lies Between Models for Stakeholder Engagement and Social Change?

From the literature and reports we reviewed, we noted that there was strong consensus on the need to engage multiple stakeholders in decision-making related to health inequities, with a particular emphasis on the inclusion of people experiencing health inequities themselves. Yet, while stakeholder engagement and redistributive policies are recommended in many documents, the pathways to achieving the conditions necessary for implementation are not often directly addressed. This is likely due to the fact that, while shifts in power relations generally constitute a precursor to the establishment of the genuinely participatory processes needed to achieve health equity, it has proved difficult for intergovernmental structures to define their own role in challenging neoliberalism and creating the conditions that would facilitate the implementation of equitable decision-making models.

In a briefing note to the CSDH, Alec Irwin and Elena Scali undertake a historical overview of international efforts to address the social determinants of health. They conclude by urging the CSDH to move beyond evidence generation, and consider the political barriers to the implementation of solutions, "…if the political strategy is not well developed, the evidence collection, however scientifically sound, may fail to generate the concrete change the Commission seeks"*(11,* p.30*)*. This is stated yet more plainly by civil society networks consulted in relation to the post-2015 development agenda, "It is clear that the obstacles to achieving sustainable development are not technical; they are political"*(9,* p.6*)*.

While policy and process recommendations can be important, particularly where there are actors willing and able to move forward with implementation, a focus on technical solutions can serve to stall progress by obscuring the broader context, a caution shared by social justice advocates *(12,* p.xi*)*:

> As they move from the margins to the mainstream, approaches to advocacy and citizen participation become somewhat sterile and technical, failing to take into account underlying realities of power and politics which exclude people from meaningful engagement in the policies and decisions which affect their lives.

As a result, we wished to avoid the trap of offering "technical solutions to political problems"*(13,* p.45*)* by underlining that, for any strategies presented here to be effectively implemented, the issue of power relations must be taken up. The question for this paper then becomes not, "How can we bring stakeholders together to tackle urban health inequities?" but rather, "What leads to genuinely participatory decision-making processes that share power in order to address urban health inequities?"

Arriving at Stakeholder Participation: the Case of Naga City, Philippines

All major issues facing unequal cities, such as large numbers of people living with shortages

Housing along Naga river in Naga City. Photo: Hans Engbers; Licensed under Shutterstock.

of resources necessary for daily living—stable, safe and affordable housing; stable meaningful employment; accessible public transportation; strong public health programs, and more—should be addressed with input from a broad set of resident stakeholders, and, where possible, be evidence-based to ensure the highest quality infrastructure and services. Yet, as these issues will involve the redistribution of resources, each will be politically contentious *(14)*.

To explore this dynamic, we draw from the work of Richard Pithouse *(2,15,16)*, who writes extensively about the role of grassroots groups and movements in securing the "right to the city". Pithouse documents varying opinions related to negotiation (or representation of negotiation) around inclusive policies in the context of the international policy consensus: the process can be slow but linear *(17 in 2,* p.3*)*, it can see progression and regression over time *(18 in 2,* p.3*)*, it can be characterized by a 'policy merry-go-round' that sees conditions deteriorate *(1 in 2,* p.3*)*. It is clear, however, that, contrary to frameworks focused solely on collaboration (or the representation of collaboration), the process of arriving at popular participation in urban decision-making and a consequent redistribution of resources is generally characterized by some degree of oppositional action *(2,14)*.

This has been demonstrated through several case studies *(15)* and we highlight one from Naga City, Philippines where, from the late 1970s through late 1980s, the rapidly growing population of people living with poverty created its own groups—in particular in opposition to housing practices including evictions and demolitions—that were eventually organized into federated urban poor associations. For many years, the relationship between communities living with poverty and the City and private landowners was a contentious one. Following years of grassroots organizing, however, the local government institutionalized power-sharing among multiple stakeholders through the 1997 Partners in Development Empowerment Ordinance *(Kaantabay sa Kauswagan)*, a progressive, municipally-led innovation that set up formal partnerships with local poor people's organizations to ensure that those organizations proposed legislation, voted in the deliberation of legislation, participated in evaluation activities and more *(2,15,19)*.

It is clear that the long-term self-organization of people living in marginal conditions was key to the realization of genuinely participatory practices in Naga. While not all local movements have seen similarly concrete outcomes related to permanent changes in institutionalized governance models yet, groups of residents facing enormous barriers to socioeconomic equality are working to dismantle these same barriers in cities around the world. Instead of receiving help from powerful actors, they are often met with enormous resistance that can come in any number of forms and that ranges from violence to co-optation *(2, 20)*. In terms of constructive intersections between these groups and local governments, scholars in the United States of America and Brazil suggest that, under the right conditions, these groups might be able to locate pockets of space in which to exert some influence over decision-making in the context of existing municipally-led processes, although this may involve resisting or subverting processes as defined *(20,21)*. Marcelo Lopes de Souza suggests that the presence of both 'genuinely nonconservative parties'[1] and autonomous civil society groups[2] is conducive to the possibility of productive relationships between social movements and city planning processes *(20,* p.330*)*.

We can also see in the case of Naga that the starting point was not collaboration between people living in marginal conditions and the state but, rather, a lengthy period of contention. While calls for collaboration are often made by powerful actors, many have pointed out that the outcomes of these collaborations are frequently, if not predetermined, sharply circumscribed. Writing about cities in northwestern Europe, Kristian Olesen *(23,* p.296*)* asks:

> If we do not allow for strategic spatial planning to constitute spaces of both deliberation and strife, where radically different futures can be imagined and discussed, strategic spatial planning processes can do little more than support and legitimate neoliberal practices and concepts as superior in strategic planning.

