Regional Framework for Urban Health in the Western Pacific 2016–2020: Healthy and Resilient Cities
Regional Framework for Urban Health in the Western Pacific 2016–2020: Healthy and Resilient Cities
CONTENTS

Abbreviations ......................................................................................................................................... iv
Foreword ................................................................................................................................................ v
Executive summary ............................................................................................................................ vi

PART A. Background
1. Introduction ......................................................................................................................................... 1
2. Urbanization and health in the Western Pacific Region ................................................................. 1
3. Building on Healthy Cities – from settings to systems approaches ........................................... 5
4. Urban health and the Sustainable Development Goals – cities and sustainable development .... 9
5. From reactive to proactive – creating healthy and resilient cities ........................................... 11

PART B. Implementation of the Regional Framework
1. Vision, goal and objectives ............................................................................................................... 12
2. Recommended actions for key actors ............................................................................................ 15
   – Domain 1. Urban health governance and coordination infrastructure ....................................... 15
   – Domain 2. Urban health programme planning, management and quality improvement .......... 17
   – Domain 3. Urban health information and surveillance systems ............................................... 19
   – Domain 4. Urban health workforce and network capacities ..................................................... 21
   – Domain 5. Urban health system roles and functions .................................................................. 23
3. Recommended actions for WHO, 2016–2020 ........................................................................... 26
4. Monitoring and evaluation plan ..................................................................................................... 27

References ............................................................................................................................................. 28

Annex 1. Model for health in urban settings .................................................................................... 32
Annex 2. A decade of healthy cities in the Western Pacific Region ................................................. 33
Annex 3. Urban DPSEEA: the DPSEEA model as applied to urban settings ................................... 36
Annex 4. Tools and resources for urban health governance ............................................................ 38
# Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFHC</td>
<td>Alliance For Healthy Cities</td>
</tr>
<tr>
<td>DPSEEA</td>
<td>driving forces, pressures, states, exposures, effects on health</td>
</tr>
<tr>
<td>ESHUT</td>
<td>Environmentally Sustainable and Healthy Urban Transport</td>
</tr>
<tr>
<td>HiAP</td>
<td>health in all policies</td>
</tr>
<tr>
<td>ICN2</td>
<td>Second International Conference on Nutrition</td>
</tr>
<tr>
<td>IHR</td>
<td>International Health Regulations (2005)</td>
</tr>
<tr>
<td>KNUS</td>
<td>Knowledge Network on Urban Settings</td>
</tr>
<tr>
<td>MERS-CoV</td>
<td>Middle East Respiratory Syndrome Coronavirus</td>
</tr>
</tbody>
</table>
| MPOWER       | A set of measures that correspond to one or more of the demand reduction provisions in the WHO Framework Convention on Tobacco Control. <em>The acronym MPOWER stands for:</em>  
  • Monitor tobacco use and prevention policies  
  • Protect people from tobacco smoke  
  • Offer help to quit tobacco use  
  • Warn about the dangers of tobacco  
  • Enforce bans on tobacco advertising, promotion and sponsorship  
  • Raise taxes on tobacco |
| NCD          | noncommunicable disease |
| SARS         | severe acute respiratory syndrome |
| SDGs         | Sustainable Development Goals |
| STEPS        | WHO STEPwise approach to noncommunicable disease risk factor surveillance |
| UHC          | universal health coverage |
| UNDP         | United Nations Development Programme |
| Urban HEART  | Urban Health Equity Assessment and Response Tool |
| WHO          | World Health Organization |
| WHO FCTC     | WHO Framework Convention on Tobacco Control |
FOREWORD

The Western Pacific Region is urbanizing rapidly. More than 54% of the population is already urban. Many cities have benefited greatly from controlled development. Well-governed and designed cities offer many advantages. They are hubs of knowledge, creativity and innovation. They offer access to health and education, infrastructure for clean water and sanitation, and markets for nutritious food. They have communication and transport networks that generate employment and leisure opportunities.

Elsewhere, rapid and unchecked urban growth has amplified many public health challenges and increased health inequalities. City governments often cannot meet the demand for essential infrastructure and services, giving rise to polluted environments, slums, poor sanitation and inadequate health and education services. In the context of a changing planet, cities are also enduring the effects of climate change in the form of severe natural disasters and novel patterns of disease.


The framework represents our vision for healthy and resilient urban communities. Our world is changing and with it, our cities. Cities should be engines for growth, health and wellness. In the end, good health is good politics.

WHO will work with you to create cities that protect our health and our future.

Shin Young-soo, MD, Ph.D.
Regional Director
EXECUTIVE SUMMARY

Background

The Western Pacific Region is witnessing dramatic changes brought about by globalization and urbanization. These changes can produce positive and negative impacts on health. For example, greater proximity to health services, clean and safe water, higher income and higher education positively impact health-seeking behaviours, which then translate into better health outcomes. On the other hand, traffic congestion, insufficient waste management, outdoor and indoor air pollution, and other factors may threaten health and overall well-being.

In urban areas, health care, water and sanitation, and education systems might be better organized, more accessible, affordable and acceptable because of the concentration of resources and economies of scale. Communication networks and public transport systems facilitate economic activities that generate employment and livelihood opportunities. Well-planned and well-executed delivery systems for water, food and energy, with appropriate infrastructure for human settlements and waste management, create an urban health advantage.

Conversely, people living in urban areas also experience health threats from poor housing conditions, insecure tenure, lack of access to safe water and improved sanitation, insufficient waste disposal and waste-water treatment. Sedentary lifestyles from increased use of motor vehicles and changes in consumption habits with increased reliance on processed food (that is typically high in salt, sugar and fat) contribute to the noncommunicable disease epidemic.

Living in urban areas can confer health advantages when there is good urban governance and urbanization is planned. Urban health governance is the sum of the many ways individuals and institutions, public and private, plan and manage the city for health.

The World Health Organization (WHO) recently revisited previous work on Healthy Cities. The review found that Healthy Cities is valued as an approach that has been effective in mobilizing political and cross-sectoral support for urban health. The need to shift the strategy from reactive to proactive was articulated. Improvements can also be made to address other urban health risks and reduce inequities.

Moving forward, the Regional Framework for Urban Health in the Western Pacific Region 2016–2020 proposes expanding beyond the healthy settings approach towards a whole-of-system approach.
Urban health and the Sustainable Development Goals

WHO’s work to promote urban health must be linked to the conversation on sustainable development. As health is an end goal of development, the health sector must lead and be part of defining the development agenda. As the global community moves to adopt Sustainable Development Goals (SDGs), the health sector has to play a key role in achieving SDGs 2, 3, 6, 7, 11 and 13 and their targets. National health agencies must expand and initiate collaboration with other stakeholders, such as environmental specialists, engineers, urban designers and urban planners.

The SDGs are an opportunity for cities and urban communities to act and improve health, reduce inequities and enhance the quality of life for millions of people. WHO will support Member States in this endeavour by offering a dynamic package of interventions across technical programmes.

Strategic approach

The Regional Framework for Urban Health in the Western Pacific 2016–2020 envisions “healthy and resilient cities and urban communities” and presents a proactive whole-of-system approach to urban health. The goal is to improve health, and promote equity and sustainable urban development.

A healthy city is one that enables people to have affordable and equitable access to health and social services and economic opportunities, empowers people, nurtures natural environments, constantly creates and improves physical and social environments, and expands community resources to support people in developing their optimal potential. A resilient city is one that is prepared and adaptable to changing conditions and can withstand extreme stresses, survive and recover without devastating losses, diminished productivity or quality of life, and without requiring much external assistance.

