One of the challenges of the 21st century is managing the accelerating pace of urbanization. Projections suggest that by the year 2030, six out of ten people all over the world will live in cities. By 2050 this proportion is likely to reach 70%. Most of the growth in urban population will occur in Asia, Africa and Latin America. Currently, the urban population in South-East Asia is estimated to be about 600 million, of which about 150 million are estimated to be poor. In the wake of the often unplanned and unregulated urbanization, the urban poor face physical, environmental, social and psychological problems. These impose a heavy burden of disease and inequity on the urban poor. There is an urgent need to identify biological, socio-cultural and financial determinants of health inequity in the urban poor in order to mount a multsectoral effort to address the health concerns of this burgeoning disadvantaged section of the population.

This publication provides an overview of the health of the urban poor in Member-States of the WHO South-East Asia Region; describes socio-cultural factors that impact their health and challenges in health programming for the urban poor; and, proposes a strategic framework of multsectoral action to address issues related to access and equity in health for the urban poor in South-East Asia.
Addressing Health of the Urban Poor in South-East Asia Region: Challenges and Opportunities
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Foreword

History will record the 21st century as the century of transition. The world is going through rapid and significant change spanning a wide spectrum of human enterprise. The political, social and economic developments witnessed in the recent past will have a significant impact on human health and well-being. Most importantly, this means that health systems will have to gear up to effectively address the challenges posed by globalization, climate change, and the demographic and epidemiological transitions.

Cities are the main beneficiaries of globalization and the economic growth that South-East Asia is witnessing. In addition to the natural increase in population the increasing job opportunities, rapid development of physical and social infrastructure and better access to health, educational and cultural facilities is fuelling the almost explosive pace of urbanization. A significant proportion of the people who come to cities in search of better jobs and social opportunities are poor. The World Bank estimates that, in 2002, about 750 million urban dwellers subsisted on less than 2 US dollars a day. Many, if not most of these people, live in slums.

South-East Asia is home to more than 1.7 billion people, of which nearly 600 million live in urban areas. Of these, 25% are urban poor. This population is growing rapidly resulting in a tremendous pressure on all public services including health, transport, water supply and sanitation, electricity and other infrastructural needs.

Rapid and often unorganized urbanization significantly affects the physical and social ecology. Crowded living conditions are conducive to rapid spread of communicable diseases. They also contribute to social tensions and stress as people compete for scarce essential facilities like safe water and sanitation. Lifestyle changes including increased consumption of fast foods rich in unsaturated fats and salt, lack of exercise, alcohol, tobacco and other substance abuse are risk factors that the urban populations including the urban poor are confronted with. Not surprisingly, the urban poor have to pay a disproportionately heavy price that such lifestyle changes bring in their wake.

The impressive world class health infrastructure that several South-East Asian cities now have is a matter of pride and satisfaction. However, it is a matter of concern that a large segment of the urban poor face difficulties in accessing these services, due to reasons which go beyond
economic factors. There are several social, physical, economic and psychological factors that prevent the urban poor from accessing these facilities either public or private. It is increasingly acknowledged that a multitude of factors such as social, cultural, anthropologic, economic, political, environmental, religious and several others impact health outcomes. It is also clear that several sectors including education, food and agriculture, nutrition, urban development, poverty alleviation, employment generation and local governments have to join hands to address health issues including health of the urban poor. It is acknowledged that out-of-pocket expenditure on health is a major contributor to perpetuation of poverty. We need to explore innovative health financing modalities in order to further reduce out-of-pocket expenditure on health and to prevent catastrophic health expenditures.

Unless the socio-cultural determinants of health are addressed in a coordinated and concerted manner by all related sectors, “health for all” will remain an unfulfilled promise. Indeed, the need of the hour is “Healthy Public Policies” which implies that health concerns are reflected and attended to in all sectoral policies and programmes. Given the multitude of sectors and agencies whose work affects health of the urban populations the need for rapidly developing “healthy urban public policies” is all too evident.

In recognition of the importance of the effects of urbanization on human health, the Ministers of Health of the WHO South-East Asia Region at their meeting in Thailand in September 2010 adopted the Bangkok Declaration on Urbanization and Health. Among other things the declaration calls for pro-poor policies and strategies and increase in resources to reduce the social costs of health inequities. It also calls for a holistic and multidisciplinary approach by all sectors of the government, including local government, industry and the community to reduce health equity gaps among urban dwellers. The challenge before us is to develop an evidence-based, cost-effective framework to address the emerging needs of the urban poor in the context of rapid urbanization.

This publication is an attempt to provide an overview of the health status of the urban poor in Member States of WHO’s South-East Asia Region. It explores the effect of socio-cultural determinants and health system challenges and proposes a strategic framework for addressing the health concerns of this underprivileged section of society. It is hoped that policy makers, programme managers, public health professionals and others will find this publication useful in further strengthening the health system response to address issues related to the health of the urban poor.

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Acknowledgement

The initial draft of this document was prepared by a small and dedicated team of staff from the Indian Institute of Public Health, Hyderabad, India led by Professor Mala Rao. The other members of the team were Dr J. K. Lakshmi and Dr Amit Samarth. Their contributions are gratefully acknowledged. The draft document was presented to the participants of the Regional Consultation the Health of the Urban Poor organized by the WHO Regional Office for South-East Asia in Mumbai, India, from 13-15 October 2010. The feedback received from the participants has been incorporated in the publication.
Executive summary

“What happens in the cities of the less developed world in coming years will shape prospects for global economic growth, poverty alleviation, population stabilization, environmental sustainability and, ultimately, the exercise of human rights.”


Introduction

We live in the ‘century of the city’. Relentless urbanization across the world, and particularly in developing countries, necessitates a focus on urban health, and its social, economic and systemic determinants. The WHO-South East Asia Region (SEAR) has one of the fastest urban growth rates in the world. Of the eleven Member States of the SEA Region, India, Indonesia, Bangladesh, and Thailand are home to the majority of the urban population, particularly the urban poor. Although urban centres are, in general, marked by economic prosperity and more positive indices of health and healthcare services vis-a-vis rural areas, the distribution of wealth and well-being is far from uniform within urban areas.

The urban poor, who make up moderate to large segments of the urban population, underpin the economic vibrancy of the city, but unfortunately do not experience commensurate economic and social fitness themselves. National averages of markers of economic prosperity, although giving the impression of evenly distributed, ever-improving economic status and well-being, mask the rising disparities within populations. A mere glance at the urban landscape of much of the developing world provides ample evidence of this distressing, iniquitous and, unfortunately, increasingly common picture of glaring juxtapositions of poverty and desolation with prosperity and abundance. The incongruity of glass-and-steel edifices flanked by slums, and a profusion of urban high-tech hospitals, shops and leisure complexes inaccessible to the street-dwellers outside their walls, is all too evident in several cities.

Migration, which is an important driver of the increase in the urban population, particularly the population of the urban poor, is mostly accompanied by a weakening of social support and safety networks, with negative consequences for the physical and mental health of migrants. A combination of low levels of education and empowerment, legal and social exclusions, and constrained affordability and accessibility of essential services, perpetuate poor health and lowered quality of life for the urban poor.
Determinants of health

The urban poor generally live in slums or on the streets. Slums may develop in the centre of a city owing to the proximity of worksites, or in peri-urban areas, near garbage disposal and industrial waste dumping sites, landfills, sewage disposal sites, and near industrial establishments. Slums are characterised by poorly constructed shelters shared by many individuals, and the lack of basic necessities such as piped water supply, sanitation, waste disposal and electricity.

Living in slums exposes the urban poor to health as well as environmental hazards. For instance, overcrowding and unhygienic living conditions pose high risks of communicable diseases. Exposure to polluted air, contaminated water and food, and inadequate facilities for regular physical activity present acute and chronic disease hazards. Unsafe housing conditions, a hostile urban built environment, and inadequate access to healthcare make the urban poor vulnerable to ill health and injury. Crime and violence rates may be higher, with women and children at high risk. Higher prevalence of tobacco use, alcohol addiction and substance abuse are also likely among the urban poor. Over half the workers in the Region are involved in vulnerable employment, exposing them to physical, chemical, and biological risks.

Besides exposure to domestic, commercial and industrial effluents and toxins, slums are also at a higher risk of damage from environmental disasters owing to their poor environmental and financial buffers and low coping ability. Climate change is likely to have a more pronounced negative impact on the urban poor than the urban non-poor via its bearing on livelihoods, disease patterns and damage to property.

Health status of the urban poor

Life expectancy at birth in the Region ranges from 59.9 years for males in Myanmar to 78.1 years for females in Sri Lanka. Other indicators, such as disease and disability burdens, literacy, employment rates, access to safe water and sanitation facilities, healthcare systems and financing, and the concentration of health personnel also vary widely across the Region, between urban and rural areas, and between the poor and the non-poor. Disease and disability, and life expectancy are intimately associated with socio-economic status. High Disability Adjusted Life Years (DALYs) in most Member States of the Region, higher in those with higher poverty indices, attest to this.

Selected information on health status of the urban poor is available only from some, but not all Member States. Such information, however, indicates that the urban poor in the Region consistently display lower levels of education and health awareness, and poorer health outcomes than their non-poor urban counterparts, demonstrating a vicious circle of poverty, exclusions, and poor health. Unauthorized settlements, unable to access government services and subsidies, and unable to afford private services, consequently proceed on a downward spiral.

Higher fertility rates, low prevalence of contraceptive use, and low levels of autonomy in reproductive health decisions mark the lives of urban poor women. The proportion of pregnant women who receive the full complement of antenatal, perinatal and postnatal care, and children who receive timely and complete immunization, is small. The rates of malnutrition and communicable diseases in children, as well as infant and under-5 mortality are high in the slums of the Region. Among adults, however, there is evidence of an epidemiological transition, with rising rates of overweight, obesity, and risk factors for chronic diseases, and a continuing prevalence of communicable disease imposing a dual burden of illness on the urban poor.
Given the deficient facilities for safe water, sanitation, effluent-treatment and hazardous waste processing, and the overcrowding in slums, the high rates of water-borne and vector-borne diseases and disorders attributable to toxic exposures are not surprising. For instance, several of the major cities in the Region experience outbreaks of dengue and malaria; a significant part of the global HIV/AIDS burden is in the Region; tuberculosis continues to be a major public health challenge, with the added complication of drug-resistance.

Chronic diseases, especially diabetes mellitus and cardiovascular diseases, are increasing, fostered by low awareness of the risk, the inadequacy of the built environment, and the transition in lifestyle and nutrition, including higher levels of consumerism and increasingly sedentary occupations. The combination of poverty, exclusions, inadequate social support, exposure to risks for disease and injury, and violence, contribute to high levels of stress and poor mental health among the urban poor.

Every country in the SEA Region faces environmental risks, as exemplified by the extreme vulnerability to sea-level rise in Maldives; risk of flooding, cyclones and rising sea-level in Bangladesh; and the increased frequency and intensity of adverse weather events in Myanmar. The urban poor are impacted directly by climate and weather events, such as rising ambient temperature and altered rainfall, and also via loss of livelihoods, and vulnerability to food insecurity and exploitation.

**Challenges**

Urban health development programmes face multiple challenges, particularly in improving the health and well-being of the urban poor in the South-East Asia Region, e.g. lack of identity, and consequently lack of a legal voice for the urban poor; low levels of awareness and empowerment; and inadequate built environment and policy support for health in slums. Systemic and social challenges such as cultural barriers to improved health for all, and dysfunctional and inequitable governance systems, are also huge obstacles to be addressed in endeavours to improve the health and well-being of the urban poor. This combination of circumstances is likely to intensify in the milieu of population explosion, environmental degradation, and climate change, which add to the problem as well as militate against the solution. The achievement of the Millennium Development Goals is intimately tied to improving urban health, particularly that of the urban poor.

**The way forward**

To address the health issues related to the urban poor, the following strategies are proposed:

*Healthy Public Policy: towards inter-sectoral cooperation and collaboration*

Addressing the health of the urban poor is the responsibility of multiple sectors. Unless the social, economic, and environmental factors are addressed in a holistic and coordinated manner, meaningful progress may not be possible in improving the health status of the urban poor.

Cooperation and collaboration among several sectors, both government and non-government, need to be developed to reduce poverty, provide good housing, safe drinking water, sanitation facilities and safe working places to the urban poor. These sectors include, among others, education, finance, urban planning, social and welfare, employment, women and children’s welfare, public work services, NGOs, and other related private organizations.
It is important to assimilate health information into the formal educational curriculum at all levels, and to have strong policy backing for the creation of supportive environments to enable improved health choices, e.g., safe and regular physical activity; freedom from injury; safe and healthy food procurement and preparation. Providing these services would be a cost-effective, disease-preventive measure for the urban poor, and have a major positive impact on their health and well-being.

To ensure health and social equity in urban areas, governments need to develop and strengthen healthy public policy. This implies that structures and mechanisms need to be put in place that ensure that health and health-related issues are appropriately addressed in policies and strategies of all sectors. A contextual review of national, sub-national and local policies and strategies is necessary to ensure adherence to the healthy public policy concept.

Healthy urban planning needs to be used to plan, design and re-design cities to improve social and physical determinants of health. The health sector needs to take on leadership in inter-sectoral collaboration, and ensure that health impact assessments are carried out before the launch of development projects.

**Community education and empowerment**

The urban poor should be adequately educated and empowered to actively practise self-care and to utilize healthcare services. Awareness is an important determinant of health behaviours and actions to minimize health risks and injury. The urban poor demonstrate low levels of health literacy, and suboptimal levels of self-care and attention to the environment. Appropriate health education and empowerment interventions, including strong community organizations and social networks established through the support of NGOs and government organizations, need to be implemented to address these issues. Community health workers and volunteers can play important roles in health education and empowerment of the urban poor.

**Improve availability of, and accessibility to, healthcare services for the urban poor**

A comprehensive, need-based and people-centered urban healthcare service system needs to be promoted and strengthened. Community health workers and volunteers can play important roles in motivating and empowering the urban poor to adopt self-care practices and actively steward their environment. Preventive and promotive healthcare should be the foundation of urban health programmes.

Affordable and good quality primary care is essential for the urban poor. In addition to strengthening public sector primary care facilities, supporting private providers, NGOs and community-based organizations (CBOs) is critical in the provision of healthcare services. Governments need to explore appropriate public private partnership models for this. To effectively facilitate the accessibility of the urban poor to public healthcare services, the quality of primary care and referral services from the community level to higher levels of healthcare should be strengthened. Alternative and innovative health financing, including social health insurance, need to be explored to reduce out-of-pocket and catastrophic expenditures on health. Operational research to develop effective healthcare service models at the community level is needed to find local specific solutions to ensure equitable access to healthcare services for the urban poor.
National health policy and plans: towards equitable health for the urban poor

The urban poor are financially, socially, psychologically, and physically distant from public health services. National health policies and plans need to make a special provision for interventions especially aimed at improving the health of the urban poor. It is especially important to ensure that the principles of primary health care – universal access and health equity, community participation, inter-sectoral coordination and use of appropriate technology – are enshrined in health interventions designed for the urban poor.

Policies and plans need to focus on decentralization of healthcare services to local bodies; inclusive, good governance health programmes; and planning with the participation of the urban poor, and administrative sectors concerned. Evidence-based policy and planning entail accurate and updated information. Accurate information is also needed for political advocacy and for effective policy and programme planning. Data collection and monitoring of urban development and urban health indicators such as health outcomes, health indices, and health seeking behaviours among the urban poor should be strengthened.

Information system and research

Urban health information systems need to be developed and implemented. Timely, accurate and comprehensive data collection and analysis will inform policy makers and planners on relevant policies and programmes to address urban health issues.

Operational research is needed to find effective and efficient situation-specific solutions. Appropriate research will help answer questions like what roles community-based health workers and volunteers can play, how best to build channels for multi-sectoral implementation of urban health programmes, and the best models for public-private partnerships. Studies on an appropriate health care financing mechanism for the urban poor need to be carried out and resources mobilized to ensure universal access to health care for the urban poor.
The year 2008 was a landmark in the history of human civilization. It was the year when more people started living in urban areas than in rural areas. Urban areas all over the world have concentrated more than 50% of the human population on just 3% of land. The 21st century has been referred to as the “century of the city”. It is projected that most regions of the developing world, witnessing the highest rate of urban growth, will be predominantly urban by the middle of the century. Urban areas provide individuals and families with easier access to basic and specialized health services, education, and social and cultural opportunities. Employment opportunities, wealth and the luxuries of life are concentrated in urban areas and are the major driver for the growth of cities, which in turn have become major centres of human activity.

Cities are the main beneficiaries of globalization, the progressive integration of the world’s economies. People follow jobs, which follow investment and economic growth. Most are increasingly concentrated in and around dynamic urban areas, large and small. Cities are already the locus of nearly all major economic, social, demographic and environmental transformations. The growth of cities is further fuelled by factors such as geographical location, natural increase in population, and rural to urban migration. Against a background of deteriorating rural living conditions, factors such as globalization, infrastructure development, national policies, corporate strategies, job prospects and the amenities offered by cities reinforce each other to determine rural-urban migration and the growth of cities. Such factors offer a comparative advantage to certain cities, which grow rapidly.

Cities have also become a locus of inequalities. Increasingly, cities in the developing world are witnessing rapid growth of slums. The slums often grow at a higher rate when compared to the overall growth rate of the cities and may be illustrative of economic growth not being matched by redistributive policies aimed at achieving health and social equity. Increasing inequalities can lead to disruption of the social fabric of a city, and an increase in violence and crime.

Urban areas in developing countries are changing rapidly. Around 3 million people are added to the urban population of developing countries every week. This is set against a projection of an estimated 3 billion people being added to the population of the developing world between 2005 and 2050, taking its total population from 2.6 billion to 5.6 billion. It is also estimated that around 95% of growth in the urban population will be in the towns and cities of developing countries.

According to the World Bank, in 2002, approximately 750 million urban dwellers in developing countries lived on less than $2 a day and 290 million lived on less than $1 a day. A large proportion of the urban poor reside in Asia, particularly in South Asia. An estimated 1 billion
people around the world live in slums\textsuperscript{6,7}. This population is projected to increase to around 1.4 billion by 2020. More than half of the global population of slum dwellers are Asian, and make up 43\% of the population of Asia\textsuperscript{6}. A larger proportion of the increase in the urban poor is attributed to the natural increase in the population rather than to migration\textsuperscript{1}. Natural increase in the population accounts for 60\% of the growth in urban areas. The remainder is fuelled by rural to urban migration and reclassification of rural areas to urban areas\textsuperscript{1}. The Millennium Development Goal (MDG) 7 which sets out a target of improving the lives of 100 million slum dwellers is grossly misaligned with the total number of urban slum dwellers in the world\textsuperscript{7,8}.

These changes in size, rate of growth, and distribution of human populations together with the urbanization of poverty have serious implications on public health, development and environmental sustainability\textsuperscript{9}. Basic human needs such as clean air, water, food and housing are becoming difficult to meet as the population of the developing world continues to increase. This situation is further complicated by diminishing supplies of fossil fuels, decreasing freshwater availability worldwide, and food shortages resulting in increasing food prices\textsuperscript{10}. Climate change is further reinforcing these challenges by destroying rural livelihoods and economies, undermining rural development and spurring rural-urban migration\textsuperscript{6}.

The rapid and unplanned growth of the urban population, particularly in developing countries, has motivated a shift from a predominantly rural focus to increased attention to urban settings in the areas of primary care, sustainable development, MDGs and climate change. Against this background, the World Health Organization focused on Urbanization and Health as the theme for World Health Day in 2010.
2.1 Urbanization

Urbanization refers to a phenomenon in which increasing numbers of people live in high-density communities, with organized provision of basic human necessities such as housing, safe water supply, sanitation and food. An additional feature is that the majority of the population is involved in non-agricultural activities. Urbanization is driven by industrialization and economic growth, and results in the formation of towns, cities and metropolitan areas.

The United Nations defines an urban agglomeration as a built-up or densely populated “area containing the city proper, suburbs and continuously settled commuter areas. It may be smaller or larger than a metropolitan area; it may also comprise the city proper and its suburban fringe or thickly settled adjoining territory”.

A metropolitan area is the set of formal local government areas that normally comprise the urban area as a whole and its primary commuter areas.

A city proper is the single political jurisdiction that contains the historical city centre.


2.2 Slums

Slums are also referred to as ‘shanty houses’, ‘squatter dwellings’ or ‘informal settlements’.

UN-HABITAT defines a slum household as ‘a group of individuals living under the same roof in an urban area with at least one of the following four basic shelter deprivations: lack of access to improved water supply; lack of access to improved sanitation; overcrowding (three or four persons per room); lack of access to improved durable material’.

According to the Vienna Declaration on National Regional Policy and Programs regarding Informal Settlements in 2004, ‘informal settlements’ are defined as ‘human settlements, which for a variety of reasons do not meet requirements for legal recognition (and are constructed without respecting formal procedures of legal ownership, transfer of ownership, as well as construction
and urban planning regulations), exist in their respective countries and hamper economic development\textsuperscript{11}.

While there is significant regional diversity in terms of their characteristics, these settlements are marked by informal or insecure land tenure, inadequate access to basic services, inadequate social and physical infrastructure, and no housing finance\textsuperscript{13}. Major characteristics of informal housing in developing countries include the following\textsuperscript{12}:

- Insecure housing tenure;
- Inadequate basic services;
- Housing settlements that contradict city by-laws;
- Housing on property owned by the state or a third party;
- Insufficient access to basic services;
- Illegal subdivision of housing;
- Poverty and social exclusion;
- Unhealthy living conditions and hazardous locations.

The poor in South-East Asia live under different land tenure arrangements including occupation and perceived tenure, legal protection against eviction, adverse possession, customary land tenure, collective tenure, leasehold, and provisional land title\textsuperscript{13}. A combination of inadequate projection, poor planning, inappropriate implementation and cultural factors has resulted in the urban poor being systematically excluded from access to basic sanitation and potable water\textsuperscript{14}. Unauthorized settlements are unable to access government services\textsuperscript{15}, including education, subsidized food, water, and health services, and consequently proceed on a downward spiral.

People living in slums suffer multiple dimensions of exclusions, which have been grouped into the following three categories by the World Bank\textsuperscript{16}:

1. Economic exclusion from equitable access to economic/financial, social, human and natural resource assets
2. Exclusion from access to basic services
3. Social exclusion from participation on fair terms in local and national social life.

### 2.3 Poverty

Poverty is defined as a state of being inferior in quality or insufficient in amount\textsuperscript{17}. People are poor when they do not have enough food, adequate housing, literacy, and access to basic healthcare services. Poverty can be associated with a lack of identification and representation in society. Poverty is multi-dimensional and its characteristics differ from country to country and region to region.

The first of the Millennium Development Goals is to eradicate extreme poverty and hunger. The specific targets for this goal are:

- **Target 1.A** - Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day.

- **Target 1.B** - Achieve full and productive employment and decent work for all, including women and young people.
Target 1.C - Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

Poverty is “pronounced deprivation in well-being.” The conventional view links wellbeing primarily to command over commodities, so the poor are those who do not have enough income or consumption to put them above some adequate minimum threshold. This view sees poverty largely in monetary terms.

Poverty may also be tied to a specific type of consumption; for example, people could be house-poor or food-poor or health-poor. These dimensions of poverty often can be measured directly, for instance, by measuring malnutrition or literacy. The broadest approach to well-being (and poverty) focuses on the capability of the individual to function in society. Poor people often lack key capabilities; they may have inadequate income or education, or be in poor health, or feel powerless, or lack political freedoms.

Inequality focuses on the distribution of attributes, such as income or consumption, across the whole population. In the context of poverty analysis, inequality requires examination if one believes that the welfare of individuals depends on their economic position relative to others in society.

Vulnerability is defined as the risk of falling into poverty in the future, even if the person is not necessarily poor now; it is often associated with the effects of “shocks” such as a drought, a drop in farm prices, or a financial crisis. Vulnerability is a key dimension of well-being since it affects individuals’ behaviour in terms of investment, production patterns, and coping strategies, and in terms of the perceptions of their own situations.

Poverty gap is the mean shortfall of the total population from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence. The indicator is often described as measuring the per capita amount of resources needed to eliminate poverty, or reduce the poor’s shortfall from the poverty line to zero, through perfectly targeted cash transfers.

Squared poverty gap, is often described as a measure of the severity of poverty. While the poverty gap takes into account the distance separating the poor from the poverty line, the squared poverty gap takes the square of that distance into account. When using the squared poverty gap, the poverty gap is weighted by itself, so as to give more weight to the very poor.


2.4 Measuring poverty

Poverty is generally measured in terms of income and consumption levels of the population of a country. Every country defines poverty according to its societal values and level of development. A person is considered to be poor if his or her consumption or income is below the minimum level necessary to meet basic needs. This minimum level is called ‘poverty line’. The information regarding income and consumption of a population is collected from sample surveys carried
out by governments and other organizations. The World Bank uses $1.25 and $2 a day as the international benchmark to make comparisons across countries and to aggregate information about levels of poverty.

**Multi-dimensional Poverty Index (MPI)**

The need to measure the multiple dimensions of poverty has been advocated on the basis that the population is affected in a variety of ways. The Human Development Report 2010 features a new multi-dimensional poverty index (MPI) which will replace the Human Poverty Index (HPI-1). The MPI is an index of acute multidimensional poverty. It reflects deprivation in terms of basic services and human functioning, and has been estimated for 104 countries. Although there are data limitations, the MPI reveals a different pattern of poverty compared to income poverty, as it reflects a broader interpretation of deprivation19.

The MPI has three dimensions: health, education and standard of living. These are measured using ten indicators. Each dimension is equally weighted; each indicator within a dimension is also equally weighted. The MPI reveals the combination of deprivations that batter a household at the same time. A household is identified as multi-dimensionally poor if, and only if, it is deprived in some combination of indicators whose weighted sum exceeds 30% of deprivations.

The dimensions and indicators are listed below:

1. **Health**
   - Child mortality: If any child has died in the family
   - Nutrition: If any adult or child in the family is malnourished.

2. **Education**
   - Years of schooling (if no household member has completed five years of schooling)
   - Child enrollment (if any school-aged child is out of school in years 1 to 8)

3. **Standard of living**
   - Electricity (no electricity is poor)
   - Drinking water (MDG definitions)
   - Sanitation (MDG definitions, including that toilet is not shared)
   - Flooring (dirt/sand/dung are poor)
   - Cooking fuel (wood/charcoal/dung are poor)
   - Assets (poor if do not own more than one of: radio, television, telephone, bike, motorbike)

The MPI is the product of two numbers: the Headcount H or percentage of people who are poor, and the Average Intensity of deprivation A – which reflects the proportion of dimensions in which households are deprived.

Constituents of urban poverty

Inadequate income (and thus inadequate consumption of necessities including food and, often, safe and sufficient water; often problems of indebtedness, with debt repayments significantly reducing income available for necessities).

Inadequate, unstable or risky asset base (non-material and material including educational attainment and housing) for individuals, households or communities.

Inadequate shelter (typically poor quality, overcrowded and insecure).

Inadequate provision of ‘public’ infrastructure (e.g. piped water, sanitation, drainage, roads, footpaths) which increases the health burden and often the work burden.

Inadequate provision of basic services such as day care/schools/vocational training, healthcare, emergency services, public transport, communications, law enforcement.

Limited or no safety net to ensure basic consumption can be maintained when income falls; also to ensure access to shelter and healthcare when these can no longer be paid for.

Inadequate protection of poorer groups’ rights through the operation of the law, including laws and regulations regarding civil and political rights, occupational health and safety, pollution control, environmental health, protection from violence and other crimes, protection from discrimination and exploitation.

Voicelessness and powerlessness within political systems and bureaucratic structures, leading to little or no possibility of receiving entitlements; of organizing, making demands and getting a fair response; or of receiving support for developing their own initiatives. Also, no means of ensuring accountability from aid agencies, NGOs, public agencies and private utilities or being able to participate in the definition and implementation of their urban poverty programmes.

Profile of the Urban Poor in South-East Asia Region

3.1 Population

The World Health Organization’s South-East Asia Region (SEAR) comprises 11 countries: Bangladesh, Bhutan, Democratic People’s Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste.