We would argue that what prevents strategic spatial planning from constituting spaces of deliberation and strife is not a failure on behalf of individual planners to devise appropriately collaborative processes, but, rather, the relative power of the various actors involved. Genuine collaboration comes, then, not simply as the result of the right collaborative processes, but due to grassroots organizing and grassroots urban planning that occurs, as Souza puts it, "… sometimes together with the local state apparatus, sometimes despite the state, sometimes against the state..."*(20,* p.339*)*.

While we present one example here, there are numerous others where popular action has eventually forced important gains related to participatory governance at the local level. One of the most well-known is the case of Porto Alegre, Brazil, where a participatory mode of urban governance emerged following years of grassroots organizing, and interestingly, as in Naga, in the context of federated associations. In the case of Porto Alegre, these were neighbourhood associations organized as an umbrella group called UAMPA which called for improvements in access to the social determinants of health along with changes to governance *(24,25)*. While an examination of the gains and drawbacks of participatory budgeting in Porto Alegre is outside the scope of this paper, grassroots organizing made an unquestionable impact on the level of popular participation in local decision-making. More generally, cases of grassroots pressure leading to increased stakeholder participation in local decision-making are underrepresented or even intentionally ignored in the literature despite having much to offer in terms of lessons learned *(2)*, and this gap should be addressed in future research.

[1] Souza (20) defines a "progressive party" as "one which is at least at the beginning consistently committed to social change and empowerment of civil society"(p.338).

[2] Pithouse *(2, 16)* and Souza *(20, 22)* unpack some of the dynamics behind the term "civil society", drawing a distinction between grassroots groups/movements and NGOs, and exploring differences within each of these two categories. For example, not all popular movements are emancipatory in nature (i.e. there can be reactionary popular movements), while some NGOs can act as solid allies to grassroots groups and/or as members of social movements.

Conclusion

Health equity-related engagement strategies generally recommended to leaders of local governments and large organizations include community consultations, dialogue sessions, establishment of multisector commissions and advisory groups. But these processes—and any additional tools we could have suggested here—no matter how well-chosen the stakeholders, well-designed the consultations, or clearly communicated the outcomes, are unable to effectively redistribute resources, as they are not binding. People in power can choose, based on their own interests (or pressure from people even more powerful than themselves) to take or leave what amount to suggestions. As a result, these types of engagement strategies have little potential to transform conditions on a large scale. They may, however, have the collateral effects of bringing together people who, having met, choose to act independently together or serve the function of offering pedagogical opportunities related to state processes *(20)*. At worst, they can sap civic and radical energy better put by community residents toward struggling against health inequities, rather than talking about them.

In order to see significant gains, any iteration of multisector engagement related to health equity in urban settings must wrestle with power dynamics head on. Moreover, a single set of one-size-fits-all recommendations for engagement will not be possible given that inequalities and their historical creation and contemporary maintenance will be, at least in part, local in nature, as will modes of resilience and effective strategies for resistance. As a result, we chose to focus on the preconditions of popular participation in local decision-making with the belief that, when the political will has been established, the model will follow.

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An Apology for Data:

Identifying the extent of health inequities in cities

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It seems somehow callous to say that data are needed to combat urban poverty. The urban poor do not need data. They need food, clothing, shelter, education, health care and participation in an economy that provides those things. Public health workers need data, but this focus on acquisition and analysis of urban information can be viewed as self-serving. The poor must tire of the repeated demonstration that others are better off than they are.

The reason we focus on identification and analysis of health inequities is clear, however: nothing will change in the absence of evidence. Though, we ruefully acknowledge that little may change despite evidence. We face a difficult dilemma. In an ideal world, there need not be a choice between documentation of a problem and its amelioration. But in a world of limited resources, and limited commitment to engaging in the problems of inequities, a longer term strategy is needed. Data and visualization of health inequities is a long term investment that can set the stage for improvement in peoples' lives. But the cost is diversion of some resources from the help people need now. Perhaps the callousness can be justified by persistent efforts to make analysis and amelioration interactive.

Another problem with a focus on data acquisition and analysis is that it removes health officials from direct immersion in the problems of the poor. Their plight is quantified, that is, sanitized, so that it is drained of its emotional content. The resulting detachment may actually be a psychological necessity for those who must deal directly with the problem, but a more direct connection with peoples' lives might actually serve an important purpose. Those who best understand the problems of the disadvantaged are the disadvantaged, but the field of urban health metrics excludes them from the conversation. Their thoughts, hopes, insights and aspirations are not mapped into the outcome. Perhaps one important aspect of identifying the extent of health inequities in cities is to introduce a mechanism that includes the experiences of the disenfranchised.

The history of development of urban health metrics provides little evidence of involvement of the poor. To be sure, there is a considerable ethnographic literature on poverty and disparity *(1-4)*. But this line of inquiry has not been melded with the quantitative assessment of health inequity. Rather, the development of metrics has focused on large collections of urban indicators, and the construction of indices based on these indicators. These metrics are worthy, and their value should not be impugned. But a recent review and analysis suggests that their orientation and construction have denied them widespread applicability *(5)*. Specifically, most metrics lack certain qualities that would make them more accessible to those who make decisions about the distribution of resources.

- They are often constructed by those outside an area, rather than those within (that is, top down rather than bottom up);
- They are usually scaled to large jurisdictions;
- They are most often constructed from a fixed, negotiated set of indicators;
- They are used primarily to compare areas and provide relative rankings;
- They are usually not constructed to document change.

Discontent with this approach is easy to appreciate. It is a well-accepted axiom that locally-owned ideas fare better than those imposed from the outside. Decision makers may wish to know their relative position compared to peers but such ranking provides little direct insight into local problems. Similarly, large area indicators are not directly applicable to small area (neighbourhood, community) concerns. Application of indices with fixed indicators may not be possible given the absence of small unit data in many cases. Finally, most indices are rigid in design and insensitive to change. The inverse of these properties might be a better approach to understanding, and eventually dealing with, health inequities. It is apparent as well that the injection of a more direct connection with the voices of the disadvantaged would improve the credibility of the numbers.