The whole-of-system approach to urban health encompasses actions on policy frameworks, regulations, accountability, financing, performance of workforce, information systems and service delivery. These have been organized into five action domains: (1) governance and coordination infrastructure; (2) programme planning, management and quality improvement; (3) information and surveillance system; (4) workforce and network capacities; and (5) health system roles and functions.

For each action domain, the framework articulates three scopes of action – core, expanded and comprehensive. Core actions “respond” to health challenges and inequities arising from prevailing, persistent or priority exposures. Capacity and resources and the role played by national health agencies and local governments are limited. Expanded actions go beyond response and reaction to “anticipation”
and “mitigation” of health challenges and inequities arising from emergent problems. There is a comfortable level of capacity and resources, and national health agencies and local governments play an expanded role. Comprehensive actions are future-oriented and prepare for challenges through “adaptation” and “innovation”. With strong capacity, substantial resources, and keen involvement of national health agencies and local governments, cities create new infrastructure, establish new business models and apply new mindsets to promote urban health.

Healthy and resilient cities can be entry points and platforms for change, adaptation and innovation to achieve optimal health for urban communities and the environment.
PART A. Background

1. Introduction

The Western Pacific Region is witnessing dramatic changes brought about by urbanization, with economic development a key driver of urban growth. The speed and characteristics of changes vary from country to country. These changes are producing positive and negative impacts on health over the short and longer term in Asia and the Pacific. This document provides a brief situation analysis and a way forward for a proactive multisectoral approach to urban health in the context of the Sustainable Development Goals (SDGs).1

The Regional Framework for Urban Health in the Western Pacific 2016–2020 is intended for national health agencies, local governments and the World Health Organization (WHO). The framework is relevant to all Member States that are urbanizing or have urban areas, regardless of size, both in Asia and in the Pacific.

2. Urbanization and health in the Western Pacific Region

In the Western Pacific Region, approximately 54% of the population lives in urban areas. According to 2014 figures, urban populations constitute 94% of the total population in Guam, 93% in Japan, 87% in American Samoa, 77% in Brunei Darussalam, 71% in Mongolia, 54% in China and 53% in Fiji.1 Although the urban population growth rate is declining in Asia and Oceania, the urban population continues to increase.2 In Oceania, the rate of urbanization has been stable.1 The Western Pacific Region is now home to 9 of the 28 megacities of the world with populations of more than 10 million people compared to only three megacities in 1990.1 At the same time, the number of medium-sized cities (those with one to five million inhabitants) and cities (those with less than one million inhabitants) is growing rapidly in Asia and at a slower rate in Oceania.1 In the Asia Pacific region, natural population increases and peri-urban expansion contribute to the growth of cities. Rural–urban migration is also a key factor for urban population growth.

Ever-changing urban environments pose threats to health

Urban settings that are unprepared for rapid population growth strain physical and social environments in a number of ways. For example, the emergence of slums and informal settlements: in 2009, about one in three urban residents in Asia and the Pacific\(^2\) were living in slums (more than 500 million people), the highest in the world in absolute numbers\(^3\). The population living in slums in six countries\(^3\) in the Western Pacific Region totalled about 212.3 million according to 2005–2009 estimates\(^4\). Slum conditions, insecure tenure, unemployment, poverty and cultural dislocation may cause mental stress and result in higher risks for anxiety, depression, insomnia and substance abuse. Conditions in slums and informal settlements create risk factors that predispose communities to diseases, chronic conditions, disabilities, injuries and premature death.

Poorly planned and poorly managed cities generate conditions for emerging and re-emerging infectious diseases\(^6\). Poor housing conditions, congestion and lack of access to safe water and improved sanitation create greater risks for the spread of tuberculosis, measles, diarrhoeal diseases and other communicable diseases. Overburdened urban health systems may be unprepared for and vulnerable to outbreaks. The outbreak of severe acute respiratory syndrome (SARS) in 2002–2003 occurred due to its spread through hospital settings\(^7\). Recent outbreaks, such as Ebola virus disease and the Middle East respiratory syndrome coronavirus (MERS-CoV) followed similar patterns. International travel can also complicate containment.

Significant progress has been made over the past 25 years to provide people with safer water and better sanitation. However, many key settings such as schools and health-care facilities still lack adequate access to such basic infrastructure and services. Insufficient city waste disposal and waste-water treatment pose severe impacts on the environment and create risks to health. Every year, millions of people suffer from foodborne diseases such as acute diarrhoea\(^8\).

Unplanned cities are characterized by few green spaces and unsanitary conditions\(^9\). Some major cities have public green space of less than 5\(^%\)\(^10\). Growth in vehicular traffic and concrete buildings have impacted the quality of life in urban spaces and squeezed out pedestrianism and social exchanges\(^9\).

Access to safe and nutritious food for urban residents is a growing challenge. Urbanization and loss of farmland have changed the consumption habits of families and communities. People have become increasingly reliant on processed food that

\(^2\) Asia and the Pacific here refers to the United Nations Economic and Social Commission for Asia and the Pacific Member States and Associate Members. The list can be found at http://www.unescap.org/about/member-states.

\(^3\) The six countries in the Western Pacific Region: Cambodia, China, the Lao People’s Democratic Republic, Mongolia, the Philippines and Viet Nam.
is typically high in salt, sugar and fat and on meals purchased from food service outlets, including street-food vendors (11). This change in lifestyle is increasing the risk and prevalence of food- and diet-related diseases. Urban areas in some countries, particularly poorer countries, have higher overweight and obesity rates among adults and children as well as higher prevalence of diet-related noncommunicable diseases (NCDs), compared to rural areas (12).

Outdoor and indoor air pollution is the largest single environmental health risk (13). The Western Pacific Region bears a disproportionately high burden of death from air pollution: in 2012, an estimated 2.88 million deaths associated with air pollution (41% of the global figure) occurred in the Region. The sources include second-hand smoke from tobacco use, cooking and heating with solid fuels, land transport, industrial facilities and forest fires (14). It is estimated that in this Region, more than 50% of men, women and children are regularly exposed to second-hand smoke at home and in public places (15).

Although motorization is also increasing in rural areas, the rate of motorization is particularly visible in cities, manifesting as traffic congestion. The number of registered vehicles in the Western Pacific Region increased by 25% from 2007 to 2010. The Region’s 1.8 billion people own more than 400 million vehicles (16). These contribute to air and noise pollution, road traffic injuries, driver stress (17) and sedentary lifestyles (18). This trend is expected to continue.

**Climate change and disasters in urban areas have profound health impact**

Climate change and global warming have expanded breeding sites and increased the urban breeding potential of the *Aedes aegypti* mosquito, the principal vector for dengue (19). Dengue is spreading to new areas, including temperate zones. Outbreaks are also occurring more frequently. The frequency and intensity of heatwaves that recently killed thousands of people in South Asia are also projected to increase. Cities will experience complications from the urban heat island effect (5).4

Asia5 is the most disaster-prone region in the world with the greatest number of reported natural disasters since 1950 (20). Floods and storms account for 64% (3294 occurrences) of the total number of occurrences of natural disasters (21).

---

4. Urban heat islands refer to “islands” or urban areas that have higher temperatures than their rural surroundings. This occurs because buildings and roads replace vegetation. The negative impacts of urban heat islands include heat-related mortality, increased energy consumption, elevated emissions of air pollutants and greenhouse gases, among others. For more information, please see http://www.epa.gov/heatisland/about/index.htm (accessed 25 June 2015).