With around 5% of the land area, the Region is home to around 26% of the world population\(^{20}\) (Table 1). The total population of the Region was 1.6 billion in 2005 and is projected

<table>
<thead>
<tr>
<th>Country</th>
<th>Total (in millions)</th>
<th>Urban (in millions)</th>
<th>Urban Poor(^1) (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>162.2</td>
<td>45.4</td>
<td>11.00</td>
</tr>
<tr>
<td>Bhutan</td>
<td>0.7</td>
<td>0.3</td>
<td>NA</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>23.9</td>
<td>15.0</td>
<td>NA</td>
</tr>
<tr>
<td>India</td>
<td>1,198</td>
<td>359.4</td>
<td>80.00</td>
</tr>
<tr>
<td>Indonesia</td>
<td>230</td>
<td>121.9</td>
<td>27.00</td>
</tr>
<tr>
<td>Maldives</td>
<td>0.3</td>
<td>0.1</td>
<td>NA</td>
</tr>
<tr>
<td>Myanmar</td>
<td>50</td>
<td>16.5</td>
<td>3.60</td>
</tr>
<tr>
<td>Nepal</td>
<td>29.3</td>
<td>5.3</td>
<td>0.80</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>20.2</td>
<td>3.0</td>
<td>0.74</td>
</tr>
<tr>
<td>Thailand</td>
<td>67.8</td>
<td>23.1</td>
<td>3.45</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>1.1</td>
<td>0.3</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note: 1 = approximated numbers
to increase to 2 billion by 2025. South-East Asia is one of the most rapidly urbanizing parts of the world, with its cities and towns adding millions of new urban dwellers every year. There is no common definition for urban areas in South-East Asian countries; each country defines urban areas according to its own policies for land use governance and management.

The major cities of the South-East Asia Region such as Mumbai, Dhaka and Kolkata will continue to grow rapidly, but the major increase in the urban population is predicted to occur in smaller cities and towns. It has been projected that by 2025, the Region will have six cities with more than 10 million population (Table 2).

**Table 2: Projected population of major cities in the SEA Region by 2025**

<table>
<thead>
<tr>
<th>City</th>
<th>World ranking</th>
<th>Total (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mumbai, India</td>
<td>2</td>
<td>26.38</td>
</tr>
<tr>
<td>Delhi, India</td>
<td>3</td>
<td>22.49</td>
</tr>
<tr>
<td>Dhaka, Bangladesh</td>
<td>4</td>
<td>22.01</td>
</tr>
<tr>
<td>Kolkata, India</td>
<td>8</td>
<td>20.56</td>
</tr>
<tr>
<td>Jakarta, Indonesia</td>
<td>19</td>
<td>12.36</td>
</tr>
<tr>
<td>Chennai, India</td>
<td>26</td>
<td>10.12</td>
</tr>
</tbody>
</table>


The urban population growth rate in South-East Asian countries is more than the average population growth rate, indicating the scale of the challenge these countries face. This growth in urban population will be mainly composed of poor people, further increasing the proportions of the urban poor.

More than 60% of the urban poor in the Region live in India (Figure 1), making up a population almost equal to that of Egypt.

**Figure 1: Distribution of the urban poor in the SEA Region**

Although an estimate for the population of the urban poor is unavailable for Bhutan, around 10% of the population in the capital Thimpu is estimated to live in slum settlements. Bhutan, Maldives and Timor-Leste have the highest urban growth rates in the Region (Figure 2).

Figure 2: *Urban population growth rates in the SEA Region*


### 3.2 Economic and employment situation

The economic status of the Region ranges from high indices of poverty in Bangladesh and Nepal to low absolute numbers and proportions of the urban poor in Maldives and Thailand (Tables 3 and 4). Sri Lanka ranks 32 in the MPI ranking although the urban poor make up 24.7% of the population.

The majority of the workforce in the SEA Region is in the agriculture sector, with around 40% distributed in the formal industry and services sectors. Besides these, the urban poor are mostly engaged in informal work, and do not get registered as employees in any survey.

Between 40% and 85% of workers in the Region are engaged in vulnerable employment (Table 5), highlighting the need for attention to occupational health.

### 3.3 Life expectancy and burden of disease in the SEA Region

Life expectancy at birth in the SEA Region ranges from 59.9 years for males in Myanmar to 78.1 years for females in Sri Lanka (Table 6). The proportion of years of life lost or hampered by disability (DALYs) attributable to communicable and noncommunicable diseases, and injuries vary widely across the SEA Region (Table 6): Communicable diseases exact the highest toll in Timor-Leste, noncommunicable diseases in DPR Korea, and injuries in Sri Lanka. Overall, Nepal bears the highest burden of DALYs per 100 000 population.
Table 3: GDP growth, per capita, and proportion of urban poor in the SEA Region, 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>% GDP growth</th>
<th>GDP per capita (in $)</th>
<th>Proportion of urban poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>6.2</td>
<td>497</td>
<td>28.0 (2006)</td>
</tr>
<tr>
<td>Bhutan</td>
<td>13.8</td>
<td>1869</td>
<td>NA</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>India</td>
<td>6.1</td>
<td>1017</td>
<td>25.0 (2005)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>6.1</td>
<td>2246</td>
<td>18.0</td>
</tr>
<tr>
<td>Maldives</td>
<td>5.2</td>
<td>4135</td>
<td>NA</td>
</tr>
<tr>
<td>Nepal</td>
<td>5.3</td>
<td>438</td>
<td>9.6 (2004)</td>
</tr>
<tr>
<td>Thailand</td>
<td>2.5</td>
<td>4043</td>
<td>15.0</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>13.2</td>
<td>453</td>
<td>NA</td>
</tr>
</tbody>
</table>


Table 4: Gini index, Human Development Index rank, Multiple-dimensional Poverty Index in the SEA Region

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>42.5</td>
<td>87</td>
<td>0.006</td>
<td>16</td>
</tr>
<tr>
<td>Maldives</td>
<td>NA</td>
<td>95</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>41.1</td>
<td>102</td>
<td>0.053</td>
<td>32</td>
</tr>
<tr>
<td>Indonesia</td>
<td>39.4</td>
<td>111</td>
<td>0.095</td>
<td>53</td>
</tr>
<tr>
<td>Bhutan</td>
<td>46.8</td>
<td>132</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>India</td>
<td>36.8</td>
<td>134</td>
<td>0.296</td>
<td>74</td>
</tr>
<tr>
<td>Myanmar</td>
<td>NA</td>
<td>138</td>
<td>0.088</td>
<td>52</td>
</tr>
<tr>
<td>Nepal</td>
<td>47.3</td>
<td>144</td>
<td>0.647</td>
<td>82</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>31</td>
<td>146</td>
<td>0.291</td>
<td>73</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>39.5</td>
<td>162</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>


Addressing Health of the Urban Poor in South-East Asia Region: Challenges and Opportunities
Table 5: Employment, unemployment and vulnerable employment rates in the SEA Region

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>67.9</td>
<td>70.6</td>
<td>4.3</td>
<td>85</td>
</tr>
<tr>
<td>Bhutan</td>
<td>61.1</td>
<td>60.9</td>
<td>3.2</td>
<td>52.3</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>63.9</td>
<td>65.7</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>India</td>
<td>55.6</td>
<td>57.8</td>
<td>5 (2004)</td>
<td>NA</td>
</tr>
<tr>
<td>Indonesia</td>
<td>61.8</td>
<td>68.3</td>
<td>8.4 (2008)</td>
<td>63.1 (2007)</td>
</tr>
<tr>
<td>Myanmar</td>
<td>74.4</td>
<td>74.2</td>
<td>6 (1990)</td>
<td>NA</td>
</tr>
<tr>
<td>Nepal</td>
<td>61.5</td>
<td>71.5</td>
<td>8.8 (2006)</td>
<td>71.6 (2000)</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>54.7</td>
<td>54.3</td>
<td>5.2 (2008)</td>
<td>40.7 (2000)</td>
</tr>
<tr>
<td>Thailand</td>
<td>71.5</td>
<td>73.2</td>
<td>1.4 (2008)</td>
<td>53.3 (2007)</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>66.8</td>
<td>70.9</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note: ¹ = % of total labour force, ² = % of total employment

Table 6: Life expectancy and burden of disease in the SEA Region

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>63/64</td>
<td>26,569</td>
<td>12,703</td>
<td>10,805</td>
<td>3,061</td>
</tr>
<tr>
<td>Bhutan</td>
<td>65/69</td>
<td>23,916</td>
<td>10,374</td>
<td>10,588</td>
<td>2,954</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>65.3/69.5</td>
<td>21,749</td>
<td>6,803</td>
<td>13,222</td>
<td>1,724</td>
</tr>
<tr>
<td>India</td>
<td>62.6/65.6</td>
<td>27,316</td>
<td>12,004</td>
<td>11,751</td>
<td>3,561</td>
</tr>
<tr>
<td>Indonesia</td>
<td>69.2/73.2</td>
<td>23,854</td>
<td>6,891</td>
<td>11,479</td>
<td>5,485</td>
</tr>
<tr>
<td>Maldives</td>
<td>70.4/73.6</td>
<td>19,952</td>
<td>5,814</td>
<td>10,539</td>
<td>3,599</td>
</tr>
<tr>
<td>Myanmar</td>
<td>59.9/64.4</td>
<td>28,825</td>
<td>13,332</td>
<td>12,519</td>
<td>2,974</td>
</tr>
<tr>
<td>Nepal</td>
<td>66.4/67.8</td>
<td>29,514</td>
<td>14,481</td>
<td>11,426</td>
<td>3,607</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>70.1/78.1</td>
<td>24,521</td>
<td>3,023</td>
<td>12,484</td>
<td>9,013</td>
</tr>
<tr>
<td>Thailand</td>
<td>66.1/72.2</td>
<td>20,525</td>
<td>6,072</td>
<td>11,944</td>
<td>2,510</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>60.7/62.5</td>
<td>28,090</td>
<td>16,320</td>
<td>9,341</td>
<td>2,430</td>
</tr>
</tbody>
</table>

Note: ¹ = estimated per 100,000 population.
Literacy

Maldives is notable for its high overall literacy rate, as well as for the parity between the genders in literacy. Indonesia, Myanmar, Sri Lanka and Thailand have high overall literacy rates (Table 7). The disparity between the literacy levels of males and females is greater in the countries with lower overall rates.

Table 7: Adult Literacy Rates in the SEA Region

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Total</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>2007</td>
<td>53.5</td>
<td>48.0</td>
<td>58.0</td>
</tr>
<tr>
<td>Bhutan</td>
<td>2005</td>
<td>52.8</td>
<td>39.0</td>
<td>65.0</td>
</tr>
<tr>
<td>India</td>
<td>2007</td>
<td>66.0</td>
<td>54.0</td>
<td>77.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2006</td>
<td>92.0</td>
<td>89.0</td>
<td>95.0</td>
</tr>
<tr>
<td>Maldives</td>
<td>2007</td>
<td>97.1</td>
<td>97.0</td>
<td>97.0</td>
</tr>
<tr>
<td>Myanmar</td>
<td>2000</td>
<td>90.0</td>
<td>86.0</td>
<td>94.0</td>
</tr>
<tr>
<td>Nepal</td>
<td>2007</td>
<td>57.0</td>
<td>44.0</td>
<td>70.0</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2006</td>
<td>91.0</td>
<td>89.0</td>
<td>93.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>2007</td>
<td>94.0</td>
<td>93.0</td>
<td>96.0</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>


3.4 Access to safe water and sanitation

Maldives, Sri Lanka and Thailand demonstrate consistently high indices of improved sanitation and access to safe water supply, across urban and rural areas (Table 8). People in the other countries of the Region have better access to safe water than to improved sanitation facilities, and mostly better facilities in urban areas than in rural.

3.5 Healthcare in the SEA Region

The South-East Asia Region has, on average, five physicians and 12 nurses and midwives per 10000 population (Table 9). The proportion of healthcare personnel in the Member States ranges from 1 physician and 3 nurses and midwives per 10000 population in Bhutan, to 33 physicians and 41 nurses and midwives per 10000 population in DPR Korea24.

Government contributions to health per capita range from 2 international dollars in Myanmar to 336 international dollars in Maldives (Table 10). Expenditure on health ranges from the highest proportion of government spending in Timor-Leste to a preponderance of private spending in Myanmar (Table 11).

Private health insurance is not very prevalent in the Region besides Thailand and Sri Lanka at 19.5% and 9.1% respectively, the proportion of private pre-paid plans in private expenditure on health in the Region is quite low24.
Table 8: Accessibility to improved drinking water and improved sanitation facilities in the SEA Region, 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>% access to improved drinking-water</th>
<th>% access to improved sanitation facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>85</td>
<td>78</td>
</tr>
<tr>
<td>Bhutan</td>
<td>99</td>
<td>88</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>India</td>
<td>96</td>
<td>84</td>
</tr>
<tr>
<td>Indonesia</td>
<td>89</td>
<td>71</td>
</tr>
<tr>
<td>Maldives</td>
<td>99</td>
<td>86</td>
</tr>
<tr>
<td>Nepal</td>
<td>93</td>
<td>87</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>98</td>
<td>88</td>
</tr>
<tr>
<td>Thailand</td>
<td>99</td>
<td>98</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>86</td>
<td>63</td>
</tr>
</tbody>
</table>


Table 9: Healthcare resources in the SEA Region

<table>
<thead>
<tr>
<th>Country</th>
<th>Hospital beds</th>
<th>Physicians</th>
<th>Nurses and midwives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>4 (2005)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Bhutan</td>
<td>17 (2006)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>132 (2002)</td>
<td>33</td>
<td>41</td>
</tr>
<tr>
<td>India</td>
<td>9 (2005)</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Indonesia</td>
<td>6 (2002)</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Maldives</td>
<td>26 (2005)</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Myanmar</td>
<td>6 (2006)</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>Nepal</td>
<td>50 (2006)</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>31 (2004)</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Thailand</td>
<td>22 (2002)</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>NA</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>SEAR average</td>
<td>NA</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: All resources are estimated per 10000 population
Table 10: Per capita expenditure on health in the SEA Region 2007

<table>
<thead>
<tr>
<th>Country</th>
<th>Government expenditure (ppp int. $)</th>
<th>Government expenditure, average exchange rate (USD)</th>
<th>Total expenditure (ppp int. $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>14</td>
<td>5</td>
<td>42</td>
</tr>
<tr>
<td>Bhutan</td>
<td>151</td>
<td>60</td>
<td>188</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>India</td>
<td>29</td>
<td>11</td>
<td>109</td>
</tr>
<tr>
<td>Indonesia</td>
<td>44</td>
<td>23</td>
<td>81</td>
</tr>
<tr>
<td>Maldives</td>
<td>336</td>
<td>224</td>
<td>514</td>
</tr>
<tr>
<td>Myanmar</td>
<td>2</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>Nepal</td>
<td>21</td>
<td>8</td>
<td>53</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>85</td>
<td>32</td>
<td>179</td>
</tr>
<tr>
<td>Thailand</td>
<td>209</td>
<td>100</td>
<td>286</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>98</td>
<td>49</td>
<td>116</td>
</tr>
</tbody>
</table>


Table 11: Government and private expenditure on health in the SEA Region, 2007

<table>
<thead>
<tr>
<th>Country</th>
<th>Total expenditure (% of GDP)</th>
<th>Government expenditure (% of total government expenditure)</th>
<th>Total expenditure on health</th>
<th>% Private expenditure</th>
<th>% Government expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>3.4</td>
<td>8.0</td>
<td>66.4</td>
<td>33.6</td>
<td>33.6</td>
</tr>
<tr>
<td>Bhutan</td>
<td>4.1</td>
<td>10.7</td>
<td>19.7</td>
<td>80.3</td>
<td>80.3</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>India</td>
<td>4.1</td>
<td>3.8</td>
<td>73.8</td>
<td>26.2</td>
<td>26.2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2.2</td>
<td>6.2</td>
<td>45.5</td>
<td>54.5</td>
<td>54.5</td>
</tr>
<tr>
<td>Maldives</td>
<td>9.8</td>
<td>10.5</td>
<td>34.6</td>
<td>65.4</td>
<td>65.4</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1.9</td>
<td>0.9</td>
<td>88.3</td>
<td>11.7</td>
<td>11.7</td>
</tr>
<tr>
<td>Nepal</td>
<td>5.1</td>
<td>10.9</td>
<td>60.3</td>
<td>39.7</td>
<td>39.7</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>4.2</td>
<td>8.5</td>
<td>52.5</td>
<td>47.5</td>
<td>47.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>3.7</td>
<td>13.1</td>
<td>26.8</td>
<td>73.2</td>
<td>73.2</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>13.6</td>
<td>15.0</td>
<td>15.4</td>
<td>84.6</td>
<td>84.6</td>
</tr>
</tbody>
</table>

4. Health of the Urban Poor

4.1 Life Expectancy

Across the world, research has consistently demonstrated that people belonging to lower socio-economic strata suffer from a higher burden of disease and ill-health, resulting in poor quality of life and lowered life expectancy, compared to those of higher socio-economic status\(^25\).

The majority of the urban poor live in slums with poor housing conditions lacking basic necessities like safe water supply, sanitation and waste disposal. Slums can also be hazardous places to live in, especially if they are near industries and toxic-waste disposal sites. All these conditions expose the urban poor to a higher risk of infection and disease, underscoring the importance of the ‘place of residence’ as a determinant of the number of years of healthy life\(^26\).

Income plays an important role in determining the choices made by the urban poor regarding their nutrition, clothing, hygiene and consumption of goods and services. The powerlessness faced by the urban poor to procure the basic necessities of life poses an enormous stress on their health and well being. A minimum level of income is necessary for good health and well being\(^25\). In societies with no provision of social security, personal income is crucial for procuring essential material goods to maintain health\(^27\). The precarious income and living conditions of the urban poor are often exacerbated by lack of access to adequate healthcare services. The lives of the urban poor are epitomized by the vicious circle of poverty and ill-health (Figure 3).

Disaggregated data on the health of the urban poor are lacking in many countries of the Region. This review has therefore utilized available national and regional data on the general population, the urban population, and the poor, to draw inferences on the health and well-being of the urban poor.

The urban poor suffer from a triple burden of disease comprising communicable and non-communicable diseases, and injuries. As a result, they may have worse health outcomes than their rural counterparts\(^28\). A joint WHO and Indian Council of Medical Research (ICMR) study in the slums of Faridabad, India, found a high prevalence of risk factors for noncommunicable disease, e.g. a substantial burden of overweight and hypertension, use of alcohol and tobacco, and inadequate consumption of fruits and vegetables\(^29\).
4.2 Reproductive health

Access to family planning services is an important means to achieving MDG 5, improved maternal health. Although more than half of the women in the Region who were married or in union were using some form of contraception by 2005, there remains a large unmet need for improved reproductive health services.

According to the United Nations Population Fund (UNFPA), the increase in the urban population of South Asian countries will be mainly due to a natural increase in the population, with a smaller proportion being attributable to migration and reclassification of rural areas to urban areas. The natural increase of the urban population will be contributed to largely by the urban poor. The supply and utilization of effective family planning services become critically important to address this. Table 12 indicates the status of selected reproductive health indicators in countries of the SEA Region.

The fertility rates among the urban poor in India are higher than those of the rest of the urban population. In a study which explored the use of family planning methods in the slums of Delhi, India, a perception that contraceptive pills and tubectomy resulted in physical weakness was identified as a major constraint in the use of these family planning methods. Demand for sons was another important factor. In the slums of Rajkot in India, the costs of care as well as poor provider attitudes and quality of services were cited as reasons for not utilizing family planning services. An analysis of the Indian National Family Health Survey – III (2005-06) data revealed that only 50% of urban poor women use contraceptives and this usage is influenced by age, parity and education. Table 13 compares the status of selected reproductive health indicators of the urban poor, non-poor, and rural populations in India.

The Urban Health Survey of Bangladesh revealed that fertility rates are high among urban poor women, with the Total Fertility Rate (TFR) being 2.4-2.5 and 1.7-1.9 in the urban poor and non-poor respectively. The fertility rate among urban slum women was highest in the age-group...
Table 12: Reproductive health in the SEAR

<table>
<thead>
<tr>
<th>Country</th>
<th>Contraceptive use (%)</th>
<th>Adolescent fertility rate (per 1000 women)</th>
<th>% Antenatal care (≥ 1 visit)</th>
<th>% Antenatal care (≥ 4 visits)</th>
<th>% Unmet need for family planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPR Korea</td>
<td>68.6 (2002)</td>
<td>NA</td>
<td>NA</td>
<td>94.9 (2004)</td>
<td>NA</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>18.2 (2000)</td>
</tr>
</tbody>
</table>


Table 13: Reproductive health of urban poor women in the slums of India, 2008

<table>
<thead>
<tr>
<th>Reproductive health indicators</th>
<th>Urban poor</th>
<th>Urban non-poor</th>
<th>Rural India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women aged 20-24 married by age 18 (%)</td>
<td>51.5</td>
<td>21.2</td>
<td>52.5</td>
</tr>
<tr>
<td>Women aged 20-24 who became mothers before age 18 (%)</td>
<td>25.9</td>
<td>8.3</td>
<td>26.3</td>
</tr>
<tr>
<td>Total fertility rate (children per woman)</td>
<td>2.80</td>
<td>1.84</td>
<td>2.98</td>
</tr>
<tr>
<td>Higher order births (3+ births) (%)</td>
<td>28.6</td>
<td>11.4</td>
<td>28.1</td>
</tr>
<tr>
<td>Birth interval (median number of months between current and previous birth)</td>
<td>2.80</td>
<td>1.84</td>
<td>2.98</td>
</tr>
</tbody>
</table>


20-24 years, whereas among non-poor urban women fertility rates were highest in the age group 25-29 years. There was no difference in the birth intervals between the urban poor and non-poor groups, but it was lower in the urban poor after a deceased birth. Women between 20 and 24 years contributed to more than 50% of fertility. The fertility of teenage girls in slums was 1.5 times higher than that in non-slum areas (Table 14).
Around 53% of urban slum women were using modern methods of contraception. Fifty percent of slum dwellers were obtaining contraceptive advice and methods from private providers and pharmacies. NGOs were the leading providers of injectable contraceptives to the urban slum population.

The TFR in the urban areas of Indonesia was 2.3 compared to 2.8 in the rural areas as revealed by the Demographic Health Survey of Indonesia 2007. Although no specific information regarding the reproductive health of the urban poor population of Indonesia was available from the Demographic Health Survey, it is likely that reproductive health is poor in this section of the population. The fertility rates were higher in women of lower socio-economic status (3.0) and in those with lower levels of education. The number of children born to women belonging to the lowest wealth quintile was higher (4.2) than to women belonging to the highest wealth quintile (3.0). Women belonging to the lowest wealth quintile were giving birth at earlier ages, and were more likely to be teenage mothers than women in the highest quintile. Ninety percent of women from the lowest wealth quintile were aware of modern family planning methods compared to 99.9% of women belonging to the highest quintile. The use of family planning methods was also low among women from the lowest wealth quintile compared to women from the highest wealth quintile.

In Nepal, the TFR in urban areas was 2.1 and in rural areas, 3.3. TFR was high among women from the lowest wealth quintile (4.7) compared to women from the highest wealth quintile (1.3). Adolescent pregnancies were also higher in the lowest wealth quintile than in the highest.

The TFR of Thailand declined from 2.0 in 1993 to 1.7 in 2004. The prevalence rate of use of contraceptives was 79% in 2004. Women have a higher proportion of use of contraceptives compared to men. Thailand’s progress in the area of reproductive health is attributed to the

### Table 14: Reproductive health of the urban population, Bangladesh, 2008

<table>
<thead>
<tr>
<th>Reproductive health indicators</th>
<th>Urban slum</th>
<th>Urban non-slum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age-specific fertility rate (15-19 years)</td>
<td>96</td>
<td>61</td>
</tr>
<tr>
<td>Age-specific fertility rate (20-24 years)</td>
<td>156</td>
<td>119</td>
</tr>
<tr>
<td>Age-specific fertility rate (25-29 years)</td>
<td>113</td>
<td>128</td>
</tr>
<tr>
<td>Age-specific fertility rate (30-34 years)</td>
<td>78</td>
<td>49</td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>2.46</td>
<td>1.85</td>
</tr>
<tr>
<td>General fertility rate</td>
<td>96</td>
<td>73</td>
</tr>
<tr>
<td>Crude birth rate</td>
<td>23.8</td>
<td>17.9</td>
</tr>
<tr>
<td>Median birth interval</td>
<td>45 months</td>
<td>48 months</td>
</tr>
<tr>
<td>Proportion of women pregnant before age of 20</td>
<td>64 %</td>
<td>44 %</td>
</tr>
<tr>
<td>Teenage pregnancy (15-19 yrs)</td>
<td>21 %</td>
<td>11 %</td>
</tr>
</tbody>
</table>

Source: USAID. 2006 Bangladesh Urban Health Survey. Washington; USAID. 2008
mainstreaming of population issues into all national policies and programmes related to sustainable development, including those aimed at eradicating poverty. Population issues have been given a high profile in Thailand’s development agenda since the 1960s. The strengthening of reproductive health has also benefited from the country’s strong primary care based health delivery system. Maternal and child health services covering family planning, referral services for pregnancy and delivery complications and cancers of the reproductive system, and HIV testing are available and complemented by services like adolescent health, sex education, pre-marital counseling, and post-abortion care.

The TFR for Sri Lanka excluding the Northern Province is 2.4. Sixty-eight percent of married women use some method of contraception. Modern methods of contraception account for 53% of methods used by women or their partner. The proportion of women using contraceptives is lower in urban areas (59%) compared to rural areas (70%). Female sterilization (16.9%) and injectables (15%) are the most widely used methods by ever-married women followed by periodic abstinence (9.6%).

An aspect of reproductive health that is unfortunately often overlooked in health programming is menstrual hygiene. Overcrowding, inadequate sanitation facilities, lack of sufficient and safe water, poverty, lack of privacy, low awareness, cultural taboos, and low autonomy synergize to make menstrual hygiene difficult to achieve for the poor, particularly in urban areas. Poor women in India often resort to risky materials and methods during menstruation, e.g., the use of dirty cloth, rags, or grass, and the reuse of damp napkins. Conventional disposable sanitary pads are too expensive for regular purchase by poor women. Besides, the widespread use of disposable pads would generate the problem of environmentally safe disposal, and is therefore not the optimum solution.

In summary, the urban poor women across a number of countries in the Region, have low contraceptive use, high fertility, early age of marriage, short birth interval, poor menstrual hygiene, and higher rates of teenage pregnancy. Reproductive and contraceptive advice is mainly sought from private providers and pharmacies. Decisions regarding family planning and methods of contraception are generally taken by males. The unmet need for contraception is an important contributor to high fertility. Poor reproductive health results in high infant mortality as well as high maternal mortality. High fertility rates among the urban poor place increased demands on resources such as housing, sanitation, safe drinking water, education and healthcare, making the achievement of the MDGs even more difficult.

4.3 Maternal Health

A substantial proportion of the world’s maternal deaths occur in the Region, with the poor bearing the brunt of this burden. Improved maternal health is the aim of MDG 5.

