

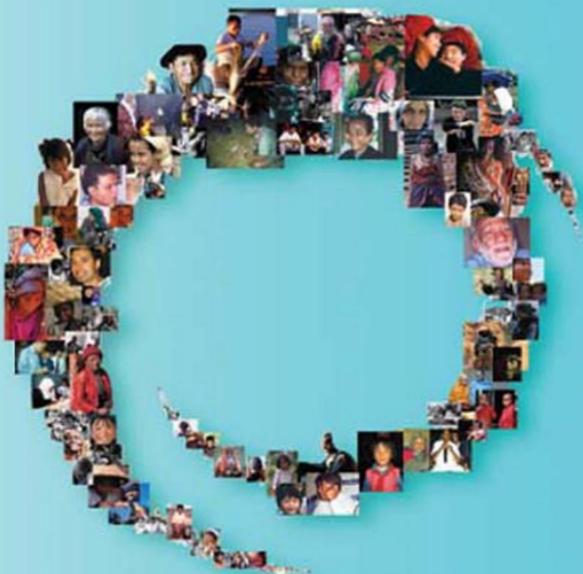


Millennium
Development
Goals



Achieving the Health Millennium Development Goals in Asia and the Pacific

Policies and Actions within Health Systems and Beyond



Asia-Pacific MDG Study Series



Asia-Pacific MDG Study Series*

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**Achieving the Health
Millennium Development Goals
in Asia and the Pacific**

**Policies and Actions
within Health Systems and Beyond**

Asia-Pacific MDG Study Series



New York, 2007



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Preface

The representatives of the 191 Governments that signed the Millennium Declaration in 2000 established eight overarching goals to promote the holistic development of the entire population of the world. The inclusion of three targets specifically related to health supports the contention that the achievement of good health is essential for achieving the wider goals of economic growth and poverty alleviation.

The present report tracks the progress made towards achieving the health-related Millennium Development Goals in Asia and the Pacific. It also analyses the barriers the region faces in making sustainable progress towards achieving the Goals and the reasons for large-scale intracountry and intercountry disparities in their achievement.

The report presents a number of strategies for removing such barriers, including a range of action and policy options at the national and regional levels. These involve strategies and policies related to the comprehensive strengthening of health systems and the effective addressing of the broader determinants of health related to economic and trade policies, as well as actions taken to improve education and gender equality and to reduce poverty.

It addresses the issue of the institutional changes required to implement policies more effectively within and outside the health sector, in order to deliver health services in an equitable and efficient manner.

The report was especially useful as an input in the preparation of the theme study for the sixty third session of the Commission, entitled "Development of Health Systems in the Context of Enhancing Economic Growth towards Achieving the Millennium Development Goals in Asia and the Pacific". The report owes much to the collaborative efforts of the tripartite regional partnership of ESCAP, UNDP and the Asian Development Bank aimed at ensuring a common voice concerning the efforts to achieve the Millennium Development Goals in Asia and the Pacific.

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Executive Summary

Enjoying good health, remaining free from disease and having access to health care are basic human rights.

The inclusion of health targets in the Millennium Development Goals supports the contention that good health is important for overcoming poverty and achieving the wider goal of socio-economic development. While all MDGs are in some way related to health, three refer specifically to health: (a) Goal 4, reduce child mortality; (b) Goal 5, improve maternal health; and (c) Goal 6, combat HIV/AIDS, malaria and other diseases.

Despite the significant improvements that have been made in income indicators over the last decade – with most countries in Asia and the Pacific having reduced the number of people below the poverty line (Goal 1, target 1) – large segments of the population in the region continue to be without access to basic services, such as health care, education, clean water or sanitation. The ESCAP subregions offer a mixed picture: a number of countries may fail to meet one or more of the MDG health targets unless their efforts are stepped up.

During the last decade, the ESCAP region as a whole has made steady progress towards reducing infant mortality rates and under-five mortality rates. However, achievement of Goal 4 remains elusive for many countries in the region. There are wide variations in status and progress with regard to Goal 4 across the Asia-Pacific region. The pace of mortality reduction in East Asia and the Pacific is slowing. Close to 5 million children across the Asia-Pacific region still die every year before reaching the age of five, which represents half of all under-five deaths in the world (ESCAP, UNDP and ADB, 2005; UNICEF, 2005a) (table 2.2). While overall child mortality rates are falling and the MDG target of reducing by two thirds the mortality rate among children under five is on track for the region as a whole, it is worrisome that progress on reducing infant mortality rates is slow.

In the ESCAP region, there was a 16 per cent increase in the maternal mortality ratio (MMR) between 1995 and 2000. This type of mortality has gone up since 1990 in 22 out of the 42 countries in the ESCAP region for which data on MMR are available. The progress being made by six other countries is too slow for them to meet the target of reducing by three quarters the MMR by 2015. In South and South-West Asia, maternal mortality is the highest in both absolute and relative terms. Two thirds of all maternal deaths in Asia and the Pacific occur in India and Pakistan. Some countries are, nevertheless, making very significant progress towards the achievement of the target.

The most recent estimates show that almost 9 million people in the ESCAP region were living with HIV/AIDS in 2006. The Asian share in the global epidemic is likely to keep expanding. The target is to halt and begin to reverse the spread of HIV/AIDS. However, by 2010 the number of people living with HIV/AIDS in the region could reach 18 million if prevention and care programmes are not expanded and scaled up.

Malaria still remains entrenched in rural areas of the Pacific, South Asia and South-East Asia. Over 4 million cases of malaria were reported in the ESCAP region in 2003. Prevention programmes throughout the region have succeeded in reducing the incidence of malaria, in many cases, drastically. The target is similar to that for HIV/AIDS. Unfortunately, after some progress during the mid and late 1990s, rates have more than doubled between 2000 and 2003.

The ESCAP region bears the largest share of the global burden of tuberculosis in absolute numbers. Of the 22 countries with the highest number of new cases in 2004 – classified by WHO as high-burden countries – 12 were in the ESCAP region (table 2.5). In many countries, the increasing incidence of tuberculosis is associated with the spread of HIV/AIDS epidemics. Up to 40 per cent of all people living with HIV/AIDS worldwide contract tuberculosis and it is responsible for a third of all AIDS deaths. The ESCAP region has made important progress in reducing the prevalence of tuberculosis and associated mortality rates during the last decade. The target is similar to that for HIV/AIDS and malaria.

The Asian and Pacific region is undergoing a health transition as are other regions in the world; it is characterized by a marked rise in the prevalence of non-communicable diseases (NCDs) such as cancers, cardiovascular diseases, chronic obstructive pulmonary disease and other chronic illnesses. Today, NCDs account for 62 per cent of all deaths in the ESCAP region and are the leading cause of mortality in all ESCAP subregions and in the vast majority of countries.

The health status of individuals and populations is influenced by a wide range of non-health determinants, including socio-economic, environmental and political factors. The achievement of the health-related MDGs will depend on the progress made in achieving the other Goals. At the same time, achieving the health-related MDGs will be central to the attainment of the other Goals including the eradication of poverty.

Some countries with a relatively low level of economic development have managed to improve a number of their health indicators to levels similar to those in middle- and even high-income countries. Improvements in health indicators and, ultimately, achievement of the health-related MDGs are not necessarily a result of economic development. All countries, even low-income countries, can make significant progress towards achieving the health-related MDGs if obstacles precluding them from doing so are removed and effective policies and actions are undertaken.

A framework for policy and action on health can be developed through the perspective offered by the MDGs. The Goals promote the application of multisectoral approaches to address the multiple determinants of health. Achieving the health-related MDGs will require the establishment of effective health systems that provide equitable and affordable access to good quality health services. Progress towards the health-related MDGs, however, also requires that actions outside of the health sector be undertaken.

As a public good, health accrues positive benefits to society at large. Governments have a prime responsibility to ensure the provision, or at least the funding, of health systems. The responsibility of Governments to protect the health of their populations includes ensuring equitable access of all to basic health-care services with particular attention to covering the poor. The achievement of the health-related MDGs and the progress towards achieving the other Goals and the overall fight against poverty will be compromised if the right to health is not secured for the most vulnerable groups.

Responding to the challenge of equitable access to good quality health services requires a fundamental shift in prevailing health policies. The achievement of the health-related MDGs will require actions that mainstream health into national development agendas. Multisectoral interventions that contribute to health, from the community to the national levels will be essential. Vertical and exclusively curative approaches need to be changed to emphasize preventive and health-promotion strategies.

Deficiencies within health systems – lack of availability of good quality maternal and infant care – impinge directly on child health and infant mortality. Factors outside the health sector, such as poverty or inadequate investment in public services (water and sanitation, transport infrastructure, etc.) also have an important impact on health. Some interventions at the household level, such as

breastfeeding, nutrition and rehydration after diarrhoea, can be as important for infant survival as those provided through the formal health system. Women's empowerment, including women's health literacy, is critical to improvements in Goal 4 because mothers determine the health-seeking behaviour of their children. These and other root causes and contributing factors impinge on a number of direct sources of under-five mortality.

Some of the key recommendations for countries in the region to achieve the health-related MDGs are the following:

1. Governments need to recognize their responsibility to protect the health of their populations as a public good, including ensuring the equitable access of all to basic health-care services, with particular attention to covering the poor.
2. Health should be at the forefront of social and economic development policies, including poverty reduction strategy papers.
3. A comprehensive approach by Governments should extend beyond the ministry of health to involve all relevant line ministries from the local to the national levels.
4. Health should be mainstreamed into national development agendas.
5. Government expenditures on health and health-related sectors should be increased in order to encourage synergies that allocations and interventions in health systems alone cannot provide.
6. Measures should be taken to reduce out-of-pocket expenditures, that frequently push people into severe poverty, by working towards achieving universal health coverage. On the part of Governments strong political commitment has to be established for providing the poor and unemployed with access to services.
7. Appropriate policy and regulatory environments should be created which would enable civil society and private actors to contribute to the achievement of the health-related MDGs so that private providers would have the appropriate capacity for providing services and be held accountable for them. Regulatory frameworks are also required to protect the rights to good health of the poor, minorities and other vulnerable groups.
8. Deficiencies in physical infrastructure and human resources within health systems should be addressed. Improved management, good performance standards and accountability within health systems are essential.
9. Affordable access to essential drugs should be promoted by encouraging the production and use of generic drugs and taking steps to implement policies that affect the supply of and demand for them. These steps include regional collaboration in research into, and the production and distribution of, medicines and harmonization of legislation on intellectual property rights by exploiting to the maximum extent possible the flexibilities afforded to countries under the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS).
10. There should be increased focus on finding solutions at the international level for investment in research into, and production and trade of, medicines that are essential for the prevention and treatment of diseases affecting the poor.
11. Adequate levels of health literacy should be ensured, as such knowledge is crucial for making informed decisions regarding health risks. A better understanding of the effectiveness of health-promotion measures is critical to preventing diseases and improving the health status of people.