This type of thinking requires a serious reconceptualization of the construction and function of urban health metrics. There are four changes in orientation that are useful to consider: (i) focusing on coping and risk-avoidance, on survival rather than failure; (ii) understanding the distribution of risk and risk-avoidance on increasingly smaller scales; (iii) acquiring local small-area data by speaking directly to the people affected; and (iv) using flexible methods for analysing and displaying such data.

Mapping Survival

In most settings, we use indicators that tell us of failure: infant mortality, disease incidence and prevalence, adverse environmental and social circumstances, poverty and prevalence of risk. We pay less attention to those who survive, who avoid risk, and who cope with poverty in some way *(6)*. Though the former are critical to understanding health inequities, the mechanism for coping with risk and adverse circumstances are critical for amelioration. In many cases, the required data are readily available: normal birth weight, life expectancy, and completion of educational milestones. But more specific data on low risk (nonsmoking, normal body weight, blood pressure control, safer sex, drug avoidance) are usually not available, particularly at the small area scale. Perhaps more important, a detailed understanding of what people do to cope and survive is rarely if

ever a part of an urban metric to measure health inequities.

Understanding Distribution of Risks at Small Scales

A related conceptual problem is that we usually measure health inequities by comparing people who are well off to those who are worse off, a dichotomous distinction that ignores the wealth of information that lies between these poles. All of the indicators that we might wish to use will have distribution over the units under consideration, and perhaps just as important, these indicators will have a distribution within those units. Though, we often compare extremes (poor to rich), an understanding of the distribution within an area may be just as important *(7)*. Individual level data within a small area, for example, are likely to reveal a distribution of risk, coping skills, and disease avoidance. Understanding why some people, exposed to the same stresses, do better than others is critical for designing and evaluating interventions, and knowing the distribution a priori is a prerequisite for judging effectiveness. In essence, the usual methods for examining disparities throw away information that local health workers and investigators can use to good effect.

Magnifying small area data: it's worth it. Source: Urban HEART, Tehran

Small Area Data

These observations point to the need for local health officials themselves to collect data for small area analysis. To date, the major orientation in health inequity work has been toward the use of large extant data bases. Though good use has been made of such sources, their problems are well documented: incompleteness, inconsistency, documentable errors, inadequate indicator sets, and lack of applicability to smaller scale units. Local small area information, collected by those who will use them directly, for example https://www.ucl.ac.uk/ineqcities/, provides a nuanced perspective that is unavailable from other sources. Admittedly, acquiring such information is labour intensive, and requires substantial experience and investment for which the opportunity cost may be considerable. Thus, the apology for data. Investment in data acquisition is a long term strategy that will provide an understanding of the determinants of health, a documentation of the full distribution of inequality, guidance for interventions, and a built-in mechanism for evaluation.

A Flexible Method

Applying the power of local information to local problems requires a methodology that can be adapted to local circumstances. As noted, a high priority of many health indices is comparability among units, requiring similar or identical indicators that are similarly combined. A more flexible approach would be to develop a method to standardize and amalgamate indicators that are chosen locally, based on prior availability or the ongoing collection of new data. One such method, recently proposed under the aegis of the WHO Centre for Health Development, is the development of an Urban Health Index (UHI) *(8)* based on methodology originally formulated for the Human Development Index (HDI) *(9)*. This approach uses indicators from areas on any scale, standardizes them as a proportion of the maximum value in the set of units, combines them by taking their geometric mean, and provides a number from 0 to 1 for each unit in the analysis. This permits rank ordering of the units, graphing of the results, and a measure of the ratio of any part of the graph to any other part, as well as an assessment of the homogeneity of the units in the group. Thus, the approach assesses the level of health and provides metrics for measuring health inequities. By dividing the values of the rank-ordered units into evenly spaced grouping, such as deciles, these values can be transferred to a map of the urban configuration under study (figure 1). Direct visualization of the geographic distribution of health equities emerges from this approach as well.

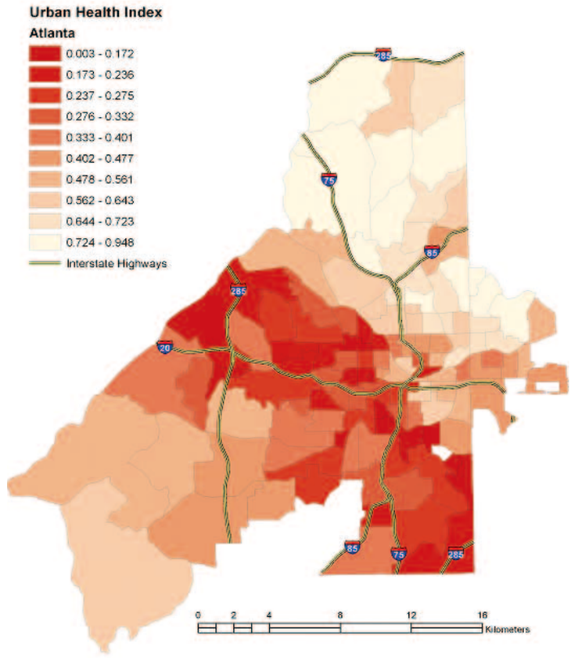

Figure 1. An application of the Urban Health Index in Atlanta *(8)*

Conclusion

The four elements of this reconceptualization–understanding how people survive; examining the entire distribution of health and illness within an area; collecting information directly; and using metrics that quantify health and inequities within and between areas–also includes a deeper ethnographic understanding of the root causes of disadvantage and some insight into its amelioration. The stories people tell can be a vital part of the assessment, and the integration of quantitative information with such qualitative assessment provides a more compelling narrative.