Reports of flooding have increased six-fold from the 1970s and have affected the highest number of people (3.35 billion) from 1970 to 2014 compared to other natural disasters (21). Disasters impact the urban poor disproportionately. Living in vulnerable areas, such as in settlements on slopes prone to landslides and in buildings of substandard construction, poor urban populations are particularly affected (5).

**Disadvantaged and vulnerable groups need to be considered**

The urban poor, migrants, and disadvantaged and vulnerable groups are affected by inequities when urban health determinants are systematically unfair (22). Inequalities in access to education, employment, housing and other essential resources can result in inequalities in health outcomes (22).

In the Western Pacific Region, the proportion of people aged 60 years and above is growing faster than any other age group (23). Cities will have to speed up action to prepare for the challenges posed by ageing populations.

Cities may pose challenges for people with disabilities of all ages. This population may be faced with inaccessible pedestrian routes and public transit facilities with no pedestrian crossings, audio signals or elevators. Health-care services may also be inaccessible to them.

**Urban areas confer health advantages**

Evidence shows that living in urban areas may confer an urban advantage (24). Urban areas are able to organize life-sustaining resources in more efficient ways than rural areas. An apartment in the city can register a smaller carbon footprint than a suburban house, resulting in environmental benefits (25). Urban areas tend to concentrate resources and provide the necessary economies of scale to support health-enabling infrastructure such as water, sanitation, education and health services (26). Communication networks and public transport systems are magnets for economic activity that generate employment and livelihood opportunities. Cities are also able to catalyse rapid innovation as physical proximity and face-to-face communication facilitate the flow of information and ideas (4).

Greater proximity to health services, higher income and higher education then translate to better health outcomes due to the positive impact on health-seeking behaviours, conferring the urban advantage (27).
According to the Global Research Network on Health Equity, good urban governance is key to realizing organizational and societal goals and to achieving optimal and equitable social, economic and health benefits for all (28). Urban governance, defined by the United Nations Human Settlements Programme, is the sum of the many ways individuals and institutions, public and private, plan and manage the common affairs of the city. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action can be taken (29). Healthy Cities have contributed to the growing body of knowledge on how to optimize advantages and opportunities in urban settings to improve overall health outcomes.

3. Building on Healthy Cities – from settings to systems approaches

The Regional Framework for Urban Health in the Western Pacific Region 2016–2020 builds on decades of work on Healthy Cities (Annex 2). From this healthy settings approach, it is proposed that national health agencies and local governments work towards a whole-of-system approach to contribute to the achievement of the SDGs. Recently, the WHO Regional Office for the Western Pacific called for a review of the implementation of the Regional Framework for Scaling Up and Expanding Healthy Cities in the Western Pacific (2011–2015) (30). The review gathered and analysed empirical data from three stakeholder groups: national programme managers, city programme managers and WHO country offices. The review sought to assess:

- the impact of regional Healthy Cities activities at the individual, organization and system levels from 2011 to 2015;
- the strengths of the regional Healthy Cities programme and areas for improvement; and
- needs for capacity-building and technical support to strengthen Healthy Cities.

Overall, the review found that Healthy Cities has been valued as a strategic approach and platform for promoting urban health and will be applied to address emerging urban health priorities. The framework encouraged a more integrated approach to health promotion in cities. This was primarily through the adoption of the healthy settings approach – mobilizing health-promoting action in and by local authorities and in everyday settings such as schools and workplaces. Stakeholders reported changes in structures, processes, capacities and activities.
FIVE AREAS OF PROGRESS

1. Effective national advocacy for Healthy Cities has made it easier to cultivate administrative, political and financial support for the expansion of Healthy Cities and local buy-in.

2. Strengthening national mechanisms for promoting health in cities, for example Hygienic Cities in China, the Clean City Campaign in Cambodia, the Alliance for Healthy Cities (AFHC) national chapters and national committees on Healthy Cities, has led to a supportive environment for scaling up and expanding Healthy Cities.

3. Healthy Cities have demonstrated greater ease in taking action on social determinants of health at the local level by working with key sectors: transport, communications, education, tourism, municipal authorities, faith-based groups, academia, medical and health care, and economic development.

4. Health promotion action that mobilizes stakeholders in local settings, for example schools and public places, or that strives to change social norms through local policies and regulations, is a popular advocacy strategy. Health promotion action has included policies that ensure healthy food in schools, tobacco-free temples, road safety, and initiatives such as smoke-free cities, salt reduction strategies, age-friendly cities and baby-friendly hospitals.

5. WHO’s role in convening leadership development programmes and cross-national and city-to-city learning was recognized as a key stimulus for the adoption of the Healthy Cities approach and the creation of networks and infrastructure. These activities promoted the translation of Healthy Cities principles to local problems such as the prevention and control of NCDs. Recognition by WHO of the achievements of Healthy Cities was noted as conferring legitimacy on these achievements and drawing the attention of national policy actors and decision-makers to urban health issues.
1. Healthy Cities, as a response strategy, maximizes the effectiveness of local-level governance, promotes collaboration across sectors and ensures community empowerment to address priority concerns. However, it was evident that there are unmet challenges in terms of creating dynamic interconnections between settings and between cross-cutting issues. Most importantly, Healthy Cities has been less effective in addressing health inequities in all relevant settings and in relation to prevailing health issues.

2. Healthy Cities has been predominantly a “response” strategy that facilitates a strategic shift from public health approaches that target individuals at risk to population approaches that address structural and political determinants of health. Healthy Cities has the potential to become a proactive platform to anticipate, mitigate and adapt to new health challenges in light of complex and dynamic changes in the urban environment. This includes mitigating the adverse health impacts of climate change, migration, natural disasters, growing health inequities, demographic ageing and emerging diseases.

3. Leadership for urban health has been more prominent at the local level than at other levels of governance, indicating a need for a strategic approach to and more intensive work in leadership development. National awareness of and attention to the strategies recommended by Healthy Urbanization: Regional Framework for Scaling Up and Expanding Healthy Cities in the Western Pacific 2011–2015 were still emerging.

4. Networking at the national level might be improved through cross-sector policy dialogues on new and emerging urban health challenges, for example dengue, flooding, HIV and sexually transmitted infections, and foodborne disease.

5. In the context of climate change, natural and human-induced disasters and environmental degradation, the urban application of disaster risk reduction and disaster risk management for health approaches fit well in the work of Healthy Cities.
Moving forward, the whole-of-system approach to good urban governance for health includes actions on five domains that encompass policy frameworks, regulations, accountability, financing, performance of workforce, information system and service delivery (Fig. 1).

**FIGURE 1.** Relationship between health system building blocks, action domains, outputs and the vision

<table>
<thead>
<tr>
<th>ACTION DOMAINS</th>
<th>OUTPUTS</th>
<th>IMPACT</th>
</tr>
</thead>
</table>
| Governance and coordination infrastructure | • Established multisectoral coordination mechanism  
• Established sustainable financing mechanism  
• Conducted cross-sectoral planning and implementation | Coherent health-enabling policies and actions |
| Programme planning and management       | • Conducted foresight analyses  
• Institutionalized use of impact assessments  
• Evaluated impact of initiatives  
• Established standards for settings | Evidence-informed interventions |
| Information and surveillance system     | • Generated trend data  
• Utilized sentinel and national data  
• Supported development of integrated information systems  
• Packaged and used trend data | Healthy and sustainable development |
| Workforce and network capacity          | • Developed pool of and strategically placed urban health experts  
• Established national and global technical networks  
• Created knowledge sharing platforms | Equitable health outcomes |
4. Urban health and the Sustainable Development Goals – cities and sustainable development

To support the achievement of the proposed SDGs and their targets and contribute to the “future we want” (31), national health agencies play a key role in advocating sustainable development through healthy and resilient cities. National health agencies need to expand and initiate collaborations among public health professionals, environmental specialists, urban design and urban planning professionals, and other stakeholders.