12. Communities should be empowered to assert their right to health because it contributes to making Governments accountable for the availability and quality of the services provided.
13. The healthy settings approach should be promoted. Establishing healthy cities, villages, schools, workplaces, etc., creates the conditions necessary for making improvements regarding the achievement of Goals 4, 5 and 6 and other health-related Goals. A healthy setting also encourages the participation of individuals and communities and emphasizes the responsibilities that local Governments should assume in creating healthy local settings.
14. Primary care should be strengthened and integrated with higher-level referral systems to ensure that comprehensive health care is available. Primary care should allow for the participation of individuals and communities.
15. Health-information systems should be improved so that they can detect the trends in health and diseases, allow for better responses and improve the efficiency of health systems. Scientific evidence on the causes of death, the prevalence of diseases and their multiple determinants is essential for formulating policies and designing interventions.
16. Governments and other stakeholders should be encouraged to recognize that decentralization can enhance efficiency and effectiveness in the allocation, use and management of resources. Decentralization can result in better alignment of health-care services with specific local needs, provided the necessary financial resources are available and the capacity at the provincial and local levels has been developed.
17. Multisectoral interventions should be promoted so that they contribute to health from the community to the national levels. To ensure that progress is made towards the achievement of the health-related MDGs, actions outside the health sector need to be undertaken.
18. Coordination and integration of disease-specific approaches within comprehensive frameworks that address the multiple determinants of the health MDGs should be promoted. Multisectoral approaches that address underlying determinants not only have higher health impacts but are also more sustainable and cost-effective.
19. Multisectoral approaches at the societal level should include the participation of associations of people living with HIV and AIDS, non-governmental organizations, health professionals, youth groups, business associations, unions, religious institutions, schools and research institutions.
20. Vertical and exclusively curative approaches need to be changed to also emphasize preventive and health-promotion strategies.
21. Poverty reduction strategies should address health issues within their scope, because poverty and health display a two-way linkage.
22. Adequate and appropriate education is important for achieving health literacy. Education provides a tool for the poor to break out of the cycle of hunger and poverty.
23. Providing increased access to safe drinking water and improved sanitation will contribute strongly to improving the health status of populations in the region.
24. Governments and civil society need to work together to decrease gender inequality, which is one of the major underlying determinants of the lack of progress on many of the MDGs in the region. Social and cultural constructs influence the way societies, communities, families and women themselves respond to their health needs.

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Acronyms

ADB	Asian Development Bank
ARV	anti-retroviral (drugs)
ART	anti-retroviral therapy
DOTS	directly observed treatment short-course
ICT	information and communications technology
IMR	infant mortality rate
LDC	least developed country
MDG	Millennium Development Goal
MDR-TB	multidrug-resistant tuberculosis
MMR	maternal mortality ratio
NCD	non-communicable disease
OECD	Organisation for Economic Co-operation and Development
PPP	purchasing power parity
PRSP	poverty reduction strategy papers
R and D	Research and development
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFPA	United Nations Population Fund
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

Enjoying good health, remaining free from disease and having access to health care are basic human rights recognized in a number of United Nations resolutions and international conventions. The inclusion of health targets in the Millennium Development Goals (MDGs) supports the contention that good health is important for overcoming poverty and achieving the wider goal of socio-economic development. While all MDGs are in some way related to health, three refer specifically to health: (a) Goal 4, reduce child mortality, (b) Goal 5, improve maternal health and (c) Goal 6, combat HIV/AIDS, malaria and other diseases.

The health status of individuals and populations is influenced by a wide range of non-health determinants, including socio-economic, environmental and political factors. The interplay between health and other development conditions is well captured in the conceptualization of the MDGs. The achievement of Goals 4, 5, and 6 will depend on the progress made towards achieving the other MDGs. At the same time, achieving the health-related MDGs will be central to attainment of all of the Goals including the eradication of poverty.

A framework for policy and action on health can be developed through the perspectives offered by the MDGs. The Goals necessitate the application of multisectoral approaches to address the multiple determinants of health. Achieving the health-related MDGs will require the establishment of effective health systems that provide equitable and affordable access to good quality health services. Progress towards achieving the health-related MDGs, however, also requires that actions outside the health sector be undertaken.

Health, being a public good, accrues positive benefits to society at large. Governments have a prime responsibility to ensure the provision, or at least the funding, of health systems. The responsibility of Governments to protect the health of their populations includes ensuring equitable access of all to basic health care, with particular attention to the poor. The achievement of the health-related MDGs and the progress being made towards achieving the other MDGs, including the overall fight against poverty, will be compromised if the right to health is not secured for the most vulnerable groups.

Table 1.1. Millennium Development Goals and targets

Millennium Development Goals	Targets
Goal 1. Eradicate extreme poverty and hunger	Target 1. Halve, between 1990 and 2015, the proportion of people whose income is less than one United States dollar a day Target 2. Halve, between 1990 and 2015, the proportion of people who suffer from hunger
Goal 2. Achieve universal primary education	Target 3. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
Goal 3. Promote gender equality and empower women	Target 4. Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015
Goal 4. Reduce child mortality	Target 5. Reduce by two thirds, between 1990 and 2015, the under-five mortality rate
Goal 5. Improve maternal health	Target 6. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
Goal 6. Combat HIV/AIDS, malaria and other diseases	Target 7. Have halted by 2015 and begun to reverse the spread of HIV/AIDS Target 8. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases
Goal 7. Ensure environmental sustainability	Target 9. Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources Target 10. Halve, by 2015, the proportion of people without sustainable access to safe drinking water and sanitation Target 11. By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers
Goal 8. Develop a global partnership for development	Target 12. Develop further an open, rule-based, predictable, non-discriminatory trading and financial system. Includes a commitment to good governance, development and poverty reduction – both nationally and internationally Target 13. Address the special needs of the least developed countries. Includes: tariff and quota-free access for least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries and cancellation of official bilateral debt; and more generous overseas development assistance for countries committed to poverty reduction Target 14. Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly) Target 15. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term

The process of ageing and the evolving trends in lifestyles resulting from globalization and urbanization are prompting a surge in the prevalence of non-communicable diseases (NCDs). Substantial increases in the number of NCDs are altering disease and mortality patterns in the Asia-Pacific region. The rise in NCDs coexists with health issues at the core of the health-related MDGs, such as nutritional deficiencies, communicable diseases and high maternal and child mortality. With the high prevalence of both NCDs and communicable diseases, many developing countries in the region are now facing a double burden of disease. The double burden of disease strains the financial and human resource capacities of health systems. This situation has the potential to affect health service delivery, the access of the poor and other marginalized groups to health services and, ultimately, the achievement of the health-related MDGs.

Responding to the challenge of ensuring equitable access to good quality health services requires a fundamental shift in prevailing health policies. The achievement of the health-related MDGs will require actions that mainstream health into national development agendas. Multisectoral interventions that contribute to health, from community to national levels, will be essential. Vertical and curative approaches need to be changed to emphasize preventive and health-promotion strategies that, in line with the Ottawa Charter for Health Promotion¹ and the Bangkok Charter for Health Promotion in a Globalized World,² “enable people to increase control over, and to improve, their health in the context of a globalized world” (WHO, 2005a and 2005b).

Discussions in the present report are organized into four chapters. Chapter 1 is the introduction and Chapter 2 provides a brief review of the progress in the ESCAP region towards the achievement of the three health-related MDGs in the context of other MDGs. Chapter 3 includes an analysis of the root determinants and contributing factors hampering the achievement of the health-related MDGs. Particular emphasis is placed on the obstacles that the poor face in accessing good quality and affordable public health services. The discussion centres on health care and includes an analysis of related issues on education, water and sanitation. Chapter 4 identifies options for institutional change across sectors by drawing from experiences with good practices for improving health status in the region. These good practices provide vital lessons to improve and accelerate progress, and increase the opportunities for countries in the region to achieve the health-related MDGs within the targeted deadline.

¹ Ottawa, Canada, 21 November 1986, WHO/HPR/HEP/95.1.

² Bangkok, 11 August 2005.

The present report has been produced under a joint ESCAP-UNDP-ADB project on the Millennium Development Goals. The report served as a working paper for the theme study for the sixty-third session of the Commission. It can also be read independently and can provide useful background information on achieving the health-related MDGs in the Asia-Pacific region.

CHAPTER 2

STATUS OF THE ESCAP REGION IN ACHIEVING MILLENNIUM DEVELOPMENT GOALS 4, 5 AND 6

Despite significant improvements in income indicators over the last decade – with many countries in the Asian subregion reducing the number of people below the poverty line (Goal 1, target 1) – large segments of the population in the region continue to lack access to basic services, such as health care, education, water and sanitation. The ESCAP subregions offer a mixed picture, with the possibility of a number of countries failing to meet one or more of the MDG health targets unless efforts are stepped up (table 2.1) (ESCAP, UNDP and ADB, 2005 and 2006; WHO, 2005c).

Table 2.1. ESCAP subregions

<p>North and Central Asia Armenia Azerbaijan Georgia Kazakhstan Kyrgyzstan Russian Federation Tajikistan Turkmenistan Uzbekistan</p> <p>South and South-West Asia Afghanistan Bangladesh Bhutan India Iran, Islamic Republic of Maldives Nepal Pakistan Sri Lanka Turkey</p>	<p>East and North-East Asia China Democratic People's Republic of Korea Hong Kong, China Japan Macao, China Mongolia Republic of Korea</p> <p>South-East Asia Brunei Darussalam Cambodia Indonesia Lao People's Democratic Republic Malaysia Myanmar Philippines Singapore Thailand Timor-Leste Viet Nam</p>	<p>Pacific American Samoa Australia Cook Islands Fiji French Polynesia Guam Kiribati Marshall Islands Micronesia, Federated States of Nauru New Caledonia New Zealand Niue Northern Mariana Islands Palau Papua New Guinea Samoa Solomon Islands Tonga Tuvalu Vanuatu</p>
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2.1. Goal 4 – REDUCE CHILD MORTALITY

Target 5. Reduce by two thirds, between 1990 and 2015, the under-five mortality rate

The ESCAP region as a whole has made steady progress towards reducing infant mortality rates (IMR) and under-five mortality rates during the last decade. However, achievement of Goal 4 remains elusive for many countries in the region. There are wide variations in status and progress with regard to Goal 4 across the Asia-Pacific region (see figure 2.1). The pace of child mortality reduction in East Asia and the Pacific is slowing (World Bank, 2006b).

Close to 5 million children across the Asia-Pacific region still die every year before reaching the age of five, which represents half of all under-five deaths in the world (ESCAP, UNDP and ADB, 2005; UNICEF, 2005a) (table 2.2). While overall child mortality rates are falling and the MDG target is on track for the region as a whole, it is worrisome that progress in lowering the infant mortality rate is slow (ESCAP, UNDP and ADB, 2006).