The ultimate question, though, is: who is listening? The challenge of this work is to convince decision makers that reduction of health inequities is in their long term interest. In many instances, it is not in their short term interest, since the cost of analysis and amelioration may be considerable. But raising the level of health, and, by extension, the required concomitants of education and economic productivity, has the long term impact of improvement in the quality of life and creation of a stable environment for growth and development. Everyone benefits.

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Improving hospitals and healthcare in Cambodia. Photo: Chhor Sokunthea/The World Bank. Licensed under Creative Commons 2.0

Universal Health Coverage:

How can cities play a leading role?

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"In my view, universal health coverage is the single most powerful concept that public health has to offer" *(1)*

"Every country, at any level of development and with any level of resources, can take immediate and sustainable steps in that direction"*(2)*

– Dr Margaret Chan, Director-General, World Health Organization

Cities have long been a transformative engine of innovation, creativity, and economic growth *(3)*. They concentrate opportunities, jobs and services, but they also concentrate risks and hazards for health. The extraordinary growth of people living in cities[1] poses important implications for global health and development for the 21st century. In addition, with increasing socio-economic development and longevity, and demographic and epidemiologic transitions, demand for affordable, available, and accessible quality health services has risen. And, this is no longer just a health issue—but one of social justice, social stability, and a driver of economic growth.

Numerous challenges confront mayors and municipal authorities, as well as civil society, to plan and decide on how best to ensure the health of their citizens and communities in the context of competing demands and fiscal constraints. Urban growth has outpaced the ability of governments to build essential infrastructures, and one in three urban dwellers lives in slums or informal settlements. Significant demographic changes such as rapidly ageing populations and migration, and the epidemiologic transition from communicable to non-communicable diseases are increasing the complexities of challenges ahead. In all countries, certain city dwellers suffer disproportionately from poor health, and these inequities can be traced back to differences in their social and living conditions *(4)*.

The context of each nation's and city's development and socioeconomic conditions poses challenges and opportunities for how health services are conceived, organized, and implemented, and they compel us to craft practical approaches to address the determinants of health. Building on past experience and progress, the World Health Organization (WHO), World Bank and countries have embraced the concept of universal health coverage (UHC) as a key movement to achieve health coverage for the entire population.

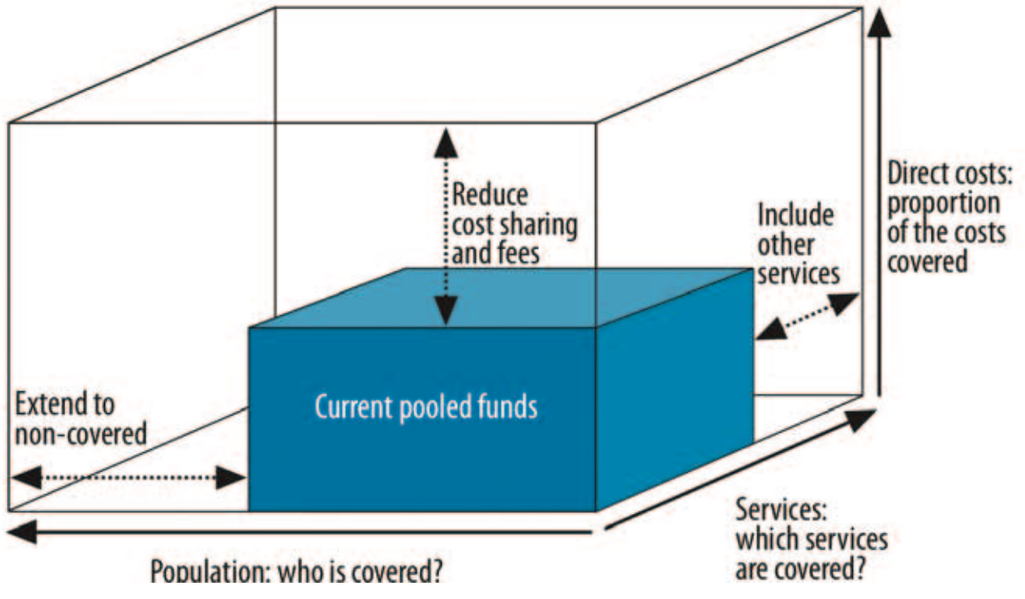
[1] 54% of the world's population live in cities in 2014. This is projected to rise to 67% by 2050

Defining Universal Health Coverage

The roots of UHC are grounded in the experiences of many countries developing national and local health systems over many decades, reinforced by key historic international movements supporting public health, such as the Declaration of Alma Ata *(5)*, the Millennium Development Goals, and currently the negotiation over the post-2015 development goals *(6)*. Over the past two years, momentum has accelerated for a new movement whereby countries, WHO, and the World Bank have come together to advocate for UHC. But, what is UHC?

UHC is an approach that unites the concepts of universal access to a full spectrum of quality health services according to need—prevention, promotion, treatment, rehabilitation, and

Figure 1. Three dimensions of Universal Health Coverage.
Source: World health report 2010: "Health systems financing: The path to Universal Health Coverage"



palliative care, while also ensuring that individuals and families are protected against financial ruin due to health care costs. These three dimensions are depicted in figure 1.

The services axis depicts the quality health services people need which include prevention, promotion (personal and non-personal), treatment, rehabilitation and palliative services, and population-based interventions designed to reduce tobacco consumption, for example. Moreover, universal coverage of needed services is not possible without universal access to essential medicines and other health technologies, sufficient motivated health workers located in the right places, and information systems that allow informed decision making.