This Regional Framework for Urban Health in the Western Pacific 2016–2020 calls on national health agencies and local governments with support from WHO and international organizations to review these goals and targets. The next step would be participatory planning with key stakeholders to prioritize and design interventions. The indicators of the SDGs may be reference points for policies, actions and interventions.

The sustainable development goals relevant to health are SDGs 2, 3, 6, 7, 11 and 13. WHO will support work on SDGs that have evidence-based, cost-effective, and readily available tools and resources. Through the “healthy and resilient cities” platform, a dynamic package of interventions across technical programmes will be offered.

**SDG 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture**

- Enable access to safe, sufficient and nutritious food using appropriate food security and nutrition strategies.

- Examples of interventions: Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition, Second International Conference on Nutrition (ICN2) Framework for Action, regulations to ban sales of sugar-sweetened beverages in schools, regulations to restrict sales of food high in salt, fat and sugar, and zoning ordinances.

**SDG 3: Ensure healthy lives and promote well-being for all at all ages**

- Strengthen health systems towards provision of equitable universal health coverage (UHC), promote access to essential prevention, treatment and care, encourage actions across sectors, and consider demographic trends.

**SDG 6: Ensure availability and sustainable management of water and sanitation for all**

- Improve integrated water resource management, reduce water pollution and increase drinking-water quality.

- Examples of interventions: water safety plan and use of related tools, environmental health impact assessments.

**SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all**

- Improve energy efficiency and provide access to sustainable, modern energy services essential to alleviating poverty, improving health and protecting lives.

- Examples of interventions: “green” health-care principles, environmental impact assessments, Environmentally Sustainable and Healthy Urban Transport (ESHUT), green cities initiative.

**SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable**

- Promote policies for sustainable urban planning and design; provide a safe and healthy living environment, particularly for vulnerable and disadvantaged groups; protect, restore and expand green urban spaces; ensure healthy air quality; and provide affordable, accessible and sustainable transport.

- Examples of interventions: age-friendly cities, health-promoting schools, smoke-free cities, healthy workplaces, healthy marketplaces, safe communities, liveable neighbourhoods, walkable cities, WHO Framework Convention on Tobacco Control, WHO MPOWER measures, food safety regulations, building codes and ordinances, health impact assessment, traffic congestion fee, integrated vector management, pro-poor policies, Urban Health Equity Assessment and Response Tool (Urban HEART), clean household energy, clean air initiative, urban greening and urban agriculture, ESHUT, and disability access.

**SDG 13: Take urgent action to combat climate change and its impacts**

5. From reactive to proactive – creating healthy and resilient cities

The *Regional Framework for Urban Health in the Western Pacific 2016–2020* shifts the focus from “healthy cities” to “healthy and resilient cities” and presents a proactive approach to urban health (Fig. 2). Recognizing the complex and ever-changing environments brought about by globalization, climate change, demographic ageing and the digital revolution, countries need to respond, anticipate, mitigate, adapt and innovate\(^6\) for better health outcomes. Countries will need to plan, anticipate and mitigate emerging challenges and exposures\(^7\) before they impose enormous burdens on systems and resources, for example, by conducting surveys, generating and disaggregating trend data, and establishing regulations. Governments will also need to adapt to prevailing and emerging conditions; and innovate to mitigate persistent challenges, crises, emergencies and pandemics, and prevent conditions that pose risks to health. Examples include relocation and retrofitting health facilities, risk-based planning, and the use of big data and high-powered analytics.

**FIGURE 2.** Proactive approach to urban health

<table>
<thead>
<tr>
<th>RESPOND</th>
<th>ANTICIPATE</th>
<th>ADAPT</th>
<th>MITIGATE</th>
<th>INNOVATE</th>
</tr>
</thead>
</table>

**A healthy city**
- Enables people, irrespective of age, sex, gender, ability, race, ethnicity, origin, religion or economic or other status, to have affordable and equitable access to health and social services and economic opportunities (33).
- Empowers people and makes them feel included (33).
- Nurtures natural environments, constantly creates and improves physical and social environments, and expands community resources so that people can mutually support each other in developing their optimal potential (34).

**A resilient city**
- Is prepared for and able to adapt to changing conditions.
- Can withstand extreme stresses, survive and recover without devastating losses, diminished productivity or quality of life, and without requiring a large amount of assistance from outside the community (35).

---

6. The term “innovate” used in this framework and within the context of urban health goes beyond coming up with a new invention, device, idea or solution. Innovate can refer to changing business models or mindsets. Innovation is about changing how we go about business and how we think.

7. Refer to Annex 3 on the Urban DPSEEA for an explanation of “exposures”.
PART B. Implementation of the Regional Framework

1. Vision, goal and objectives

VISION
Healthy and resilient cities and urban communities

GOAL
Improve health, promote equity and achieve sustainable urban development

OBJECTIVES
1. Determine regional, national and local priority actions to improve health and reduce inequities in cities and urban areas.
2. Enable national and local stakeholders to better respond to anticipate, mitigate, adapt and innovate in meeting urban health challenges.
3. Kindle a national vision to create healthier and more resilient cities.
4. Support practical actions for national health agencies and local governments.

PRINCIPLES

Good governance
Good governance is “participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive, and follows the rule of law” [36]. Leaders who are committed to good governance will establish a sound foundation for achieving the vision and goal of this regional framework (Annex 1).

Rule of law
Governments that adhere to the rule of law demonstrate that no one is above the law. The rule of law requires a clear set of laws, a strong enforcement system and
an independent judiciary. Laws and regulations are needed to address emerging environmental and health problems. They are used to transform policies into legally defined rights and obligations, and set forth measures to ensure observance (37).

**Equity**

Equity is the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically. Health equity can only be achieved when everyone has the opportunity to attain their full health potential. Health equity is determined by political, social, economic and environmental factors. Reducing health inequities is necessary to promote social justice along with improved overall health outcomes (38). Governments should prioritize removal of structural disparities and meet basic needs such as access to adequate and safe housing, clean drinking-water, adequate sanitation, domestic energy and transport, health, and education.

**Universal health coverage**

Universal health coverage (UHC) is defined to mean that all people can access quality health services, without suffering financial hardship associated with paying for care (39). Implementation of actions outlined in this regional framework will contribute to UHC.

**KEY ACTORS**

This framework recommends practical actions for three key actors – local government (city, municipal, provincial, prefectural, island, village), the national health agency (ministries of health, national health insurance agencies, national food and drug agencies), and WHO in collaboration with other international partners.

**DOMAINS FOR ACTION**

1. Urban health governance and coordination infrastructure
2. Urban health programme planning, management and quality improvement
3. Urban health information and surveillance systems
4. Urban health workforce and network capacities
5. Urban health system roles and functions
SCOPES OF ACTION

■ CORE ACTIONS

Core actions “respond” to health challenges and inequities arising from prevailing, persistent or priority exposures. This assumes that as capacity and resources are limited, the role played by national health agencies and local governments is limited; and actions need to focus on present realities. Core actions across domains include establishing new or adapting existing multisectoral Healthy Cities committees; supporting settings-based initiatives, for example age-friendly cities, smoke-free cities and health-promoting schools; using Urban HEART; providing free or low-cost access to core packages of essential services; and organizing study tours and workshops.