Many health problems in pregnancy which may result in maternal and infant deaths are preventable, detectable and treatable. This is the rationale for the UNICEF and WHO recommendation of a minimum of four antenatal visits, and the inclusion of this recommendation as a target within MDG 5. However, many Member States are falling short of achieving this goal, especially the percentage of births attended by skilled health personnel (Table 15).
Table 15: Percentage of births attended by skilled health personnel compared with 2015 targets in countries of the SEA Region

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>% of births attended by skilled health personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Current situation</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2006</td>
<td>20.6</td>
</tr>
<tr>
<td>Bhutan</td>
<td>2005</td>
<td>50.9</td>
</tr>
<tr>
<td>DPRK</td>
<td>2004</td>
<td>97.1</td>
</tr>
<tr>
<td>India</td>
<td>2005</td>
<td>46.6</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2003</td>
<td>66.3</td>
</tr>
<tr>
<td>Maldives</td>
<td>2004</td>
<td>84</td>
</tr>
<tr>
<td>Myanmar</td>
<td>2001</td>
<td>57</td>
</tr>
<tr>
<td>Nepal</td>
<td>2006</td>
<td>18.7</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2000</td>
<td>96.6</td>
</tr>
<tr>
<td>Thailand</td>
<td>2006</td>
<td>97.2</td>
</tr>
<tr>
<td>Timor Leste</td>
<td>2003</td>
<td>19</td>
</tr>
</tbody>
</table>


Maternal health among the urban poor of India

Maternal health is poor among the slum residents of India compared to the non-slum residents. Fifty-four percent of pregnant poor women had three antenatal care visits compared to 83% pregnant women in the urban areas (Table 16)\(^40\). Forty-four percent of the urban poor gave birth at a healthcare facility compared to 78% of the urban non-poor. Fifty-one percent of births were assisted by healthcare personnel compared to 84% in urban non-poor women. More women were suffering from anaemia in slums than in non-slum areas. Utilization of healthcare services by urban poor women varies in different cities. It is reported that overall 60% of urban poor women gave birth in a healthcare facility, but the proportion was 46% in the slums of Meerut and by contrast it was 92% in the slums of Chennai\(^41\). The utilization of postnatal services is also low.

Analysis of the NFHS-III of India showed that women living in urban slums are less likely to receive the full complement of government recommended antenatal care\(^31\). Women living in recognized slums are likely to have better maternal care compared to women living in unrecognized slums\(^42\).

A study undertaken in the slums of Delhi revealed that 74 % of women received antenatal care out of which 59% received care from government facilities and 16 % from peripheral health delivery units\(^43\). Higher prevalence of anaemia and tuberculosis was found in pregnant women not seeking antenatal care.

In a study carried out in the slums of Vellore in 2006, it was found that only one-third of women went to government facilities and the remaining went to private providers for their
antenatal care. Of the women attending government facilities, more than half went to Christian Medical College, Vellore, which is a tertiary teaching hospital\textsuperscript{44}. In another study covering slums in Meerut, India, it was found that more than 40% women preferred to be registered with a private provider\textsuperscript{45}. More than 67% women delivered at home, 40% of these home deliveries were assisted by untrained ‘dais’. Delivering at home was the preferred choice among women. The utilization of public facilities was low because of lack of staff, diagnostic services, unfavourable timings and poor attitude of staff towards slum women.

In a study exploring the autonomy of urban poor women in utilizing healthcare, it was found that urban poor women have more autonomy than their rural counterparts. The healthcare facilities run by the municipal corporation are the preferred place for delivery among women living in Mumbai slums.

**Maternal health among the urban poor of Bangladesh**

In Bangladesh, 62% of urban poor women received antenatal services compared to 85% of urban non-poor women\textsuperscript{46,47}. Urban non-poor women were twice as likely to visit a trained healthcare provider for antenatal care. By contrast, the majority of urban poor women in Bangladesh received antenatal care from a ‘low level qualified healthcare provider,’ such as a community health worker. Thirty-three percent of urban poor women received no antenatal care compared to 14% of urban non-poor women (Table 17). Only 22% had more than four antenatal care visits compared to 53% of non-poor women. Fifty-one percent of urban poor women received iron and folic acid supplementation compared to 75% of urban non-poor women. Household income and education of the mother were identified as important determinants of complete maternal care among the urban poor population of Bangladesh.

**Table 16: Percentage of mothers utilizing healthcare services by place of residence, India, 2008**

<table>
<thead>
<tr>
<th>Services received</th>
<th>Urban poor</th>
<th>Urban non-poor</th>
<th>Rural India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers who had at least three antenatal care visits (%)</td>
<td>54.3</td>
<td>83.1</td>
<td>43.7</td>
</tr>
<tr>
<td>Mothers who consumed IFA for 90 days or more (%)</td>
<td>18.5</td>
<td>41.8</td>
<td>18.8</td>
</tr>
<tr>
<td>Mothers who received tetanus toxoid vaccines (minimum of 2) (%)</td>
<td>75.8</td>
<td>90.7</td>
<td>72.6</td>
</tr>
<tr>
<td>Mothers who received complete ANC (%)</td>
<td>11.0</td>
<td>29.5</td>
<td>10.2</td>
</tr>
<tr>
<td>Births in health facilities (%)</td>
<td>44.0</td>
<td>78.5</td>
<td>28.9</td>
</tr>
<tr>
<td>Births assisted by doctor/nurse/LHV/ANM/other health personnel (%)</td>
<td>50.7</td>
<td>84.2</td>
<td>37.4</td>
</tr>
</tbody>
</table>

Maternal health in Indonesia

As reported by the 2008 Demographic Health Survey of Indonesia, 97% of women in urban areas received complete antenatal care\(^6\). Only 82% of women from the lowest wealth quintile received complete antenatal care (Table 18). Iron and folic acid supplementation was administered to 84% and 61% of the urban population and the population in the lowest wealth quintile respectively. It may be reasonable to assume that the supplementation levels of the urban poor are likely to be similar to those of the lowest wealth quintile group. Thirteen percent of women from the lowest wealth quintile gave birth in a health facility. The proportion of assisted deliveries was 61% for the lowest wealth quintile and 70% for urban areas.

**Table 17: Percentage of urban mothers utilizing healthcare services, Bangladesh, 2006**

<table>
<thead>
<tr>
<th>Healthcare utilization</th>
<th>Urban slum</th>
<th>Urban non-slum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any ANC visits</td>
<td>33.4</td>
<td>13.7</td>
</tr>
<tr>
<td>4+ ANC visits</td>
<td>21.8</td>
<td>52.7</td>
</tr>
<tr>
<td>Iron and Folic Acid supplementation</td>
<td>51.0</td>
<td>75.0</td>
</tr>
<tr>
<td>Blood pressure measurement</td>
<td>85.0</td>
<td>95.0</td>
</tr>
<tr>
<td>USG test</td>
<td>28.7</td>
<td>68.7</td>
</tr>
<tr>
<td>Delivery at home</td>
<td>87.0</td>
<td>55.0</td>
</tr>
<tr>
<td>Assistance during delivery</td>
<td>18.0</td>
<td>56.0</td>
</tr>
<tr>
<td>Prolonged labour</td>
<td>11.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Post natal check up within 2 days of delivery</td>
<td>13.7</td>
<td>40.6</td>
</tr>
<tr>
<td>Post natal check up within 48 days of delivery</td>
<td>17.9</td>
<td>50.6</td>
</tr>
</tbody>
</table>


**Table 18: Percentage of mothers utilizing healthcare services by place of residence and economic status, Indonesia, 2007**

<table>
<thead>
<tr>
<th>Healthcare utilization</th>
<th>Urban</th>
<th>Rural</th>
<th>Lowest wealth quintile</th>
<th>Highest wealth quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal care</td>
<td>97.7</td>
<td>90.1</td>
<td>82.2</td>
<td>99.2</td>
</tr>
<tr>
<td>Blood pressure measurement</td>
<td>96.4</td>
<td>88.5</td>
<td>81.5</td>
<td>98.0</td>
</tr>
<tr>
<td>Iron and Folic Acid tablets</td>
<td>84.0</td>
<td>72.5</td>
<td>61.9</td>
<td>86.1</td>
</tr>
<tr>
<td>Tetanus toxoid injection</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Delivery in health facility</td>
<td>70.3</td>
<td>28.9</td>
<td>13.6</td>
<td>83.3</td>
</tr>
<tr>
<td>Assistance during delivery</td>
<td>83.2</td>
<td>72.7</td>
<td>61.0</td>
<td>85.7</td>
</tr>
<tr>
<td>Post-natal check up within two days of delivery</td>
<td>69.1</td>
<td>70.6</td>
<td>66.6</td>
<td>67.8</td>
</tr>
</tbody>
</table>

Source: Statistics Indonesia (Badan Pusat Statistik—BPS) and Macro International. Indonesia Demographic and Health Survey 2007.
Maternal health in Nepal

As per the Demographic and Health Survey of Nepal\(^{37}\), the median age of marriage among women in the 20-49 years age group in the lowest wealth quintile was 17 years. Only 18% of women from the lowest wealth quintile received antenatal care against 84% from the overall urban population (Table 19). No specific data were available for the urban poor. However, a comparison of the proportion of assisted deliveries in urban areas (50%) and in the lowest wealth quintile (4.8%) points to a likely low level of assisted deliveries among the urban poor.

**Table 19: Maternal health indicators for Nepal, 2006**

<table>
<thead>
<tr>
<th>Maternal health indicators</th>
<th>Urban</th>
<th>Rural</th>
<th>Lowest wealth quintile</th>
<th>Highest wealth quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age of marriage</td>
<td>18.1</td>
<td>17.0</td>
<td>17.0</td>
<td>18.5</td>
</tr>
<tr>
<td>Antenatal care by skilled birth attendant %</td>
<td>84.6</td>
<td>37.5</td>
<td>17.7</td>
<td>84.1</td>
</tr>
<tr>
<td>Blood pressure measurement %</td>
<td>63.4</td>
<td>25.6</td>
<td>12.5</td>
<td>69.6</td>
</tr>
<tr>
<td>Delivery in health facility %</td>
<td>47.8</td>
<td>13.5</td>
<td>43.0</td>
<td>55.0</td>
</tr>
<tr>
<td>Assistance during delivery by Skilled Birth attendant %</td>
<td>50.6</td>
<td>14.3</td>
<td>4.8</td>
<td>57.8</td>
</tr>
<tr>
<td>No post-natal check up %</td>
<td>45.7</td>
<td>70.2</td>
<td>86.8</td>
<td>38.0</td>
</tr>
</tbody>
</table>


Currently, information on maternal health in DPR Korea, Thailand, Sri Lanka, Myanmar, Maldives, and Timor-Leste is available only for the general population, but not specifically for the urban poor.

In DPR Korea, 98% of women gave birth under supervision of healthcare personnel in 2004. The MMR is reported to be 97 per 100000 live births\(^{46}\).

In Thailand, MMR declined from 45 to 22 per 100000 live births in the 1990s and in 2004 respectively\(^{38}\). The MDG target of reducing MMR by three quarters, between 1990 and 2015, is not applicable to Thailand, an MDG Plus target of 18 per 100000 live births has been set for 2006. The health services are now focusing on reducing regional disparities.

The Demographic Health Survey of Sri Lanka, 2008, reported that almost 99% of pregnant women had seen a health professional (a medical doctor including specialist or a midwife) at least once for antenatal care for the most recent birth. Also, 99% of deliveries were assisted by a healthcare professional and 98% of women gave birth in a healthcare facility\(^{39}\).

In Myanmar, the MMR was reported to be 110 and 190 per 100000 live births in urban and rural areas respectively according to the Ministry of Health\(^{46}\). The Central Statistical Organization of Myanmar reported the MMR to be 225 per 100000 live births in 1999. Seventy-three percent of women received antenatal care by trained healthcare personnel. Thirty-seven percent of deliveries were assisted by healthcare personnel out of which 13% were assisted by a physician. It has also been reported that complications after abortion contribute significantly to the overall burden of maternal deaths in Myanmar.
The MMR of Maldives is reported to be 97 per 100000 live births. There is a higher incidence of thalassemia major in Maldives. The government has a programme for prenatal diagnosis of thalassemia major and medical termination of pregnancy.

Maternal mortality is high in Timor-Leste. There are no major studies or surveys undertaken to understand the state of maternal health. According to some preliminary studies, the MMR is reported to be around 660 to 800 per 100000 live births46.

In summary, urban poor women do not receive complete maternal care services despite a higher number of healthcare facilities in urban areas. The utilization of healthcare services differs from slum to slum and region to region. There is poor utilization of maternal health services like iron and folic acid supplementation, biometric measurements, blood pressure checks, ultrasonography and urine examination, impacting maternal health outcomes, especially maternal mortality ratio (MMR) and infant mortality rate in the urban poor populations.

### 4.4 Child health

MDG 4 aims to improve child health and focuses on reducing child mortality. Deaths in children under 5 have declined steadily worldwide although this is not reflected across all countries in the Region. Poor maternal healthcare has a direct impact on the health of the newborn. Neonatal, infant, and under-5 mortality rates are higher in the urban poor population compared to the non-poor urban population.

Progress in improving the health of children varies among countries in the Region. Sri Lanka and Thailand have achieved very low under-5 and infant mortality rates. In contrast, Bhutan, India, Myanmar and Timor-Leste have high under-5 and infant mortality rates (Table 20).

#### Table 20: Child mortality rates in the SEA Region, 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>Under-5 mortality</th>
<th>Infant mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>54</td>
<td>43</td>
</tr>
<tr>
<td>Bhutan</td>
<td>81</td>
<td>54</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>55</td>
<td>42</td>
</tr>
<tr>
<td>India</td>
<td>69</td>
<td>52</td>
</tr>
<tr>
<td>Indonesia</td>
<td>41</td>
<td>31</td>
</tr>
<tr>
<td>Maldives</td>
<td>28</td>
<td>24</td>
</tr>
<tr>
<td>Myanmar</td>
<td>122</td>
<td>76</td>
</tr>
<tr>
<td>Nepal</td>
<td>51</td>
<td>41</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Thailand</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>93</td>
<td>75</td>
</tr>
</tbody>
</table>

Note: Mortality rates are estimated per 1000 live births
The Urban Health Survey of Bangladesh highlighted acute respiratory tract infection and diarrhoea as the main causes for mortality in the under-5 population\textsuperscript{35, 48}. Mortality in children after the post-neonatal period is directly influenced by poverty, lack of utilization of healthcare services, unplanned pregnancies, reduced birth interval and poor governance. It was also observed that male children were more likely to suffer from acute respiratory tract infection, to be taken to a healthcare facility for treatment, and to be administered oral rehydration solution (ORS) than female children\textsuperscript{49}.

Bangladesh was exemplary in improving its immunization coverage of mothers and children from only 2% in the mid-1980s to around 80% in the mid-1990s\textsuperscript{50}. There has since been a decline to 73% in children’s immunization by 2004. A persistent gap in the coverage between those living in slums and the better-off has been explained by lack of education among mothers and their families, lack of access to immunization services resulting from barriers such as distance, waiting times, official and unofficial charges and the humiliating treatment meted out to poor mothers at healthcare facilities\textsuperscript{51}. Intervention packages, including an expanded service schedule, training of service providers and community mobilization have demonstrated that such barriers can be overcome and dramatic improvements in immunization rates can be achieved\textsuperscript{51}.

An exploratory study published in 2009 on newborn care practices in the slums of Dhaka revealed that 84% of women gave birth at home\textsuperscript{49}. Mothers were knowledgeable about the benefits of maintaining cleanliness, drying and wrapping the baby, and about cord care, but exclusive breast feeding was rare.

Under-5 mortality has decreased from 96 per 1000 live births in 1994 to 84 in 2000. The infant mortality rate (IMR) has declined from 102 in 1984 to 62 per 1000 live births in 2000. It is reported that 85% of the children are covered under the universal immunization programme\textsuperscript{46}.

The infant mortality rate is reported to be 21 per 1000 live births in DPR Korea. The proportion of children immunized for DPT 3 was 69 %, polio 99 %, measles 95.3 % and TB 88.3 %. Childcare services are provided by regional hospitals, urban polyclinics and family physicians. It has been noted that factors such as lack of infrastructure, training and skill enhancement and poor referral systems add to the risk of child mortality and morbidity\textsuperscript{46}.

The National Family Health Survey of India reported a neonatal mortality rate (NMR) of 34.9%, an infant mortality rate of 54.6%, and an under-5 mortality rate of 72.7% in Indian slums in 2005-06\textsuperscript{31} (Table 21).

\textbf{Table 21: Child mortality in India}

<table>
<thead>
<tr>
<th>Child mortality</th>
<th>Urban poor</th>
<th>Urban non-poor</th>
<th>India rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonatal mortality rate</td>
<td>34.9</td>
<td>32.5</td>
<td>42.5</td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>54.6</td>
<td>35.5</td>
<td>62.1</td>
</tr>
<tr>
<td>Under-5 mortality rate</td>
<td>72.7</td>
<td>41.8</td>
<td>74.3</td>
</tr>
</tbody>
</table>

Infant mortality rates differ across the slum populations of India. Infant mortality in the slums of Chennai is 23 per 1000 live births, and in the slums of Meerut it is around 63 per 1000 live births. The under-5 mortality rate in the slums of Chennai is 35 per 1000 live births, and 78 per 1000 live births in the slums of Meerut (Figure 4).

Sepsis, perinatal asphyxia and prematurity are some of the principal causes of neonatal deaths among slum dwellers. Immunization coverage in slum populations is low. Major diseases among children less than 5 years are acute respiratory tract infections, diarrhoea and fever. A cohort study carried out in the urban slums of South India reported that on average, every infant suffered from 12 episodes of illness, and these were mainly due to respiratory and gastro-intestinal diseases. In another study 56% of neonates in slums were found to be suffering from illness compared to 36% of neonates in non-slum areas. The care-seeking behaviour of slum dwellers with regard to neonatal and child health is influenced by traditional beliefs and cultural norms, and practitioners of traditional and alternative medicine.

Figure 4: Infant mortality and under-5 mortality rates in the slums of major cities of India


The 2007 Demographic Health Survey of Indonesia reported a Neonatal Mortality Rate (NMR) of 18 per 1000 live births in urban areas and 24 per 1000 live births in rural areas. NMR and post-neonatal mortality were highest, 27 and 28 per 1000 live births respectively, in the lowest wealth quintile. Similarly, infant, child, and under-5 mortality were highest in the lowest wealth quintile (Table 22).

Spatial analysis of child mortality in the mega-urban areas of Indonesia revealed higher rates in peri-urban areas compared to city centres. In an epidemiological study among the slum populations of North Jakarta, 13% of children under the age of 5 were reported to have suffered an episode of diarrhoea in the previous four weeks: Twenty-five percent of the sufferers were treated at home, 23% visited a public health facility, and 18% went to a private practitioner.
In Myanmar, under-5 mortality declined from 82 per 1000 live births in 1995 to 66 per 1000 live births, in 2003. Infant deaths accounted for 73% of under-5 mortality. The major causes of infant mortality are acute respiratory infections, diarrhoea, brain infections and septicemia. The major causes for neonatal mortality are noted to be birth asphyxia, sepsis and prematurity. Child health is better in urban compared to rural areas.

In Maldives, the infant mortality rate decreased from 30 per 1000 live births in 1992 to 14 per 1000 live births in 2003. Early neonatal mortality accounts for 61% of the infant mortality.

According to the 2007 Demographic Health Survey of Nepal, the lowest wealth quintile exhibited high rates of neonatal mortality, post-neonatal mortality, and infant, child and under-5 mortality (Table 23). Although the survey does not provide specific information on child health outcomes in the urban poor population, the statistics for the lowest wealth quintile point to poor health outcomes among the urban poor.

Sri Lanka has achieved major success in child health. Ninety-nine percent of children received immunization. Ninety-seven percent of children were fully immunized for BCG, polio, 3 doses of DPT, and measles. The most common childhood illnesses reported are acute respiratory infections, fever and diarrhoea.

### Table 22: Child mortality in Indonesia

<table>
<thead>
<tr>
<th>Child mortality</th>
<th>Urban</th>
<th>Rural</th>
<th>Lowest wealth quintile</th>
<th>Highest wealth quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonatal mortality</td>
<td>18</td>
<td>24</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td>Post-neonatal mortality</td>
<td>12</td>
<td>21</td>
<td>28</td>
<td>9</td>
</tr>
<tr>
<td>Infant mortality</td>
<td>31</td>
<td>45</td>
<td>56</td>
<td>26</td>
</tr>
<tr>
<td>Child mortality</td>
<td>7</td>
<td>16</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>Under-5 mortality</td>
<td>38</td>
<td>60</td>
<td>77</td>
<td>32</td>
</tr>
</tbody>
</table>

Source: Statistics Indonesia (Badan Pusat Statistik—BPS) and Macro International. *Indonesia Demographic and Health Survey 2007*.

### Table 23: Child mortality in Nepal, 2006

<table>
<thead>
<tr>
<th>Child mortality</th>
<th>Urban</th>
<th>Rural</th>
<th>Lowest wealth quintile</th>
<th>Highest wealth quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonatal mortality</td>
<td>25</td>
<td>40</td>
<td>43</td>
<td>26</td>
</tr>
<tr>
<td>Post-neonatal mortality</td>
<td>12</td>
<td>24</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>Infant mortality</td>
<td>37</td>
<td>64</td>
<td>71</td>
<td>40</td>
</tr>
<tr>
<td>Child mortality</td>
<td>10</td>
<td>21</td>
<td>29</td>
<td>7</td>
</tr>
<tr>
<td>Under-5 mortality</td>
<td>47</td>
<td>84</td>
<td>98</td>
<td>47</td>
</tr>
</tbody>
</table>

Thailand has achieved remarkable success in improving child health. The perinatal mortality rate is reported to be 9 per 1000 live births. Similarly, in 2002, the IMR and under-5 mortality rates were 20 and 28 per 1000 live births respectively. Late intra-uterine deaths account for the major proportion of deaths in the perinatal period.

Malaria, acute respiratory infections, diarrhoea and malnutrition are the most common diseases among children in Timor-Leste. The Demographic Health Survey carried out in 2003 reported an IMR of 82 and an NMR of 42 per 1000 live births. Following the introduction of the Expanded Programme for Immunizations, the proportion of children receiving BCG rose to 72%, vaccination for DPT-3 to 57%, and vaccination for measles to 55%.

In summary, factors influencing child health among the urban poor in the South-East Asia Region range from living conditions and availability of essential services, to cultural norms, health behaviour of mothers, and the healthcare systems.

Living conditions play an important role in terms of the risks that children are exposed to from birth to 5 years of age. Poor quality housing and built environments, inadequate sanitation and unhygienic solid waste disposal expose newborns and children to a high risk of infections. Unsafe and insufficient water increases the risk of water-borne diseases, and makes the maintenance of personal hygiene challenging. Provision of clean water is an important pathway to preventing disease and ensuring good health. The low coverage of immunization programmes in slums militates against the achievement of optimum child health.

Poor maternal health leads to premature birth and low birth weight, compounding health disadvantages and increasing susceptibility to childhood illnesses. Income, education, and cultural beliefs have a significant influence on the care of the newborn, and subsequent care and nutrition provided during early childhood.

A myriad of healthcare providers, including traditional healers, public healthcare facilities, and private practitioners, are available to the urban poor. Access depends on affordability, geographical proximity, and administrative systems, such as scheduling. The quality and continuity of care are often compromised in dysfunctional healthcare systems. In the event of constrained access to public healthcare facilities, people are forced to resort to expensive services from private providers.

4.5 Nutrition

Nutrition is a critical factor in the maintenance of good health and well-being. The first MDG focuses on nutrition, and underscores the intimate relationship between poverty and under-nutrition. Malnutrition is a key public health problem in some countries of the Region (Table 24).

Nutritional status of the urban poor of Bangladesh

The 2006 Urban Health Survey of Bangladesh reported that 96% to 98% of women in slums, almost the same proportion as women in non-slum areas, breastfed their babies. The median duration of breastfeeding was 34 months in slums, compared to 30 months in non-slum areas.

Stunting is common among children of the urban poor in Bangladesh. The prevalence of stunting increased with age from 26% in children below six months of age to 64% in children in...
the age group of 24 to 35 months\textsuperscript{15}. Prevalence of stunting in children was found to be inversely proportional to maternal education and wealth. Boys suffered more from stunting than girls. Around 17\% of children in the slums of Bangladesh were wasted. Forty-six percent of children in slums were underweight, against 28\% in non-slum areas.

A study focusing on urban poor women, undertaken in Dhaka, demonstrated a direct positive correlation between wealth and body mass index (BMI)\textsuperscript{58}. Another study conducted in the Dinajpur slums, which are considered to be better slums as they have secured land tenure, access to health services and education, found that half the women were malnourished and almost all were anaemic\textsuperscript{59}. Yet another study on the urban poor showed that BMI was lower among people who are indebted, unskilled, unemployed, not involved with any credit organization and having no electricity at home\textsuperscript{60}.

**Nutritional status of the urban poor of India**

The Ministry of Health and Family Welfare of India reported that almost half of the children (48\%) in India were stunted, indicating long-term poor nutritional status. Forty-three percent of children were under-weight, a marker of acute malnutrition\textsuperscript{61}. The National Family Health Survey (NFHS- III) reported poor nutritional status in slums. Children from the slums of Delhi, Hyderabad, Mumbai, Nagpur and Meerut suffer a heavy burden of stunting, wasting, and underweight, compared to non-slum children. The severity of stunting and wasting differs from city to city. For instance, Delhi and Nagpur demonstrate substantial differences in stunting between slum and non-slum populations, whereas Hyderabad does not reveal major differences (Table 25)\textsuperscript{62}.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Underweight</th>
<th>Stunted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>2007</td>
<td>41.3</td>
<td>43.2</td>
</tr>
<tr>
<td>Bhutan</td>
<td>2008</td>
<td>12.0</td>
<td>37.5</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>2004</td>
<td>20.6</td>
<td>43.1</td>
</tr>
<tr>
<td>India</td>
<td>2006</td>
<td>43.5</td>
<td>47.9</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2007</td>
<td>19.6</td>
<td>40.1</td>
</tr>
<tr>
<td>Maldives</td>
<td>2001</td>
<td>25.7</td>
<td>31.9</td>
</tr>
<tr>
<td>Myanmar</td>
<td>2003</td>
<td>29.6</td>
<td>40.6</td>
</tr>
<tr>
<td>Nepal</td>
<td>2006</td>
<td>38.8</td>
<td>49.3</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2007</td>
<td>21.1</td>
<td>17.3</td>
</tr>
<tr>
<td>Thailand</td>
<td>2006</td>
<td>7.0</td>
<td>15.7</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>2002</td>
<td>40.6</td>
<td>55.7</td>
</tr>
</tbody>
</table>

Table 25: Nutritional status of under-5 children in slum and non-slum areas of India, 2006

<table>
<thead>
<tr>
<th>City</th>
<th>% Stunted</th>
<th>% Wasted</th>
<th>% Underweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delhi</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>51</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>Non-slum</td>
<td>38</td>
<td>16</td>
<td>24</td>
</tr>
<tr>
<td>Hyderabad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>32</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>Non-slum</td>
<td>32</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Meerut</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>46</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>Non-slum</td>
<td>42</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Mumbai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>47</td>
<td>16</td>
<td>33</td>
</tr>
<tr>
<td>Non-slum</td>
<td>42</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>Nagpur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>48</td>
<td>18</td>
<td>42</td>
</tr>
<tr>
<td>Non-slum</td>
<td>27</td>
<td>16</td>
<td>28</td>
</tr>
</tbody>
</table>


Stunting and wasting were higher among children from households lacking safe drinking water supply and improved sanitation facilities.

The proportion of women who were thin was higher in slums compared to non-slum areas. Another finding of the NFHS-III survey was a high prevalence of overweight and obesity among slum women (Table 26). In the slums of Hyderabad, the prevalence of obesity among women in slums was similar to that of non-slum women.

Just as in women, the percentage of thin men in slums of India was high compared to men in non-slum areas. Obesity among slum-dwelling men was generally lower than that among men in non-slum areas, but proportions were similar in Hyderabad.

The prevalence of anaemia differed from slum to slum in India. The NFHS-III survey found that the prevalence of anaemia was highest in the slums of Kolkata and lowest in those of Indore. More women than men in slums suffered from anaemia.

In Indonesia, 40% of children under 5 years of age were stunted and 20% were underweight, and 11% were overweight. A study carried out to assess the impact of food prices on vitamin A deficiency, found that faced with higher food prices, families tended to eat more rice than other plant or animal products, resulting in vitamin A deficiency. After the economic crisis in Indonesia in 1998, there was high food inflation and unemployment. People in urban areas were more malnourished than those in rural areas, suggesting greater vulnerability to price rise among people living in urban areas.
Girls are more stunted and wasted than boys in Maldives. The prevalence of under-nutrition, wasting and stunting decreased from 1997 to 2004. The proportion of women practicing exclusive breastfeeding was 42% in 2001\textsuperscript{46}.