Figure 2.1. Under-five mortality in the ESCAP region

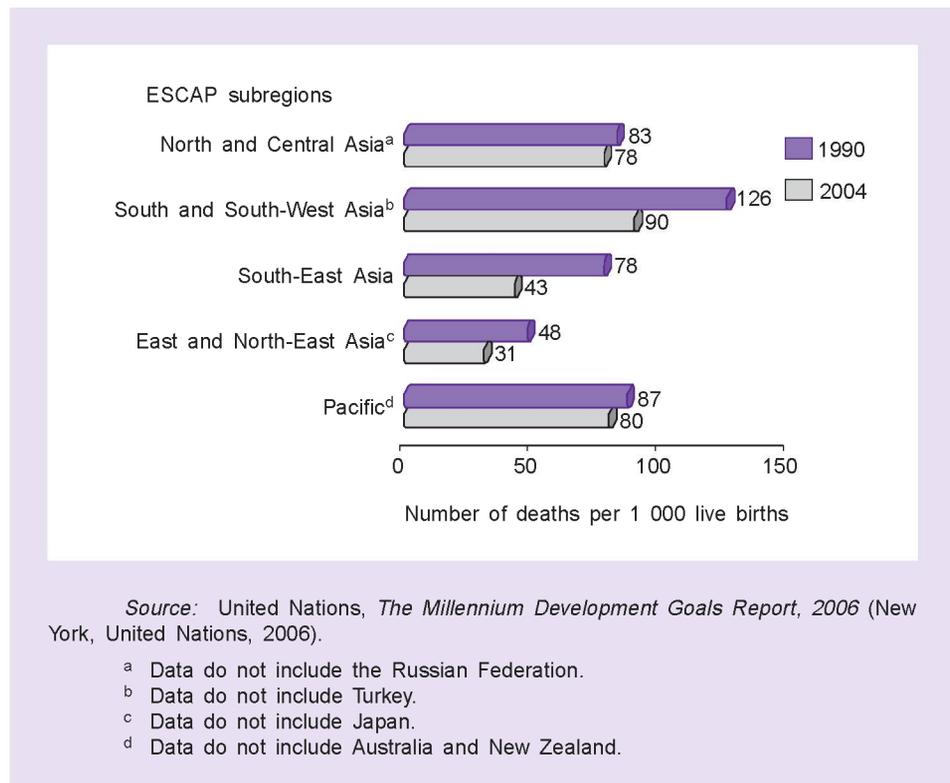


Table 2.2. Under-five mortality across the world

	<i>Under-five mortality rate^a</i>	<i>Number of deaths</i>
South Asia, East Asia and Pacific	67	4 487 000
CES, CIS and Baltic States ^b	38	212 000
Sub-Saharan Africa	171	4 833 000
Middle East and Northern Africa	56	539 000
Latin America and Caribbean	31	362 000
Industrialized countries	6	65 000

Source: UNICEF, *State of the World's Children 2006. Excluded and invisible* (New York, UNICEF, 2005).

- ^a Under-five mortality rate refers to the probability of a child dying between birth and five years of age expressed per 1,000 live births.
- ^b The UNICEF region includes the North and Central Asia subregion of ESCAP, Turkey, Eastern Europe and the Baltic States.

Trends for infant mortality and under-five mortality tend to evolve in parallel because most under-five mortality occurs early in life. Two thirds of all child deaths in India occur in the first year of life, while the figure is 84 per cent in the case of the Islamic Republic of Iran (ESCAP, UNDP and ADB, 2005). Reducing under-five mortality to achieve Goal 4 will require tackling factors that contribute to deaths during the first year of life.

The situation has improved in some areas of East and North-East Asia largely due to the progress made in China. Although China has the second largest number of under-five deaths in the ESCAP region – 539,000 in 2004 – it has reduced under-five mortality down to 31 deaths per 1,000 live births in 2005 (ESCAP, UNDP and ADB, 2006; UNICEF, 2005a).

Some of the highest under-five mortality rates in Asia and the Pacific are in the South and South-West Asian subregions. In Afghanistan 257 out of every 1,000 children did not reach the age of five in 2005. Afghanistan has the highest under-five mortality rate in the Asia-Pacific region and the fourth highest rate in the world after Sierra Leone, Angola and Niger (UNICEF, 2005a; UNICEF, 2006). India has the highest absolute number of under-five deaths in Asia, at more than 2.2 million in 2004. Bangladesh, Bhutan, India, Nepal and Pakistan account for 37 per cent of the entire population of Asia and the Pacific and have an average under-five mortality rate of between 76 and 103 deaths per 1,000 live births. Bangladesh, Bhutan and Nepal have, nevertheless, made important progress in the last decade towards achieving Goal 4, having achieved levels which are half of their 1990 baseline benchmarks for under-five mortality (UNICEF, 2005a).

In North and Central Asia, Tajikistan has an under-five mortality rate of 71 deaths per 1,000 live births, which is an improvement over that in 2000, when the rate was 115 deaths per 1,000 live births (UNICEF, 2006). Turkmenistan has an under-five mortality rate of 104 deaths per 1,000 live births – higher than many countries in sub-Saharan Africa. In Azerbaijan, Kazakhstan, Uzbekistan and Kyrgyzstan, the under-five mortality rate ranges from 68 to 89 deaths per 1,000. While many of these countries have made little progress in lowering under-five mortality or remained stagnant, the under-five mortality rates in Turkmenistan and Kazakhstan have actually increased since 1990 (UNICEF, 2005a; UNICEF, 2006).

The situation with regard to Goal 4 in the South-East Asian subregion is mixed. Significant advances have been made in Brunei Darussalam, Indonesia, Malaysia, Philippines, Thailand and Viet Nam. The under-five mortality rates in these countries have been brought down to between 20 and 38 deaths per 1,000 live births, and even to 9 per 1,000 in Brunei Darussalam and 12 per 1,000 in Malaysia (UNICEF, 2006). By contrast, the under-five mortality rate in several other countries of this subregion remain extremely high. Cambodia has the second highest under-five mortality rate in the Asia-Pacific region and ranks 25th globally, with 143 under-five deaths per 1,000 live births (UNICEF, 2006). Under-five mortality rates in other countries of the subregion are also high: Myanmar at 105, the Lao People's Democratic Republic at 79 and Timor-Leste at 61 per 1,000. However, the Lao People's Democratic Republic has reduced its under-five mortality rate by almost two thirds, while Timor-Leste has almost halved its rate since 1990. Myanmar is progressing slowly towards its target, whereas in Cambodia the under-five mortality rate has actually increased by over 20 per cent in the same time period (ESCAP, UNDP and ADB, 2005; UNICEF, 2005a and 2006).

Most Pacific island countries and territories have made important progress towards reaching their targets. Under-five mortality rates in Kiribati, the Marshall Islands and Tuvalu range between 38 and 65 deaths per 1,000 live births (UNICEF, 2006). In Papua New Guinea, the rate is 74 per 1,000, indicating some progress towards achievement of Goal 4 (UNICEF, 2006).

The subregional and country disparities are repeated at the subnational level. Targets established under the MDGs refer to national averages. Examination of national rates and trends can obscure important intracountry disparities, especially in large and diverse countries, such as China, India and Indonesia.

Child mortality rates in rural areas in most developing countries tend to be higher than in cities

Child mortality rates in rural areas in most developing countries tend to be higher than in cities. A wide range of factors contribute to such disparities. Factors in rural areas affecting higher child mortality include the availability of fewer health facilities, physical barriers to accessing them, higher levels of poverty and lower literacy levels. While

the overall gap between rural and urban areas in China seems to be closing (NWCCW, 2005), in some poor rural areas infant mortality has actually increased in recent years (Blumenthal and Hsiao, 2005). Under-five mortality in cities such as Shanghai and Beijing is 7.5 times lower than in the poorest province of Guizhou – 8 versus 60 deaths per 1,000 live births respectively (UNDP, 2005a). In the Indian state of Kerala the infant mortality rate in 2001 was 3 to 4 times lower than in other southern states (World Bank, 2004). Infant mortality rates among tribal populations in the hills of northern Thailand are 1.7 times higher than the national average (ADB, 2001).

2.2. GOAL 5 – REDUCE MATERNAL MORTALITY

Target 6. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio

Obtaining reliable figures on maternal mortality that can be used to elaborate cross-country and cross-time comparisons is hampered by the lack of effective registration systems in many developing countries. The difficulties in monitoring progress on Goal 5 are also compounded by changes since 1990 in definitions, methods of data collection and calculation (WHO, 2004a; ESCAP, UNDP and ADB, 2006).

Half a million women die every year worldwide as a result of complications from pregnancy and childbirth. For every woman who dies from obstetric complications, approximately 20 more survive with some form of injury or disability. Half of all global maternal deaths occurred in the ESCAP region (table 2.3). The ESCAP region saw a 16 per cent increase in the maternal mortality ratio between 1995 and 2000,

Table 2.3. Maternal mortality across the world

<i>UNICEF defined regions</i>	<i>Maternal mortality rate^a</i>	<i>Number of maternal deaths</i>
South Asia, East Asia and Pacific	361	242 000
CES, CIS and Baltic States ^b	64	3 400
Latin America and Caribbean	190	22 000
Sub-Saharan Africa	940	240 000
Middle East and Northern Africa	220	21 000
Industrialized countries	13	1 300

Source: WHO, *Maternal mortality in 2000: Estimates developed by WHO, UNICEF and UNFPA* (Geneva, WHO, 2004).

Note: Data for latest year available.

^a MMR refers to the number of deaths from pregnancy-related causes per 100,000 live births.

^b This UNICEF region includes the North and Central Asia subregion of ESCAP, Turkey, Eastern Europe and the Baltic states.

compared with an 8 per cent decline in Africa and a stable situation in Latin America and the Caribbean during the same period (WHO, 2004a; ESCAP, UNDP and ADB, 2005).

The entire net increase in maternal deaths between 1995 and 2000 took place of countries of South and Central Asia

The entire net increase in maternal deaths between 1995 and 2000 in the ESCAP region, took place in countries of South and Central Asia, where there was a 31 per cent increase in the number of deaths. However, both the maternal mortality ratios and absolute figures decreased during the same time period in the rest of Asia and the Pacific (WHO, 2004a). Mortality rates have gone up since 1990 in 22 out of the 42 countries in the ESCAP region, for which data on MMR are available. In six other countries, progress is too slow for them to meet their target by 2015.

Maternal mortality is highest in South and South-West Asia both in absolute and relative terms. Two thirds of all maternal deaths in Asia and the Pacific occur in India and Pakistan. India has the highest number of maternal deaths in the world, with an estimated 136,000 deaths in 2000. Afghanistan has the highest MMR in the region and the second highest in the world. Almost 2 out of every 100 mothers in Afghanistan die from complications during pregnancy and delivery (WHO, 2004a; UNICEF, 2005a). The MMR's in the following countries are among the highest in the Asia-Pacific region and the world as a whole: Nepal (740) India (540), Pakistan (500), Bhutan (420) and Bangladesh (380) (ESCAP, UNDP and ADB, 2006).