The vertical axis is the total cost of assuring the population obtains all the services they need. If people have to pay the entire costs out of their own pockets, the poor will be unable to obtain most of the services. Forms of financial risk protection that pool funds (through tax, other government revenues, insurance contributions) to spread the financial risks of illness across the population, and allow for cross subsidy from rich to poor and from healthy to ill, increase access to both needed services and financial risk protection.

Equity of access and social justice are core dimensions and principles of UHC. The WHO Director-General noted that UHC is a "powerful equalizer that abolishes distinctions between the rich and poor, the privileged and the marginalized, the young and old, ethnic groups, and women and men" *(1)*.

UHC is flexible. Each country can progressively approach the design and implementation of programs to realize UHC based on their levels of resources, nature of health systems, and epidemiological profiles. In addition, experience indicates that implementing bold visions of UHC requires reliance on the actions of other sectors to address determinants for health, and that these efforts contribute to other sectors' desired outcomes as well.

WHO and the World Bank have developed a monitoring framework that will help countries, and ultimately cities, monitor their respective progress on UHC *(7)*. Underlying this framework are two primary groups of measures: coverage of essential health services (including prevention, treatment, and to address risk factors) and financial protection (including equity). Time-bound targets, defined nationally and locally, will be key. The framework sets a target of at least 80% coverage of essential health services, regardless of the level of wealth, place of residence or gender (to be achieved by 2030).

In Japan, UHC was seen as a deliberate effort to foster social cohesion and human security. The Japanese UHC programme is implemented at all levels of government: national, prefectural and local.

Country Examples

A number of countries have shown that designing and implementing a UHC system that adheres to the principles articulated above is possible *(7)*. Developed countries such as Germany, the United Kingdom and France were early innovators. Japan is a model for a country implementing UHC "establishing an effective guarantee of universal service coverage with financial protection, in 1961, giving virtually everyone access to preventive, curative and rehabilitative series at an affordable cost" *(8)*. In Japan, UHC was seen as a deliberate effort to foster social cohesion and human security. The Japanese UHC programme is implemented at all levels of government: national, prefectural and local.

Achieving UHC requires leadership. Countries such as Indonesia, Turkey and Thailand, respectively adopted UHC as a national priority following financial crisis; while Brazil did so after democratization reforms. Having health care access as a right in a country's constitution underpins most successful UHC initiatives. Mobilizing national solidarity and cohesion were common motivations. Although economic growth is not a necessary precondition for UHC (as seen by the examples of Ethiopia and Bangladesh), strong growth does help—as in the case of Ghana, Indonesia, Peru and Vietnam.

Common hallmarks of UHC include expanding coverage, requiring special attention to health worker supply and distribution and commodity supply chains. Reducing inequities is essential, and countries often face difficult choices on redistribution of resources, how to cover the informal sector, subsidy schemes, as well as harmonizing benefits. Underpinning the achievement of UHC and equity is the need for a health financing strategy, for which many countries represent solutions, ideas and challenges *(9)*. Raising revenue, managing expenditures, ensuring value for money and redistribution of resources are among core components of health financing strategies that countries and cities must consider. Countries such as Japan, France, Turkey, Thailand, and Ghana offer various examples.

Underlying these strategies are issues of regulation, legislation, decentralization and governance, benefit packages, as well as available community-based health workers, their incentive and capacity-building systems, and the need for transparency and community engagement. In addition, ensuring the production and supply of health commodities are critical.

Countries and cities need to also consider broader population-based public health programmes and services, including clean water, sanitation, epidemiology surveillance programmes, and preventive health programmes.

Implications for Cities

Cities have the human, financial and infrastructural resources to demonstrate how to reduce extreme poverty and improve health. As the Background Note to UN Economic and Social Council special integrated session on urbanization and sustainable development noted "poverty reduction and social sustainability of development cannot be achieved without addressing the basic needs of the large numbers of poor urban dwellers, such as access to adequate housing, clean drinking water, sanitation, domestic energy and transport, health and education" *(3)*. Over 90% of urban population growth is occurring in developing countries. This poses major issues for urban planning and for achieving better health outcomes. Thus, addressing the issue of health inequities is a core element of any UHC approach, and its relevance to cities.

While availability of health and other social services in urban areas is higher than in rural areas, large sections of the population are unlikely to have access to such services because of costs, social exclusion and other factors. The most important determinants of urban health lie beyond the direct control of the health sector – they are social and political in nature, and they can be shaped by policies, in multiple sectors. Cities have unique advantages in being able to cross boundaries enabling engagement across many sectors, as well as engaging communities.

Moving towards UHC: An Agenda for Action for Cities

As with many other services, health services are more effective when implemented close to the population which they serve. As national governments consider how best to structure policies and programmes in support of UHC, cities should be part of the planning. Cities and regions are also often demonstration sites that can inform broader national reforms. Lessons from existing city efforts to reduce health inequities and to design and deliver a continuum of health services will be invaluable. Among them are city

experiences with multisectoral actions to achieve health outcomes and to redress health and social inequities.

In addition to the key elements of national health policy, financing frameworks and systems, and attention to health worker training that will support cities, are several core actions that cities can consider which will propel advancement on the goals and promise of UHC.

Measuring health equity in cities

Information is essential to decision makers to develop relevant policies, programmes and interventions towards UHC and reducing inequities, notably on patterns and distribution of inequities, and risk factors that contribute to both inequity and to certain health conditions.

The WHO Centre for Health Development has developed a user friendly tool, the Urban Health Equity Assessment and Response Tool (Urban HEART), which has been used in over 60 cities, both in developing and developed countries. The tool is used to collect evidence from a wide variety of reliable and readily available data to identify health inequities and to plan actions to reduce them. Using a determinants of health approach and core set of indicators, cities are able to measure inequities across neighborhoods and districts. The approach also unveils patterns and trends that are otherwise statistically hidden within averages or aggregate values.