■ EXPANDED ACTIONS

Expanded actions go beyond response and reaction to “anticipation” and “mitigation” of health challenges and inequities arising from emergent problems and potential risks. The assumption is that with medium-level capacity and a comfortable level of resources, the role played by local governments and national health agencies is expanded to anticipate emerging challenges and mitigate risks. Expanded actions across domains include establishing a Healthy City network, institutionalizing health in all policies (HiAP), establishing standards, working towards UHC and strengthening capability in Healthy City networks.

■ COMPREHENSIVE ACTIONS

Comprehensive actions are future oriented and prepare for challenges through “adaptation” and “innovation”. Upstream drivers of health are addressed through developing new infrastructure, establishing a new business model and applying a new mindset. This assumes that with strong capacity and substantial resources, the role of local governments and national health agencies in partnership with communities and the private sector is significant, and their influence is substantial. They can invest in interventions and innovative approaches. Comprehensive actions across domains include establishing a sustainable financing mechanism for healthy cities, institutionalizing the use of impact assessments, using big data and high-powered analytical tools, institutionalizing principles of green health care in urban health facilities, and establishing a public accountability mechanism for implementation of regulations to protect public health, for example food safety ratings.

8. Refer to Annex 3 on the Urban DPSEEA for an explanation of “exposures”.
2. Recommended actions for key actors

**DOMAIN 1  Urban health governance and coordination infrastructure**

This domain relates to mechanisms for coordinating work on urban health across sectors and at all government levels, for securing sustainable financing and for institutionalizing health in all policies (HiAP).

**STAKEHOLDER**

National health agency

- **CORE ACTIONS**
  1. Designate a senior responsible officer in the national health agency to coordinate urban health initiatives.
  2. Support settings-based initiatives, e.g. Healthy Cities, Healthy Islands, health-promoting schools.

- **EXPANDED ACTIONS**
  1. Establish a national network of Healthy Cities or equivalent.
  2. Support partnerships and leverage the private sector for urban health initiatives, e.g. with architects and urban planners to design neighbourhoods for active living.
  3. Institutionalize the HiAP approach at the national level.

- **COMPREHENSIVE ACTIONS**
  1. Establish or strengthen a national multisectoral mechanism on urban planning and development.
  2. Establish a sustainable financing mechanism for health promotion towards sustainable urban development.
  3. Support cross-sectoral planning and implementation for urban health.
STAKEHOLDER

Local government (city, municipality, island)

■ CORE ACTIONS
1. Establish a multisectoral Healthy City committee or revamp an existing one.
2. Implement or improve settings-based initiatives, e.g. healthy markets, healthy workplaces.

■ EXPANDED ACTIONS
1. Establish an urban health unit or equivalent to monitor implementation.
2. Build partnerships with communities and leverage the private sector for settings-based and urban health initiatives.
3. Institutionalize a HiAP approach at the local level.

■ COMPREHENSIVE ACTIONS
1. Participate in a national multisectoral mechanism on urban planning and development.
2. Establish a sustainable financing mechanism for health promotion towards sustainable urban development.
3. Develop joint action plans across sectors with shared budgets.
DOMAIN 2  Urban health programme planning, management and quality improvement

This domain includes analysing disaggregated data, mapping existing or potential health outcomes and inequities using tools such as Urban HEART and impact assessments, using foresight techniques to better understand possibilities and uncertainties, and monitoring and evaluation for quality improvement.

STAKEHOLDER
National health agency

- **CORE ACTIONS**
  1. Analyse disaggregated urban health data for selected urban areas and map inequities for policy- and decision-making, e.g. risk-based planning, hazard mapping.
  2. Guide cities in conducting health and environmental impact assessments for selected projects.
  4. Recognize best practices, e.g. Red Orchid Awards\(^\text{10}\).

- **EXPANDED ACTIONS**
  1. Analyse disaggregated urban health data for all urban areas and map inequities for policy- and decision-making.
  2. Advocate and support health and environmental impact assessments in selected urban areas.
  3. Establish an institutionalized feedback mechanism for quality improvement of projects in several urban areas.
  4. Establish standards for settings-based health initiatives, e.g. food safety and nutrition standards in schools.

---

10. This is an initiative of the Philippine Department of Health to move local government units to be tobacco-free ([http://www.doh.gov.ph/content/doh-red-orchid-awards-moving-lgus-be-tobacco-free.html](http://www.doh.gov.ph/content/doh-red-orchid-awards-moving-lgus-be-tobacco-free.html), accessed 15 May 2015).
**COMPREHENSIVE ACTIONS**

1. Conduct foresight initiatives, e.g. trend impact analyses, scenarios to anticipate urban health and inequity outcomes of policy- and decision-making.
2. Institutionalize use of health and environmental impact assessments through legislation.
3. Evaluate medium- to long-term impact of all urban health initiatives.
4. Develop a national accreditation system for Healthy Cities.

**STAKEHOLDER**

Local government (city, municipality, island)

**CORE ACTIONS**

1. Analyse and map available disaggregated urban health data for policy- and decision-making, e.g. risk-based planning, hazard mapping.
2. Conduct a health and environmental impact assessment on one project.
4. Recognize best practices through an award system.

**EXPANDED ACTIONS**

1. Analyse and map new disaggregated urban health data for policy- and decision-making.
2. Conduct health and environmental impact assessments on projects across selected sectors.
3. Establish a feedback mechanism for quality improvement of projects.
4. Establish city standards or adopt national standards for settings-based initiatives.

**COMPREHENSIVE ACTIONS**

1. Conduct foresight initiatives, e.g. trend impact analyses, scenarios to anticipate urban health and inequity outcomes of policy- and decision-making.
2. Institutionalize use of health and environmental impact assessments.
3. Evaluate medium- to long-term impact of all urban health initiatives.
4. Establish city-level accreditation system for settings (if there is no national system).
DOMAIN 3  Urban health information and surveillance systems

This domain aims to strengthen information and surveillance systems to monitor progress towards the goals and targets of sustainable urban development, and to analyse and apply disaggregated as well as trend data for better policy- and decision-making.

STAKEHOLDER

National health agency

■ CORE ACTIONS
1. Adopt/adapt indicators of priority SDGs for selected urban areas.
2. Establish sentinel sites and data collection points with regular reporting in selected urban areas.
3. Identify data gaps for reporting on the SDGs.
4. Package and use data for better policy- and decision-making in selected urban areas.

■ EXPANDED ACTIONS
1. Adopt/adapt indicators of priority SDGs for all urban areas.
2. Establish sentinel sites and data collection points with regular reporting in all urban areas.
3. Regularly conduct national surveys to obtain updated data for better policy- and decision-making, e.g. WHO STEPwise approach to noncommunicable disease risk factor surveillance (STEPS), national nutrition survey.
4. Package and use data for better policy- and decision-making in all urban areas.

■ COMPREHENSIVE ACTIONS
1. Support generation of trend data to enable projection analyses on the indicators of the priority SDGs.
2. Integrate sentinel data into national information systems to support policy- and decision-making on urban development.
3. Support development of an integrated information system and use innovative
data sources and analytical methodologies, e.g. big data and high-powered
analytics, for better policy- and decision-making.
4. Package and use trend data for better policy- and decision-making.