The nutritional status of children is reported to be poor in Myanmar. The proportion of children under 5 years of age with anaemia was 55%. The prevalence of underweight among children decreased from 38% in 1997 to 31% in 2003\textsuperscript{46}.

The Demographic Health Survey of Nepal reported that 49% of children were stunted, 13% were wasted, and 39% underweight (Table 27). It was also reported that 98% of women of the lowest wealth quintile breastfed their babies. Nutrition among children in the age group of 6 to 23 months in the lowest wealth quintile was poorer compared to children from higher wealth quintiles\textsuperscript{37}.

Eighteen percent of children in Sri Lanka were stunted, and 4% were severely stunted. The Demographic Health Survey of Sri Lanka reported that 15% of children were wasted, and 22% of children were underweight\textsuperscript{39}.

Eighty percent of children in Thailand achieved normal development at an early age. Only 8% of children suffered from malnutrition. The proportion of women practicing exclusive breastfeeding increased from 8% in 1995 to 13% in 2002\textsuperscript{46}. A study of pre-school children in the

### Table 26: Nutritional status of slum and non-slum population by gender in India, 2006

<table>
<thead>
<tr>
<th>Areas</th>
<th>Women</th>
<th></th>
<th>Men</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Thin</td>
<td>% Overweight/ Obese</td>
<td>% Thin</td>
<td>% Overweight/ Obese</td>
</tr>
<tr>
<td>Delhi</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>21</td>
<td>20</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>Non-slum</td>
<td>13</td>
<td>29</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Hyderabad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>21</td>
<td>31</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Non-slum</td>
<td>21</td>
<td>34</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>Kolkata</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>21</td>
<td>25</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>Non-slum</td>
<td>14</td>
<td>32</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Mumbai</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>23</td>
<td>25</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>Non-slum</td>
<td>21</td>
<td>30</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>Nagpur</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slum</td>
<td>36</td>
<td>14</td>
<td>41</td>
<td>10</td>
</tr>
<tr>
<td>Non-slum</td>
<td>28</td>
<td>23</td>
<td>31</td>
<td>16</td>
</tr>
</tbody>
</table>

slums of Bangkok found that 25% of children were underweight for their age. It was also found that low income, unemployment, and poor education were all associated with poor nutrition. Notable is the fact that although malnutrition is not a major problem in Thailand in general, it was particularly rampant in the urban slums.

Malnutrition was reported to be high among children in Timor-Leste: 12% to 18% of children suffered from wasting, 41% to 58% from moderate or severe stunting, and 42% to 65% from moderate or severe underweight.

### 4.6 Factors determining poor nutrition among the urban poor

Poverty is the root cause of poor nutrition and its associated health problems (Figure 5).

**Table 27: Nutritional status in some slums of Nepal, 2006**

<table>
<thead>
<tr>
<th>Nutritional status</th>
<th>Urban</th>
<th>Rural</th>
<th>Lowest wealth quintile</th>
<th>Highest wealth quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>% children age 6-59 months with anaemia</td>
<td>41.1</td>
<td>49.3</td>
<td>47.6</td>
<td>39.3</td>
</tr>
<tr>
<td>% women consumed Vitamin A rich foods</td>
<td>82.6</td>
<td>75.5</td>
<td>74.4</td>
<td>84.3</td>
</tr>
<tr>
<td>% women age 15-49 years with anaemia</td>
<td>29</td>
<td>37.5</td>
<td>31.0</td>
<td>30.9</td>
</tr>
<tr>
<td>% women moderately and severely thin</td>
<td>5.6</td>
<td>8.5</td>
<td>8.5</td>
<td>3.9</td>
</tr>
</tbody>
</table>

**Low income**

Income directly determines the purchasing capacity of individuals. The majority of the urban poor are involved in informal industries, household work, small jobs and work on construction sites. Very few are involved in any kind of agriculture. In contrast to their rural counterparts, they are dependent on food available in markets subject to inflation of prices and economic fluctuations. Daily income determines the choices they make to satisfy hunger and meet their nutritional requirements. The urban population spends about 30% more on food than the rural population. The typical food of the urban poor is low in quality and quantity.

**Impact of inflation in food prices on nutrition**

The world has been reeling from the global food crisis since 2006. The international food price index has been rising consistently since then, and is a matter of great concern to the populations and governments all over the world. It has been estimated that around 150 million people have been pushed into poverty due to high food prices. The price of cereals in particular has increased sharply. Wheat and maize prices went up by 130% and 30% respectively in 2008 compared to 2007 international prices. High food prices are further reinforced by surging fuel prices. This rapid increase in food prices is putting the health and well-being of the poor living in the Region at risk.

Prolonged high food prices can affect the nutrition of the poor gravely. Inability to consume the appropriate amount of macro- as well as micro-nutrients can result in malnourishment, stunting and under-weight. Prolonged under-nourishment results in reduced immunity to infections, and increases the risk of mortality. It is also likely that during periods of economic stress and high food prices, the nutrition needs of women and girls in the family are sacrificed for that of the males.

In a food security study carried out in Bangladesh, it was found that urban slum populations suffer high food insecurity and under-nourishment. The proportion of the population below the food poverty line of 2,122 Kcal was 47%. It was also observed that slum dwellers consume less diverse food. Around 61% of households were identified as “severely food insecure”.

**Nutrition transition in the urban population**

While large sections of the population of the developing world are under-nourished, they are also undergoing a series of transitions in nutrition, diet and physical activity. It is recognized that the prevalence of obesity is higher in urban areas. As the developing world becomes more urbanized, the prevalence of over-weight and obesity is also increasing. The diets of the urban population are transitioning from a mix of grains and vegetables to increasing consumption of sugars and fat. The prevalence of obesity among the slum dwellers of India is rising. A reduction is observed in the diversity of food consumed by the urban poor.

Industrialization of food production has led to greater consumption of energy-dense and highly processed foods. The greater availability, accessibility and marketing of such foods is associated with a loss of cultural food traditions, starting in urban areas. The rapidity of these changes has made the ‘nutrition transition’ in low- and middle-income countries distinct from the slower transition which took place in the western world. A correlate is the rapid increase in the prevalence of non-communicable diseases (NCDs). As the developing world becomes more
prosperous it is increasingly becoming a lucrative market for the processed food industry. There is evidence that the consumption of food sweeteners, sodas, meat and processed foods has increased in poor countries and emerging market economies\textsuperscript{71}.

Local food environments have been cited as significant influences on health risks such as obesity in food-insecure populations\textsuperscript{72}. The varieties of food accessible to the urban poor, i.e., available and relatively inexpensive, tend to be high in calories and low in nutrient content, featuring deep-fried, processed, additive-laden, high-sugar, high-salt, refined-grain products rather than fresh, whole foods, and are typically higher in saturated fats and lower in dietary fibre. Owing to the pressures of outside employment, urban women tend to give up breastfeeding earlier than their rural counterparts, compromising the nutrition of their infants at a very vulnerable period. Key micronutrients and macronutrients such as protein are invariably more expensive than staple energy foods and consequently the first to get sacrificed in times of economic pressures on food availability.

**Ineffective public distribution**

Public distribution services are meant for distribution of food at fair prices to families below the poverty line. In an examination of the public distribution system of India, it was reported that only 57\% of families below the poverty line receive foodgrains. It was also reported that only 46\% of subsidized foodgrain reaches the target poor households. Thirty-six percent of the budgetary subsidies on food are siphoned off the supply chain and another 21\% reaches the above poverty line households. Ineffective public distribution systems further threaten and compromise the food security of urban poor households.

**Lack of education and knowledge on nutrition**

Education has an important role to play in the nutrition of individuals and families. The NFHS-III survey revealed that families of individuals with better education had better nutritional status. They were less likely to suffer under-nourishment and also make better choices regarding their food. Families of individuals with higher than secondary education had the least prevalence of stunting and under-weight (NFHS-III Survey)\textsuperscript{31}. Similarly, the Urban Health Survey of Bangladesh showed that poor education and knowledge about nutrition is associated with poor feeding practices, stunting and underweight. Education also influences the income of the individual as well as that of the family and improves the purchasing capacity of the poor.

**4.7 Water-borne diseases**

Water being essential, access to safe water is a key determinant of health. The reality for many slums, however, is restricted water supply, or, often, no water supply. The availability of water supply depends on recognition by urban local bodies. Unrecognized slums generally have no piped water supply and the residents have to depend on private providers for water. Access determines the water used for drinking, cooking, cleaning, personal hygiene, and sanitation. Water-borne diseases like typhoid and cholera are common among slum populations. The conditions in slums worsen during rains, increasing the risk of water-borne diseases. Slum populations lack underground sewerage. Drinking water sites are frequently located close to waste disposal sites, increasing the risk of contamination and disease\textsuperscript{74}. 
Only 18% of households in the slums of India have piped water supply at home, compared to 62% in non-slum areas. Around 72% of households in the slums of India access water at a public tap or a hand pump, where supply is erratic and restricted to a few hours in the day (Table 28). Slum dwellers generally have to wait in queues for long hours to procure water. Slum dwellers use half the quantity of water that non-slum populations do. It has been reported that slum dwellers end up paying five times more for water compared to non-slum dwellers.

In India, the prevalence of diarrhoeal diseases is high among slum dwellers. Around 17% of children from households in poor housing conditions, without improved water and sanitation, suffer from diarrhoea. In Nepal, 17% of children living in slums suffer from diarrhoeal diseases compared to 12% in rural areas. The Bangladesh Urban Health Survey reported a higher prevalence of diarrhoeal diseases in children from slums. It was also noted that children of higher birth order suffer from more diarrhoeal episodes than children of lower birth order.

Lack of piped safe drinking water pushes the urban poor to resort to water from potentially contaminated sources, making them vulnerable to disease and death. Besides biological contamination, water can also be chemically contaminated from proximity to industrial waste disposal sites. Slum dwellers living near water bodies might directly defecate in them, contaminating the water and increasing the risk of diarrhoeal diseases. Water-borne diseases can be completely prevented in urban slums by the provision of piped safe drinking water, and the imparting of knowledge on water purification.

### 4.8 Vector-borne diseases

Malaria and dengue are among the chief vector-borne diseases affecting the Region. Ten of the 11 countries in the Region are malaria-endemic with Maldives as the exception. The Region’s malaria burden accounts for 15.1% of the global burden of morbidity and 2.7% of the global burden of death from malaria. The toll exacted by malaria in terms of health and economic development is immense. It is estimated that the Region suffers around 1.34 million DALYs due to malaria, and experiences a 1.3% slowing of economic growth in endemic areas. The poor suffer disproportionately. The conditions surrounding malaria and poverty are projected to worsen considerably with climate change influencing both the development of the vector, and the livelihoods of the sufferers.

The South-East Asia Region is home to over half the global population at risk of dengue and dengue haemorrhagic fever (DHF). The range of dengue infection has expanded dramatically over

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**Table 28: Percentage of households accessible to sanitation facilities by area of residence in India**

<table>
<thead>
<tr>
<th>Accessibility</th>
<th>Urban slum</th>
<th>Urban non-slum</th>
<th>Rural India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to piped water supply at home</td>
<td>18.5</td>
<td>62.2</td>
<td>11.8</td>
</tr>
<tr>
<td>Access to public tap / hand pump for drinking water</td>
<td>72.4</td>
<td>30.7</td>
<td>69.3</td>
</tr>
<tr>
<td>Using a sanitary facility for the disposal of excreta</td>
<td>47.2</td>
<td>95.9</td>
<td>26.0</td>
</tr>
</tbody>
</table>

the first decade of the 21st century, with more countries reporting incidence, in both urban and rural areas. From only eight of the countries in the Region reporting dengue in 2003, the number rose to 10 by 2006: DPR Korea is the only country in the Region that reports no dengue. Indonesia bears 57% of the burden of dengue morbidity in the Region, and Thailand 23%. The average dengue fatality rate in the Region is less than 1%. However, Bhutan, India, Indonesia and Nepal have fatality rates above 1%, highlighting their need to focus on dengue control and management. Factors contributing to the spread of dengue include changes in the natural and built environment, increased water stagnation and temperatures conducive to vector-propagation.

Slums lack sanitation and solid waste disposal services, allowing the accumulation of human wastes, dirty water, garbage, and animal wastes, providing an environment for vectors to breed and transmit diseases such as malaria, lymphatic filariasis and dengue. Construction sites in cities also act as breeding places for vectors. In India, the prevalence of vector-borne diseases in slum populations is twice as high as that in the general population.

4.9 HIV/AIDS

The South-East Asia Region is home to an estimated 3.5 million people living with HIV/AIDS, of whom 33% are women. The infection is non-uniformly distributed across the constituent countries, ranging from zero reporting in DPR Korea, and very low prevalence in Bangladesh, Bhutan, Maldives, Sri Lanka and Timor-Leste, to high prevalence in India, Indonesia, Myanmar, Nepal and Thailand (Table 29).

Table 29: Prevalence of HIV among adults aged 15 – 49 years in the SEA Region, 2007

<table>
<thead>
<tr>
<th>Country</th>
<th>HIV prevalence</th>
<th>ART coverage among advanced infection (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>NA</td>
<td>7</td>
</tr>
<tr>
<td>Bhutan</td>
<td>0.1</td>
<td>NA</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>India</td>
<td>0.3</td>
<td>NA</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.2</td>
<td>15</td>
</tr>
<tr>
<td>Myanmar</td>
<td>0.7</td>
<td>15</td>
</tr>
<tr>
<td>Nepal</td>
<td>0.5</td>
<td>7</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>NA</td>
<td>14</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.4</td>
<td>61</td>
</tr>
</tbody>
</table>


The burden of HIV is gradually decreasing in the Region, although differences are observed among countries: India, Myanmar, Nepal, Sri Lanka and Thailand demonstrate stabilization or decrease, despite pockets of high transmission, whereas HIV infection is increasing in Indonesia (Figure 6).
High-risk populations are sex workers, men who have sex with men, and injecting drug users. Patterns and rates of transmission differ across countries and even within countries, e.g., infection among sex workers has decreased in South India, whereas an increase in transmission rates among injecting drug users has been documented in North East India. The differences in the burden of HIV are associated with a number of factors – social, educational, economic and legal. For instance, Panda and co-workers found from an examination of injecting drug users in Kolkata, India that HIV prevalence was low among those with few and stable equipment-sharing partners. They cited the following factors associated with low HIV spread among injecting drug users: police tolerance to harm reduction activities, e.g., needle-syringe exchange, and early targeted interventions among injecting drug users and sex workers in Kolkata, India.

Living with HIV/AIDS has adverse socio-legal impacts particularly on women, e.g., disinheritance, or loss of family income from the disease and death of a breadwinner, and tend to motivate migration from rural areas to urban slums. Migration, in turn, associated with a combination of financial insecurity, low autonomy, and social vulnerability, particularly for women, increases the risk of spread of HIV/AIDS.

National strategic plans to address HIV/AIDS have made progress in prevention and treatment across the Region. However, challenges to HIV prevention and treatment, such as lack of awareness among certain vulnerable populations (e.g., pregnant women unaware of mother-to-child transmission and HIV prophylaxis), continuing stigma regarding HIV, inadequate access to preventive and therapeutic care for those in need, and health systems and human resources unequal
to the magnitude and complexity of the efforts called for, remain. Singh and co-investigators (2004) concluded from a study conducted in four slums in Mumbai that risky sexual behaviours such as unprotected sex with commercial sex workers and between men, and sex after alcohol consumption abound, as do inaccurate beliefs about sexual practices and STI prevention. Sex education in the slums to combat HIV/AIDS as well as other STIs is needed. Combating the HIV/AIDS pandemic necessitates a human rights-based approach. Ensuring healthy living conditions, personal safety, privacy and dignity, access to education and employment, strong egalitarian social networks, and increasing awareness of rights would protect against the risky conditions (physical and behavioural) that expose people to HIV and also improved access to treatment and support.

### 4.10 Tuberculosis

The SEA Region accounts for a third of the global TB prevalence, despite its decline during 1990 to 2007. Five of the Member States are classified as high burden countries, with India bearing 20% of the global burden of TB. Incidence is twice as high among males as among females. Around two-thirds of the individuals infected with TB are in the most economically productive age group of 15 to 60 years. TB is a disease closely associated with poverty: Living conditions characteristic of poverty, including overcrowding, poor quality housing and poor nutrition, increase an individual’s risk of infection, and the disease can be a significant financial burden, bringing about and perpetuating poverty.

#### Table 30: Incidence and prevalence of Tuberculosis in the SEA Region, 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual incidence per 100 000 population*</th>
<th>Prevalence per 100 000 population**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>109</td>
<td>412</td>
</tr>
<tr>
<td>Bhutan</td>
<td>80</td>
<td>96</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>167</td>
<td>270</td>
</tr>
<tr>
<td>India</td>
<td>75</td>
<td>185</td>
</tr>
<tr>
<td>Indonesia</td>
<td>92</td>
<td>213</td>
</tr>
<tr>
<td>Maldives</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>Myanmar</td>
<td>196</td>
<td>466</td>
</tr>
<tr>
<td>Nepal</td>
<td>79</td>
<td>167</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>32</td>
<td>73</td>
</tr>
<tr>
<td>Thailand</td>
<td>66</td>
<td>163</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>242</td>
<td>665</td>
</tr>
</tbody>
</table>


Note: * = Smear positive cases
      ** = All forms of TB

The estimated prevalence of and mortality from all forms of TB in the Region have reduced gradually over the past six years. TB mortality surveys are underway in India, Indonesia and Myanmar. Extensive prevalence studies are in the pipeline in several Member States, as is
research on new vaccines, diagnostic tools and drugs\textsuperscript{83}. However, TB continues to be a major health threat in the Region, with new challenges in the way of drug-resistant forms such as multi-drug resistant TB (MDR-TB) and extensive drug resistant TB (XDR-TB). MDR-TB in the Region is estimated at 2.8\%, with a range from 1.9\% to 3.6\%, among new cases, and 18.8\% with a range from 13.3\% to 24.3\%, among previously treated cases. Bangladesh reports 80\% of the regional burden of MDR-TB. MDR-TB is attributable more to non-adherence to drug regimen, owing to individual or system factors, than to ineffective drugs, urgently calling for behavioural research and interventions to address the rise in prevalence.

Combating TB in the Region entails the orchestration of health systems in the Member States with international organizations, donor agencies and local communities to effectively prevent, diagnose, treat and manage the disease, via social, medical and financial avenues\textsuperscript{82}.

HIV/TB co-infection

Besides posing grave risks individually to health, HIV and TB interact to increase morbidity and mortality. The SEA Region, which holds a quarter of the global population bears a third of the TB burden. The Region, particularly India, Myanmar and Thailand also has high HIV loads: Myanmar, Thailand and nine states in India have rates of HIV greater than 1\% in the general population. The highest HIV/TB co-infection rates in the South-East Asia Region are also observed in these areas. Nearly 2 million individuals in the Region are co-infected with TB and HIV. The impact of HIV on TB has been observed to be stronger in terms of mortality, i.e., high TB fatalities in high HIV populations, than in terms of incidence of TB in HIV-affected populations. Around 40\% of HIV/AIDS related deaths in the Region are attributable to TB\textsuperscript{83}. Convergence of programmes addressing the two epidemics, and collaboration tailored to the relative prevalence of the two diseases, are urgent public health needs.

4.11 Tobacco use and alcohol abuse in slums

Slums have become loci of socio-economic deprivation and increasing social ills. Communities with high rates of violence and crime generally have high rates of consumption of tobacco and alcohol, as well as substance abuse. Alcohol abuse among slum dwellers is associated with crime, domestic violence, loss of earnings and further impoverishment.

Alcohol abuse contributes to many of the leading causes of mortality and morbidity in the Region. It has been estimated that about one fourth to one third of the male population in the Region drink alcohol, with an increasing trend in consumption among women\textsuperscript{84}. A survey carried out in India to determine the extent of alcohol consumption in the population reported that 20\% of slum dwellers and 45\% of rural populations are alcohol drinkers\textsuperscript{85}. Alcohol abuse in slum dwellers can lead to addiction, loss of income, loss of productive time and loss of employment and ill-health.

Men in Bangladesh, Indonesia, Maldives, Myanmar and Thailand are among the highest users of tobacco in the Region\textsuperscript{24} and the urban poor in these countries are likely to suffer from a higher burden of tobacco-related morbidity and mortality. In Bangladesh, 60\% of men smoked cigarettes or bidis or both\textsuperscript{15}. In Indonesia, tobacco smoking was very low among women, but high among men from the lowest wealth quintile\textsuperscript{46}. The prevalence of tobacco use was higher in rural than in urban men and women in Nepal. The prevalence was highest among women from the lowest wealth quintile and among men from the highest wealth quintile\textsuperscript{37}. 
Among adolescent populations the highest tobacco consumption is reported from Timor-Leste, Indonesia, Bhutan, Thailand, Myanmar, and India\textsuperscript{24}.

The rising trend of tobacco consumption among women in South-East Asian countries is also a cause of great concern, particularly in terms of maternal and child health.

### 4.12 Noncommunicable diseases

Noncommunicable diseases are overtaking communicable diseases as the major causes of death in developing countries. For instance, the toll exacted by cardiovascular disease in India is over twice that exacted by the combination of HIV/AIDS, tuberculosis, and malaria. Besides mortality, the price that developing countries pay in terms of morbidity and disability is steep. Around 80\% of the global chronic disease burden is borne by low- and middle-income countries\textsuperscript{96}. The occurrence of noncommunicable diseases associated with physical inactivity and air pollution (e.g. type 2 diabetes, respiratory disorders and cardiovascular diseases) at earlier ages among people of lower income countries, impairs the most economically productive segment of the population.

Chronic diseases and injuries are the most important causes of disability, estimated to account for almost 60\% of the total burden of illnesses across the world, and also among countries in the SEA Region\textsuperscript{87}. Especially among countries within the Region, noncommunicable diseases have shown an increasing trend over the past few years. The poor are more likely to face an increased burden of chronic diseases. Low income, lack of health insurance and dysfunctional health systems result in the urban poor being less likely to receive the full complement of treatment for chronic diseases.

#### Stroke

Urban population-based studies in Kolkata, India, found an increase in the prevalence rate for stroke from 2001 to 2008\textsuperscript{88,89}. The prevalence of stroke also increased three fold between the 7\textsuperscript{th} and 8\textsuperscript{th} decades. A similar study from Mumbai, India, found the annual age-adjusted incidence rate to be 1.5 per 1000 population, with the slightly higher rate of 1.6 per 1000 among men compared to 1.4 per 1000 among women\textsuperscript{90}. The age-adjusted annual stroke incidence rate among the urban population in South India, as per the Trivandrum Stroke Registry, was found to be 1 per 1000 population\textsuperscript{91}, with higher rates in men aged 55 to 75 years, and in women over 75 years of age. The mean age of stroke was 67 years. Hypertension and smoking tobacco were the most common risk factors and the 28-day fatality rate was 25\%.

#### Cardiovascular Diseases

**Coronary Heart Disease (CHD)/Ischaemic Heart Disease**

Results of cross-sectional CHD epidemiological studies carried out in India over the past 50 years revealed that this condition is increasing, with the adult prevalence having increased in urban areas from about 2\% in 1960 to almost 11\% in 2000\textsuperscript{92}. The prevalence has been found to be higher in urban than in rural areas in India\textsuperscript{93}, and higher in cities than in towns\textsuperscript{94}. Similar urban-rural differences in cardiovascular disease prevalence have been found in Myanmar\textsuperscript{95}.
A significant increase in coronary risk factors, such as obesity, diabetes, total-, LDL-, and low HDL-cholesterol, and triglycerides, has been observed, during 1995 to 2002, in Indian urban populations\(^9\). The growing vulnerability of lower socioeconomic groups to CHD has been highlighted in studies conducted at 10 medium to large industries in highly urban, urban and peri-urban locations in India\(^7\).

**Hypertension**

Hypertension was found to be almost twice as common in the urban (64 per 1000) as in the rural group (35 per 1000) in a community survey in Haryana, India\(^9\). Adolescents and young adults (19-24 years) from an urban slum of Puducherry, India had an annual incidence of hypertension which was 10 per 1000 population\(^9\). In an urban slum in Kolkata, the prevalence was reported to be 30 per 1000 population in the age group 10 to 19 years\(^10\), and was almost the same for 15 to 24-year-olds in Delhi\(^10\). In the Third National Health Examination Survey in Thailand in 2004, urban men had a higher prevalence of hypertension compared to rural men, but the prevalence was similar among urban and rural women\(^10\).

**Diabetes Mellitus/Metabolic Syndrome**

The Chennai Urban Population Study, a cohort study spanning about 8 years, revealed a high incidence of diabetes and pre-diabetes\(^10\). Diabetes mellitus prevalence rates of between 8% and 10% have been reported in studies in India\(^10,10\). A comparative study of the relationship between poverty and diabetes, in India, revealed lower age-adjusted prevalence in the lower income group, both for diabetes and impaired glucose tolerance\(^10\). Similarly, a comparative study of metabolic syndrome in middle- and low-income populations in Chennai, India, showed that the age-standardized prevalence rates of the various components of the metabolic syndrome were significantly higher in the middle-income compared to the low-income group\(^10\).

Slum dwellers in Dhaka, Bangladesh, demonstrated an 8% prevalence of type 2 diabetes, with similar rates in men and women\(^10\). In Indonesia, a national sample involving more than 24000 participants aged more than 15 years living in urban areas revealed prevalence rates for diabetes and impaired glucose tolerance of 6% and 10% respectively, with slightly higher prevalence among women\(^10\). Cross-sectional surveys among individuals aged over 60 years in Nepal indicate a diabetes prevalence rate of 25% in the urban population\(^10\). In the cross-sectional Sri Lanka Diabetes and Cardiovascular Study, age-sex adjusted prevalence of diabetes was found to be 10% among adults\(^10\). The Third National Health Examination Survey in Thailand in 2004 revealed a diabetes prevalence rate of 6% in individuals over 15 years of age\(^10\).

**Mental disorders**

Mental illnesses in the urban populations of countries in the SEA Region are a major concern as illustrated by the studies done across the Region. One study reported a lifetime prevalence of depression of 7% among adults in Colombo, Sri Lanka. Depression, among men, was associated with poor living standards, unemployment, and living in heavily urbanized areas\(^10\). The prevalence among women was twice that among men. An older study in semi-urban inhabitants from Sri Lanka reported a six month prevalence of any psychiatric disorder to be 4.6% with neuroses as the most common condition\(^10\). The prevalence of any psychiatric disorder was estimated to be 28% in a
predominantly urban-poor population of Dhaka, Bangladesh. However, within that population, those who were relatively wealthier were at increased risk of suffering from mental disorders. Somatoform disorders, mood disorders and sleep disorders were the common conditions. Women were four times more likely to be affected compared to men\textsuperscript{115}.

A large urban community study in South India reported depression in 15\% of the population\textsuperscript{116}. Depression was 1.2 times higher in women, and 2.4 times higher among the poorest in the community. A study based on a small sample of elderly people in an urban slum community in Mumbai, India, found that almost half of them suffered from depressive symptoms and poverty was significantly associated with depression\textsuperscript{117}.

A community-based survey assessing lifetime prevalence of mental disorders in Bangkok, Thailand, found schizophrenia in 1\%, anxiety in 10\%, and depressive episodes in almost 20\% of the population. Suicidal ideation was reported by 7\%\textsuperscript{118}. A survey in a mixed rural-urban population of Timor-Leste, found a 5\% point prevalence of any mental disorder, with psychotic disorders affecting about 1\% and depression 1.5\%\textsuperscript{119}.

In the urban slum-dwelling children and adolescents of Dhaka, Bangladesh, prevalence of any psychiatric disorders was found to be 20\%\textsuperscript{120}. Higher levels of conduct disorder were reported in adolescent boys aged 15 to 18 years, residing in slums, compared to those residing in more affluent urban areas\textsuperscript{121}. Primary school children from Dhaka, Bangladesh, were found to have a 13\% prevalence of emotional and conduct disorders\textsuperscript{122}, with higher rates among boys. Urban slum children from Bangalore, India, less than 16 years of age, demonstrated a prevalence of 11\% of any mental disorder\textsuperscript{123}, lower than in rural or more affluent urban classes. 2\% of youth, aged 12 to 16 years, in Goa, India, suffered from some mental disorder, with no differences in prevalence between rural and urban youth\textsuperscript{124}.