Some of these countries are, nevertheless, making very significant progress towards the achievement of the target. By 2000, Sri Lanka had already cut its maternal mortality ratio by 35 per cent. Bangladesh, Nepal and Turkey had cut their MMRs by over half and Bhutan and Maldives by over 80 per cent relative to their benchmark figures in the period 1990-1995. By contrast, MMR has barely improved in India and it increased in Afghanistan by 11 per cent and in Pakistan by 47 per cent during the same period (WHO, 2004a; ESCAP, UNDP and ADB, 2005; UNICEF, 2005a).

The data in South-East Asia with regard to Goal 5 varies widely, as is the case with other targets. Brunei Darussalam, Malaysia and Thailand have reduced MMRs to levels between 37 and 44 deaths per 100,000 live births. The Lao People's Democratic Republic and Timor-Leste and have MMRs exceeding 650 deaths per 100,000 live births. Cambodia has reduced its MMR but, with 450 deaths per 100,000 live births, the country is still well above regional levels. Indonesia and Thailand have made the most impressive progress in terms of trends, having cut MMRs by over two thirds from their benchmark levels. Brunei Darussalam, Malaysia and Myanmar have also reduced their MMRs (ESCAP, UNDP and ADB, 2005; UNICEF, 2005a).

In North and Central Asia, only Georgia, Turkmenistan and Uzbekistan have achieved MMRs equal to or below 32 deaths per 100,000 live births (ESCAP, UNDP and ADB, 2006). In Kyrgyzstan and Tajikistan, MMRs exceed 100 per 100,000 live births and 210 in Kazakhstan. The Russian Federation and Tajikistan have made only modest progress, while the remaining countries in this subregion have experienced increases in their MMRs. The situation in Azerbaijan and Kazakhstan, where MMRs in 2000 were several times higher compared with the baseline, is of great concern (ESCAP, UNDP and ADB, 2006; UNICEF, 2005a).

Figures on MMRs in East and North-East Asia are lower than in other subregions, with only Mongolia posting high rates, at 110 deaths per 100,000 (ESCAP, UNDP and ADB, 2006). Most progress in this subregion is due to reductions in maternal mortality in China – down to 56 maternal deaths per 100,000. However, despite this progress, China is unlikely to meet the Goal 5 target on time. The Democratic People’s Republic of Korea is also progressing slowly, while Mongolia is regressing from baseline levels.

The situation is also mixed in Pacific countries and territories. The highest MMRs have been reported in Papua New Guinea, with 300 deaths per 100,000 and Solomon Islands, with 130. Although Papua New Guinea has reduced its MMR quite significantly, Solomon Islands has experienced recent increases (ESCAP, UNDP and ADB, 2006). Notable for low MMRs in the subregion are the least developed countries of Samoa and Guam, with 15 and 12 deaths per 100,000 respectively.

MMRs also diverge widely at the subnational level as is the case with child mortality. While Thailand is considered to have already achieved its target for 2015, progress has not been uniform: MMRs are higher in rural areas, especially in the southern provinces (UNDP, 2005b). MMRs in richer Indian states, such as Punjab or Kerala, are below 100 deaths per 100,000, but they reach or exceed 400 deaths in 10 other states; in Assam, Madhya Pradesh and Uttar Pradesh, the MMRs are about 700 (WHO, 2005e).

MMRs diverge widely at the subnational level, as is the case with child mortality

2.3. Goal 6 – COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES

Target 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS

2.3.1. HIV/AIDS

Most countries in Asia and the Pacific are at the early stage of national epidemics, with fairly low national levels of HIV prevalence. Only Cambodia (1.9 per cent), Myanmar (1.2 per cent), Papua New

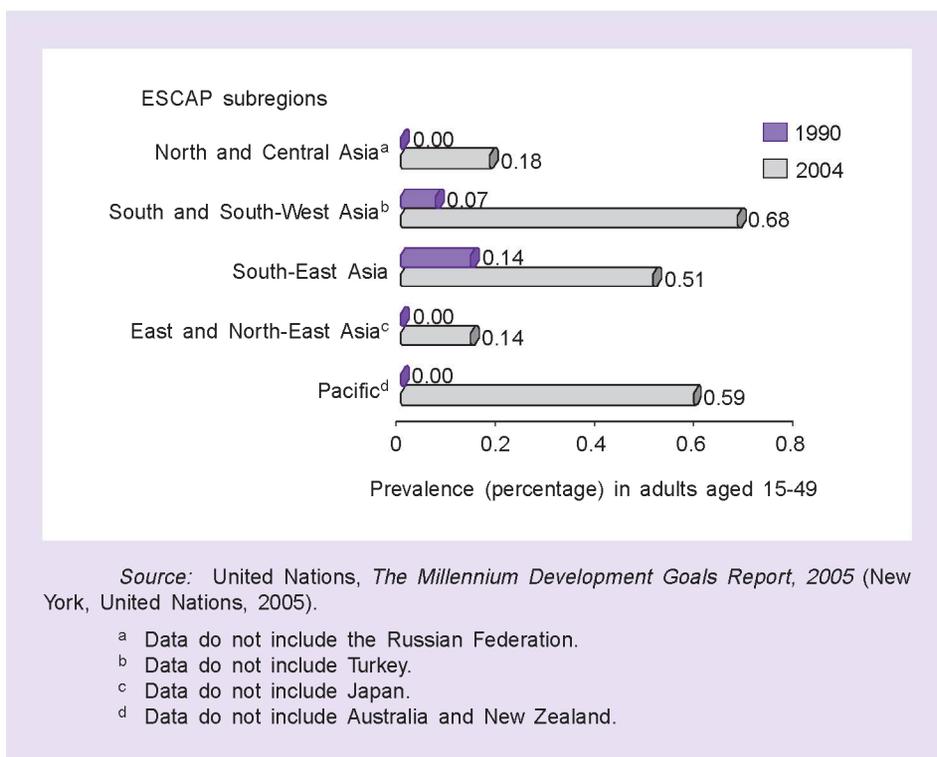
Guinea (1.7 per cent), Thailand (1.5 per cent) and the Russian Federation (1.1) had adult (15-49 years old) prevalence rates exceeding 1 per cent in 2003 (ESCAP, UNDP and ADB, 2005; UNAIDS, 2006). However, these relatively low levels of prevalence mask the full significance of the absolute numbers. The latest estimates show that almost 9 million people in the ESCAP region were living with HIV/AIDS in 2006. The Asian share in the global epidemic is likely to keep growing (UNAIDS, 2005a and 2005b). India alone is home to 5.2 million people living with HIV and AIDS, the second largest number of infections in the world after South Africa (UNAIDS, 2006). Estimates of infection among Indian children below 14 years old range from 54,000 to 270,000 by the end of 2003 (UNAIDS, 2004a; UNAIDS, 2005a). The number of AIDS-related deaths is mounting as the pandemic continues to spread across the region: over a half million deaths occurred in the ESCAP region during 2004, 80 to 90 per cent of them in South and South-East Asia (UNAIDS, 2005b).

Asia as a whole is off-track in terms of reducing HIV/AIDS prevalence

Asia as a whole is off-track, as the prevalence of HIV/AIDS in the average Asian country rose from 0.39 per cent of the population in 2001 to 0.45 per cent in 2003 (ESCAP, UNDP and ADB, 2005). In Viet Nam the number of people living with HIV/AIDS has doubled since 2000 (UNAIDS, 2006). Injecting drug use is one of the strongest drivers of HIV infections in Asia. The majority of injecting drug users are sexually active and often buy or sell sex forming a pool where HIV/AIDS can spread to the general population (UNAIDS, 2005a; UNAIDS, 2006). It is estimated that by 2010 the number of people living with HIV/AIDS in the region could reach 18 million people if prevention and care programmes are not expanded and scaled up but only maintained at current levels, (UNAIDS, 2005b).

The highest levels of prevalence in 2004 at the subregional level were in the Pacific countries and territories and South and South-West Asia (figure 2.2). The pandemic is, however, growing faster in East and North-East Asia than anywhere else in the world – a 24 per cent increase in 2004 (UNAIDS, 2005b).

National prevalence rates have been increasing in recent years in at least seven countries in the ESCAP region for which data are available (India, Kazakhstan, Myanmar, Nepal, Papua New Guinea, Russian Federation and Viet Nam) (ESCAP, UNDP and ADB, 2005). Infection rates are growing particularly fast in the Russian Federation, where HIV prevalence among pregnant women increased 10-fold between 1998 and 2001. Prevalence rates in the city of St. Petersburg increased 100 times between 1998 and 2002 (UNAIDS, 2004b). The estimated number of people living with HIV/AIDS in the Russian Federation at the end of 2003 neared 860,000 (UNAIDS, 2005a).

Figure 2.2. HIV prevalence in ESCAP subregions

Low national HIV prevalence figures can conceal high intracountry disparities. Of all infections in the Russian Federation, 60 per cent are concentrated in just 10 of the 89 regions in the country (UNAIDS, 2004b). Overall national prevalence in India is estimated to be about 0.9 per cent, but infection rates reach or exceed 5 per cent in some districts, such as Namakkal and Churachandpur (UNAIDS, 2005b). HIV prevalence among pregnant women exceeds 1 per cent in some southern and western Indian states (Andhra Pradesh, Karnataka, Maharashtra and Tamil-Nadu) and north-eastern ones (Manipur and Nagaland), while still remaining very low in Uttar Pradesh and Bihar (UNAIDS, 2005a). The progress of the epidemic in India also varies significantly, with rates stable or diminishing in some areas while growing at a modest rate in others (UNAIDS, 2006). A recent analysis of HIV data suggests that HIV prevalence among women aged 15-24 years declined somewhat between 2000 and 2004 in the southern states of India, that is from 1.7 per cent to 1.1 per cent (UNAIDS, 2006).

The highest number of HIV infections in China have been reported in the south and west, in Yunnan and Henan provinces and in Guangxi Zhuang Autonomous Region (UNAIDS, 2005a). Significant intracountry disparities have also been reported in Thailand and Cambodia (UNAIDS, 2005b).

Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

2.3.2. Malaria

Malaria still remains entrenched in rural areas of the Pacific, South Asia and South-East Asia

Malaria still remains entrenched in rural areas of the Pacific, South Asia and South-East Asia. Over 4 million cases of malaria were reported in the ESCAP region in 2003 (WHO, 2005e). Almost 45 per cent of all these cases occurred in India alone, whereas Myanmar and Afghanistan reported close to 700,000 and 600,000 cases respectively. Prevalence rates were particularly high in Solomon Islands (189.9 cases per 1,000 people) in 2000, Vanuatu (71.9 cases per 1,000) and Timor-Leste (40.9 per 1,000) (WHO, 2005e) (see table 2.4).