STAKEHOLDER
Local government (city, municipality, island)

■ CORE ACTIONS
1. Adopt/adapt national indicators of priority SDGs.
2. Apply practical data collection methods and regularly report to the national
health agency.
3. Package and use selected data for better policy- and decision-making.

■ EXPANDED ACTIONS
1. Initiate one foresight initiative, e.g. trend impact analysis to anticipate urban
health and inequity outcomes of policy- and decision-making.
2. Conduct regular full-scale city-level surveys to obtain updated local data
for better policy- and decision-making, e.g. tobacco questions for surveys.
3. Package and use trend data in one policy area.

■ COMPREHENSIVE ACTIONS
1. Conduct foresight initiatives, e.g. trend impact analyses, scenarios to anticipate
urban health and inequity outcomes of policy- and decision-making.
2. Establish an integrated information system and use innovative data sources
and analytical methodologies, e.g. big data and high-powered analytics, for
better policy- and decision-making.
3. Package and use trend data for priority policy areas.
Domain 4  Urban health workforce and network capacities

This domain concerns training, facilitating learning opportunities and strengthening individual and team capabilities for action.

Stakeholder
National health agency

Core Actions
1. Conduct training on Healthy Cities, e.g. healthy settings, HiAP, impact assessments, Urban HEART.
2. Engage academic partners to apply their expertise in selected urban health initiatives on an ad hoc basis, e.g. evaluation, urban planning.
3. Share information and knowledge of best practices during training.

Expanded Actions
1. Train and develop a network of urban health professionals.
2. Create a national technical network that can provide expertise in urban health initiatives on a regular basis.
3. Create a knowledge sharing network, e.g. email network.

Comprehensive Actions
1. Develop a pool of urban health experts that can be strategically placed in different sectors, e.g. through enhancing local academic programmes or facilitating learning opportunities abroad.
2. Link national technical network with a regional or global network to tap into other expertise and exchange knowledge.
3. Create a platform for knowledge sharing, e.g. websites or social media.
STAKEHOLDER

Local government (city, municipality, island)

■ CORE ACTIONS

1. Conduct training on healthy settings for selected settings in selected areas.
2. Engage academic partners to apply their expertise in selected urban health initiatives on an ad hoc basis, e.g. evaluation, urban planning
3. Obtain ad hoc information on best practices from experts.

■ EXPANDED ACTIONS

1. Conduct citywide training on healthy settings.
2. Create a city-level technical network that can provide expertise in urban health initiatives on a regular basis.
3. Participate in a knowledge network to exchange information on best practices.

■ COMPREHENSIVE ACTIONS

1. Develop a pool of urban health experts that can be placed in all sectors of the local government.
2. Link the city network with the national or regional network to tap into other expertise and exchange knowledge.
3. Actively engage in the knowledge network, e.g. host knowledge-sharing platform or network meetings.
**DOMAIN 5  Urban health system roles and functions**

This domain refers to the roles and functions of the health sector, and includes the treatment and preventive responsibilities of the health system. It is concerned with advocating and creating healthy policies and environments, working towards UHC, being adequately prepared for emergencies and disasters, and enforcing regulations and standards.

**STAKEHOLDER**

National health agency

■ **CORE ACTIONS**

1. Work with partners to develop legislation, regulations, policies and standards for selected settings to protect public health, e.g. building codes, food safety regulations, smoke-free law, tobacco taxes, disability access.
2. Implement and enforce regulations to protect public health, e.g. food safety regulations, zoning ordinances, smoke-free law.
3. Establish appropriate outreach models and provide free or low-cost access to a core package of services to those who cannot afford, e.g. immunization, reproductive health services, chronic diseases management.
4. Prepare for outbreaks and emergencies in high-priority urban areas, e.g. meeting IHR requirements, relocating facilities at risk, retrofitting buildings at risk, applying green health-care principles.

■ **EXPANDED ACTIONS**

1. Work with partners to develop legislation, regulations, policies and standards for all key settings to protect public health.
2. Work with partners to enforce regulations to protect public health.
3. Expand the range and improve the quality of services offered to equitably reach more people.
4. Strengthen preparedness for outbreaks and emergencies in all urban areas.
**REGIONAL FRAMEWORK FOR URBAN HEALTH IN THE WESTERN PACIFIC 2016–2020: HEALTHY AND RESILIENT CITIES**

**COMPREHENSIVE ACTIONS**

1. Work with different sectors to develop legislation, regulations, policies and standards based on emerging trends to protect public health.

2. Establish national public accountability mechanisms for implementation of regulations to protect public health.

3. Offer more comprehensive service coverage and adapt to new and emerging health challenges to achieve UHC in all urban areas.

4. Strengthen coordination with other sectors to enhance preparedness for outbreaks and emergencies.

**STAKEHOLDER**

Local government (city, municipality, island)

**CORE ACTIONS**

1. Adopt national legislation, regulations, policies and standards for selected settings or establish city-level ones to protect public health, e.g. building codes, food safety disability access.

2. Implement and enforce regulations or city ordinances to protect public health, e.g. food safety regulations, zoning ordinances, building codes.

3. Establish appropriate outreach models and provide free or low-cost access to a core package of services to those who cannot afford, e.g. immunization, reproductive health services, chronic diseases management.

4. Align city-level health plans with the national health plan.

5. Prepare for outbreaks and emergencies, e.g. meeting IHR requirements, retrofitting health facilities, applying green health care principles.

**EXPANDED ACTIONS**

1. Adopt existing or develop new legislation, regulations, policies and standards for all key settings to protect public health, e.g. water safety plans, bans on smoking in public places, urban greening and urban agriculture. Work with partners to enforce regulations or ordinances to protect public health.

2. Expand the range and improve the quality of services offered to equitably reach more people.

3. Implement actions to achieve city-level health goals and contribute to national health goals.
4. Coordinate with other sectors to strengthen preparedness for outbreaks and emergencies.

**COMPREHENSIVE ACTIONS**

1. Work with other sectors to develop new legislation, regulations, policies and standards based on emerging trends to protect public health.

2. Establish city-level public accountability mechanisms for implementation of regulations to protect public health, e.g. food safety ratings.

3. Offer more comprehensive service coverage and adapt to new and emerging health challenges to achieve UHC.

4. Provide UHC. Ensure all health-related legislation, regulations, policies and decisions support progress towards UHC.

5. Coordinate with national counterparts across sectors to strengthen preparedness for outbreaks and emergencies.
3. Recommended actions for WHO, 2016–2020

**DOMAIN 1 Urban health governance and coordination infrastructure**

1. Support establishment of appropriate coordination mechanisms and networks of Healthy Cities as well as of urban areas in Healthy Islands.
2. Support establishment of sustainable mechanisms and financing for urban health promotion.
3. Develop and provide guidance on settings-based initiatives, e.g. schools, workplaces, marketplaces in urban areas, and support interventions that address the social determinants of health.

**DOMAIN 2 Urban health programme planning, management and quality improvement**

1. Support conduct of foresight initiatives to anticipate urban health challenges and impacts.
2. Advocate use of health or environmental impact assessments, assessments of health equity (Urban HEART) and evaluations of urban health initiatives.
3. Support advocacy for action on urban health issues through innovative platforms and mechanisms. For example, cross-sectoral policy dialogues, Healthy Cities accreditation systems. WHO Healthy Cities Best Practice Recognition or AFHC Healthy Cities awards.