**Suicide**

Seven percent of adults in an urban setting in Thailand reported suicidal ideation\textsuperscript{125}. In an adolescent urban population in Thailand, 12\% reported suicidal ideation\textsuperscript{126}, and 8\% reported suicide attempts. Common risk factors were loneliness, being associated with a gang, poor maternal relationship, and being female.

The prevalence of suicide was about 4\% among youth aged 16 to 24 years in Goa, India\textsuperscript{127}. The rates did not vary significantly between those from rural or urban settings. Being female, school dropouts, premarital sex, and physical abuse from parents, were some of the factors associated with suicide. Feeling of parental neglect was a risk factor for suicide identified in earlier studies\textsuperscript{128}.

In an urban slum of Mumbai, India, it was reported that the most common age-group for suicide was 21 to 28 years, with similar distributions for males and females\textsuperscript{129}. Burning, poisoning and hanging were the most common methods of suicide. Suicide was also higher among the poorest population. Emotional and behavioural problems, interpersonal problems, financial instability, and physical abuse were some of the common risk factors associated with suicide.

**Dementia**

The prevalence of dementia in older individuals in the urban areas of the Region has been estimated to range from 1\% to 4.4\%\textsuperscript{130,131,132,133}. Alzheimer’s disease was the most common form, followed by vascular dementia. The demographic trend towards an ageing population across the
world, including the SEA Region, points to a significant public health issue, for both patients and caregivers, and deserves more attention than it is receiving. A hospital-based study in Bangkok, Thailand, found an association between poor nutritional health and impaired cognitive status\textsuperscript{134}, pointing to an increased risk for the urban poor.

**Cancer**

The most common cancers among males in Delhi, India, were found to affect the lungs, oral cavity, prostate, and larynx. In females, breast cancer followed by cervical and gallbladder cancers were the most common\textsuperscript{135}. Two percent to 51% of an urban slum cluster population surveyed demonstrated some knowledge pertaining to cancer\textsuperscript{136}.

A study conducted in southern India suggested the incidence of breast cancer to be approximately twice in urban compared to rural women\textsuperscript{137}. The incidence of large and small bowel cancers, low in India, shows a rural-urban difference with the urban incidence rates of large bowel cancers in India approximately double the rural incidence rates\textsuperscript{138}. The prevalence of prostate cancer in more than 900 elderly Thai residents of urban communities was about 1%.

**Respiratory Diseases**

**Bronchial Asthma**

Bronchial asthma in children varies widely within and among countries in the Region. Wide urban-rural differences have been reported in school children between 6 and 15 years in India: urban children had double the prevalence as rural children, and children from areas with heavy traffic and low socioeconomic populations had a prevalence twice that of the general child population\textsuperscript{140}. The prevalence of bronchial asthma in the adult Indian urban population has been reported to be 2.5%, higher than that in the rural population. Better socio-economic status was associated with significantly lower odds of having asthma\textsuperscript{141}, and cigarette smoking by family members and domestic use of smoke-producing fuels increase the risk of developing asthma\textsuperscript{142}. Obesity was also strongly associated with asthma in a study conducted in adult Indian women\textsuperscript{143}.

**Chronic Obstructive Pulmonary Disease**

The prevalence of chronic bronchitis was found to be around 14% in a study conducted in an urban population in Kashmir, India. The risk factors were higher age group, smoking and poorly ventilated dwellings\textsuperscript{144}. In a multicentre study in different parts of India, the prevalence of chronic obstructive pulmonary disease (COPD) was found to be about 4%, with higher prevalence among smokers, people of lower socioeconomic status, and in urban areas\textsuperscript{145}. The prevalence of COPD was higher (7%) among older persons in an urban epidemiologic study in Bangkok\textsuperscript{146}.

Women, particularly the cooks of the household, children under the age of five years, and older women who spend considerable time indoors were found to suffer the highest exposure to indoor air-pollutants such as smoke and particulate matter from solid fuels: Respiratory disorders such as pneumonia in children and COPD in adults are consequences of this exposure\textsuperscript{147}.
Injuries

Domestic accidents constitute an important subset of injuries. A cross-sectional, population-based study in an urban community in Gujarat, India reported an incidence of domestic accidents, over six months, of 1.7%. The most common accident reported was falls, with higher occurrence observed in the extreme age groups. Falls were reported in significantly higher numbers of individuals who were occupying overcrowded dwellings, as occurs in urban poor settings. Another common cause of injury is burns. The incidence of burns in urban children aged less than 18 years was about 1 per 1000 children/year in a large population-based study in Bangladesh. Over 90% of these childhood burns had occurred in the home environment.

The prevalence of intimate partner violence, in a population of the urban poor in Kathmandu, Nepal, was found to be about 34%. A similar study in Kolkata, India, reported a lower prevalence of physical intimate partner violence. Lower economic status was associated with increased levels of violence in both studies.

Road traffic injuries are responsible for 18% of all deaths from injuries, and 2% of all deaths in the SEA Region. Globally, road traffic injuries, which ranked ninth among causes of death in 2004, are projected to become the fifth leading cause of mortality by 2030: This increase in the proportion of deaths due to road traffic injuries is attributable mainly to traffic accidents in low- and middle-income countries. Notwithstanding underreporting, which is rife in the documentation of road traffic injuries, the burden of death and disability from road traffic injuries in the Region is increasing, notably in Bangladesh, Indonesia, Myanmar, and India. The death toll from road traffic injuries in the Region (excepting DPR Korea) in 2007 was 288768, with 73% of this number from India. Motorcyclists, bicyclists and pedestrians, categorized as ‘vulnerable road users’ account for over 75% of the deaths. There is also a marked gender divide, with males three times as likely as females to die from road traffic injuries. Although laws have been formulated to ensure and enhance road safety, their implementation and enforcement is suboptimal. DALYs attributed to road traffic injuries in the Region range from 356 per 100000 population in DPR Korea to 1059 per 100000 population in Indonesia. The largest proportion of victims of road traffic accidents are in the economically productive age group of 15 to 44 years, underscoring the great cost to individuals, families, communities, and national productivity.

4.13 Occupational health

The economic boom that characterizes the South-East Asia Region has had the effect of amplifying traditional risks and adding new occupational risks. With a workforce of around 630 million, this represents a significant public health issue in the Region. Of the 30 million disability-adjusted life years (DALYs) attributable to occupational risk factors globally, the SEA Region accounts for over 8 million DALYs. Poor occupational health impacts not only the direct victims but also their families. This is especially true of workers from poor families in developing countries who may be the sole earning member in the family, which most likely lacks social and health insurance buffers.

The urban poor are largely involved in manual labour (construction, industrial and domestic), street vending, transport services such as pulling rickshaws or driving automobiles, services such as mechanical repairs, waste-collection and processing, small scale industries relating to crafts and semi-skilled labour, and begging. Most of this employment is not formal, and thereby not subject to safety regulations. Besides lacking job security in a highly labile work environment, the employed urban poor are not paid enough to ensure necessities as well as save for emergencies. There is seldom insurance of any sort for workers who may suffer grievous injury, permanent disability,
or death, from occupational hazards, e.g., construction workers dying in building collapses; silk weavers getting blinded by toxins in dyes. In many cases, even if compensation is instituted, its implementation may be delayed or inadequate\textsuperscript{154}. Gender inequality compounds the problem for women workers.

Occupational exposures may be categorized as:

- Physical and mechanical: heat stress, radiation, cold, and extreme weather events, particularly for outdoor workers, street vendors and beggars; injuries; musculoskeletal strain; fatigue; dust and smoke;
- Chemical: industrial effluents; contaminated water; industrial chemicals, such as solvents and dyes; domestic cleaners;
- Biological: untreated sewage, contaminated water and food; wastes, including hazardous industrial and hospital waste, particularly for rag-pickers and waste-handlers; infections in hospital work and through sex work; vector-borne diseases;
- Ergonomic: acute and chronic injuries due to improper ergonomic practices, e.g., sprains and strains from over lifting, repetitive motion injuries; and
- Psychosocial: harassment; exploitation; uncongenial work atmosphere; lack of job-security; lack of grievance redressal mechanisms; gender inequality; violence.

Safety equipment and shields, such as gloves, goggles, masks, helmets, and protective clothing, and preventive measures, such as vaccinations and screening for early detection of disease, are available to minimize the risks from occupational exposures. However, these facilities, mandatory in formal employment, are not strictly implemented in small-scale or informal employment set-ups, due to the negligence of the employer or the ignorance of the worker. In some cases, it is not ignorance, but fear of repercussions, such as dismissal and replacement, that prevents workers from demanding occupational safety measures.

The urban poor who live in squalid pockets of the city, or more frequently in peri-urban areas are forced to use public transport or walk long distances to travel to and from their places of work. Besides the hazards associated with the occupation \textit{per se}, this translocation involves the exposures to injuries from hazardous road structures and traffic accidents and automotive exhaust increasing the risk of cardiovascular and respiratory diseases.

Occupational health, particularly of the urban poor, needs focused attention in the light of the persistence of traditional risks and the advent of new risks brought about by local and global changes such as new industries and climate change. Currently, there are two WHO Collaborating Centres in occupational health – one in India and the other in Thailand.

4.14 Disability

The term ‘disability’ subsumes impairments, limitations of activity, and participation restrictions\textsuperscript{155}. This covers difficulties in individual bodily and mental functioning, and social participation, e.g., impaired vision, dementia, neurological disease, physical handicaps, chronic pain, and psychosocial dysfunction. Disability reflects an interaction between the individual and his or her society, and can be modified by provisions made in the built and social environments, and individual-oriented services for therapy and rehabilitation. Disability and poverty have a tenacious, mutually nurturing relationship\textsuperscript{156}. Poverty – usually accompanied by malnutrition, reduced opportunities for education and employment, hazardous exposures, social exclusion, and inadequate built
environment support – increases the vulnerability of the urban poor to disability, which in turn, elevates expenses on health and raises obstacles to continued employment. Climate change, by posing threats to livelihoods and environmental quality, presents a further challenge to addressing disability among the urban poor.

Data on disabilities in the Region (Table 31) are not comprehensive, owing to reasons such as under-reporting, persons with disabilities being excluded from official statistics due to belonging to non-notified slums, or not being registered at birth, etc. However, estimates of DALYs in the Region demonstrate a high burden of disability.

**Table 31: Percentage of population with disability in the SEA Region**

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Prevalence of disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>2001</td>
<td>5.6</td>
</tr>
<tr>
<td>Bhutan</td>
<td>2005</td>
<td>3.5</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>India</td>
<td>2002</td>
<td>1.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2007</td>
<td>21.3</td>
</tr>
<tr>
<td>Maldives</td>
<td>2003</td>
<td>3.4</td>
</tr>
<tr>
<td>Myanmar</td>
<td>2007</td>
<td>2.0</td>
</tr>
<tr>
<td>Nepal</td>
<td>2001</td>
<td>1.6</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2001</td>
<td>1.6</td>
</tr>
<tr>
<td>Thailand</td>
<td>2007</td>
<td>2.9</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>2002</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Source: World Health Organization, Regional Office for South-East Asia. Disability, injury prevention and rehabilitation (http://www.searo.who.int/en/Section1174/Section1461_15167.htm#table2)

The leading causes of death differ greatly from the leading causes of disability. The focus on the causes of premature mortality underestimates the impact of morbidity on individual functioning, participation in society, and quality of life. In view of the positive association between age and chronic disease, and the demographic transition across the world, but particularly in developing countries, it is reasonable to expect that the numbers of older individuals with chronic diseases and related disability will rise steadily. Low- and middle-income countries, such as those in the South-East Asia Region, will bear the brunt of this burden of disability, both by the absolute numbers of people suffering as well as the inadequate capacity to cater to the needs – preventive, therapeutic and rehabilitative – of the population.

Discrimination, prejudice, and diverse barriers are faced by people with disabilities. Strategies to address these issues and facilitate inclusion should be rights-based, and persons with disabilities should be able to participate in all relevant decision-making processes. Several programmes, on different scales, have been instituted to address disability, from community camps to screen for physical impairment to national disease control programmes such as the Blindness
Control Programme within the National Rural Health Mission of the Indian government. The Member States of the Region have legal provisions for the welfare of persons with disabilities, as well as the prevention and rehabilitation of disabilities, e.g., Sri Lanka’s Protection of the Right of Persons with Disabilities; Maldives’s Building Code for Disabled-Friendly Access; India’s Persons with Disabilities Act, Mental Health Act, Guidelines for Barrier-Free Built Environment, and National Trust Act; and Bangladesh’s Disability Welfare Act, and National Action for Disability. However, large-scale accommodations for persons with disabilities, e.g., wheelchair-accessible pavements, public transport and buildings; visual enhancements and Braille transcription; and sign language, are not in place throughout the Region.

The years 2003 to 2012 constitute the second Asian and Pacific Decade of Disabled Persons. The Expert Group Meeting-cum-Stakeholder Consultation, which took place in June 2010, to review the implementation of the Asian and Pacific Decade of Disabled Persons, evaluated the achievements in addressing disability in Asia and the Pacific region to date and concluded that while progress had been made in measures to promote the rights of persons with disabilities, and inclusive development policies, much remained to be done in the areas of raising awareness of the diversity of needs experienced by people with disabilities, in empowering women and children with disabilities, and in improving data-collection and research. Capacity development initiatives of the Asia-Pacific Development Center on Disability include the development of self-help organizations for people with disabilities, and the proposed formation of an ASEAN Autism Network. The World Bank cited, among numerous existing programmes with the scope to include a focus of disability, programmes for the reduction of urban poverty and improvement of urban services in Sri Lanka, and in Andhra Pradesh and Karnataka in India, underscoring the relationship between urban poverty and disability.

4.15 Crime and violence

High unemployment, underemployment, and low-paid employment, all common among the urban poor, stimulate frustration and violence at individual and family levels, and civil unrest and increased crime in society. Sixty per cent of urban residents in developing countries across the world are estimated to have been victims of crime. Statistics vary greatly among regions and among crimes: South Asia demonstrates some of the lowest rates of robbery, and homicide, but a large proportion of child abuse. Of the 100 million street children in the world, 11 million are in India and 445226 in Bangladesh. Girls form the overwhelming majority of children who are sexually exploited, while boys and girls are more or less equally subjected to other forms of abuse and exploitation. Violence, particularly directed against vulnerable segments of the population, such as women, children and elderly persons, is an insufficiently addressed social and public health issue. Self-directed violence is an issue that tends to get even less addressed although suicide rates are approximately twice as high as homicide rates in the Region. Forced eviction from dwellings in slums amounts to urban violence, and inadequate housing makes the urban poor more vulnerable to abuse and exploitation. In addition to violence among individuals and small groups, the Region has been experiencing long-term mass violence in the form of ethnic conflict, in and on the political borders of several countries, and war and terrorism in several of its countries. The DALYs attributable to intentional injuries (Table 32) indicate the burden of disability from self- or other-directed violence in the South-East Asia Region.
Table 32: Age-standardized DALYs attributable to intentional injuries in the SEA Region, 2004

<table>
<thead>
<tr>
<th>Country</th>
<th>Self-inflicted injuries</th>
<th>Violence</th>
<th>War</th>
<th>Total Intentional injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>386</td>
<td>237</td>
<td>16</td>
<td>649</td>
</tr>
<tr>
<td>Bhutan</td>
<td>392</td>
<td>139</td>
<td>12</td>
<td>551</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>130</td>
<td>467</td>
<td>0</td>
<td>605</td>
</tr>
<tr>
<td>India</td>
<td>488</td>
<td>169</td>
<td>26</td>
<td>693</td>
</tr>
<tr>
<td>Indonesia</td>
<td>264</td>
<td>266</td>
<td>46</td>
<td>582</td>
</tr>
<tr>
<td>Maldives</td>
<td>345</td>
<td>79</td>
<td>10</td>
<td>435</td>
</tr>
<tr>
<td>Myanmar</td>
<td>288</td>
<td>409</td>
<td>291</td>
<td>996</td>
</tr>
<tr>
<td>Nepal</td>
<td>364</td>
<td>478</td>
<td>620</td>
<td>1473</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>614</td>
<td>263</td>
<td>156</td>
<td>1034</td>
</tr>
<tr>
<td>Thailand</td>
<td>205</td>
<td>200</td>
<td>39</td>
<td>445</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>261</td>
<td>409</td>
<td>16</td>
<td>696</td>
</tr>
</tbody>
</table>


Gender-based violence

Poverty, lack of education and empowerment, societal norms of inequality, and poor health are intimately related to violence. Violence rates and deaths related to violence are higher in low- and middle-income countries compared to high-income countries. Poverty and hunger are the primary drivers of migration for many women. South-East Asia, among other regions of the world, is seeing a rise in the migration of women in search of employment167. It is known that women face discrimination in access to employment and in remuneration, besides basic services for healthy living such as housing and healthcare. Migrants working as domestic help, manual labourers, and factory workers, detached from their social moorings, are at high risk of abuse by employers, and trafficking. The susceptibility of women to violence, especially sexual, increases in times of disasters such as war and natural calamities.

Studies in India and Thailand concluded that husbands are the primary source of HIV infection for married women, and that intimate-partner violence was associated with higher rates of infection168. Alcohol and drug use and abuse, especially among men, have been found to be strongly associated with partner violence, as reports of drug abusers from urban India, attacks on women and girls in Nepal, and assault victims from Thailand show. Substance abuse and violence feed each other, with violence raising the risk for substance abuse and psychological problems, including self- and other-directed violence; and substance abuse affecting a person’s psychological health and predisposing him or her to behavioural problems, social and occupational dysfunction, violence and crime169,170.

In the Region, Bangladesh, Bhutan, the Democratic People’s Republic of Korea, India, Indonesia, Maldives, and Nepal are party to the Convention on the Elimination of all forms of Discrimination against Women (CEDAW), which establishes the equality of all and sets standards

Addressing Health of the Urban Poor in South-East Asia Region: Challenges and Opportunities
for governments to ensure equality of the genders in all fields. Bangladesh, Sri Lanka, Thailand, and Timor-Leste are, in addition, party to the Optional Protocol of the CEDAW, which facilitates complaints from women regarding the lapses of their governments in adhering to the Convention, and empowers the Convention to take action\textsuperscript{171}.

In terms of specific actions to address the problem, besides strengthened police programmes to address violence against women, e.g., an intensive crackdown on harassment in Chennai, in August 2009\textsuperscript{172}, numerous community initiatives have been developed to counter the menace in cities in India. Blank Noise is a participatory arts project that draws attention to sexual harassment of women (colloquially referred to as “eveteasing” in India, Bangladesh and Pakistan) as violence, and advocates for a strong zero-tolerance approach to it\textsuperscript{173}. Another community initiative reported from Mumbai, India, in October 2009, was the formation of student-squads against sexual harassment of women during festival celebrations in the city\textsuperscript{174}.
5.1 Environmental Determinants

Built environment

“We shape our buildings; thereafter they shape us.”

– Sir Winston Churchill

“Built environment” refers to a range of practices concerned with the design, development and management of buildings, spaces and places.175

A place is more than just a collection of physical features; it represents a social setting, and often, a social agent as well.176 Aspects of the built environment that impact human health and well-being, and demonstrate disparities between the urban poor and other sections of urban society, may be broadly categorized as housing, transportation, food, parks and green spaces, and squalor.177 Access to safe and healthy shelter is essential to a person’s physical, psychological, social and economic well-being.

Land use

Most cities in the developing world are unplanned and grow haphazardly. Cities have traditionally held only a small proportion of the population. However, the rate of urbanization, particularly in developing countries, over the past few decades has given rise to a drastic imbalance of demand for and supply of services and space. Public lands adjoining industrial and commercial establishments typically get inhabited by the poor who migrate to work in cities. Encroachments upon water bodies and illegal occupation of public and private land are rife, with perpetrators ranging from the houseless poor to affluent property developers. Well-to-do and squalid areas are not clearly
separated from one another; they often lie in close proximity, with slums abutting luxury apartments and commercial complexes.

Temporary shelters, in time, get converted to stronger structures that may provide shelter, but seldom adequate facilities for health and well-being. Rivers flowing through urban centres are invariably highly polluted by human, domestic and industrial wastes. The sewage treatment infrastructure is grossly inadequate for the burgeoning urban population.

Grossly inadequate urban sanitation is a fertile ground for disease-transmission. Unsegregated domestic, marketplace and industrial solid waste and untreated sewage pose grave risks to urban health. Insect and rodent pests abound, enhancing the incidence of vector-borne diseases, and respiratory and skin infections. The problem is compounded by the deficiency of the urban built environment, particularly in plumbing and paving. Adverse weather events such as unseasonal or heavy rains lead to urban flooding and water-logging, disrupting daily life in cities and raising the risks of such serious diseases as leptospirosis, dengue and diarrhoea.

Urbanization demands the use of much land for the construction of dwellings, industrial and commercial spaces. This almost inevitably results in the decimation of green cover. Arrays of buildings unrelieved by vegetation lead to urban heat islands. The unavoidable occupational exposure that many of the urban poor outdoor workers experience, in combination with their low response capacity to counter heat stress, makes them particularly vulnerable to this environmental risk.

**Housing, safe drinking water and improved sanitation facilities in the SEA Region**

Housing conditions, drinking water and sanitation facilities are important determinants of health and well-being. Poor housing, contaminated water, lack of sanitation facilities and unhygienic environments expose the urban poor to ill health and stress.

**Bangladesh**

The urban poor of Bangladesh generally live in informal settlements made from materials like mud, bamboo, plastic and tin. Over 90% of these informal settlements are on government (27%) and private land owned by others (67%). Tenure security is one of the most serious challenges faced by the urban poor. In Dhaka, an estimated 2.8 million, i.e., nearly 30% of the population, live in more than 4,000 informal settlements.

Lack of land rights is one of the main reasons for the exclusion of the urban poor from basic civil services. Lack of land rights poses difficulties for channelling aid from NGOs and international organizations. Microcredit organizations like Grameen Bank have experienced greater difficulties in providing finance to the urban poor compared to the rural poor.

Poor governance has also been identified as a reason for poor housing standards. Most of the urban poor pay rent to the local mafia which provides land or shelters. In addition to rents, the slum dwellers are also variably charged for the use of facilities such as toilets, drinking water, bathing water, electricity and gas. Of 9,048 slum settlements studied by Islam, only 10% had sufficient drainage to avoid water-logging during heavy rains. Many slum settlements were built on polluted spaces, exposing residents to industrial noxious wastes. These areas were severely crowded, with 4 to 5 people living in spaces of just over 100 square feet. The average floor area per capita in the densely populated urban slums of Bangladesh was as small as 1.2 to 1.5 square metres.
Land tenure is a growing problem in the larger cities of Bangladesh. In Dhaka, 70% of the population is low-income and has access to only 20% of the land\textsuperscript{178}. The combination of a growing urban population and lack of affordable housing have resulted in the mushrooming of illegal and legal residential settlements throughout the city. People in illegal slum settlements live with the constant threat of eviction. Around 135 slum settlements were evicted between 1975 and 2005. The eviction of the residents of Agargaon slum — one of the largest in Dhaka city — affected an estimated 40000 people in 2004\textsuperscript{184}.

Around 99% of shelters are poorly constructed and are vulnerable to flooding, cyclones and other natural disasters\textsuperscript{178}. Overcrowding is common and most of the shelters consist of only one room with no toilet facilities. A majority of the urban poor have no access to cooking facilities in individual households, and have to cook in common areas. The majority of them cook on \textit{chulhas} and use straw and paper as fuel.

\textbf{Bhutan}

Urban centres are small at present in Bhutan. The rural-urban migration rate is 10% per year\textsuperscript{185}. Housing is provided mostly by public sector organizations, on a rental basis. The country is facing a shortfall in providing housing to its growing population. Around 10% of the population in the capital Thimpu is estimated to live in slum settlements.

\textbf{Living on the fringe, Thimphu’s growing slums}

Forty-year-old Karma falls into a queue with a jerry can of water. It is 7 a.m. and she is waiting for her turn to use a few outdoor toilets shared by at least 80 households. The growing slum of Kala Bazaar in Thimphu has woken up. Karma has followed this morning routine for the last decade. When the wait to relieve becomes too long, the residents take to the nearby bush.

Karma is one of hundreds of slum dwellers in Kala Bazaar. The slum area is separated into two communities by the road. The upper community has some 30 households made up of Thimphu City Corporation workers. The lower community has some 50 households made up of PWD workers.

The slums are made up of rows of small, identical huts built with smoke-blackened bamboo mats, tarpaulins and flattened tar drums. The area has inadequate access to safe water, sanitation and other urban amenities. It is not surprising because the settlement has mushroomed unplanned over the years.

The majority of families live in a single room adjoining a small kitchen. Given the easily combustible materials the huts are built with, there is a real danger of fires. The entire slum has only three water taps. Water comes from a source above the settlement where it is collected in a huge drum. The outlet from the drum gets blocked by leaves, sediments and other solid particles. Only early birds get washing and cleaning done. Others have to wait for their turn. The area does not have regular garbage disposal services. Waste is everywhere. While the residents claim that garbage is disposed of regularly in the city’s garbage trucks, dogs and chickens are everywhere scavenging on piles of garbage. A few makeshift toilets are built at odd places. Children often defecate by the roadside, and dogs get a hearty meal. The residents say that they come together and do a mass cleaning on weekends.

India

Fifty-one percent of the slums in India are notified, and account for 65% of the total slum population of the country. About 21% of the slum population has no proof of citizenship and 30% have no ration cards\(^{186}\).

Around 49000 slum areas were estimated to be in existence in urban India between 2008 and 2009: 24% of these slums were located along drains, and 12% along railway lines\(^{187}\). Between one-third and two-thirds of notified slums were built on private or government land. Most houses in the slums are temporary structures, subject to water-logging, especially during the monsoons. Congestion is particularly acute in inner city slums compared to peripheral slums\(^{186}\).

Around 99% of the population from economically weaker sections and low income groups live in poor housing conditions. Basic services such as piped water supply, sanitation, waste disposal and storm drainage are lacking. One of the major constraints identified in the provision of these services to the slum population is lack of secure tenure and land rights. The housing problem for the urban poor in major metropolises is even more severe. India’s current need for housing for the urban poor is estimated at 27 million affordable housing units\(^{186}\).

Only 17.6% of slum households have exclusive drinking water facilities. The remaining share the water source or use communal facilities. For 65% of the slum population, the main source of water is tap water\(^{186}\). Only 33% have latrine facilities, 12% share facilities, and 37% use community facilities\(^{186}\). Sixty-seven percent of slum dwellers have no bathroom facility, 19% have bathroom facilities outside their house, and only 14% have an attached bathroom. Only 22.5% of households in slums have underground sewage facility\(^{186}\). Such living conditions seriously affect health and well-being, impacting on privacy, dignity and safety, especially for women.

Water problems in the slums of Dharavi, Mumbai

Meera Singh, a woman resident of Dharavi, has lived next to the railway tracks for 35 years and has to walk a mile to get water for the day’s cleaning and cooking. At the distant spigot she has to pay the local goons to fill her buckets. This is how it works in the bureaucratic twilight zone of informal housing. Deprived of public services because of their illegal status, slum dwellers often find themselves at the mercy of the “land mafia.”


Indonesia

Only 30% to 35% of households in Indonesia have access to mortgages from banks and other finance companies\(^{188}\). The country needs around 7 million housing units for its growing urban population.

Faecal contamination of water is widespread, leading to a heavy burden of water-borne diseases\(^{189}\). Only 1% of the population has access to a sewerage system. Solid waste management and drainage are highly inadequate and waste from toilets is directly discharged into rivers and ponds.
Jakarta’s slums struggle with sanitation

In Jakarta’s northern Muara Angke coastal area, lack of access to piped water has forced people to bathe and wash clothes using murky grey water from fish ponds. “I don’t feel disgusted at all. I’ve gotten used to it,” Ibu Nunung, who shells mussels for a living, told IRIN outside her house in Muara Angke Blok Empang, a slum in the area. Nunung said that residents, many of whom live on less than US$2 a day, had to fork out the equivalent of up to $1 daily to buy clean water for drinking and cooking from vendors transporting water in jugs. She admitted that itchy skin was a common problem among locals. Jakarta, a city of 10 million people, is dotted with slums like the one in Muara Angke.