Table 2.4. Reported malaria cases and deaths in selected countries in Asia and the Pacific

	<i>Number of cases</i>	<i>Rate (per 1 000)</i>	<i>Number of deaths</i>
North and Central Asia			
Kyrgyzstan	5 428	0.87	0
South and South West Asia			
Afghanistan	591 441	24.75	N/A
India	1 781 336	1.67	990
Pakistan	122 560	0.80	29
Sri Lanka	10 510	0.55	2
South-East Asia			
Bhutan	3 806	1.69	15
Cambodia	71 258	5.04	492
Indonesia	220 073	1.01	197
Lao People's Democratic Republic	18 894	3.34	187
Myanmar	716 100	14.47	2 476
Philippines	43 644	0.55	N/A
Thailand	35 076	0.56	325
Timor-Leste	31 819	40.89	8
East and North-East Asia			
Democratic People's Republic of Korea	16 538	0.73	0
Pacific			
Papua New Guinea	70 226	12.30	537
Solomon Islands	90 606	189.94	71
Vanuatu	15 240	71.90	0

Source: WHO, *World Malaria Report, 2005* (Geneva, WHO, 2005), Annex table A 21.

Notes: Only countries with more than 0.5 cases per 1,000 population are included. Data refer to 2003, except for Indonesia where the latest data available were for 2002.

The Asian and Pacific region accounts for approximately 38 per cent of the number of clinically diagnosed cases of malaria globally but only 10 per cent of the fatal cases. In comparison, 59 per cent of the clinical cases and 89 per cent of all deaths due to malaria take place in Africa. Lower mortality levels in Asia are in part due to a lower incidence of the more severe and lethal cases caused by *Plasmodium falciparum*; only 25 per cent of all cases of *falciparum* malaria were recorded in Asia and the Pacific (WHO, 2005e). Of all fatal cases reported in Asia and the Pacific, 41 per cent occurred in Myanmar (WHO, 2005e).³

The figures on reported cases and deaths may seriously underestimate the real burden of malaria in developing countries worldwide, including in the Asian and Pacific region. A number of factors, such as weak surveillance and death registration systems, as well as overlap with symptoms of other diseases, may result in under reporting of the number of cases. WHO has estimated that the number of deaths due to malaria in 2002 in Asia and the Pacific actually could have exceeded 76,000 (WHO, 2004c).

Prevention programmes throughout the region have succeeded in reducing the incidence of malaria, in many cases drastically. In Sri Lanka, rates have declined from 23.5 cases per 1,000 people in 1991 to only 0.6 cases per 1,000 in 2003. However, rates in Sri Lanka have recently been on the increase (WHO, 2005e).

Failure of anti-malaria drugs is increasingly common across many areas in the Asia-Pacific region. The WHO South-East Asia region has the highest levels of resistance to drugs and insecticides in the world; the median value resistance to some drugs and drug combinations exceeds 40 per cent in many countries (WHO, 2005e). The intensive use of insecticides and malaria drugs has led to the appearance of resistant forms in both vectors and parasites. Artemisinin-based combination therapy has become the only reliable treatment in some areas of South-East Asia. However, the high cost of artemisinin is an important barrier for more widespread use of Artemisinin-based combination therapy (WHO, 2001a).

2.3.3. Tuberculosis

The ESCAP region bears the largest share of the global burden of tuberculosis in absolute numbers. Of the 22 countries with the highest number of new cases in 2004 – classified by WHO as high-burden countries – 12 were in the ESCAP region (table 2.5). India and China accounted for 20.5 per cent and 14.9 per cent respectively of all new cases reported that year in the entire world. In many countries, the

The ESCAP region bears the largest share of the global burden of tuberculosis in absolute numbers

³ During the latest year for which information is available (WHO, 2005e).

increasing incidence of tuberculosis is associated with the spread of HIV/AIDS epidemics. Of the estimated 1.7 million deaths due to tuberculosis in 2004, up to a quarter million were of people co-infected with HIV.

China, India and Indonesia accounted for 46.6 per cent of all deaths among HIV-negative tuberculosis patients in 2003 (WHO, 2006c).

Table 2.5. Tuberculosis: high-burden countries, 2004

	<i>Incidence</i>		<i>Prevalence</i>	<i>Mortality</i>
	<i>Number (1 000)</i>	<i>Rate per 100 000</i>	<i>Rate per 100 000</i>	<i>Rate per 100 000</i>
1 India	1 824	168	312	30
2 China	1 325	101	221	17
3 Indonesia	539	245	275	46
4 Nigeria	374	290	531	82
5 South Africa	339	718	670	135
6 Bangladesh	319	229	435	51
7 Pakistan	281	181	329	40
8 Ethiopia	267	353	533	79
9 Philippines	239	293	463	48
10 Kenya	207	619	888	133
11 Democratic Republic of Congo	204	366	551	79
12 Russian Federation	166	115	160	21
13 Viet Nam	147	176	232	22
14 United Republic of Tanzania	131	347	479	78
15 Uganda	112	402	646	92
16 Brazil	110	60	77	7.8
17 Afghanistan	95	333	661	92
18 Thailand	91	142	208	19
19 Mozambique	89	460	635	129
20 Zimbabwe	87	674	673	151
21 Myanmar	85	171	180	21
22 Cambodia	70	510	709	94

Source: WHO, *Global tuberculosis control: surveillance, planning, financing. WHO report 2006* (Geneva, WHO, 2006) (WHO/HTM/TB/2006.362).

Note: ESCAP countries are in bold.

During 2004, the total prevalence of tuberculosis in the ESCAP region was approximately 10 million people, compared with 3.7 million living with tuberculosis in Africa and less than a half million in Latin America and the Caribbean. The total prevalence in China and India combined exceeds 6 million (WHO, 2006c).

Mortality rates in Afghanistan and Cambodia among tuberculosis patients are among the highest in the region – 92 and 94 per 100,000 people respectively (WHO, 2006c).

The number of new cases detected in the region between 1990 and 2004 increased from 4.9 million to 5.5 million (WHO, 2006). Recently increased levels of detection are in part due to improvements in the coverage of the population by directly observed treatment short-course (DOTS) programmes. For example, the population coverage by DOTS in India increased from 1.5 per cent in 1995 to 84 per cent in 2004 (WHO, 2006c).

Nevertheless, the ESCAP region has made important progress in reducing tuberculosis prevalence and mortality rates during the last decade (WHO, 2005f). The number of people infected with tuberculosis in the ESCAP region declined from 12.8 million in 1990 to 10.8 million in 2003, whereas the number of deaths dropped from 1.1 million to 1.0 million during the same period. Most countries in the region have reduced the number of people infected, some of them quite significantly. More than 30 countries and territories in the ESCAP region – including the high incidence countries of Cambodia and Timor-Leste – have reduced prevalence by over 50 per cent from 1990 baseline levels. India, which is among the countries with the highest prevalence, has been able to reduce the number of people infected with tuberculosis from 4.84 million in 1990 to 3.39 million in 2004, whereas Indonesia has reduced the prevalence from 804,000 in 1990 to 606,000 in 2004 (WHO, 2006).

Among the high-burden countries, Viet Nam has exceeded the targets for identifying and treating cases of tuberculosis (WHO, 2006b). The Philippines is another high-burden country that has reached both targets, while Cambodia, China, India, Indonesia and Myanmar are making good progress. Only about 10 countries in the ESCAP region, mostly in the North and Central Asian subregion, have experienced rising prevalence figures for tuberculosis – increases from 36 per cent up to 80 per cent since 1990 (WHO, 2006c).

As with malaria, multidrug-resistant tuberculosis (MDR-TB) is also emerging in parts of Asia. In some areas of Eastern Europe and Central Asia, MDR-TB is 10 times more common than in the rest of the world. The prevalence of MDR-TB in some provinces of China, Kazakhstan, the Russian Federation and Uzbekistan ranges from 10 per cent to 14 per cent (WHO, 2004b). Although new drugs have been developed for treating MDR-TB, they are not always effective and require longer periods of treatment that can be up to 100 times more expensive than traditional drug regimes (Simon, 2005).

2.3.4. Non-communicable diseases

The Asian and Pacific region is undergoing a health transition characterized by a marked rise in the prevalence of non-communicable diseases (NCDs), such as cancers, cardiovascular diseases, chronic

The Asian and the Pacific region is undergoing a health transition characterized by a marked rise in the prevalence of non-communicable diseases

obstructive pulmonary disease, and other chronic illnesses. This new trend has resulted in increasing support across the region, especially among Pacific island countries and territories, for the inclusion of NCDs as part of Goal 6, target 8 (SPC, 2004).

Infectious and parasitic diseases have historically been the main cause of death in Asia and the Pacific. Today NCDs account for 62 per cent of all deaths in the ESCAP region and are the leading cause of mortality in all ESCAP sub regions and in the vast majority of countries (Table 2.6). The increasing prevalence of certain risk factors, such as tobacco and alcohol consumption, unhealthy diets, and physical inactivity, accounts for this surge in NCDs.

Table 2.6. Causes of mortality in ESCAP subregions, 2002

	<i>Communicable diseases, maternal and perinatal conditions and nutritional deficiencies</i>	<i>Non- communicable diseases</i>	<i>Injuries</i>
<i>(as percentage of total mortality)</i>			
North and Central Asia	5.9	80.8	13.2
South and South-West Asia	43.3	47.2	9.7
South-East Asia	30.1	57.6	9.4
East and North-East Asia	12.1	77.2	10.5
Pacific	15.9	77.0	6.9

Source: ESCAP, Addressing Health Risks. Strengthening health promotion. E/ESCAP/CESI (2) 7, (Bangkok, ESCAP, 2005).

Several Asian countries have some of the highest smoking rates in the world – often exceeding 60 per cent of the adult male population – and trends are rising. The number of overweight and obese people is also increasing, especially in many developing Pacific island nations (ESCAP, 2005a).

CHAPTER 3

OBSTACLES TO ACHIEVING THE HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS

At first glance, the MDGs may give the impression of representing vertical programmes targeting specific issues and population groups, or in the case of the health-related MDGs, targeting specific diseases and causes of death. In fact, the Millennium Development Goals and targets are aimed at providing a framework to link the multiple interplays between economic and non-economic determinants, such as education, gender, health and environment.

The centrality of health in development is clearly illustrated by the linkages between the health-related MDGs and the other five MDGs. Economic growth and progress on the non-health MDGs can have a clear impact on health indicators. Likewise, efforts to improve health can foster economic growth and ameliorate poverty. Improved health is needed if advances towards other MDGs are to be achieved and sustained.