**DOMAIN 3 Urban health information and surveillance systems**

1. Support generation of trend data to enable projection analyses.
2. Support strengthening of integrated information systems for reporting on the relevant SDGs and to better inform policy and programme design.
3. Support application and packaging of data for better policy- and decision-making.
1. Encourage development of a pool and network of urban health experts.

2. Facilitate sharing of best practices on urban health initiatives and the exchange of ideas through training workshops, study tours, “twinning” arrangements and communities of practices.

3. Support creation of platforms that enable knowledge sharing.

1. Support development, implementation and enforcement of legislation, regulations, city ordinances and standards.

2. Support innovations on service delivery models to achieve universal health coverage.


**4. Monitoring and evaluation plan**

The WHO Regional Office for the Western Pacific will work with a network of academic partners to develop a monitoring and evaluation framework to assess progress in creating healthy and resilient cities and urban communities. This will include a baseline assessment of where countries and cities are in relation to each domain in 2016. This assessment will be conducted in 2018 and in 2020 for the midterm and end-term assessments. Guided by this framework, WHO will monitor its implementation support to Member States and report on progress and outcomes to the WHO Regional Committee for the Western Pacific.
REFERENCES


ANNEX 1.
Model for health in urban settings

HEALTH GOVERNANCE AS A CRITICAL CAUSAL PATHWAY FOR INTERVENTIONS

Dimensions of good governance:
- participation, rule of law, transparency, responsiveness, consensus orientation, equity, education and efficiency, accountability and strategic visions (UNDP)

Social determinants, health and health inequity pathways that can be acted upon through improvements in governance:
- Environment and physical hazards
- Economic barriers
- Values, behaviour and lifestyle
- Social and political exclusion of slum dwellers

WHO-LED MOVEMENT

The Ottawa Charter on Health Promotion in 1986 paved the way for the healthy settings approach that encouraged people to take control over influences on their health and life in the places where they live, learn, work and play. In the early 1990s, WHO developed guidelines for healthy cities and established a programme to support Member States. Good models were soon seen in Australia, China, Japan, Malaysia, the Philippines and the Republic of Korea. Based on the guidelines, cities would start with the organization of a multisectoral healthy cities committee, undertake a situational analysis, develop a vision, make a public policy statement, and implement a work plan to improve quality of life. At the regional level, city-to-city learning with study tours proved to be a very effective way to disseminate best practices.

In 1995, there was also a shift in how health was viewed and addressed in the Pacific. Ministers of health came together and set a vision for health and development in the Pacific and adopted the theme “Healthy Islands”. From this emerged the Yanuca Island Declaration. Every two years since then, the ministers meet to discuss health issues confronting the Pacific.

In 2004, in response to the growing need for advocacy between and among city mayors, a mechanism was established to spin off advocacy for healthy cities through an independent Alliance for Healthy Cities, or AFHC. AFHC serves as a network, repository for healthy cities reports and data, and as a convener for research, capacity-building and technical updates. AFHC started with six founding cities and has now grown to more than 200 cities and associate members in 2015. Every two years, AFHC works with WHO on recognition of best practices ceremonies, through the Healthy Cities awards.

In 2005, at the global level, the WHO Centre for Health Development (WHO Kobe Centre) became the hub for the Knowledge Network on Urban Settings (KNUS) under the WHO Commission of Social Determinants of Health. KNUS drew attention to the growing health inequities in urban settings, particularly the growth of:

---

11. Refer to Annex 3 on the Urban DPSEEA for an explanation of “exposures”.

12. AFHC’s secretariat is located at the Tokyo Medical and Dental University, Japan, WHO Collaborating Centre for Healthy Cities and Urban Policy Research.
slums and informal settlements in the midst of rapid and unplanned urbanization [6]. Central to the work of the WHO Kobe Centre was the development of a tool for unmasking health inequities in urban settings called Urban HEART. Urban HEART has been used globally and continues to be an effective instrument for city health planning using an equity lens. The research work of KNUS culminated in a number of publications that would inform the work of the Global Forum on Urbanization and Health [2010] and the Kobe Call to Action declaration [43]. The Kobe Call to Action is the only WHO declaration with a political context specific to health and cities. The WHO Kobe Centre has also conducted definitive research on urbanization and health, and maintains a repository of tools, resources and guidance for cities [see details in Annex 4].

In 2010, healthy settings was an agenda item of the sixty-first session of the WHO Regional Committee for the Western Pacific in Putrajaya, Malaysia, and a resolution was passed to sustain the work on healthy cities and healthy islands [44]. Building on the work of the regional programme, AFHC and the WHO Kobe Centre, the Regional Framework for Scaling Up and Expanding Healthy Cities in the Western Pacific 2011–2015 [45] was developed to support healthy urbanization. The framework called for a strategic shift from a programmatic to institutionalized approach and it emphasized the designation of a national focal point and use of city-level data. It also stressed the importance of strengthened leadership for Healthy Cities at national and local levels, and sustained support for city-to-city learning with study tours as a means of diffusing best practices. Member States are also encouraged to organize national networks of healthy cities and to engage with the academic community in evaluating the work done in cities. A Healthy Cities Toolkit[13] has been developed for local governments to support healthy urban development.

In 2014, the World Health Assembly in a resolution (WHA67.12) requested the WHO Director-General to prepare a Framework for Country Action, for adaptation to different contexts, taking into account The Helsinki Statement on Health in All Policies. The framework aims to support action across sectors to address the determinants of health and risk factors of NCDs [46]. In September 2015, the United Nations agreed on goals and targets, called the Sustainable Development Goals, that will guide the post-2015 development agenda towards achieving sustainable development.

OTHER GLOBAL INITIATIVES

Globally, there are many initiatives and networks that also strive to make cities healthy, resilient, safe, vibrant and connected. Some examples include the resilient cities movement, sustainable cities, green cities and smart cities. The United Nations Centre for Regional Development has led the Environmentally Sustainable Transport initiative; the United Nations Environment Programme leads the clean air initiative; and UN-Habitat prioritizes climate change, city prosperity, city resilience, slum upgrading and safer cities, among other issues (47).

COUNTRY INITIATIVES

WHO resolutions and declarations on various issues have led to increased support for many country programmes. Some examples in the Western Pacific Region are:

• Environmentally Sustainable and Healthy Urban Transport
• Health Promoting Schools to provide safe and nutritious food
• Healthy Marketplaces
• Smoke-free cities and heritage sites
• Age-Friendly Cities
• Disability-Inclusive Cities
• Water safety plans
ANNEX 3.
Urban DPSEEA: the DPSEEA model as applied to urban settings

In 1996, WHO introduced a framework for environmental health that enabled visualization of driving forces, pressures, states, exposures and effects on health, known as the DPSEEA model (46). For the urban setting, it has been modified to the Urban DPSEEA model (see next page). Urban DPSEEA provides a logical framework for mapping the complex interactions between various dimensions of the dynamic environment, i.e. natural, physical, psychosocial, political-economic, and how these affect health.

For example, driving forces such as globalization, marketization, economic growth and urbanization may exert pressure that leads to rural–urban migration, motorization, and the growth of slums and informal settlements. These outcomes might then cause resources to be strained and systems to be overwhelmed, and creates an unsustainable state where there is a breakdown of the social fabric, deterioration of public order and overdependence on motorized vehicles. Consequently, people are exposed to poor air and water quality, traffic congestion, violent crime, and marketing of tobacco products and food high in salt, fat and sugar. These exposures then lead to effects such as outbreaks of waterborne and foodborne diseases, NCDs, overweight and obesity, diabetes, mental health burden and suicide.