A simple traffic light dashboard enables decision makers to rapidly visualize trends across the city and progress over time. Each city has specific population groups, epidemiological patterns, service gaps, and inequities. For some cities, the issues are clean water, sanitation and basic education and immunizations; for others it is lack of physical exercise opportunities; and, for yet other cities, large pockets of urban poor in slums present specific challenges. These underlie which services need to be developed, how and where.

The essence of successful use of Urban HEART is a thorough process to engage politicians,

WHO's Urban HEART: a tool to track and act on health inequities in cities.

experts, the community, and organizations, as well as different departments in the city that have data. For example, in Toronto as in many cities, Urban HEART measured how well each of the city neighbourhoods is doing in specific categories:

1. Economic opportunities such as unemployment rates, percentage of residents considered to be low income or who receive social assistance;
2. Social and human development such as education levels and high school graduation rates;
3. Governance and civic engagement;
4. Physical environment and infrastructure such as walkability and accessibility of such things as green space or healthy food;
5. Population health such as premature death rates, mental health status, prevalence of diabetes and preventable hospitalizations for chronic disease.

Over time, Urban HEART can be used to monitor inequities, trouble spots, and progress. Ultimately, which populations are at risk? Which neighborhood? Why?

Engaging the community to design quality health services accessible to all

A key action is to organize health services, inclusive of the facilities, workforce, and reimbursement systems to increase community-based care and support systems that offer accessible and quality services. There is no magic bullet for health system design, nor for the mix of providers, services, reimbursement, or increasing the involvement of other sectors to contribute to health outcomes. However, having a dialogue with the people themselves helps to prioritize actions. Thus, working with the community is essential, and the urban setting offers important entry points. Relearning the basics of community engagement is essential to how we redefine our societies, communities, and improve quality of life.

A set of questions to consider in planning quality health services can include:

- Which populations are obtaining access to services and which are not?
- What types of benefit packages are appropriate to a given setting, and what are the gaps?
- How are good quality prevention, health promotion programmes, rehabilitation and palliative care being expanded?
- How can communities be truly engaged, and how can they be part of the monitoring system?
- What are the opportunities for addressing different social, political, environmental and economic determinants for health, and for engaging different stakeholders?
- What are the early warning signs for financial risk for families?
- How can we better link specific disease programmes with underlying health system requirements?
- And, how to encourage innovation using technologies and new models of care and support?

Developing multisectoral programmes and interventions

As several essays in this publication illustrate, the engagement and actions of organizations and actors outside of the health sector are essential to addressing health inequities, their determinants, and ensuring success in reducing risk factors for various health conditions.

There needs to be a more proactive approach to urban governance and planning. Municipal leaders can have direct influence over a wide range of health and social services, and health determinants such as: housing and transport policies, social services, childhood education and nutrition, smoking regulations, air pollution, violence, the built environment, as well as policies and programmes related to food marketing and sales, and decisions about what foods and beverages are available in schools. These, in turn, influence risk factors for diseases such as hypertension, tobacco use, lack of physical exercise, unhealthy diets, and excessive alcohol use which can prevent disease, compress morbidity periods, and increase quality of life without great cost to the individual or health care system. These in turn influence diabetes, cancer, respiratory diseases and cardiovascular diseases.

Conclusion

Although the main aspects of and drivers for UHC will be at national level, local governments have a large role and opportunity to shape and deliver health services for citizens in cities that build on past successes and looks to the future. In addition to the various health planning and system design needs for health, there are three action areas that cities can do to support UHC: 1) measuring urban health equity, 2) fostering community participation, and 3) promoting multi/intersectoral action, including political will for sustained involvement of other sectors.

UHC, and its emphasis on equity, supports mutually reinforcing goals to reduce health inequities while also achieving desirable health outcomes, thereby contributing to social cohesion and inclusion, economic growth, sustainability, and community participation.

Together, we can achieve "cities for health, health for all".

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Working Across Sectors for Health Equity:

The case of New York City

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The unprecedented growth of cities worldwide in the past century, and in particular in the past decade, presents major opportunities and challenges to creating healthy, sustainable, equitable and competitive places. Epidemiologic shifts in disease patterns from infectious to noncommunicable diseases (NCDs) and demographic shifts such as the ageing of populations are influencing what cities must now do to prevent disease, promote health, address mobility and improve equity of access to amenities, goods and services. Though the tasks at hand are not easy ones, a common set of interventions by cities can be used to benefit all of these needs at once.

NCDs like heart disease, stroke, cancer and diabetes are now the leading causes of death. These diseases are responsible for 36 million deaths annually, and have overtaken infectious diseases as the leading causes of death, even in low- and middle-income countries. Four leading risk factors account for 80% of these preventable deaths: tobacco use, physical inactivity, unhealthy diets and alcohol misuse *(1)*. NCDs are also major drivers of healthcare costs. Combined with the rapid growth in ageing populations, rising healthcare costs of NCDs in low- and middle-income countries pose serious financial threats, propelling the United Nations to focus its General

Assembly Summit in 2011 on the prevention and control of NCDs *(2)*.

Learning from Historical Successes in Public Health

The conquering of infectious diseases in the 19th and early 20th century offers significant lessons on the importance of environmental interventions. As in many other cities of that time, the leading causes of death in New York City (NYC) were infectious diseases. Tuberculosis, spread by overcrowded living conditions and lack of proper ventilation, was endemic. Buildings were not required to have windows at the time, and so, crowded tenements that housed the poor often lacked fresh air and sunlight. Epidemics of cholera and yellow fever occurred frequently due to the lack of clean drinking water and dark dank streets that bred mosquitoes.