The relationship between economic and health indicators is far from linear, however (see figures 3.1 and 3.2). Countries with similar levels of GDP per capita may note very different performance in terms of health indicators. Some countries with a relatively low level of economic development have managed to improve some of their health indicators to levels similar to those in middle- and even high-income countries. Improvements in health indicators and, ultimately, achievement of the health-related MDGs are not necessarily a result of economic development. All countries, even low-income countries, can make significant progress towards achieving the health-related MDGs, if obstacles precluding them from doing so are removed and effective policies and actions are undertaken.

But what are these obstacles? Identifying the main factors precluding progress towards achieving the health-related MDGs is the objective of Chapter 3. Analysing and understanding the obstacles is pivotal to informing the policies and interventions proposed in Chapter 4.

It seems obvious that the establishment of effective delivery systems which would ensure access to good quality health services for all, with special attention to the poor, is central to the achievement of the health-

The linkages between the health-related MDGs and the other five MDGs highlight the centrality of health in development

Low-income countries can make significant progress towards achieving the health-related MDGs if relevant obstacles are removed and adequate policies and actions are undertaken

Figure 3.1. IMR versus GDP per capita^a in the Asia-Pacific region

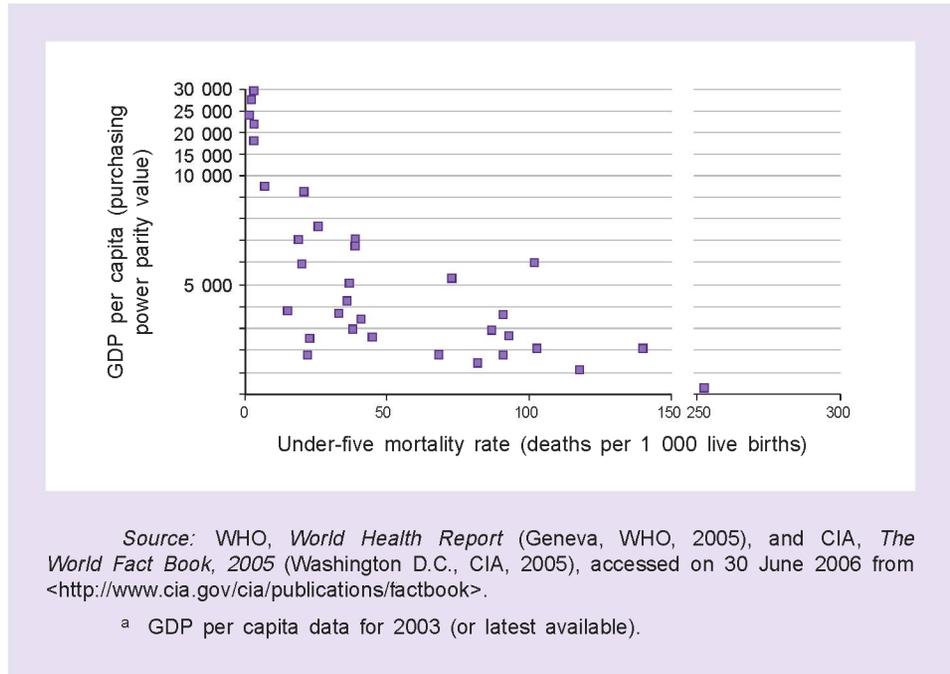
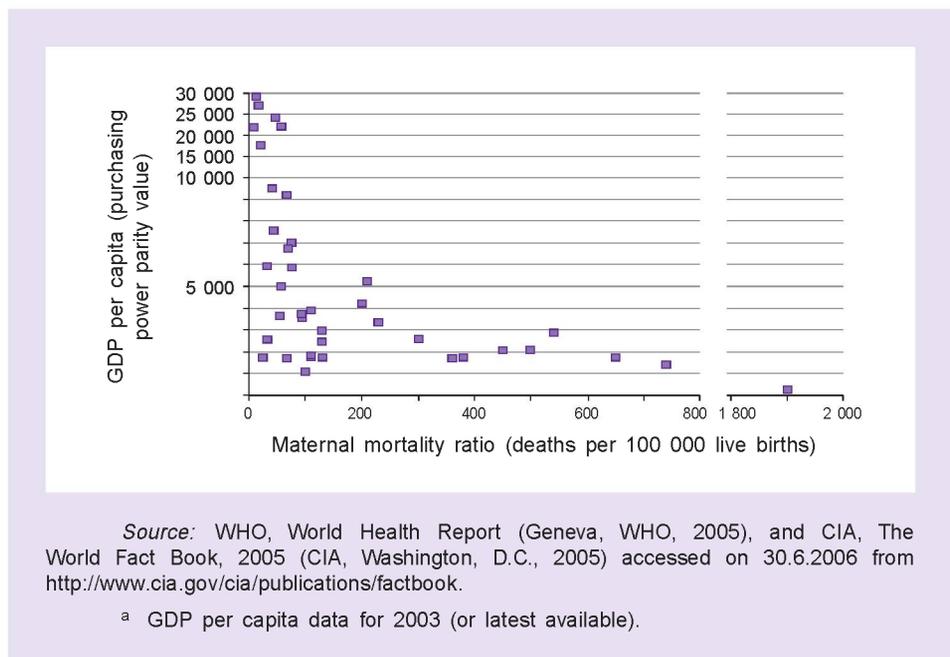


Figure 3.2. Maternal mortality ratio versus GDP per capita^a in the Asia-Pacific region



related MDGs. Other determinants outside the health sector can also impede the ability of individuals to access health services and improve their health status. Multiple linkages between determinants inside and outside the health sector influence health outcomes, each of which will be examined.

3.1. OBSTACLES WITHIN HEALTH SYSTEMS

WHO defines health systems as “all the activities whose primary purpose is to promote, restore or maintain health” (WHO, 2000a). They would, therefore, include the “people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people’s legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health” (WHO, 2000b).

Economic development or improvements in other socio-economic conditions, such as education, water and sanitation infrastructure, are vital for improving health outcomes. Achieving the targets established in the three health-related MDGs will not be possible without interventions to improve health systems directly. In many developing countries in the region – especially in rural areas – a functioning and effective health system is lacking. Some of the components that define a health system may be unavailable or inaccessible. Health systems may deliver poor quality care or remain unresponsive to users’ needs and demands, especially those of the poor. In some countries and areas within countries of the region, health systems are overstretched, underfunded and unable to provide even the most basic health-care services. WHO ranked health systems in 189 countries around the world according to their overall performance in 2000. Of the developing countries in the Asian and Pacific region, only 11 ranked among the top 100 health systems (WHO, 2000a).

Constraints in the availability and/or quality of health services can occur at three different levels.

3.1.1. Deficiencies in physical infrastructure

Health facilities and their physical resources may be lacking, have shortages or operate under unhygienic or unsafe conditions. The unavailability and the inaccessibility of emergency obstetric care and antenatal care facilities in many rural areas are major contributing factors to the slow progress in achieving Goals 4 and 5 in many countries of the region (WHO, 2005i; World Bank, 2005b).

Approximately 15 per cent of all pregnant women experience a life-threatening obstetric complication at some point during pregnancy. As many as a quarter of all maternal deaths occur during pregnancy and before delivery. The importance of having well-functioning emergency obstetric care and antenatal care clinics in place is evident (WHO, 2005i).

Achieving the health-related MDGs will not be possible without direct intervention to strengthen health systems

Unavailability, inaccessibility or low quality of emergency obstetric care and antenatal services are major contributing factors slowing progress towards achieving MDG 4 and MDG 5

Shortages of emergency obstetric care clinics can be especially acute in rural and remote areas. Good antenatal care helps to identify high-risk pregnancies and includes advice for women on how to deal with complications. Good antenatal care also offers an entry point for other curative, preventive and promotive health-care interventions, such as family planning, voluntary counselling and testing for HIV/AIDS, diagnosis and treatment of malaria and tuberculosis. In Bangladesh, Cambodia, the Lao People's Democratic Republic and Pakistan, however, more than half of all women do not visit any antenatal care clinic during their pregnancy and only between 9 per cent and 29 per cent go through the recommended minimum of four antenatal care visits (WHO, 2005i).

In at least eight Asian countries, comprising approximately half the population in the Asian and Pacific region, more than 60 per cent of births occur at home (WHO, 2005i). In the absence of emergency obstetric care, complications arising from unsafe abortions can also be a major cause of maternal mortality. Over half of all unsafe abortions worldwide take place in Asia – 10.5 million a year, or one unsafe abortion to every seven live births (Ahman and Shah, 2002).

Clinics and hospitals can be overcrowded with patients having to wait for long periods before getting diagnosed or treated. The number of hospital beds in Afghanistan, Bangladesh and Nepal is less than 5 per 10,000 people compared with an average of 17 and 34 per 10,000 people in the WHO South-East Asian and Western Pacific regions, respectively, or 80 per 10,000 people in Western Europe (WHO, 2005g; World Bank 2005a: table 2.14). In some cases, emergency obstetric care is available, but poor intrapartum and post-natal practices result in increased risk of neonatal infection for babies born in health facilities. The rate of neonatal infections in hospitals is up to 20 times higher in poor areas of developing countries compared with that of developed countries (Zaidi, 2005).

Health facilities may also be poorly equipped. The average cost of a smear examination for tuberculosis is only \$0.36, but the lack of microscopes in some developing countries is a serious impediment in the diagnosis of this disease (WHO, 2002a). In some instances, even in comparatively well-equipped urban health centres, the most basic equipment may be outdated or unusable. A survey of health facilities in Islamabad indicated that only 50 per cent of the equipment needed to measure blood pressure was in working order (Government of Pakistan and WHO Pakistan, 2004).