In the context of this regional framework, the WHO Regional Office for the Western Pacific calls on Member States to focus and act on high-priority exposures, which pose serious risks to health. Policy- and decision-makers can use the Urban DPSEEA model to map upstream determinants of health outcomes.

The DPSEEA model

**Driving forces**
Globalization/localization, rapid economic growth and marketization in the Region; urbanization, demographic ageing, climate change, disasters, outbreaks, civil and political strife, digital revolution

**Pressure**
Rural-urban, intra-urban and transnational migration; growth of slums and informal settlements; motorization; inadequate housing; loss of connectedness; distrust; displacement

**State**
Unsustainable food and water resources, breakdown of the social fabric, overwhelmed and reactive health service delivery systems, fossil fuel dependency for transport, motor vehicle dependence, breakdown of peace and order, increasing health inequities, expanding use of digital technology, gender inequity

**Exposures**
Poor air and water quality; traffic congestion and unsafe roads; lack of access to safe water and adequate sanitation; proliferation of vectors; unsafe homes and neighbourhoods; street crime; abuse of vulnerable persons including older people and people with disabilities; domestic violence; loss of respect in healthcare services; easy access to and marketing of tobacco, alcohol and unhealthy food

**Effects**
Waterborne and foodborne diseases, injuries, sexually transmitted infections, tuberculosis, dengue, cardiovascular disease, diabetes, overweight and obesity, disabilities, depression, anxiety, suicide, and health inequities related to these and other conditions

**Actions based on scenario work**

- High-priority exposures
- High-priority health assets
- Resilient urban health systems

**Dynamic urban environments**
Constant change and interaction between the natural, physical, psychosocial, political, economic and cultural environments in urban areas
## ANNEX 4.

Tools and resources for urban health governance

<table>
<thead>
<tr>
<th>PROGRAMME/Project title</th>
<th>PROJECT AIM</th>
<th>Normative or operational</th>
<th>Duration</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LEADERSHIP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kobe Call to Action</td>
<td>Political declaration (from WHO Global Forum on Urbanization and Health) <a href="http://www.who.int/topics/urban_health/kobe_calltoaction_urbanization_2010.pdf">http://www.who.int/topics/urban_health/kobe_calltoaction_urbanization_2010.pdf</a></td>
<td>Normative/political</td>
<td>2010</td>
<td></td>
</tr>
<tr>
<td>WHO Regional Committee resolutions</td>
<td>WHO Member States resolutions</td>
<td>Political</td>
<td>2011</td>
<td></td>
</tr>
<tr>
<td>Second WHO–Habitat Global Report</td>
<td>In process</td>
<td>Normative</td>
<td>Expected by end-2015</td>
<td></td>
</tr>
<tr>
<td>WHO Healthy Cities Network</td>
<td>This is a global movement that engages local governments in health development through processes of political commitment, institutional change, capacity-building, partnership-based planning and innovative projects. <a href="http://www.euro.who.int/en/health-topics/environment-and-health/urban-health/activities/healthy-cities">http://www.euro.who.int/en/health-topics/environment-and-health/urban-health/activities/healthy-cities</a></td>
<td>Operational</td>
<td>25-year history</td>
<td></td>
</tr>
<tr>
<td>WHO Global Network of Age-Friendly Cities</td>
<td>The network was established to foster the exchange of experience and mutual learning between cities and communities worldwide <a href="http://www.who.int/ageing/age_friendly_cities_network/en">http://www.who.int/ageing/age_friendly_cities_network/en</a></td>
<td>Operational</td>
<td>2012</td>
<td>Over 150 cities</td>
</tr>
</tbody>
</table>

**MEASUREMENT (EMPHASIS ON HEALTH INEQUITIES)**

<table>
<thead>
<tr>
<th>PROGRAMME/Project title</th>
<th>PROJECT AIM</th>
<th>Normative or operational</th>
<th>Duration</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Health Equity Assessment and Response Tool (Urban HEART)</td>
<td>Standard tool, based on determinants of health approach used by cities to measure health inequities <a href="http://www.who.int/kobe_centre/measuring/urbanheart/en">http://www.who.int/kobe_centre/measuring/urbanheart/en</a></td>
<td>Normative and operational</td>
<td>2011 – ongoing</td>
<td>60 cities in 40 countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROGRAMME/ Project title</th>
<th>PROJECT AIM</th>
<th>Normative or operational</th>
<th>Duration</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEASUREMENT (EMPHASIS ON HEALTH INEQUITIES) (continued)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHO Global Health Observatory: Urban Health</td>
<td>WHO depository of global health data <a href="http://www.who.int/gho/urban_health/en">http://www.who.int/gho/urban_health/en</a></td>
<td>Normative</td>
<td>Ongoing</td>
<td>56 countries and growing</td>
</tr>
<tr>
<td>Urban Health Index</td>
<td>Novel measurement approach developed and being tested</td>
<td>Normative</td>
<td>2012 – current</td>
<td>20 cities</td>
</tr>
<tr>
<td>Core indicators to measure age friendliness of cities</td>
<td>Standard set of indicators and measurement framework for non-health and health interventions</td>
<td>Normative</td>
<td>2012 – pilot testing 2014</td>
<td>20 cities</td>
</tr>
<tr>
<td>Guidance on Local Health Observatories</td>
<td>How to establish platforms to fill the frequently observed gap in public health intelligence at the local level</td>
<td>Normative</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td><strong>INTERVENTIONS: WORKING ACROSS SECTORS AND GOVERNANCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guidance on Intersectoral Action for Health</td>
<td>Practical guidance for working across sectors</td>
<td>Normative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence and case studies</td>
<td>Local government actions on health, with emphasis on reducing risk factors for NCDs</td>
<td>Normative</td>
<td>2013 onwards</td>
<td>25 case studies</td>
</tr>
<tr>
<td>Urban planning: case studies</td>
<td>Lessons for encouraging engagement between public health and urban planning</td>
<td>Normative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoke-free cities</td>
<td>Model ordinance, guide and training materials based on synthesis of case studies</td>
<td>Normative</td>
<td>2012–2013</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td>UN Standing Committee on Nutrition and WHO have investigated food production for urban settings</td>
<td>Network</td>
<td>2012 onwards</td>
<td></td>
</tr>
<tr>
<td><strong>ENVIRONMENTAL HEALTH ISSUES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guidance for improving drinking-water quality</td>
<td>Establishing water safety plans in urban and rural settings</td>
<td>Normative and operational/political/network</td>
<td>Ongoing</td>
<td>15 countries more than 100 settings</td>
</tr>
<tr>
<td>PROGRAMME/Project title</td>
<td>PROJECT AIM</td>
<td>Normative or operational</td>
<td>Duration</td>
<td>Location</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------</td>
<td>--------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>WHO REGIONAL OFFICES</strong></td>
<td>Healthy cities or settings initiatives</td>
<td>Operational activities to advance health promotion in cities and sustainable urban settings <a href="http://www.euro.who.int/en/health-topics/environment-and-health/urban-health">http://www.euro.who.int/en/health-topics/environment-and-health/urban-health</a> <a href="http://www1.paho.org/English/ad/sde/espacios.htm">http://www1.paho.org/English/ad/sde/espacios.htm</a> <a href="http://www.emro.who.int/cbi">http://www.emro.who.int/cbi</a></td>
<td>Operational</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>