In the 19th century, medical interventions for tackling these diseases were not yet developed. As such, cities turned to addressing the environmental conditions propagating these diseases. After multiple episodes of cholera outbreaks in 1842, NYC moved its water supply from a filthy downtown pond to the Croton Aqueduct, creating clean water accessible to all. Overnight, the cholera epidemics disappeared. In 1901, New York State passed the Tenement House Act, banning the construction of dark, airless tenement buildings. The poor populations who lived under such conditions benefited the most. In 1904, NYC opened the first section of the subway, creating a public transportation system affordable to all. In 1916, a zoning ordinance was passed that required building setbacks from the street, a measure that allowed light and air to enter the darkest dankest streets, and, in turn, drying up mosquito-breeding puddles *(3-6)*.

As a result of these efforts, infectious diseases in NYC were reduced significantly. While responsible for nearly 60% of deaths in 1880, infectious diseases dropped to 11% of deaths by 1940 *(7)*.

History shows us the importance of addressing environmental conditions to control disease

...since those most impacted by poor living conditions are often those with the fewest resources, they will benefit the most from improving environmental conditions and standards through public policies...

epidemics and to improve health equity. And since those most impacted by poor living conditions are often those with the fewest resources, they will benefit the most from improving environmental conditions and standards through public policies, as in the case of the tenement dwellers of the 19th century. Today we must replicate these lessons to address the most pressing epidemics of our time: obesity, NCDs and health inequities.

What the Scientific Evidence is Showing Us Today

In addition to what history teaches us, current scientific evidence highlights the importance of addressing environmental conditions to tackle the health and health equity issues that we face today. For example, the US Task Force on Community Preventive Services, which was assembled to review the available evidence on physical activity, concluded that there is sufficient and strong evidence for environmental and policy interventions. More walkable streets, neighbourhoods and communities designed with homes close to services and amenities, schools and worksites, coupled with connected sidewalks and street design that allow safe pedestrian street-crossing, pleasant walking, and prevention of crime (such as adequate lighting and visibility) have been shown to be associated with increasing regular physical activity by up to 161%. In addition to physical environment, evidence shows that the social environment is also important. Programmes such as sufficient and high quality physical education classes in schools have been shown to be associated with increased physical activity *(8)*.

Studies also show that inequities are prevalent in health, health-related behaviours and health-promoting environments. In NYC, the Community Health Survey shows higher prevalence of obesity and diabetes in high-needs neighbourhoods such as the South Bronx, East and Central Harlem, and North and Central Brooklyn, compared with other NYC neighbourhoods. Over 15% of residents in these high-needs neighbourhoods reported having diabetes compared with less than 10% in other neighbourhoods *(9)*.

Studies by the NYC Health Department also show that environments in these neighbourhoods are less supportive of healthy eating and active living. In these neighbourhoods, supermarkets selling fresh fruits and vegetables and other healthy options are less frequent, while corner stores selling unhealthy foods and beverages are prevalent. Residents of low-income neighbourhoods perceive amenities for physical activity, such as parks, to be less safe *(10)*.

The Important Role that Sectors Other Than Health Can and Need to Play if We Are to Improve Health Equity

There have always been important roles for sectors outside of health to play in improving health and health equity. In public health history, the key measure to control infectious diseases has been the sanitation movement, which systematically changed the environmental conditions that propagated diseases and created the environmental conditions that would protect against these diseases. For this, action from sectors other than health – architects, urban planners, engineers, building regulators, etc. – was required.

Today, we must again act on what history and evidence show us. Our social and physical environments are crucial in achieving the healthy behaviours in all age groups to prevent and treat NCDs, and in promoting healthy ageing. Changing the inequitable distribution of the social and physical environments, with focus on those with the highest health needs, is essential to achieve health equity.

Cities increasingly rely on sectors outside of health that play a role in designing and constructing those environments. In addition, the equity lens must be applied so that environments in the highest-needs areas of cities can be equally improved. In the event that environments in these areas may be less supportive of healthy behaviours, as they often are, an additional targeted approach to the highest-needs areas of cities is warranted.

What Other Sectors are Doing or Can Be Doing: The Case Study of New York City

In recent years, the City of New York has frequently been hailed as an example of working across sectors to improve health and health equity *(11-13)*. In all of its work, the NYC Health Department strives to do two things: 1) to improve the overall health of NYC residents, and 2) to decrease the health disparities seen across different neighbourhoods and populations within the city. Some of the lessons learned are shown in Box 1.

NYC has also been working to improve its physical environment to support physical activity and healthy eating, especially with a focus in high-needs areas. In 2006, NYC Health Department hired a Deputy Director for Chronic Disease Prevention (later becoming their Built Environment and Active Design Director), who was charged with conducting outreach to other city agencies and developing partnerships with sectors other than health. A "Fit City" Conference was organized, in collaboration with the American Institute of Architects New York Chapter (AIANY), to bring together the myriad of sectors involved in the design and construction of the physical environment, including architects, landscape architects, urban designers, urban planners, engineers, transportation officials, those involved in universal accessibility issues for people

Working to change World Class Traffic Jams in New York City. Photo: Joisee Showaa. Licensed under Creative Commons 2.0

Bike Traffic in New York City. Photo: PlanetGordon.com. Licensed under Creative Commons 2.0

with disabilities, and those interested in designing for environmental sustainability. Professionals from the public sector, such as leadership and staff of the different city government agencies, as well as the private and nonprofit sectors working in the different content areas were invited to meet and brainstorm together *(14)*. Cross-sector initiatives and working groups were created as a result of the ideas generated at the conference *(15)*.