Many people live without running water in shanty towns built in the shadow of gleaming skyscrapers, and gutters are clogged with rubbish, causing foul smells. “Poor sanitation, lack of access to clean water, overcrowding and poor nutrition are among major problems in Jakarta, and the government’s commitment is needed to address these problems,” said Erlyn Sulistyaningsih, a project manager with Mercy Corps Indonesia. Less than 50% of Jakarta’s residents have access to piped water, according to the NGO, which runs water, sanitation and health programmes in the city. More than 75% of the city’s residents rely on shallow groundwater, but an official study found that 90% of shallow wells are contaminated with coliform bacteria or heavy metals, Mercy Corps said in a 2008 publication entitled Urban Poverty Reduction Strategy. Jakarta produces 6,000 tons of waste daily, but can only manage 50% of it.


Nepal

The quality of housing is generally poor for the majority of the population in Nepal. About 37% of the population live in semi-permanent structures and 8% in temporary structures in the urban areas. About 9% of the population are squatters in urban areas.

Sri Lanka

In 2000, 49% of the dwellings in Colombo were permanent structures, and the remaining were shanties and slums. About 80% of the population had access to a sewage system and 90% had piped water supply.

Urban poor deprived of proper housing

According to a 2006 government survey, 54% of households of Colombo City’s population of 647,100 live in huts and slums. Most residents have no legal right to their shelters. Many have migrated from remote villages, often many years ago, to look for jobs in Colombo. The dwellings are constructed of plaited palm leaves, old planks and corrugated iron sheeting. They are overcrowded, lack ventilation and are built alongside canals, on river banks and on highway and railway reservation lands. Many of these areas are low-lying and flood during heavy rains.
A 2006 survey found that 43,462 families in Colombo do not have access to clean drinking water. The shanties often suffer from inadequate drainage and accumulated garbage. The majority of residents do not have any form of solid waste collection service. Some 27% of the poor urban settlements do not have proper inner access roads. Most residents have no permanent income. Only 12% of shanty households, or 9,314 families, have a permanent source of income while 45% or 34,925 families are engaged in unskilled, irregular employment.

To date, only one new housing complex—“Sahasapura” (Millennium City) at Dematagoda in Colombo—has been constructed to provide better housing for shanty dwellers. Built in 2001–2002, it provided 676 housing units for families from 16 settlements. The government reported that as a result it was able to free up 7 hectares of prime real estate worth 900 million rupees (USD 8 million). The scheme was established under the Sustainable Township Program, which was backed by the World Bank.


**Thailand**

The typical Thai housing has been described as a detached dwelling made of permanent materials with services like tap water, electricity, and sewage disposal. Eighty percent of households own their homes. About 2% have mortgaged homes and 11% have rented facilities. Five per cent of households live in rent-free housing.

Basic infrastructure is available to more than 95% of households in Thailand. Electricity, water, roads, and septic tanks are widely available. The cost to build a toilet is about US $20. Local bodies often require a proper toilet for house registrations. Ninety-seven percent of households have flush-toilets, squat-toilets or flushing squat toilets. Water, electricity, and sewage (septic tanks) are installed and used in more than 95% of households. The average household size is 3.5 persons, and the average number of rooms per household is 2.8.

Information was unavailable on housing in DPR Korea, Maldives, Myanmar and Timor-Leste.

**Transport**

Urban sprawl leads to higher dependence on motorized transport, stimulating expansion of roadway capacity. However, increases in motorization routinely outstrip increases in the capacity of roadways. The focus on accessibility, subsuming the values of social interaction and activities, often loses out to the emphasis on mobility. Ever-advancing technologies for more energy-efficiency and lower emissions are offset by the steadily increasing distances that people are compelled to traverse.

The lack of an efficient public transport system, which facilitates safe and inexpensive travel and some physical activity, constrains the urban poor, living in the periphery of cities, to travel long distances in hazardous traffic and polluted air to access their sites of employment. Their primary options for transport are mass transit, walking and bicycling. Most of these modes of transport are fraught with disadvantages such as overcrowding, poor connectivity and inconvenient schedules (buses and trains); and vulnerability to traffic accidents, exposure to polluted air, and injury (walking and bicycling). Over-emphasis on developing infrastructure for automobile transport, i.e., wider
high-speed roads, flyovers, and manufacture and maintenance of automotives, disenfranchises those who cannot afford to use automotive transport, and contributes to health inequalities.

Road and transport infrastructure and functioning influence public health profoundly via both short-term events, e.g., accidents and acute toxic exposures; and continuing conditions, e.g., discouraging/encouraging active transport and prompting active or sedentary living. The occurrence of noncommunicable diseases related to physical inactivity and air pollution (e.g. type 2 diabetes, respiratory disorders and cardiovascular diseases) at earlier ages among people in low income countries, impairing the most economically productive segment of the population, adds to the imperative to engineer the built and social environments to promote health for holistic development. Built environment design and lighting for safety, and assiduous policing, tend to be restricted to affluent urban pockets, leaving the urban poor, and much of the middle class in large crowded cities, vulnerable to injuries, accidents, toxic exposures, and crime.

Air pollution

The boom in urbanization in South and South-East Asia has been accompanied by a rise in the use of high- and mid-emission fuels, such as coal and automobile fuels. Besides, loss of green cover, common in urban areas, leads to urban heat islands and contributes to increased air pollution.

The adverse effects of exposure to air pollution range from mild psychological discomfort to death from cardio-respiratory diseases. Vulnerability to these effects is disproportionately prevalent in developing countries, and among economically distressed populations, particularly in Asia. Socio-economic status is inversely related to the suffering resulting from exposure to pollutants. High densities of population, industrial, commercial and residential structures, and traffic in urban areas, and the often lenient standards of emission regulations in developing countries, in combination with low awareness of harms from environmental pollutants and constrained access to health services put the urban poor at the double disadvantage of high exposure and sensitivity, and low ability to cope with the challenges (Figure 7).

Figure 7: Determinants of air pollution-related ill health among the urban poor
Household air pollution ranks second after poor water and sanitation among environmental causes of ill health\textsuperscript{197}, and poses an even greater risk in poor countries. For instance, 4% of the healthy life years lost in India are attributable to household air pollution, with the urban poor, particularly women and young children being most at risk. Susceptibility to air pollution, and its impact on the health of the urban poor are compounded by the effect of poverty on health.

**Environmental degradation and climate change**

Urbanization is on a relentless ascent in South-East Asia. Urbanization involves increased energy production, construction, transportation, technical and commercial activities, and governance systems. These necessitate changed land use patterns and increased emissions of greenhouse gases (GHGs), and gaseous, liquid and solid effluents, often hazardous. Thereby, the urban environments have been polluted and degraded; and the climate has been adversely changed.

**Environmental degradation**

Major factors contributing to environmental degradation in this region are sources of energy and carbon dioxide emission.

**Sources of energy**

The energy crisis feeds and is fed by the food crisis in many ways. These include the use of fuel to grow, process, and transport food; the contribution of fuels to climate change and thereby to its impact on agriculture and food security; the diversion of some lands to the production of bio-fuels, reducing the available space for food crops; and the rising price of energy fuels in tandem with the rising price of food, resulting in a rise in urban poverty. The main source of electricity in South-East Asia is coal, the use of which is inseparable from greenhouse gas emissions.

**Carbon dioxide emissions**

Carbon dioxide emissions in the SEA Region range from a high of 1509252.90 million metric tonnes in India to a low of 175.87 million metric tonnes in Timor-Leste. Per capita emissions range from 0.12 million metric tonnes in Nepal to 4.09 million metric tonnes in Thailand. Energy production and GHG emissions in the Region, although currently moderate compared to more developed regions, are projected to increase over the next two decades.

**Climate change**

Climate-related hazards prevalent in the Region are cyclones, rainfall extremes, floods and drought: the toll exacted on life, livelihood and property is colossal, as was experienced in the 2008 cyclone Nargis in Yangon, Myanmar; and the cyclone Aila in 2009, which caused much havoc in Bangladesh and India. Natural disasters in South-East Asia are projected to increase in frequency and severity\textsuperscript{198}.

The annual temperature in the South-East Asia Region is projected to increase by 0.4 to 1.3 degrees Celsius by 2030. Winter rainfall is projected to decrease; and sea level may rise by 3 to 16 centimeters by 2030. The damage to life and property caused by natural disasters is a function of both exposure and adaptive capacity: this is demonstrated in the disparate death and damage tolls of different countries in geographically contiguous areas experiencing the same
Addressing Health of the Urban Poor in South-East Asia Region: Challenges and Opportunities

The vulnerability of the urban poor residing in slums often located near water bodies exemplifies this. Existing urban environmental stresses related to safety, disease, pollution, food insecurity, water insecurity, heat, flooding, unprocessed sewage and solid waste are in danger of being exacerbated by climate change: An example is how Dhaka’s increasing temperatures from the trappings of urbanization, viz. increased construction, automotive exhaust, industrial emissions, and air-conditioning, will interact with environmental vulnerability to rising temperature and flooding related to climate change198.

The Region holds a diversity of geographical and systemic vulnerabilities to climate change. For instance, Maldives is gravely threatened by sea level rise, an issue effectively and dramatically drawn to the world’s attention by its underwater cabinet meeting in October 2009. Nepal held a cabinet meeting on Mount Everest in December 2009 to highlight the rapid receding of glaciers that posed the threat of water insecurity to millions in South Asia. Bhutan runs the risk of a veritable “tsunami from the sky” from the flooding of numerous glacial lakes due to global warming. Sri Lanka faces rising ambient temperature, rising sea level, and variability in rainfall, increasing the risk of natural calamities, health hazards, and their attendant socio-economic fallout. Bangladesh faces the danger of flooding, increased rainfall, storm events arising in the Bay of Bengal, and rising sea level.

Thailand faces a future of raised ambient temperatures and sea level, droughts and floods, altered rainfall patterns, and loss of biodiversity, particularly marine (e.g., coral bleaching) and rainforest (increasing aridity). Water and food insecurity are the projected impacts.

With deforestation and land use change, Indonesia is experiencing a decrease in rainfall which is projected to worsen over time; high GHG emissions, forest fires, as well as more frequent extreme weather events such as tropical cyclones, and heat waves may bring food insecurity, loss of livelihood and vector-borne diseases in their wake. Timor-Leste, the majority of whose population depends on subsistence agriculture, is gravely threatened by food-insecurity attributable to climate change. Related risks include rising sea level and salinization of fertile land, loss of biodiversity, and erosion of topsoil.

Myanmar is vulnerable to extreme weather events such as cyclones, and other climate disasters like droughts and floods, exposing the population to food- and water-insecurity. India is experiencing rising heat stress, droughts, floods, extreme weather events, rising sea level, loss of biodiversity, and food- and water-insecurity conflict attributable to climate change.

Bangladesh, Bhutan, the Democratic People’s Republic of Korea, India, Maldives, Myanmar, Nepal, and Timor-Leste, have extremely high estimates of mortality and DALYs attributable to climate change: 73000 deaths, at 6 per 100000 persons; 2538000 DALYs, which is 201 per 100000 persons199. Women are found to be more vulnerable than men to the ravages of climate change induced environmental disasters, demonstrating higher rates of migration, susceptibility to be trafficked, and death: For instance, women in Bangladesh are estimated to have a death rate of 71 per 1000, compared to 15 per 1000 among men in the event of a climate-related disaster200.

Environmental disasters, wherever they may occur, have relevance to the urban poor by (i) causing the economic distress that drives rural-urban migration, and boosting the numbers of the urban poor; and (ii) causing losses of agricultural and industrial products, fuelling inflation and adding to sustenance expenses for the urban poor; and (iii) the impacts of the urban heat islands and flooding, etc. According to an estimate of the Institute of Medicine, Bangladesh, the migration to Dhaka of 70% of the city’s slum dwellers was motivated by environmental hardship205.
Several initiatives have been undertaken to make cities in the Region more sustainable, e.g., the International Council for Local Government Initiatives (ICLEI), Cities for Climate Protection in Southeast Asia, and UN-HABITAT Sustainable Cities Programme.

Recipients of the ASEAN Environmentally Sustainable City awards, in 2008, included Palembang City, Indonesia; Taungyi City, Myanmar; and Bangkok City, Thailand. Besides stricter regulations on automotive emissions and fuel quality, the easing of traffic congestion and air pollution via improved mass transit has been achieved in certain cities of the Region, e.g., light rail and underground rail systems in Bangkok, Thailand; and metro rail transport and CNG-fuelled public transport in Delhi, India.

5.2 Socio-cultural determinants

Civic life

Old cities invariably house heritage structures, religious and secular, and public spaces designed to facilitate civic well-being. These structures and spaces are the first casualty when the urban population booms, particularly with the pressures of the economically distressed. Efforts and resources essential for the maintenance of the heritage structures and the integrity and functionality of the public spaces usually get diverted to other avenues, and the spirit of the city suffers.

Social capital

The sense of community, typically strong in rural neighbourhoods and to some extent in economically stable urban ones, is vulnerable to the increased mobility and transitory nature of urban poor habitations. Although access to formal aid networks in urban areas may be better owing to physical proximity, informal social aid networks may be weaker. An unfortunate spin-off of this economic and social disadvantage is the vulnerability to crime, both as perpetrators (e.g., thieving) and victims (e.g., trafficking). A by-product of this atmosphere is the fear of crime that pervades the community and compromises mental health and well-being. Food insecurity, a natural fall-out of poverty, has macroeconomic implications and other grievous widespread ramifications such as food riots and political strife. A frequent casualty of migration and poverty that people are faced with is a profound spiritual and philosophical, sometimes pragmatic, loss – that of their culture, language, systems of medicine and social structures, leading to a diminution in well-being.

Vulnerable populations

Construction workers, domestic helpers, manual labourers, small service providers and street vendors form the bulk of the employed urban poor. Their occupational exposures may be categorized as physical (e.g., heat, rains, dust, cold and injuries), chemical (e.g., industrial and household chemicals), biological (e.g., organic wastes, contact with diseased individuals), and psychosocial (e.g., poverty, violence, discrimination).

By 2030, the vast majority of older individuals will be residents of developing countries. Active ageing, which encompasses the physical, social and economic health and participation of older people, is needed as both urban residents and the absolute and relative numbers of aged people is on the rise in developing countries.
A segment of the population needing generous investments of resources and planning to ensure safety, well-being and realization of potential, is children. Education, nutritious food, facilities for recreation, protection from abuse and exploitation, and social nurturing are their rights, which unfortunately are almost never met fully in all children. Even among children from economically comfortable backgrounds, health risks are increasing owing to changing lifestyles, exposure to pollutants, and inadequate support from policies and public facilities. Safe public transit and active transport are curtailed by the ever-increasing traffic, overcrowding, and uncongenial built environment. Safety from crime cannot be guaranteed. Safe and healthy foods are not easily accessible, and often difficult even for adults to source. Overweight and obesity are growing problems, with the shrinking real estate available for use as playgrounds, and policies and built environments that do not prioritize children’s health.

A truly age-friendly city enables residents of all ages and all levels of ability to participate safely in urban life. The achievement of this ideal entails integrated planning, and the coming together of various agencies of governance and civic life.
6.1 Success stories

There was a paucity of information in the published literature on large healthcare programmes established by governments or their partners, to address the health needs of the urban poor across a city, state or country in the SEA Region. Nevertheless, three examples were found of governments working with their partners to provide comprehensive healthcare to the urban poor across states, as in the case of Andhra Pradesh and Gujarat in India, and on a larger scale in Bangladesh.

**Urban healthcare services in India**

‘In 2000, the Government of Andhra Pradesh started a scheme to provide basic primary healthcare and family welfare services for the urban poor. The initial funds for this programme came from the Indian Population Programme (IPP VIII). The scheme was implemented across the state in notified slums under 74 municipalities, by establishing 192 urban health centres (UHCs), each covering a population of 15000 to 20000. Basic primary healthcare and family planning services were provided from these urban health centres. Community mobilization was an important part of the programme.

The Department of Health and Family Welfare (DoHFW) provided support for the infrastructure and equipment to run the UHCs. The management of 192 UHCs was contracted out to NGOs. A district level committee was empowered to select the NGOs. The state government played a supervisory role with scheme monitoring and implementation decentralized to the district level. A reference manual was prepared to ensure proper implementation, role clarity, and performance monitoring of the programme. After the end of World Bank funding in 2002, the state government funded the scheme from its planned budget expenditure. The scheme is now known as the Andhra Pradesh Urban Slum Healthcare Project (APUSHCP).
The scheme covers around 3.05 million of the estimated 5.2 million slum population of the state. An analysis of the review reports of APUSHCP shows that from March 2003 to March 2005, the scheme achieved a 42% decline in IMR, and a 6% increase in institutional deliveries among the target population. It was also observed that the current financial package received by the UHC does not provide for the administrative expenses of the NGOs managing the UHC. For instance, the project coordinator, who is the administrative head, receives an annual honorarium of only Rs. 2,000. Such unattractive financial arrangements may demotivate executives involved in the implementation of the scheme.


Urban healthcare services in Bangladesh

The Urban Primary Healthcare Project, undertaken by the Ministry of Local Government, Rural Development & Cooperatives, Government of Bangladesh, is demonstrating the viability of a public-private partnership particularly to respond to the needs of the poor. The main objective of this project is to reduce mortality and morbidity and improve the health status of the urban vulnerable by improving access to healthcare services. The key strategy is changing the way health services are provided, i.e., contracting service provision out to the private sector and/or NGOs, and retaining regulatory responsibility and stewardship with the public sector.

The service-providing partners receive an advance start-up payment; subsequent payments are based on expenditure and project progress reports by the partners and the monitoring agency reporting to the respective city corporation health department. The payment to the NGO partners is made directly by the Asian Development Bank (ADB), subject to the clearance of the claim by the Project Implementation Unit (PIU) formed by the Ministry, following the procedures agreed to by the Bangladesh Government and the ADB. The project has a covenant with the donors to establish a Health Financing Unit and a Supervisory and Monitoring Unit, to strengthen the city corporation health departments, and enable them to provide support to future partners as well.

The Urban Primary Healthcare Project addresses many functions, including designing the package of services; constructing primary healthcare and reproductive healthcare centres; strengthening the city corporation health department and the contracted NGOs with training, equipment, transport, furniture, medicine and human resources; establishing a management information and reporting system; conducting regular surveys, reviews, monitoring, supervision and evaluation by the public sector of the performance, effect and impact of the service providers; mounting strong educational and behaviour change communication interventions; conducting operational research, and flexible scheduling of the operational hours of the service facilities to suit the needs of the community.

These services are not provided free. An important part of the project is cost recovery by the service providers to ensure the sustainability of the centres after the project is wound up. Standard rates, which are half to one third of the market price, with provision for free service for the poorest, are fixed by the project authority in consultation with the partners.
The number of institutional deliveries – normal as well as Caesarian – has gone up markedly. Knowledge on healthy lifestyles, and health behaviours of the service recipients, have also improved substantially. The poorest clients get free service. Quality and equity of services are satisfactory, and under constant vigil, backed by a reward/punishment system. Most of the comprehensive reproductive healthcare centres are close to attaining self sufficiency in terms of operational costs. Most of the PHC centres also now manage to raise half of their running costs from the service charges. This, in effect, means that even when monetary support is withdrawn at the end of the project period, most of these centres will be able to sustain themselves. It may however be more difficult to manage the outreach sites after the project winds up.


6.2 Challenges in health programming for the urban poor

Accessibility to and utilization of healthcare services

The urban poor in many parts of the SEA Region, despite their proximity to the infrastructure of basic and health services, experience low access to these services, for various reasons. Public health facilities are generally available in the centre of the city, making the poor living in peri-urban areas face time- and resource-constraints in accessing them. Particularly hard-hit are daily wage labourers who may be forced to choose between their wages and healthcare. Lack of cheap public transport and unfavourable timings at healthcare outlets reinforce the low access of the urban poor to health services.

The urban poor may be surrounded by a plethora of healthcare providers. These healthcare providers, including private providers, government organizations and NGOs, range from modern medicine specialists, family physicians, practitioners of alternative medicine, and traditional healers, to quacks. Private multi-specialty hospitals are a dominant presence on the urban landscape. The urban poor lack guidance in choosing the right healthcare provider. Private providers work on fee-for-service basis, and their fees are not uniform and regulated. Provider-centered rather than patient-centered healthcare delivery systems lead to lack of coordination among healthcare establishments, haphazard referral systems, and poor and inefficient provision of care. It has been observed in India that public healthcare centres in slums generally remain underutilized due to actual or perceived poor service, lack of staff and lack of supplies. The urban poor avoid going to healthcare providers unless their illness impairs their ability to work. Many avoid healthcare providers altogether, and go directly to local pharmacists for advice and drugs. The choice of provider is influenced by peers, paying capacity, and availability, as well as the perceived severity of the illness.

A high proportion of the urban poor work in the informal sector, with no health insurance or risk-pooling mechanisms. High healthcare expenses can be catastrophic, and push the urban poor deeper into poverty. A study undertaken in the slums of Delhi found that 40% of households spent 15% of their income, and some up to half their income, on healthcare services. The poor who sought healthcare from private providers suffered more catastrophic expenses.
Several constraints exist in the establishment of healthcare centres in slums: The location of slums in overcrowded, unhygienic settings may not permit the introduction of a healthcare centre; and healthcare workers may be reluctant to work in slums.

**Lack of recognition**

The urban poor are often unrecognized and ignored by governments and urban local bodies (ULBs). Most slum dwellers have no land rights and identification; this results in their being denied basic services, access to public distribution systems, and healthcare by ULBs, as well as in social, economic and political exclusion. Very little is known about the health indicators of people in non-notified slums, and beggars, street children and pavement dwellers; this leads to greater difficulty in the provision of services to promote their health. Organizing and providing health and other services for transient urban poor populations, such as migrant construction workers and their families, is difficult. For instance, provision of complete antenatal care, administration of the complete immunization schedule, therapy for chronic diseases, and maintenance of the continuity of care in this population is particularly challenging. The exclusion of the urban poor in city-planning leads to lop-sided planning of cities for the wealthy, ignoring the needs of the poor.

**Lack of comprehensive information**

Information regarding the urban poor might be available with disparate agencies, such as ULBs, slum upgrading agencies, micro-finance agencies and NGOs. However, comprehensive information on a nationwide scale is unavailable for most countries in the Region. This makes it difficult to design and evaluate programmes to improve the health of the urban poor.

**Systemic and social challenges**

**Governance**

Governments often lack comprehensive understanding of the importance of social determinants of health to improve the conditions in slums. Policies and programmes directed towards improving the health of the urban poor fail to address several aspects. Programmes directed towards slum-upgradation typically lack health service components. Providers of civil services lack autonomy, human resources, finances and incentives to provide piped water supply, sanitation and waste disposal services to the urban poor. In addition, they are not made accountable for the provision of these services to the urban poor. Private service providers in slums are neither recognized nor regulated, which results in their charging exorbitant prices for the provision of basic services to slum dwellers204.

A challenge to the ideal implementation of social welfare programmes prominent in the Region is that the health of the urban poor is influenced by multiple agencies, e.g., ULBs, water and sanitation authorities, police, and urban and transport planners. These agencies work in isolation, resulting in the possibility of duplication of services, or conflicting policies and programmes, adversely impacting the urban poor.

**Socio-cultural issues**

Cultural and traditional beliefs play an important role in the healthcare practices adopted as well in daily living. These beliefs influence maternal and child health practices adopted by slum dwellers as well as treatment-seeking attitudes during illnesses202. Education also has an important role in
health seeking behaviour. It has been documented, in the NFHS-III survey and Urban Health Survey of Bangladesh, that households with better education show better decision making capacity than those with illiterate people. Slum populations are very heterogeneous, composed of people from different parts of the country or region. Slum populations are less connected to their origins and have less family support\textsuperscript{205}. Due to this they are less likely to adopt healthy behaviours and practices, and also follow them consistently. Women living in slums often work outside the home, making it less easy for them to seek healthcare services and be extremely attentive to children and other family members.

Quite apart from the inefficient governance structures, is the lifestyle and attitudinal gravitation of the bulk of the population in developing countries, particularly those experiencing an economic development boom, towards consumerism. As the middle-class grows more affluent, and the poor inch towards middle-class, the lifestyles of the rich percolate to the lower economic orders. Furthermore, the pervasive impact of globalization and improved communications is the westernization of most regions of the world, South-East Asia Region included. In many cases, this means the popularization of western (particularly North American and West European) modes of dressing, food, and items of personal use; higher energy consumption; and the tendency to use disposable articles, and generate large amounts of garbage. However, the adoption of these modern ways does not relieve the population of the traditional socio-cultural niceties (and ills) and responsibilities that carry their own price. Thus, an urban slum dweller, already burdened with financial distress, and devoid of strong socio-economic buffers and support networks, may still find that he has to expend a large sum of money to celebrate a wedding, complete with modern trappings. A substantial proportion of the urban poor possesses goods such as televisions and refrigerators, and services like telephones and piped water. However, they are not necessarily emancipated from socio-cultural barriers like gender inequality, child neglect, and discrimination based on caste and religion, etc. In some ways, they experience the worst of both worlds, denied the social security of traditional society and the egalitarianism and opportunity of the modern.
Multi-sectoral agenda for action

Efforts to improve the basic services, nutrition, community support, infrastructure and governance in urban areas will create a healthy urban environment and reduce health and social inequities (Figure 8). Multiple organizations and agencies have the responsibility and resources critical to improve the urban environment. The efforts of these multiple-stakeholders need to converge to improve the health and well-being of the urban populations, particularly the poor.

Figure 8: Convergence of initiatives to improve the health of the urban poor

7.1 Improve social equity

Reducing poverty

The Universal Declaration on Human Rights places life free of poverty and hunger as the most fundamental freedom and human right. Article 25 (1) of the Declaration states, “Everyone has
the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services\textsuperscript{207}. Reducing poverty has multiplier beneficial effects on health, living conditions, nutrition, gender equality and education.

Most economies in countries of the Region are growing, but experience has shown that economic growth, while important for poverty reduction, is not always sufficient. Economic growth, which fails to redistribute wealth equitably to all sections of society, has resulted in growing income inequalities. The international poverty lines of US$1.25 a day and US$2 a day may not be sufficient to measure poverty and set benchmarks to alleviate poverty. The high economic growth approach adopted by developing countries to reduce poverty is failing against a background of high food prices, rising fuel prices, global economic crisis and climate change\textsuperscript{208}, undermining efforts to achieve MDG 1.

Urban poverty is a result of rising inequalities. The United Nations emphasizes the importance of employment-intensive growth and reducing inequities to rapidly reduce poverty\textsuperscript{209}. It recommends a developmental role for governance, wherein economic and social policies are integrated to reduce inequality, generate employment, redistribute wealth and support progress in all sections of society. It urges a strategic shift from fundamentalist market-oriented policies and practices towards policies promoting equitable sustainable development for all\textsuperscript{211}. It has been observed that many of the major social transformations across the world have been achieved despite low individual incomes\textsuperscript{210}.

Improving the financial condition of the urban poor enhances their purchasing capacity, directly improving access to material goods, services, food, better housing and healthcare services. But policies and programmes directed towards employment and income generation alone are not sufficient to address the many dimensions of urban poverty. An unsupportive policy environment may result in affordability without access. For instance, despite the financial capacity to construct a good living space for themselves, the urban poor who face tenure insecurity and threat of eviction might avoid undertaking the task of construction, and continue in poor housing conditions. Governments and urban local bodies have a significant role to play in the provision of the right policy environment to enhance active participation of the poor in improving their own lives and escaping the poverty trap.

Society as a whole needs to understand the significance of the urban poor in the urban economy. Slums are the source of blue-collar workers who perform a multitude of important jobs such as cleaning, gardening, waste disposal, segregation of scrap, construction, and low-cost industrial and domestic labour. They make important contributions to the urban economy, and have the right to appropriate policies, programmes and funds to address their needs.