3.1.2. Deficiencies in human resources

Despite having 50 per cent of the world's population, Asia has only 30 per cent of the global stock of health workers, an average of 20 per 10,000 people compared with 110 per 1,000 in North America and Europe (World Bank, 2005a: table 2.14a). Afghanistan, Bangladesh,

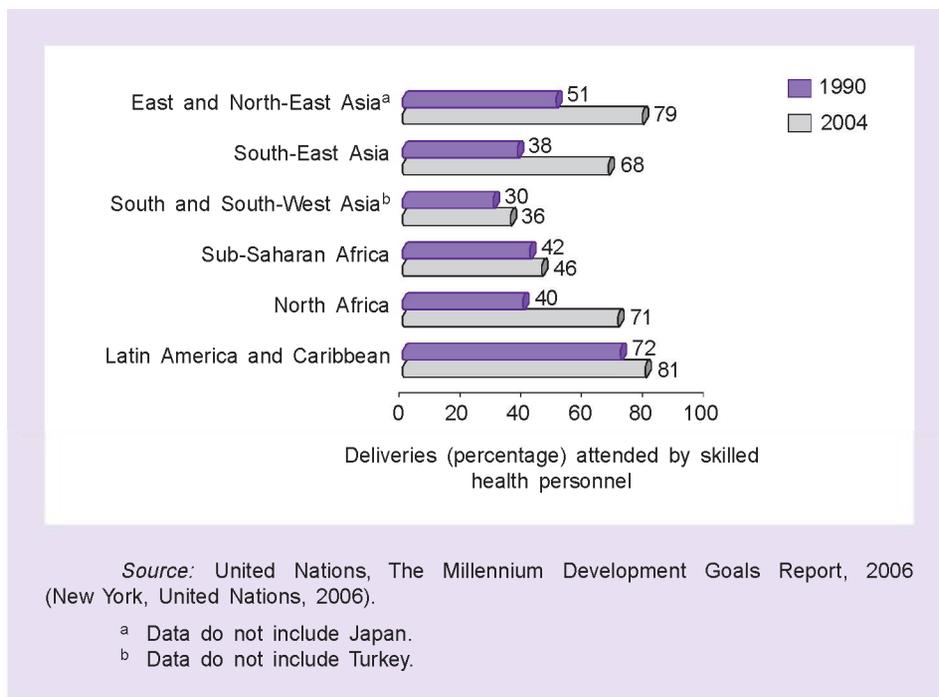
Despite having half of the world's population, Asia only has 30 per cent of the global stock of health workers, an average of 20 per 10,000 people, which is five times lower than that of North America and Europe

Bhutan, Indonesia and Papua New Guinea have the lowest density of health professionals in the region, with only 4 to 6 health workers per 10,000 people, half the average in sub-Saharan Africa (World Bank, 2005a; WHO, 2005g).

Asia also has one of the world's lowest rates of births attended by skilled health personnel, that is, only 36 per cent in the South and South-West Asian subregion (figure 3.3). In Afghanistan, Bangladesh and Nepal, less than 14 per cent of births are attended by skilled personnel (WHO, 2005i).

Asia has one of the world's lowest rates of births attended by skilled health personnel

Figure 3.3. Deliveries attended by skilled personnel



Even where health providers are available, negligence, incompetence or inadequate training may result in misdiagnosis or wrong prescription of treatment. The problem can be compounded by corrupt and illegal practices among health professionals.

Deficiencies in the capacity of human resources are especially acute with regard to HIV/AIDS, NCDs and mental health. Many Asian countries suffer a severe shortfall in the number of specialized health professionals working in the field of HIV/AIDS. The number of health professionals with an adequate understanding of treatment regimes, monitoring procedures and drug resistance is limited (AmfAR, 2004). For example, there are 11,250 people living with HIV/AIDS for every doctor

Deficiencies in human resource capacity are especially acute with regard to HIV/AIDS, NCDs, and mental health

trained in treating HIV cases in Viet Nam and 9,010 in India. Even in Thailand, which has one of the most comprehensive and successful HIV/AIDS programmes in the developing world, there is only one trained doctor per 6,700 HIV-positive people; compared with one trained doctor per 24 HIV-infected persons in Japan, per 100 in Taiwan Province of China and per 375 in Singapore (AmfAR, 2004).

3.1.3. Deficiencies in access to essential and reliable medicines and vaccines

Approximately one third of the world's population does not have access to essential medicines that can save or prolong their lives. Structural problems limiting access to effective drugs include the following:

- The low capacity of many health systems;
- The lack of drugs and vaccines or the poor quality control of them;
- Bottlenecks in the distribution and dispensing of medicines.

A number of factors operating at the international level (covered in detail later in the study) also undermine investment in research, production and trade of medicines that are essential for the prevention and treatment of diseases affecting the poor. Only the domestic factors are examined here.

Millions of children in the region suffer from diseases for which there are effective vaccines

Many children in the Asian and Pacific region are still suffering from polio, measles and pertussis, despite the fact that effective vaccines against these diseases have existed for decades. Three of the six countries in the world where polio remains endemic are in the ESCAP region (Afghanistan, India and Pakistan) (UNICEF, 2005b). Measles remains relatively common in parts of the WHO Western Pacific region, where approximately 1 million cases of measles were estimated in 2003, 30,000 of them fatal (WHO, 2005h). The fact that the proportion of children vaccinated against measles in East and North-East Asia and the Pacific declined by 14 per cent and 30 per cent respectively between 1990 and 2003 is particularly worrisome. These two subregions are the only ones in the world where immunization coverage for these diseases has diminished (United Nations, 2005). In Afghanistan, Cambodia, Papua New Guinea and Vanuatu, less than 20 per cent of districts reached 80 per cent coverage for the diphtheria-tetanus-pertussis conjugate vaccine in 2003 (WHO, 2005i).

The production and sale of counterfeit medicines is widespread in some countries in the region

The production and sale of counterfeit medicines has become widespread in some economies of the Greater Mekong Subregion. It is estimated that in Cambodia there are approximately 1,000 unregistered medicines in the market that are sold without safety or reliability controls. The most commonly counterfeited drugs in the Greater Mekong Subregion

are critically important medicines, such as antibiotics and drugs for the treatment of malaria and tuberculosis (Pincock, 2003). Surveys conducted in 2001 show that close to 40 per cent of anti-malarial drugs on sale in South-East Asia did not contain any active ingredient. Random surveys on anti-retroviral (ARV) samples in South-East Asia have found cases of drugs that did not meet effectiveness standards (Williams, 2003).

The above constraints in physical infrastructure, human resources and medicines weaken the ability of health systems to deliver good quality health-care services. These deficiencies are in turn determined by a wide range of interrelated factors operating at a lower level.

3.2. INSUFFICIENT SPENDING ON HEALTH

In most ESCAP countries health-care services are financed through a mix of government and private arrangements and, in some countries, with external assistance. Government systems include social health insurance systems and tax revenue-based systems. Private spending is largely through out-of-pocket expenditures, community-based and private insurance schemes. The contribution of each of these mechanisms to the financing of the health sector varies widely across countries of the region.

For countries with weakly developed health systems, strengthening health-delivery services to achieve the health-related MDGs will require significant financial investments. The 2001 United Nations High-level Panel on Financing for Development calculated that the achievement of all eight MDGs worldwide would cost an additional \$50 billion in official development assistance every year (United Nations, 2001; Reddy and Heuty, 2004). It is difficult to calculate the exact costs of achieving Goals 4, 5 and 6 because all of the MDGs are interrelated. Improvements or setbacks in one MDG are bound to have an impact on others. Multiple factors influence how health spending affects health outcomes. It has, nevertheless, been estimated that achieving the health-related MDGs worldwide could require global investments on the order of \$25-30 billion per year (Devarajan and others, 2002).

The quality of existing policies and the institutional environment determine the effectiveness of health spending and the resulting improvements in health indicators (see below). One World Bank study found that elasticities in public spending on health are greater in countries with good policies and institutions.⁴ By contrast, in countries with poor governance, additional public spending on health has little, or even no, effect on health

Achieving the health-related MDGs worldwide could require global investments of approximately \$25-30 billion per year

In countries with poor governance, additional public spending on health has little or no effect on the improvement of a number of health indicators

⁴ Elasticity in this case is the ratio of the incremental percentage change in health spending with respect to an incremental percentage change in health outcomes. This means that where good policies and institutions are in place the impact of increased spending on improved health outcomes is likely to be greater.

indicators such as the infant mortality rates, the prevalence of underweight among children under five years of age or tuberculosis mortality (PHM-Medact-GEGA, 2005).

While it is difficult to establish national spending benchmarks to achieve the health-related MDGs, the WHO Commission on Macroeconomics and Health calculated that the essential set of health interventions needed in low-income countries just to reduce avoidable deaths would cost about \$33-40 per person per year. Nevertheless, it has been argued that delivering a reasonable minimum package of health services requires at least \$60 per person (WHO 2001a and 2002b: Preker and others, 2002). Empirical evidence that controls for other variables also indicates that the efficiency of health systems increases sharply when health expenditures exceed \$80 per capita purchasing power parity (PPP) values (Evans and others, 2001).

When compared with other regions of the world, the Asian and Pacific region has the world's lowest level of government expenditure, on health and the highest contribution of private out-of-pocket expenditures. Per capita total expenditure on health was below \$80 (PPP) in close to 25 per cent of the countries in the region for which data were available in 2003. Per capita government expenditure on health was also below \$80 (PPP) in 50 per cent of the countries, and 16 per cent of the countries did not even reach \$30 (PPP) during the same year. In comparison, per capita government expenditure on health in Australia and Japan in 2002 were \$2,874 (PPP) and \$2,244 (PPP) respectively (WHO, 2006).

Asia and the Pacific has the world's lowest level of government expenditure on health with the highest contribution of out-of-pocket expenditures

Table 3.1. Share of total expenditures on health by type and region, 2003

	<i>Public expenditure (percentage of total)</i>	<i>Private expenditure (percentage of total)</i>	
		<i>Out-of-pocket</i>	<i>Others</i>
South Asia	26.3	68.3	2.7
East Asia and Pacific	39.0	53.2	7.0
East Europe and Central Asia	67.3	25.7	6.5
Latin America and Caribbean	48.2	38.6	12.6
Sub-Saharan Africa	41.2	25.3	28.0
North Africa and Middle East	50.9	43.1	5.2

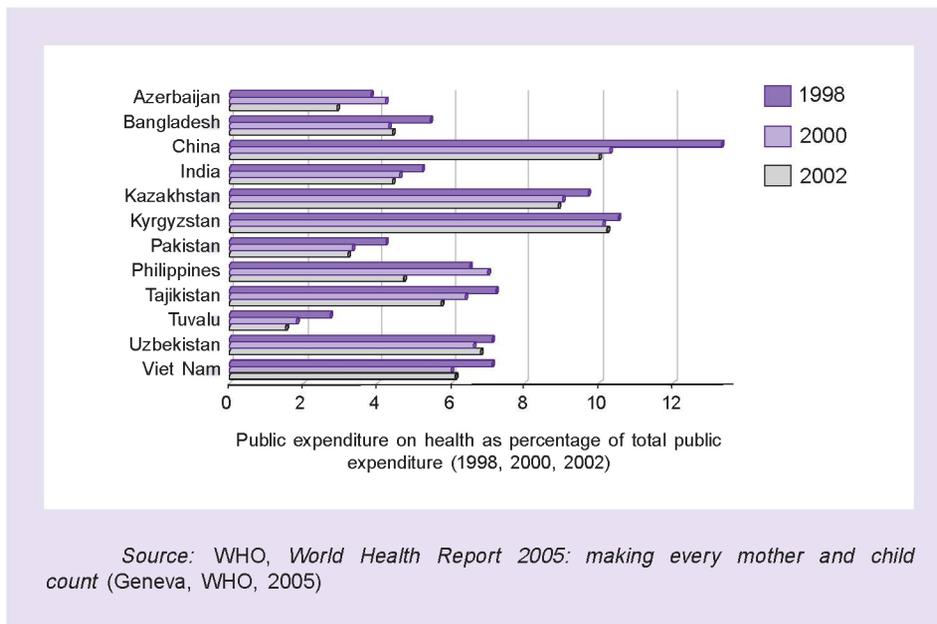
Source: World Bank, *World Development Indicators, 2006* (Washington, D.C., World Bank, 2006) table 2.14.