The NYC Health Department decided to make Fit City an annual conference *(16-20)*. At the Second Fit City Conference, the idea of developing a set of cross-agency evidence-based guidelines for physical activity and health was raised. Subsequently, the award-winning Active Design Guidelines (ADG) was developed in collaboration with twelve city agencies , professional associations such as the AIANY, American Planning Association, private-sector design firms, and community sector and non-profit groups *(21)*. Published in 2010, the ADG has since been systematically integrated into city design and construction policy. With work and support from the Health Department, Mayor's Office of Long-Term Planning and Sustainability, and Departments of Transportation, Housing Preservation and Development, Design and Construction, City-wide Administrative Services, and Buildings, a mayoral executive order was passed *(22)*. The executive order requires all new buildings and street construction and major renovation projects to incorporate appropriate strategies from the ADG and a newly-created Leadership in Energy and Environmental Design (LEED) green building certification pilot credit known as the "Design for Active Occupants" *(23)*. Recent affordable housing request for proposals from the Department of Housing Preservation and Development use the ADG, ensuring that health-promoting strategies are integrated into affordable housing *(24,25)*.

Many other cross-sector initiatives to implement the ADG and its list of strategies have also occurred. First, several supplements to the ADG have been created to address issues that impact high-needs populations and geographic areas, such as traffic and crime safety and affordability of healthier housing designs. These supplements were created in partnership with academic institutions, as well as the Departments of Transportation, Parks, and Buildings, housing authorities and affordable housing developers, NYC Department of City Planning, and planning departments from multiple cities in the USA *(26-29)*. Pedestrianization and bicycling initiatives, like complete streets, and other street initiatives promoting use of streets for recreation, involves the Department of Transportation and Police Department. Play Streets, single blocks of streets closed to cars on designated days and times each week, are targeted at neighbourhoods and schools in and outside Manhattan that are underserved by play spaces *(30)*.

However, unlike the health sector, sectors outside health have non-health outcomes that they are responsible for. Therefore finding priority issues that all sectors can have cobenefits from is crucial. For example, measures to design environments conducive for physical activity can also promote environmental sustainability, universal accessibility and positive economic outcomes. Active transportation modes like walking and cycling, or public transit that starts or ends with a walk, are also environmentally sustainable. They are also more affordable, particularly for those with less disposable income, as reliance on a car for transportation may cost households more in transportation costs than having access to less expensive options, such as walking, cycling and public transportation *(31)*. Having affordable, accessible and safe alternatives for transportation enables people without the means to own a car to have access to jobs, necessary amenities and services, like groceries and healthcare. Such alternatives allow ageing populations to remain active and connected to their communities, even after they stop driving. Finally, incorporating more healthy amenities in neighbourhoods may also be associated with desirable economic outcomes for communities, especially in high-needs neighbourhoods. In NYC, the Food Retail Expansion to Support Health (FRESH) initiative, a partnership of Health, City Planning and Economic Development, creates and expands supermarkets in high-needs food desert areas of the city through tax and zoning incentives, increasing access to fresh produce, but also creating new jobs in underserved neighbourhoods *(32)*.

Although NYC is cited here as a case study, it is by no means the only city where sectors outside of health are undertaking initiatives that will improve

health and health equity. Some of NYC's recent initiatives were inspired by successes in other cities, such as the long-standing Sunday ciclovias and recrovias in Bogota *(33)*, park spaces in Taipei *(34)* and elsewhere, bicycle share programs in London, Paris, Montreal and Washington DC, safe bicycling infrastructure in Copenhagen, and affordable rapid-to-implement transit expansion initiatives, like Bus Rapid Transit in many Latin American cities *(35)*. Additionally, an increasing number of cities worldwide are mounting Fit City conferences that bring together multiple sectors other than health to work together to address NCDs *(36-40)*.

Conclusion

With increasing urbanization, an ageing population and the rise of NCDs, globally, countries around the world must now address these issues to curtail healthcare and institutionalization costs. Scientific evidence shows how physical and social environments play key roles in addressing, or exacerbating, these issues and their risk factors.

Cities have major roles in shaping these environments and must implement the evidence-based solutions to improve health and health equity. Though the tasks at hand are not easy ones, a common set of interventions can be used to benefit not only health outcomes but other common municipal priorities such as environmental sustainability, universal accessibility, social equity and economic development. To be successful, however, different sectors, including those within and outside of health, will need to work together. Some cities have already begun to do so, and are demonstrating both what is feasible and the successes that are possible.

Box 1. Lessons learned in New York City on working across sectors for health and health equity

- The health sector has a key role to play to convene and engage sectors outside of health;
- The health sector should work with other sectors to identify feasible opportunities to integrate health into city policies and mechanisms outside health;
- Health and equity in health are key outcomes that cities should prioritize;
- There are often opportunities to improve other outcomes concurrently when an intervention or policy is undertaken to improve current health and health equity issues through our physical and social environments, including environmental sustainability, universal accessibility, social equity and economic benefits;
- Initiatives to improve the physical and social environments for health and other cobenefits are achievable with coleadership among multiple sectors.

Mexico City Ciclovia. Photo: Justin Swan . Licensed under Creative Commons 2.0

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Cities for Health

Health is increasingly becoming a priority for people living in cities. There is greater awareness now about how health is determined by the urban environment: both physical and social. Citizens are demanding better access to quality health care services and equal opportunities to attaining better health. Given the rapid growth of population in cities, especially in low- and middle-income countries, these demands are likely to strain existing resources of cities.

In the five essays of this publication the authors explore the key challenges that people living in cities face, and identify strategies to improve the efficiency of governance to address these challenges. All authors recognize that reducing inequities in health is at the core of the challenges faced by cities. To do so, it will be imperative to address the distribution of the wider determinants of health such as access to education, safe and affordable housing, and employment opportunities, among others.

While it is unlikely that, globally, a one-size-fits-all solution exists, there are a few broad strategies that are universally applicable. This publication elicits the utility of these strategies and their applicability in different contexts, based on local and national experiences.

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