**Improving employment and opportunities**

The formal employment sector is supported by a range of informal enterprises which provide employment to the urban poor\textsuperscript{211}. Governments and ULBs have an important role in promoting and protecting small hawkers, street food vendors, informal markets and small scale enterprises, thereby increasing livelihood-security and opportunities for the urban poor. Globalization has led to an increase in the informal employment sector, and the casualization of jobs, making supporting of the informal sector and the self-employed urban poor even more important.
Enhancing the skills of the urban poor will improve their employability and also enhance their income. NGOs, community based organizations (CBOs) and civil society organizations play an important role in providing easy credit and training to improve the skills of the urban poor. The UN-HABITAT calls for heavy investments in human capital by governments and ULBs to improve the lives of the urban poor. Examples provided below illustrate efforts to improve financial status and employment of the urban poor.

**Microcredit for slum dwellers in Delhi**

A 2008 Government of India Press Release reported that, a group of government-owned banks have come together “to provide loans at reasonable rates of interest to the slum dwellers of Ekta Vihar in Delhi”. The banks involved in the lending are Andhra Bank, Bank of India, Canara Bank, Indian Overseas Bank, Punjab National Bank, State Bank of India, Syndicate Bank, UCO Bank and Vijaya Bank. The self-help group involved in managing the lending is “ASHA Community Health and Development Society, an NGO working in health and development of slum areas.” The press release also said that the borrowers are eligible for life insurance cover from LIC.


**Skill training for employment promotion amongst urban poor (STEP- UP) Scheme**

The Government of India has a programme to promote employment and skill training for the urban poor. The objective of this scheme was to provide assistance for skill formation/upgradation of the urban poor to enhance their capacity to undertake self-employment as well as access better salaried employment. It targeted the urban population below the poverty line, as defined by the Planning Commission, and had the following stipulations:

(a) the percentage of women beneficiaries under STEP-UP not to fall below 30%;
(b) Scheduled castes and scheduled tribes to be benefited at least to the extent of the proportion of their strength in the city/town population below the poverty line (BPL); and
(c) special provision of 3% reservation to be made for the differently-abled.

Training was to be provided to the urban poor in a variety of service, business and manufacturing activities, as well as in local skills and local crafts to enable them to set up self-employment ventures, or secure salaried employment with enhanced remuneration. Training was to be imparted in vital components of the service sector, such as the construction trade and allied services such as carpentry, plumbing, electrical work, and also in manufacturing low-cost building materials based on improved or cost-effective technology using local materials.


Large numbers of schemes are being introduced by governments, international agencies, NGOs and CBOs for skill enhancement and improving the employability of the urban poor.
Adopting a socially progressive model of development

“Economic resources are not all that matter in people’s lives. We need better measures of people’s expectations and levels of satisfaction, of how they spend their time, of their relations with other people in their community.”

– Angel Gurria, Secretary General, OECD

Urban areas today are getting increasingly divided socially as well as economically. Living in cities has opened the doors of prosperity and well being for many, but many others are plunged into a quagmire by urban living. Governments and ULBs have to take the initiative to ensure the redistribution of opportunities and promote economic, social and cultural growth for all. Growing urban poverty is a wake-up call for governments to balance economic and social goals, and rethink the models of development adopted by them. It is now acknowledged that measuring Gross Domestic Product (GDP) is not enough to measure the progress and well being of a country\(^2\), as it does not take into account the social and environmental cost of achieving economic progress. Nobel laureate economist Joseph Stiglitz has argued that measuring GDP as an indicator of progress has resulted in the institution and implementation of policies to increase GDP without taking into account the living conditions of the people, social progress and environmental health\(^2\). Community well-being can be sustained only with social progress and environmental health. Open and participatory dialogue between governments and civil society, on the meaning of development, societal values, community goals and environment protection, is vital to good governance and socially progressive development.

Bhutan has taken an alternative approach to the definition of development, and instituted policies to achieve it. The country has developed the Gross National Happiness (GNH) index and institutions and policies in the country revolve around maximizing GNH rather than GDP. The index includes psychological well being, time use, community vitality, cultural diversity and resilience, health, education, ecological diversity and resilience, living standard, and good governance\(^2\). Member States of the Region have this role model to emulate in ensuring and enhancing national happiness.

Addressing the needs of the most severely marginalized

Poverty is closely tied to exclusion in many spheres of activity, and they reinforce each other. Of all the categories of exclusion, social stigmatization is the most insidious, difficult to measure, and take concrete action against. Street dwellers, transgendered individuals, sex workers, ex-convicts, persons with disabilities, beggars, members of marginalized communities, such as certain castes and creeds, and elderly individuals in some cultures, do not have the opportunity to participate fully and with dignity in society. Some of these populations do not even have a slum address. They are generally involved in begging, doing menial jobs and selling small articles at traffic signals. They are the poorest of the poor in the cities, struggling even to survive on a daily basis.

Beggars are seen as a menace in the cities but it has been noted that begging is an industry in itself, run by local goons and a begging mafia. Law enforcement authorities need to deal with the begging mafia, which generally abducts and employs large numbers of children and disabled people in begging. ULBs should ban begging, generate awareness among the public to discourage
begging, and in collaboration with NGOs and CBOs, rehabilitate beggars and provide them with alternative means of livelihood, such as through cottage industries and co-operatives. Healthcare organizations should provide rehabilitation services to disabled beggars. Law enforcement authorities, NGOs and charitable organizations need to work together to rehabilitate street children and reunite them with their families.213.

Countering exclusion and marginalization calls for a multi-pronged approach (Figure 9) including sensitization of policy-makers and the lay population; developing tolerance, making accommodations, and assuring advocacy and opportunities for persons vulnerable to discrimination; and dealing strictly with violations of the dignity and liberty of those facing exclusions. The full inclusion of persons with disabilities into the mainstream of economy and society can be brought about by community-based rehabilitation, vocational training, and improving accessibility, thereby strengthening their autonomy.

**Figure 9: Addressing exclusion in the urban poor**

Bangladesh government plans databank to protect beggars from exploitation

The government is set to invest US$ 2000000 in a rehabilitation programme that is expected to provide education, jobs and shelter. “The Bangladeshi government is setting up the first database for beggars living in the capital that will include collecting vital statistics and photos,” Mr Mohammad Nurul Kabir told AsiaNews. Mr. Kabir, the director general of the National Foundation for Development of the Disabled Persons, said, “The number of beggars is around 700000, asking alms at bus stops, railway stations, markets and traffic signals. Last March, the Social Welfare Ministry set up a core committee for beggar rehabilitation.” Currently, experts are looking at ways to apply the programme. In March, the government also adopted “new laws to counter the exploitation” of beggars.
Under the new 2010 Vagabond and Street Beggars Rehabilitation Act, forcing someone to beg becomes a punishable offence with “three years in prison,” which can increase to five years. "Despite the new legislation, however, the situation has not changed. The problem is getting worse everyday. Overall, the government has allocated US$ 2 million in favour of rehabilitation projects for beggars this year. The Social Welfare Minister Mr Enamul Haque Mostafa Shahid said the government wants to invest an additional 63.2 million taka (just under US$ 1 million) next year. Under the terms of the plan, beggars would be provided with employment, education, training and shelter. The minister announced that the programme would get underway very soon. Beggars will have their picture taken and will be registered in the rehabilitation programme. Most of the disabled would be moved to rehabilitation centres, whilst able-bodied beggars would be provided with employment in their district of origin. The survey will include a single, one-day sweep across the capital, divided into ten zones.


7.2 Improve living and working conditions of the urban poor

Improving housing

Improving the housing conditions of the urban poor will bring dramatic changes to their health and well being. Good housing is one of the basic needs of an individual; where people live significantly affects their health and well being. Governments, ULBs and civil society need to come together to replace the temporary, flimsy, unsecured, dirty and unhygienic dwellings in the slums with robust and clean structures. Improved housing will have multiple beneficial effects on health and social well-being.

The notification of slums would provide a voice and access to basic services and legal support to slum-dwellers, and can break many barriers to improving living conditions. Governments face the challenges of providing land rights to slum dwellers and managing pressures from the private sector and international businesses interested in developing land for commercial use. Priorities need to be reviewed and steps taken to bridge the economic and social inequities in cities. Security of tenure would encourage slum dwellers to participate actively and invest in improving their own living conditions. Policies and programmes to improve the living conditions of the urban poor need to be instituted and appropriately funded to ensure sustainability.

Baan Mankong (BMK) – Thailand’s successful slum upgrading programme

Thailand’s most successful government-sponsored projects ‘Baan Mankong’, led by Community Organizations Development Institute (CODI), is recognized globally for providing a successful solution for redeveloping slums emanating from rapid industrialization.

The programme initially helps poor people in the communities to work together to deliver secure and affordable housing to everyone. It is a people-driven housing development process in which the poor people themselves are the main actors, the main solution finders and the main delivery mechanism.
The major objective is resolving settlement and tenure security issues for urban poor communities countrywide. Initially, CODI supports the poor communities to work closely with their local governments, professionals, government agencies, universities and NGOs to survey all the communities in their individual cities and then plan an upgrading process which attempts to improve all the city’s poor communities.

CODI channels infrastructure subsidies and housing loans directly to the communities through legally established cooperatives or savings groups. BMK not only focuses on building homes for low-income people but also takes into account other development aspects, i.e. the community’s welfare, living environments, and so on. It has succeeded nation-wide because it helps unleash the energy and creativity of Thailand’s poor communities with several key instruments including:

1. **Flexible financing**
   
   One of the most important tools of this people-driven upgrading process is flexible, accessible financing, in the form of housing and land loans and infrastructure subsidies.

2. **Savings groups**
   
   Communities must have well-established savings groups to qualify for the BMK programme. These savings groups act as a crucial force when the upgrading project begins.

3. **Collective everything**
   
   The communities must find ways to do things together if they want to participate in the BMK upgrading programme. To create and strengthen the organization, everyone in the community, even the poorest member must be included in the process. It is a tool to pull people together and create new strength within the group.

4. **Horizontal support**
   
   As more upgrading projects begin, community members visit other projects, conduct exchanges, workshops and inaugurations. The programme has made the whole country a great ‘university’ of housing and land options for the poor.

5. **Technical support**
   
   The BMK programme also supports a growing number of community architects, planners, architectural faculties and design students that assist communities as they develop their settlement layout plans and housing designs.

Source: Community Organizations Development Institute.  
Providing basic services

Basic services integral to good health include (Figure 10):

- safe water supply
- sanitation facilities that afford cleanliness and privacy
- robust drainage and sewerage systems
- solid waste processing (segregation, recycling, and composting) and disposal facilities
- adequate lighting
- energy, e.g., electricity
- safety from violence and crime
- protection from pollutants such as indoor and outdoor smoke, and hazardous industrial and domestic effluents.

Figure 10: Basic services for the well-being of the urban population

The health and economic benefits to households and individuals due to improved water supply and sanitation are well documented. The demand for water is ever increasing in cities. Governments and ULBs need to invest in water management and conservation strategies to improve the availability of water in urban areas. ULBs need to de-link the provision of these basic services...
from land rights and notification of slums, and also to ensure that these services are available equally to poor and rich neighbourhoods in the city\textsuperscript{215}. They also need to introduce innovative financing strategies to provide and maintain the infrastructure in the slums, and to enable the poor to pay for water connections and sanitation services. The participation of the slum dwellers in planning, construction and maintenance of these facilities is important in sustaining the improvements.

Financial and material support techniques, such as subsidies, contribution-matching, and microfinance, besides outright free provision, must be brought into play to assure the urban poor of basic services like safe water, sanitation and electricity. Systems that hold the user accountable are more likely to be used efficiently than systems that provide limitless free services. The Commission on Social Determinants of Health calls for equitable pricing policies that charge (for essential services and commodities like water and electricity) based on consumption slabs, to allow the poor, who typically consume less to pay at a lower rate, and the affluent, who typically consume more, to pay at a higher rate that they can afford. Prevention of tapping, wastage and misuse, through robust and protected infrastructure, and monitoring of consumption via water and electricity meters is highly recommended.

Governments need to make ULBs accountable for providing services in the slums and incentives to improve services. Law enforcement authorities need to protect the urban poor from the water mafia. In addition, the urban population needs to be educated to use water responsibly.

Professional Association of Indonesian Water Supply and Sanitation (WSS) Service Providers

Municipal WSS services in Indonesia are provided by some 300 semi-autonomous municipal water utilities (PDAMs). After the financial crisis that hit the country in 1998, most water utilities struggled financially and the quality of the service provided deteriorated under the combined pressure of population growth, ageing infrastructure, inefficiencies, and low revenue. To meet these challenges, water utilities have come together as members of a professional organization of water enterprises, PERPAMSI, headquartered in Jakarta with 28 provincial centres.

The mission of PERPAMSI is to assist its members to improve the management of their water supplies, assets and finances, as well as to provide training and certify professional staff. In addition, PERPAMSI provides training in public awareness, negotiations with local governments, and customer outreach.


Models of waste management that show much promise in urban areas are those that work on the principles of community participation, multi-sectoral contribution, recycling, recovery, and zero-waste, e.g., water-efficient community toilets whose effluents are processed for energy, reusable waste water and manure; community-sponsored segregation, collection, processing (recycling and composting) and safe disposal of dry and wet waste.
Sulabh community latrines: 12 million customers daily

Every day, Sulabh provides sanitation facilities to 12 million people and charges a small fee, demonstrating that even poor people are willing to pay to use a clean toilet. Sulabh is running over 6000 community centres all over India, but this is still a drop in the ocean. The founder, Bindeshwar Pathak, says that over 150000 such centres would be needed. The service is just breaking even. The Sulabh model is characterized as follows:

1. Sulabh normally constructs and maintains the community toilet complex for public use on a pay-for-use basis
2. Local or other sponsoring authorities provide the land and funds for construction of these public toilets-cum-bathing facilities.
3. Sulabh raises resources by charging the sponsoring authority 20% of the project cost as implementation charges.

However, Sulabh is more than just a toilet infrastructure. It is a social and environmental transformative movement working towards:

- ending of caste-based discrimination
- eradication of the inhuman practice of manual scavenging
- rehabilitation of scavengers
- ending of defecation in open spaces
- controlling the spread of contagious diseases
- raising awareness about non-conventional energy sources
- education
- vocational training

The Sulabh International Academy includes a toilet museum, and works to implement awareness-raising, education, consultation and technical support for governments, NGOs and private bodies in India and several other countries.


Payment by waste-processing and sewage treatment agencies for segregated trash and human waste respectively, is another avenue that guarantees the participation of the urban poor in waste management.

Nepal, Chitwan: a toilet revolution

‘Take a Pee and Get One Rupee. If you have travelled on the Prithvi Highway last year, you must have noticed this seemingly-ridiculous slogan in Darechowk, near Kurintar. Of course, if you have used public toilets before, then you may be more used to paying a rupee to urinate. Instead, members of the Sewa Nepal, a local NGO, pay anyone a rupee if he or she uses their toilet. And no, they are not joking.
“Previously, people used to mock us but now they have realized the message we are trying to convey: Urine is a valuable asset,” says Sirendra Shrestha, founder and coordinator of the NGO. Thus, what the NGO does is to collect the urine and convert it to fertilizers for the villagers.

The NGO, which is involved in environmental conservation and community sanitation, has actively sought to make Darechowk a model Village Development Committee (VDC). The group’s efforts finally became successful when Darechowk was declared the 18th Open Defecation Free (ODF) VDC in Chitwan —thus paving the way for a cleaner, sanitized village.

The ODF movement in Nepal has been supported by the Department of Water Supply and Sewerage (DWSS) in coordination with the World Health Organization, UNICEF and NGOs. Sewa Nepal has been the local partner of the movement, providing toilet pans and pipes to individual households in Darechowk. Locals say this is a sanitation movement led by the common people. Thus, among the 1656 households in the VDC, more than half have a proper toilet. Further, around 770 houses have built an EcoSan (short for ecological sanitation) toilet, the most preferred type as it can collect human waste that can be used as fertilizer.


Safety from crime is an important contributor to health and well-being. ULBs and law enforcement authorities should together provide adequate lighting, safe built environment, strict enforcement of anti-trafficking regulations, and policing to assure the safety of urban residents. In addition, the urban poor, who often lack awareness of their rights and the wherewithal to protect themselves, should be empowered and given recourse to legal aid.

Improving occupational health

The urban poor employed in the organized sector generally work under established policies formulated to ensure their safety and well-being, and closely monitored by workers’ unions. Reasonable work policies are not as well-structured and articulated in the informal sector, and consequently its members, e.g., domestic help and construction labourers, are not as well-protected. Occupational health needs to be promoted through ensuring safety at work, equitable practices, and recourse to grievance redressal.

To ensure safety at work, physical, chemical, and biological hazards need to be attenuated and closely monitored to minimize risk to workers, through the mandatory use of safety equipment, screening and timely medical services. In addition, modifications in the built environment, such as the provision of footpaths for workers to walk safely to and from their worksites, should be made. Equitable practices at work include fair compensation, responsive to the local urban economy; employee-sensitive and family-friendly policies on scheduling, leave and job-security; and elimination of the gender gap in wages. Exploitation should be prevented through the communication to workers of their rights; and recourse to grievance redressal mechanisms, including assurance of protection from harassment, and provision of free or subsidized legal aid and counselling to the urban poor.
7.3 Build healthy and equitable cities

Governance

Good governance is participatory, transparent and accountable. It also promotes the rule of law. According to UN-HABITAT, good urban governance means a shift from the role of provider of goods and services to that of an enabler of these services to all living in the city. UN-HABITAT’s Global Campaign on Urban Governance advocates the pivotal role of city governance in the reduction of poverty, and the promotion of accountability and transparency for the benefit of all sections of society, especially the urban poor (Refer to Annexure A). It identifies decentralization, participatory planning and decision making as the key strategies to improve urban governance. The objective of the campaign is to create ‘Inclusive Cities’, where everyone in the city has equal rights to opportunities, social support, food and shelter. Good governance has been identified as the missing link between poverty reduction strategies and urban poverty.

A programme for improving the health of the urban poor cannot be successful without a good governance structure in the city. Governments and ULBs need to understand this critical link and establish and implement policies to improve the lives of all living in the cities, discarding the image of the urban poor as a problem and acknowledging them as important contributors to the economy of the city. The majority of the urban growth is projected to occur in small towns and cities. This calls for governments to increase the financial and technical capacities of these towns and cities in preparation for this growth. Cities should adopt different approaches, such as rights-based, welfare, human development, environmental and institutional, to institute good governance, and include considerations of sustainability in every dimension of city development.

Leadership

To address the growing inequalities in cities and improve the health and living environment of the urban poor, ULBs need able leaders to bridge the growing disparities in cities. City leaders will have to make difficult and landmark decisions and frame policies keeping in mind the dimensions of social and economic progress and sustainable development. They will need to recognize the poor and provide them a voice as well as political power in the development of the city.

City mayors can provide leadership and maintain the dialogue between the urban poor groups and city governance. They can have an important influence on pro-poor policies and ensure equitable urban development, and steer the urban governance agenda to improve the lives of the urban poor.

Healthy urban planning

“We had to build a city not for businesses or automobiles, but for children and thus for people. Instead of building highways, we restricted car use. We invested in high-quality sidewalks, pedestrian streets, parks, bicycle paths, libraries; we got rid of thousands of cluttering commercial signs and planted trees. All our everyday efforts have one objective: Happiness.”

– Enrique Peñalosa, former Mayor of Bogota
The American Planning Association describes urban planning thus: “Urban planning or city and regional planning, is a dynamic profession that works to improve the welfare of people and their communities by creating more convenient, equitable, healthful, efficient, and attractive places for present and future generations.” Healthy urban planning is an instrument to operationalize WHO’s core strategy of ‘Health for All’ into city development. Healthy urban planning makes human and environmental health the central theme in urban planning and decision making (Figure 11). It is the planning and development of urban spaces to promote health and active living among the citizens. Urban spaces include roads, buildings, sidewalks, green spaces, schools, offices, markets and healthcare services, which constitute the built environment of a city, and have direct and indirect influences on the social and physical determinants of health.

**Figure 11: Role of the built environment in health**

![Figure 11: Role of the built environment in health](source: Barton H, Grant M. A health map for the local human habitat. J R Soc Prom Health 2006; 126: 252–53.)

Healthy urban planning is an extension of good governance and leadership. It convenes urban planners, public health experts, transport authorities, sociologists, energy experts, public engineering and policy makers on a common platform to plan, design and redesign built environments in urban areas to address issues like public health problems, environmental degradation and sustainable development. It is an inter-sectoral collaborative approach to address these issues.

**Sustainability**

The increasingly fossil-fuel based economy and lifestyle that characterize ‘development’ have brought about a paradigm shift in the equation between natural resources and human beings, with trends towards over-consumption and inadequate replenishment. Generalization of the lifestyles of high-income populations (construed as ‘development’) to middle- and low-income populations is not sustainable in view of the earth’s finite resources, already stretched to capacity.
The need for sustainability to be understood as an inclusive concept, with ecological, economic and social components, and not to be viewed as a value that clashes with development, is great and urgent.

History, as represented in building styles, cuisine and indigenous occupational and health practices, supplies numerous clues to optimal arrangements for a region, e.g., the use of local materials in construction and daily activities, local food production, and cultivation of native species suitable to the climate. Capon and Blakely\textsuperscript{221} emphasized the following aspects in the checklist that they formulated for healthy and sustainable communities: air quality, water supply and sanitation, structures for housing, education, employment, social interaction and community activities, facilities for food, commerce and services, transport, communications and economy. Jobs and housing need to arrive at a balance with mixed land use patterns\textsuperscript{222}, space-efficient siting and orientation of structures, and optimum surface-to-volume ratios, to minimize commutes, and maximize efficiency and social well-being besides environmental sustainability. Standards for sustainable urbanism include zero-net energy buildings, the use of daylight as the principal source of illumination in buildings, tree canopy cover, and storm water management\textsuperscript{223}. Adaptation and mitigation measures are of vital importance to address the rising threat of climate change and anthropogenic environment degradation.

**Urban agriculture**

The case for urban agriculture is strengthened by the triple pressures of the rising costs (both economic and ecologic) of transporting food over long distances, the need for a solution to malnutrition among the urban poor, and the threat of weather and socio-political disasters that could sequester cities, see a rise in displaced people and the influx of refugees, and compromise outside food supply. Further, urban agriculture offers an avenue for the sustainable employment of the urban poor. This also holds out the promise of mitigating the long-term ramifications of food insecurity, viz., compromised nutritional status, health, education, and productivity. Key micronutrients and macronutrients such as protein are invariably more expensive than staple energy foods and consequently the first to get sacrificed in times of economic pressures on food availability. The promotion of sustainable livelihoods that facilitate food security, and the local availability of a variety of foods are decisive steps towards ensuring food sovereignty, the capacity to exercise one’s choices in the foods one consumes, among the urban poor.

The FAO recommends the cultivation of indigenous species as an environment-sensitive approach to urban agriculture, which in turn will work as mitigation and adaptation to climate change, attenuating urban warming and preventing flooding\textsuperscript{224}. Indigenous species have the advantages of being woven into the local culture besides the local geography, climate and ecology.

Urban agriculture, which sees the participation of many women, contributes to gender equity besides food security, lower ecological costs, and a healthier urban ambience. However, it is susceptible to the adverse effects of the physical, chemical, and biological contaminants ripe in the urban environment, for instance, untreated sewage, industrial effluents and polluted air. Then again, with proper planning and the establishment of a system of segregation, transport and treatment of wastes, urban agriculture can provide a solution to the growing burden of improper waste treatment and disposal by harnessing the organic waste generated by the city and recycling nutrients efficiently; it can also contribute to the amelioration of urban heat islands and offer a carbon sink. The problem associated with the use of urban wastes in agriculture is that it is usually informal and not subject to legal regulations and monitoring, and thus its safety cannot be
guaranteed. It would be best for the government, in collaboration with scientific and social experts, to step in and regulate urban agriculture standards, so as to reap the benefits of food security and safety, employment, and emission reduction.

**Rural development**

Considering the intricate links between the rural and urban economies, the draws and drives for migration, and subsequent urban poverty, there can be no doubt that comprehensive urban improvement is impossible without concurrent rural development. Rural development programmes need to work in tandem with urban development programmes to ensure overall improvements in health, economic and social conditions, and particularly to minimize distress migrations that contribute to urban poverty and poor quality of life for all urban residents.

**Participation**

Multi-sectoral participation is key to sustainable development (Figure 12). Improved health outcomes, reduced risks, and better quality of life have been demonstrated with integrated interventions based on community participation and empowerment.225

Certain sections of the population are more vulnerable to the health and safety lacunae of urbanization than others, e.g. children, older individuals, those with toxic exposures, and the sick and disabled: Special efforts need to be made to include vulnerable sections of the population in the planning, implementation and experience of sustainable urban development.

*Figure 12: Pathways to sustainable urban development*

Participants: $G =$ government; $P =$ private entities; $C =$ community organizations
**Transport**

Urban road design incorporating traffic-calming measures such as raised crossings, and restricted and alternative routes has been shown to reduce the incidence of accidents and injuries, and facilitate the smooth flow of traffic and active transport\(^2\text{26}\). Well-connected, integrated mass transit and promotion of active transport, via the establishment of road safety features, such as footpaths, bicycle lanes and foot over-bridges, and curbing of air pollution, has environmental and economic co-benefits and militates against social and health inequalities. Legislation to promote low-emission fuels, curb noise-pollution, enforce speed limits, and prevent drunken driving; as well as establishment of staggered timings for institutions to ease traffic congestion would facilitate better experiences for road users. Besides policies to promote mass transit, and disincentivise personal transport in urban areas, shorter commutes facilitated by judicious siting of workplaces, commercial and public spaces and residential clusters, tree-planting and modifications in the built environment to prevent heat islands and water-logging, would add immense economic, environmental, health and social co-benefits.

**7.4 Enhance knowledge**

In order to institute appropriate policies and programmes, governments and ULBs need to enhance their knowledge on urban health issues. Urban health observatories to collect information relevant to urban health, including research on various urban development initiatives and their impact on the urban environment and health, are called for. Information collected can be published in annual reports and disseminated through the use of information technology. This on-going process of data collection will inform policy and investigations of urban health issues.

**Health impact assessment**

The assessment of the impact of every proposed infrastructure and industrial and other major development project should be undertaken, with special attention paid to the effect on the urban poor. Large municipal construction projects consistently require the displacement of communities, the demolition of structures, and the cutting down of trees to make room for buildings and roads. Attempts to relocate displaced families to other areas often result in the disruption in their living arrangements.

Besides physical displacement to make room for projects, risks run by the urban poor include exposure to hazardous physical, chemical and biological materials; heat islands; increased traffic congestion; and increased waste-generation from the development of new industrial, commercial and residential establishments. The impact on health and community life of the establishment of projects should be estimated at the outset and evaluated periodically to enable timely and appropriate action to ensure that adverse effects are avoided. Projects and establishments that do not meet health and environmental impact standards should be penalized, and banned if necessary.

Once urban spaces are rendered safe in terms of the physical environment, attention can be focused on vitalizing (or, in some cases, revitalising) them by facilitating and promoting civic activities and amenities, e.g., cultural performances, libraries, theatres, fitness centres, arts and crafts exhibitions, parks, and pedestrian-only paths and gathering places.

The impact of various policies, programmes and initiatives by governments and ULBs can be estimated by the measurement of a set of specific indicators of the health of the urban...
environment (Annexure C), developed by the European Commission. Measuring the health of the urban population as well as the environment can inform policy and programmes to improve the urban environment. Good urban governance and healthy urban planning can become fundamental pillars in the improvement of these urban health indicators.

The Urban Health Equity Assessment and Response Tool (Urban HEART) is a user-friendly guide for policy makers at local and national levels to address health inequities in cities. It aids decision-making to address health inequities in cities. It is based on the principles used by the WHO Commission on Social Determinants of Health, the World Health Report 2008 on Primary Health Care, and is a key deliverable of the WHO Noncommunicable Diseases Action Plan. The tool has been piloted in cities in 2008-09 and piloting results are currently being documented and consolidated. It consists of two key components: 1) Assessment: analyzing (a) health outcomes, and (b) health determinants (in four policy domains - physical environment and infrastructure; social and human development; economics; and governance); and 2) Response: identifying interventions and strategies for action from a list of best practice interventions. While interventions would be modified to address the specifics of the local context, the tool provides the basis to prioritise appropriate interventions.

7.5 Improve sustainability of and access to healthcare services

The urban poor should be educated and empowered to be health literate. To this end, mass media should be harnessed to disseminate health promotion messages: Space and time should be dedicated to public service messaging on television, radio, print, and out-of-home media, such as hoardings.

Slum-dwellers need to be made aware of water-purification, personal hygiene, use of toilets, good nutrition, safe disposal of solid waste, and possible breeding grounds for disease germs and vectors. They also need to be educated on the identification of early signs and symptoms of common infectious diseases, as well as HIV/AIDS and tuberculosis.

Educating pregnant women and adolescent girls on reproductive health, antenatal care and healthy childcare practices is key to reducing maternal morbidity and mortality. It is also important to establish the importance of small families and rights-based family planning practices, especially in view of the high fertility rates in slums.

Promotion of menstrual hygiene

‘GOONJ’ is a Delhi-based NGO, established in 1998, that collects, processes and repurposes donated cloth, to distribute clothing and cloth-based products to the poor. The following is an excerpt from a newspaper article, “Revolutionary initiative”, by Smita Jain.

“Goonj’s latest project to utilise donated cotton clothing for creating sanitary napkins is based on the knowledge that many women — and hence their families — suffer major health consequences on account of using unhygienic cloth during menstruation. This can lead to infections, which can cause multi-organ failure and infertility. The consequences can also be multi-fold, as an infection can have an effect not only on the woman, but on the lives of her children born and unborn. The situation in India is not one to be taken lightly; indeed, India has one of the highest infant and maternal mortality rates in the world.
Needless to say, few women and even fewer men would dare to address this issue, preferring instead to keep the “dirty laundry in the house”. Therefore, it came as a surprise to hear this Ashoka Fellow [Anshu Gupta] nonchalantly discussing the motivations behind his latest endeavour. “I have travelled far and wide across India, and everywhere, the situation is the same. Since menstruation is considered to be `pollution’, women use the dirtiest cloth in the house — cloth that has been used to clean the floors, the bathrooms. And because it is imperative that the cloth be hidden from the neighbours, it does not ever see the light of day.

Furthermore, there are usually two or three women in a household all using the same cloth. “And in this context of shame, of extreme health-risks, we often overlook this reality and give them lectures on reproductive health and maternity care. We still have a long way to go, but providing some clean cloth is a good first step”.


It is evident that slum populations suffer from a heavy and rising burden of chronic diseases. Hence, priority should be given to educating the urban poor on chronic diseases as well, particularly on risk factors, signs and symptoms, and management of various chronic ailments. Educating the urban poor about the harmful effects of tobacco and alcohol abuse, and ways to quit these practices, is important to the promotion of urban health. Finally, educating the urban poor on the importance of personal safety and potential exposure to hazards is vital to promote occupational health.

Promoting health and preventing diseases among slum dwellers calls for a multi-sectoral approach. Governments and ULBs need to provide an enabling policy environment for efforts to converge and actually promote health and well-being. Emphasis on promotive and preventive healthcare services is the most cost-effective path to reduce the disease burden and improve the health of the urban poor.

Health literacy is a vital, but often overlooked, aspect of literacy. Awareness is the first step in approaching healthy behaviours, and avoiding risks for disease, injury and death. Empowerment of individuals and groups to facilitate the exercise of healthy options comes next. Policy, governance systems, infrastructure and cultural networks may help or harm a community’s health behaviour. With the progressive rise in chronic, metabolic and lifestyle-associated diseases, health behaviour is increasing in importance. There is an urgent need for the assimilation of health information into the formal educational curriculum at all levels, and for strong policy support for the creation of environments enabling improved health choices, e.g., safe and regular physical activity; freedom from injury; safe and healthy food procurement and preparation. Public health specialists, such as health educators and researchers are needed besides care-providers such as physicians, nurses, and other health workers. Traditional, complementary and alternative systems of medicine should be integrated into mainstream healthcare to fulfill critical contemporary needs, with specialists from myriad systems serving national health programme goals while providing specialized care to members of the community, as demonstrated by the integration of Thai traditional medicine into the country’s healthcare system. This will also offer a choice among healthcare modalities to people, especially the urban poor, whose options are otherwise rather constrained. Health communication should harness the skills and the reach of various community members in creative ways, e.g., the call for Buddhist monks to spread health messages and for monasteries to serve as health centres in Thailand.
The complex interaction of health, environment, genetics, lifestyle, opportunities, facilities and behavioural control necessitates holistic attention to contemporary public health, especially among the urban poor who face multiple challenges. Provisions made by the government, other organizations, and community collaboration need to be used efficiently and complemented by the choices exercised by the people. The role of health education and behaviour change communication is key. Basic health education for disease prevention, health promotion, and primary care for minor ailments are the top health needs of people. Preventive and primary care does not necessitate as protracted, expensive, and specialized training, and high-tech equipment as secondary and tertiary care. Moreover, the rewards to be reaped from a focus on preventive and primary care are great. Adequate attention given to these areas has the effect of raising the basal level of population health, and reducing the workload and personnel pressure on secondary and tertiary care facilities.

Community health workers form the pillar of public health promotion. They provide fundamental health services, such as imparting information on basic hygiene, advocating immunization and good nutrition, referring patients to physicians and hospitals when required, and generally acting as a liaison between the lay public and the healthcare system. Community health workers demonstrate the advantages of belonging to the local community and being conversant with the local settings, issues and potential solutions, and of easy acceptance by the community.

The involvement of larger numbers of appropriately trained community health workers in the public health workforce ranks very high among the health imperatives of developing countries in the Region. NGOs, CBOs and charitable organizations working in slums can contribute to the development of a strong cadre of community health workers to provide health education, and catalyze behaviour change among the urban poor. Unfortunately, the attractiveness of the job of community health worker is rather low: Higher remuneration, greater respect, and perks for work in remote areas and urban slums would go a long way in increasing the appeal of the job, and drawing energetic and dedicated persons to community health work. In addition to community health workers, the voluntary sector and self-help groups need to be promoted for more proactive, participatory and progressive health promotion.

Providing healthcare to the rural populations of the country has always been the major focus of governments and health departments. In keeping with growing urbanization and the growing population of the urban poor, governments and health departments need to develop urban healthcare programmes targeted at the urban poor. The concentration of healthcare providers in urban areas can be harnessed for the reduction of health inequities. Designing an urban health programme and implementing it should become an important component of the health systems reform agenda. Urban health programmes should be seen as an opportunity to harness the public and private health sectors into collaborative partnership, and improve the quality of services and regulation in both sectors, besides facilitating the sharing of resources among the providers.

Primary care services for the urban poor should aim to promote health and well-being, prevent disease, and provide treatment and care, and appropriate referral to secondary and tertiary care services. The services for the urban poor may therefore include:

- Diagnosis and treatment of infectious diseases;
- Antenatal, peri-natal and post-natal care;
- Reproductive and family planning services;
- Immunizations;
- Child health;
• TB and HIV treatment;
• Screening, diagnosis and treatment of chronic diseases;
• Mental health services;
• Traditional, complementary and alternative medicine; and
• Outreach services.

Efforts to improve the quality of and accessibility to primary care for the urban poor must be made through a bottom-up approach, emphasizing collective and collaborative efforts of ULBs, urban planners, water and sanitation departments, housing improvement, community health workers, NGOs, CBOs, and civil society. The combined efforts of these multiple stakeholders will have a bigger influence on the health of the urban poor than any individual stakeholder’s endeavours.

The Commission on Social Determinants of Health recommends that national governments with civil society and donors build healthcare services on the principle of universal coverage of quality services. This would enable all citizens including the urban poor to access the same range of quality healthcare regardless of their ability to pay. There are a number of different models of healthcare financing, ranging from general taxation and mandatory universal insurance to community-based insurance schemes and direct out-of-pocket payment. Health insurance for the urban poor can help reduce catastrophic expenses, improve access and utilization of primary care, and enhance access to secondary and tertiary care. Governments need to adopt innovative and optimal models of healthcare financing for the poor, e.g., no-premium, low-premium, or subsidized premium insurance schemes. NGOs and CBOs can help increase the coverage of such schemes. Further, the urban poor can be helped by the provision of flexible payment schedules. There is wide variation within the Region in the methods and levels of government financing for healthcare, and ample opportunity for governments to share learning and best practices. For instance, Thailand has shown leadership and success in establishing tax financed universal healthcare. In countries like India and Bangladesh, with lower proportions of government spending on healthcare, NGOs and community organizations can play an important role in facilitating access to and financing for healthcare delivery to the poor.

Thailand – Tax-financed universal healthcare

In the process of health-care system reforms in Thailand, a universal coverage model was built out of pre-existing health insurance schemes, including the Civil Service Medical Benefits Scheme (CSMBS) and the Social Security Scheme (SSS). Direct taxation was chosen as the funding mechanism for pragmatic reasons – the desire for speedy implementation. It has since been assessed as an equitable funding model in comparison with social insurance or other contributory schemes. Evidence from the Health and Welfare Survey conducted by the National Statistical Office indicates that, compared with the CSMBS and SSS, the Universal Coverage scheme extended benefits much more towards the poor. Where 52% of beneficiaries under the CSMBS belonged to the richest quintile, 50% of the Universal Coverage scheme beneficiaries belong to the poorest two quintiles. The scheme has resulted in a reduced incidence of catastrophic health expenditure from 5.4% to 2.8%-3.3%.

Health insurance for slum dwellers – UpliftHealth mutual fund, India

This is community-based health insurance scheme that relies on strong community structures in urban and periurban slums to build and maintain health insurance. The programme originated in Pune slums and then expanded to Mumbai slums. It has an ongoing membership of more than 65000. It is implemented by UpLift India Association, an Indian nonprofit organization. HMF’s operations are 60% self-financed, with the remaining 40% financed by domestic and international organizations (Inter Aide, GTZ, Hivos, SSP) and private funders.

HMF is designed to reduce the financial shock of an unexpected health emergency through community risk-pooling. The insurance is introduced and marketed through local community groups (such as self-help groups and village microfinance organizations), which also process claims and reimbursements. Any organization working with the informal sector is eligible to join the programme and receive support, including marketing, servicing, and funds management support. The programme works with more than 150 public and private hospitals and clinics and conducts monthly demand-based health check-up camps and health talks. It also runs a 24-hour hotline staffed by qualified doctors, which assists in navigating a patient through the complex healthcare system. Patients are encouraged to use free public services to maximize the resources of the insurance pool. This allows the programme to maintain a broad benefits package that includes inpatient surgical services, some outpatient services, and all primary healthcare consultations.

Members are also entitled to a lost wages benefit. A claim committee composed of community members meets regularly to make claim settlement decisions, which has instilled a sense of community ownership of the scheme. The programme is growing by 5% to 10% a month. Key programme components include community ownership, operational partnership and claim settlement.

Impact

- Increasing access to quality healthcare services for urban and peri-urban communities.
- Bringing financial security and relief to communities where every year 25% of families facing hospitalization fall below the poverty line.
- Reducing out-of-pocket expenditures using pre-negotiated lower rates for products and services.
- Empowering communities and individuals by creating a community-based and transparent health insurance management system.

The strategic framework for action was presented, discussed and agreed upon in the Regional Consultation on Health of the Urban Poor held in Mumbai, India, from 13 to 15 October 2010. A framework for action which puts the urban poor at the heart of the strategic model is described in the diagram below (Figure 13). The framework emphasizes the multi-dimensional effort necessary to address the many determinants of urban health. It advocates a coming together of government departments, healthcare services, NGOs, and, most importantly, the community itself to improve urban health.

* The strategic framework for action was presented, discussed and agreed upon at the Regional Consultation on Health of the Urban Poor held in Mumbai, India, from 13 to 15 October 2010.
To address the health issues related to the urban poor, the following strategies are proposed:

**Healthy Public Policy: towards inter-sectoral cooperation and collaboration**

Improving the health of the urban poor requires the involvement, commitment, and cooperation of multiple sectors to address the social, economic and environmental aspects of health and well-being in a holistic and coordinated manner.

Cooperation and collaboration need to be developed among all sectors concerned, both government and non-government, such as education, finance, urban planning, social welfare, employment, public works, and appropriate NGOs and private organizations, to reduce poverty, and ensure good housing, safe drinking water, sanitation facilities and safe working places, with the aim of improving the living conditions of the urban poor to promote health and social equity.

It is important to assimilate health information into the formal educational curriculum at all levels, and to have strong policy support for the creation of environments that enable healthy choices, e.g., safe and regular physical activity; freedom from injury; safe and healthy food procurement and preparation, as a cost-effective disease-preventive, health promoting measure. These strategies underpin a major positive impact on the health and well-being of the urban poor.

Healthy urban planning should be used to design and re-design the built environment to improve social and physical determinants of health, and develop healthier and more equitable cities. The health sector need to take a lead role in facilitating inter-sectoral collaboration to ensure that all related sectors include health issues in their policy and plans, and that health impact assessments are carried out prior to the launch of any development project that has the potential to undermine health and well-being.

To improve health and social equity in urban areas, governments need to develop and strengthen healthy public policy, which implies that structures and mechanisms are in place to ensure that health is appropriately addressed in the policies and strategies of all sectors. A review of national, sub-national and local policies and strategies is necessary to make these compliant with the Healthy Public Policy concept. The ‘Good Urban Governance’ framework of UN-HABITAT can be adapted to achieve health equity in urban areas and develop ‘inclusive cities’. Strong leadership is required within the urban local bodies to achieve these goals.

**Community education and empowerment**

Health literacy and awareness are important determinants of health behaviours and actions to avoid health risks and injury. Evidence shows that the urban poor lack awareness of the factors that influence health and, as a consequence, may be unable to improve their health. The urban poor need to be better informed and supported to practice self-care, and empowered to contribute to the planning of their healthcare services. This can be effectively addressed through appropriate strategies for health education and community empowerment.

Community health workers and volunteers can play an important role in enhancing health awareness and empowerment. Strong community organizations and social networks need to be established with the support of appropriate government organizations and NGOs.
Availability of, and access to, healthcare services

A comprehensive, needs-based and people-centred urban healthcare service system needs to be promoted and strengthened. Community health workers and volunteers can play important roles in motivating and empowering the urban poor to adopt self-care practices and actively steward their environment. Urban health programmes need to be built on a strong foundation of disease-preventive and health promotive healthcare.

Affordable high quality primary care is essential for the urban poor. Government-run primary care health facilities need to be strengthened. In addition, the crucial role of private providers, NGOs and CBOs in providing healthcare services needs to be acknowledged, and appropriate public-private partnership models, with clearly defined organizational roles, explored. Mechanisms are needed to enable the private and public sectors to work together, to improve the quality, collection and sharing of information, in recognition of the importance of accurate information to policy development.

In addition to high quality primary care, appropriate referral pathways to secondary and tertiary care services need to be established. Options for health financing, including social health insurance, need to be explored to reduce out-of-pocket and catastrophic expenditures on health. Operational research is needed to develop effective healthcare financing and service delivery models appropriate to local contexts.

National health policy and plans: towards equitable health for the urban poor

National health policies and plans need to prioritize the health of the urban poor. It is especially important to ensure that the principles of primary health care – universal access and health equity, community participation, intersectoral coordination and use of appropriate technology – are enshrined in health interventions designed for the urban poor.

Greater involvement of the urban poor in addressing their health needs, through decentralization, improved governance, and participatory planning needs to be facilitated.

Information systems and research

Evidence-based planning entails accurate and up-to-date information. Accurate information is also needed for political advocacy. Urban health indicators, such as health outcomes, health indices, and health-seeking behaviours, are important barometers of the health of the urban poor, and call for high quality data-collection and analysis. Urban health information systems, which provide timely, accurate and comprehensive data will help to investigate urban health issues and inform policy.

Operational research is needed to find effective and efficient situation-specific solutions. Appropriate research to examine, for example, the roles that community-based health workers and volunteers can play, how best to establish multi-sectoral implementation of urban health programmes, and models for public-private partnerships, needs to be conducted. Studies on appropriate healthcare financing mechanisms for the urban poor need to be carried out, and resources mobilized to ensure universal access to healthcare for the urban poor. Health impact assessments of urban development policies and projects are critically important to urban health, and need to be integrated into urban planning at national and local levels.
### Annexure 1

**UN-HABITAT’s Framework for Good Urban Governance**

<table>
<thead>
<tr>
<th>Norms</th>
<th>Objectives</th>
<th>Operational guidelines</th>
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<tbody>
<tr>
<td>Sustainability</td>
<td>Balanced social, economic and environmental priorities</td>
<td>Undertaking consultations with stakeholders within communities to agree on a broad-based, long-term strategic vision for the city.</td>
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<td></td>
<td>Stakeholder involvement</td>
<td>Engaging in consultative environmental planning and management processes that are geared to reach agreement on acceptable levels of resource use, applying the precautionary principle in situations where human activity may adversely affect the well-being of present and/or future generations. Ensuring financial viability by promoting economic activity through the participation of all citizens in the economic life of the city.</td>
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<tr>
<td>Decentralization</td>
<td>Local autonomy</td>
<td>Providing clear frameworks for assigning and delegating responsibilities and commensurate resources from the national to the city level and/or from the city level to the neighbourhood level, and establishing participatory monitoring systems for resource use. Creating transparent and predictable intergovernmental fiscal transfers and the development of administrative, technical and managerial capacities which are responsive, transparent and accountable. Protecting financially weaker local authorities through systems of vertical and horizontal financial equalization agreed to in full consultation with local authorities and all stakeholders.</td>
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<td>Norms</td>
<td>Objectives</td>
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<tr>
<td>Equity</td>
<td>Resource allocation</td>
<td>Establishing equitable principles for prioritizing infrastructure development and pricing urban services.</td>
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<td></td>
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<td>Establishing investment incentives for targeted sectors and geographic areas.</td>
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<td>Removing unnecessary barriers to secure tenure and to the supply of finance.</td>
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<td>Creating social pacts and fair and predictable regulatory frameworks.</td>
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<td>Empowerment</td>
<td></td>
<td>Ensuring that women and men have equal access to decision-making processes, resources and basic services and that this access is measured through gender disaggregated data.</td>
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<td></td>
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<td>Creating rules governing freedom of access to local authority information.</td>
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<td></td>
<td></td>
<td>Providing civic education.</td>
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<td></td>
<td>Creating an enabling legislative framework for traditional economic and social institutions and informal sector operators.</td>
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<td>Efficiency</td>
<td>Management and service delivery</td>
<td>Creating codes of conduct for leaders and officials.</td>
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<td>Establishing “best value” approaches to target setting.</td>
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<td>Developing and implementing fair and predictable legal and regulatory frameworks that encourage commerce, minimize transaction costs, protect human rights and legitimize the informal sector.</td>
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<td>Removing unnecessary barriers to secure tenure and to the supply of finance.</td>
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<td>Adopting clear objectives and targets for the provision of public services.</td>
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<td>Popularizing service standards and complaint procedures.</td>
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<td>Undertaking transparent contracting and procurement systems.</td>
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<tr>
<td>Efficient</td>
<td>Efficient investment in infrastructure</td>
<td>Utilising participatory strategic planning to address the needs of all groups in society.</td>
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<tr>
<td>investment in</td>
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<td>Improving the effectiveness and efficiency of local revenue collection.</td>
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<td>infrastructure</td>
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<td>Undertaking delivery and regulation of public services through partnerships with the private and civil society sectors.</td>
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<td>Norms</td>
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<tr>
<td>Transparency and accountability</td>
<td>Transparent and accountable decision making processes</td>
<td>Using participatory planning and budgeting.</td>
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<td>Holding free and open consultations of citizens on city budgets.</td>
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<td>Establishing transparent tendering and procurement procedures publishing independent annual audit reports.</td>
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<td>Access to information</td>
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<td>Encouraging open, timely and free debate about urban issues in the media.</td>
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<td>High standards of ethics and</td>
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<td>Promoting an ethic of service to the public among officials.</td>
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<td>professional conduct</td>
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<td>Creating local integrity networks and establishing codes of conduct for public officials.</td>
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<td>Removing administrative and procedural incentives for corruption.</td>
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<td>Creating public feedback mechanisms such as an ombudsman, “citizen report cards” and procedures for public petitioning and/or public interest litigation.</td>
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<tr>
<td>Civic engagement and citizenship</td>
<td>Leadership for public participation and stakeholder involvement and</td>
<td>Developing a culture of civic solidarity wherein all residents and stakeholders treat each other on the basis of respect and acceptance of diversity of opinion.</td>
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<td></td>
<td>responsibility</td>
<td>Promoting an ethic of civic responsibility among citizens.</td>
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<td>Making use of mechanisms such as public hearings, town hall meetings, citizen’s forums, city consultations and participatory strategy development.</td>
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<td>Undertaking city referenda concerning important urban development options.</td>
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<td>Ensuring the existence of processes for conflict mediation.</td>
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<td>Building democratic culture</td>
<td>Enabling legislative framework to protect the rights and entitlements of all</td>
<td>Enabling legislative framework to protect the rights and entitlements of all groups in society</td>
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<td>groups in society</td>
<td>Ensuring women’s participation.</td>
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<td>Enablement</td>
<td>Undertaking affirmative actions for marginalized groups.</td>
<td>Establishing procedures for public petitioning.</td>
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<td>Establishing the legal authority for civil society to participate effectively.</td>
<td>Establishing the legal authority for civil society to participate effectively.</td>
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<td>Enabling the equal contribution of men and women and the full participation of citizenry in civic life.</td>
<td>Enabling the equal contribution of men and women and the full participation of citizenry in civic life.</td>
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<td>Norms</td>
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<tr>
<td>Security</td>
<td>Environmental management</td>
<td>Implementing environmental planning and management methodologies based on stakeholder involvement.</td>
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<tr>
<td>Disaster preparedness</td>
<td>Raising awareness about the risk of disasters and formulating vulnerability reduction and preparedness plans for natural and human made disasters.</td>
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<tr>
<td>Personal safety, crime control and prevention</td>
<td>Creating safety and security through consultative processes based on rule of law, solidarity and prevention. Developing metropolitan-wide systems of policing as a means of realizing more inclusive cities. Ensuring a safe and healthy environment for children. Creating a culture of peace and encouraging tolerance of diversity. Resisting all forms of abuse against the person, including abuse within the home and family.</td>
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Annexure 2

Urban Health Indicators developed by the European Commission

Demographic and socio-economic factors

1. Population by gender and age
2. Population by nationality
3. Birth rate
4. Population projections
5. Population per square kilo-meter
6. Migration to urban areas
7. Household composition
8. Population by education
9. Unemployment rate
10. Population living below poverty line
11. Estimated number of homeless people

Health status

12. Life expectancy
13. Infant mortality
14. Peri-natal mortality
15. Low birth weight
16. Mother’s age distribution
17. Causes of death
18. Prevalence of any chronic diseases
19. HIV/AIDS prevalence
20. Lung cancer prevalence
21. Breast cancer prevalence
(22) Diabetes prevalence
(23) Asthma prevalence
(24) COPD prevalence
(25) Perceived general health
(26) Depression prevalence
(27) Psychological distress
(28) Health related limitations of usual activities
(29) Road traffic injuries
(30) Injuries in the workplace

Health determinants

(31) Regular cigarette smokers
(32) Alcohol consumption
(33) Use of cannabis
(34) Breastfeeding
(35) Fruit and vegetable consumption
(36) Height and weight
(37) Public access to green spaces
(38) PM10 exposure
(39) Noise nuisance
(40) Damp housing

Health interventions

(41) Vaccination of young people
(42) Breast cancer screening
(43) Cervical cancer screening for women
(44) Health insurance
(45) Health education programme

Annexure 3

Bangkok Declaration on Urbanization and Health

We, the Health Ministers of Member States of the WHO South-East Asia Region participating in the Twenty-eighth Health Ministers’ Meeting in Bangkok, Thailand, appreciate the efforts being made by Member States and partners in the South-East Asia Region to adopt a holistic and multidisciplinary approach to ensure planned urbanization that would improve public health. We also recognize that it is imperative that national governments invest in pro-poor policies and strategies in order to reduce the urban equity gap.

Concerned that globally by 2030, six out of every 10 people will be living in cities, and that unplanned urbanization is one of the major threats to public health in the 21st century, affecting all urban dwellers, irrespective of socio-economic status, but more so the poor;

Aware that rapid urbanization is due to natural growth in populations, and due to migration as a result of people searching for better opportunities for education, jobs, social mobility and services in cities;

Recognizing that many people who move to cities are trapped in marginal situations as a significant proportion of them are poor, have large families and are not well educated;

Considering that the health of the urban poor suffers most both because of their living conditions and because of the high and sometimes prohibitive cost of health services;

Acknowledging that urban people, especially the poor, face illnesses and premature death from preventable diseases due to lack of safe drinking water, sanitation, health facilities, safety, security and health information;

Noting that closing the urban equity gap and promoting healthy cities requires urgent actions including efforts from both the rich and the poor;

We, the Health Ministers, commit ourselves to:

(1) acknowledge unplanned urbanization as a major public health concern;
(2) assess the public health impact of major development projects, particularly in urban and suburban areas;
(3) advocate for a holistic and multidisciplinary approach by all sectors of the government, including local government, and industry and the community;
(4) promote investment in pro-poor policies and strategies in order to reduce the health equity gap among urban dwellers;
(5) extend resources and coverage of services to all urban populations particularly the urban poor to improve health outcomes and reduce the social costs of inequity;

(6) promote improved transportation, infrastructure and greener technologies that enhance the urban quality of life, including fewer respiratory ailments and accidents and better health for all;

(7) build increased capacity in all systems, infrastructure and service delivery in view of inevitable urban growth, in order to reduce the risk of further damage to health;

(8) advocate to governments and municipalities to invest in health-promoting cities and to take actions that encourage social connectedness among city dwellers irrespective of their social status;

(9) foster among all urban dwellers an understanding of the negative effects of unplanned urbanization and the shared responsibility for balancing resources and services;

(10) work in collaboration with all other sectors and stakeholders to reduce and close the urban equity gap and promote healthy cities;

(11) while planning for urban health, in addition to physical health, address social, psychological and mental health; and

(12) take appropriate steps to address the causes of rural–urban migration and alleviate the pressures driving such migration.

We, the Health Ministers of Member States of the WHO South-East Asia Region, urge all other WHO Member States as well as the Director-General and the Regional Director to continue to provide leadership and technical support in building partnerships between governments, the United Nations agencies and the relevant global health initiatives and with academia, professional bodies, nongovernmental organizations, related sectors, the media and civil society, to jointly advocate and effectively follow up on all aspects of this Bangkok Declaration on Urbanization and Health.
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Addressing Health of the Urban Poor in South-East Asia Region: Challenges and Opportunities


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Addressing Health of the Urban Poor in South-East Asia Region: Challenges and Opportunities
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Braun A. *Gross national happiness in Bhutan: a living example of an alternative approach to progress*. Wharton University, 2009 Sept.


One of the challenges of the 21st century is managing the accelerating pace of urbanization. Projections suggest that by the year 2030, six out of ten people all over the world will live in cities. By 2050 this proportion is likely to reach 70%. Most of the growth in urban population will occur in Asia, Africa and Latin America. Currently, the urban population in South-East Asia is estimated to be about 600 million, of which about 150 million are estimated to be poor. In the wake of the often unplanned and unregulated urbanization, the urban poor face physical, environmental, social and psychological problems. These impose a heavy burden of disease and inequity on the urban poor. There is an urgent need to identify biological, socio-cultural and financial determinants of health inequity in the urban poor in order to mount a multi-sectoral effort to address the health concerns of this burgeoning disadvantaged section of the population.

This publication provides an overview of the health of the urban poor in Member-States of the WHO South-East Asia Region, describes socio-cultural factors that impact their health and challenges in health programming for the urban poor; and, proposes a strategic framework of multi-sectoral action to address issues related to access and equity in health for the urban poor in South-East Asia.

Addressing Health of the Urban Poor in South-East Asia Region: Challenges and Opportunities