In relative terms, some Asian countries have some of the lowest government expenditure on health as a percentage of the total health expenditure in the world: Cambodia 23.3 per cent; India, 24.8 per cent; Azerbaijan, 23.8 per cent; and Viet Nam, 27.8 per cent. While most

Some Asian developing countries with already low per capita expenditures on health have reduced health spending even further in recent years

developed countries in Asia have been increasing per capita government expenditure on health in recent years,⁵ some Asian developing countries with already low per capita government expenditure on health and total health expenditure have reduced health spending even further and this situation is of great concern (figure 3.4) (WHO, 2006).

Figure 3.4. ESCAP countries with stagnant or decreasing government health expenditure



Government allocations to health in 2003 were proportionally lowest in Azerbaijan, India, Myanmar and Pakistan, that is, below 4 per cent of total government expenditures. This figure compares with about 17 per cent in New Zealand, Australia and Japan (WHO, 2006).

3.3. UNDEVELOPED HEALTH-PROTECTION SYSTEMS

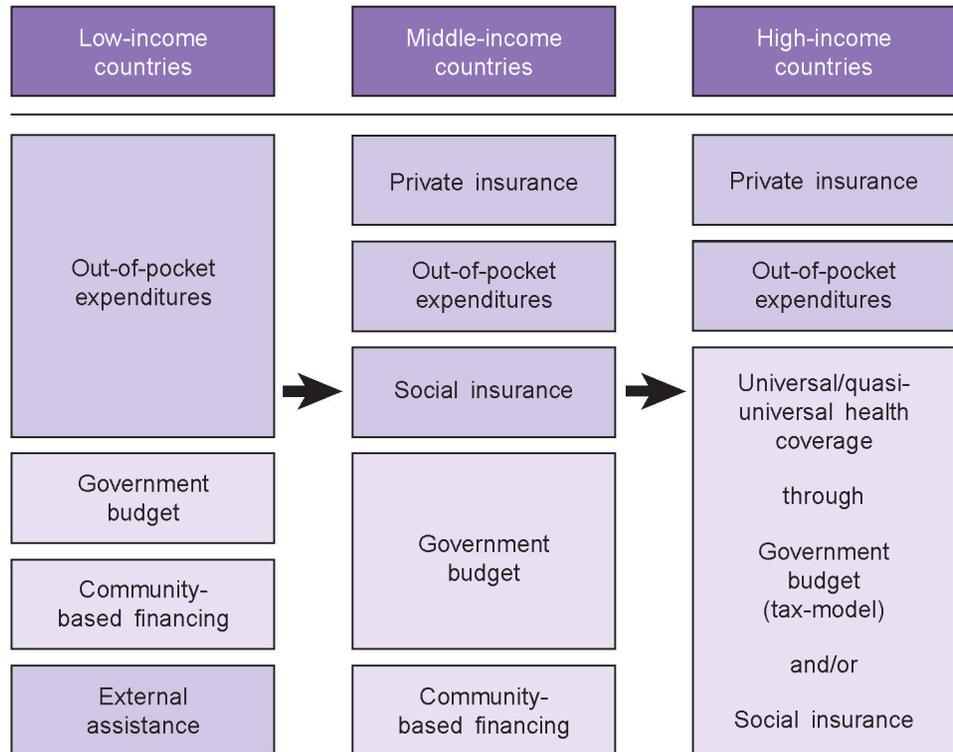
Specific mechanisms for financing health services vary from country to country, but health financing generally evolves through a pattern as countries develop economically (see figure 3.5) (Schieber and others, 2006).

In many low-income countries, the largest contribution to health expenditures is incurred by individuals who pay for services through out-of-pocket expenditures (see figure 3.6). Such expenditures are particu-

In low-income countries most health spending is through out-of-pocket expenditures

⁵ In excess of 20 per cent in Japan, Australia and New Zealand between 1998 and 2002.

Figure 3.5. Evolutionary model of health financing

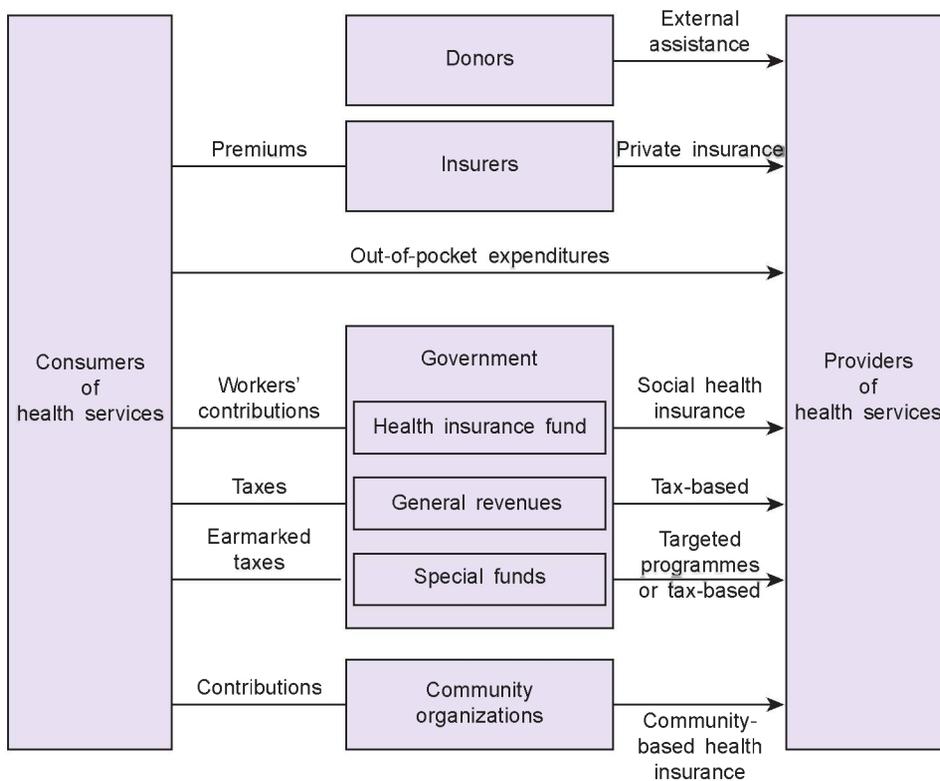


Source: Adapted from P. Gottret and G. Schieber, *Health Financing Revisited; A Practitioners's Guide* (Washington, D.C., World Bank, 2006).

larily common where the Government lacks the resources to provide for health-care services for important segments of the population. In 14 countries of the region, accounting for over 73 per cent of the population in the region, out-of-pocket expenditures represent more than 50 per cent of the total health expenditures. In Azerbaijan, Cambodia, Georgia and India, out-of-pocket expenditures finance over 75 per cent of the total health expenditures (WHO, 2006). High levels of out-of-pocket expenditures are one of the most important causes of catastrophic expenditures in households and consequently of the perpetuation of poverty in Asia. Community risk-pooling mechanisms in some countries also emerge to provide households some level of protection from out-of-pocket expenditures. These community-based health insurance schemes are voluntary and are operated mostly by community- and grass-roots-based organizations guided by the principles of mutual aid and solidarity. Community-based health insurance encompasses a wide range of organizational arrangements, including the provision of services at their own medical facilities. Some such schemes

may contract services with other health providers or act as intermediaries with larger insurance companies. Community-based health insurance schemes play a pivotal role in improving access to health care to vulnerable groups not covered by formal health-protection mechanisms. However, most are very limited in both geographic and demographic coverage. They frequently have less than a few thousand household members and the package of health services that they include is basic (Jakab and Krishnan, 2001; Carrin, 2003).

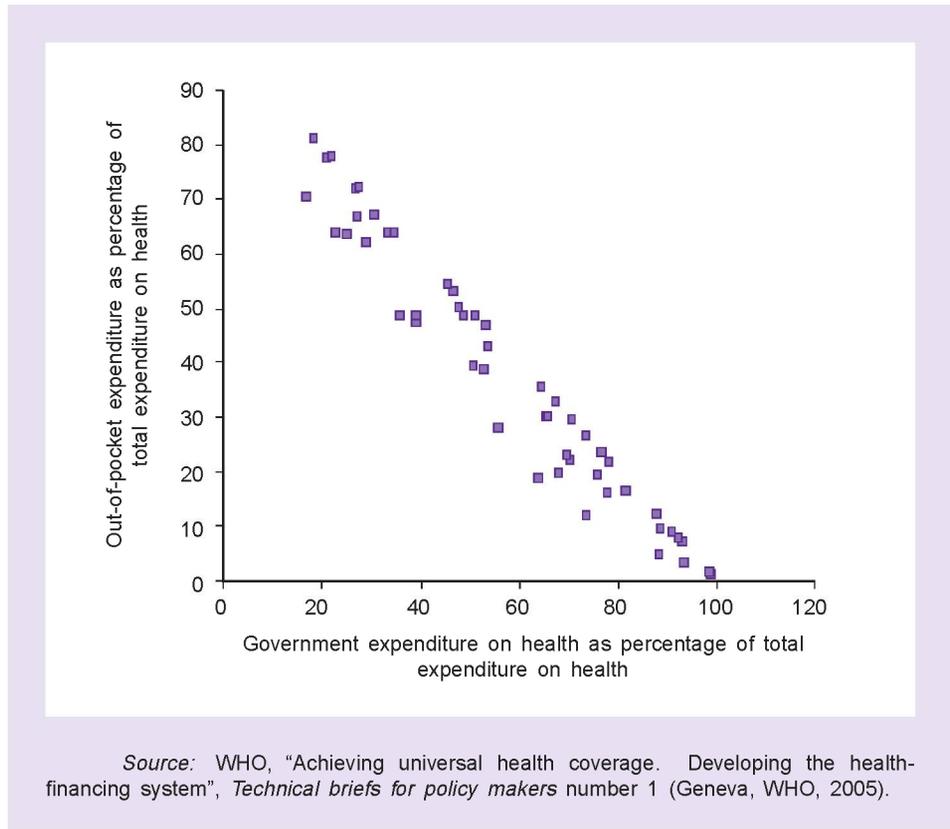
Figure 3.6. Health financing flows



In the absence of developed and affordable formal public or private health-insurance schemes in Asia and the Pacific, low levels of government expenditure on health are inversely highly correlated with high shares of out-of-pocket expenditures

Low levels of government expenditure on health, the absence of well-developed and affordable formal public or private health insurance schemes and only limited community-based health insurance plans mean that most of the burden of health expenditures is borne by individual contributions in the form of out-of-pocket expenditures. Levels of government expenditure on health in countries of the Asia-Pacific region correlate closely with the weight of out-of-pocket expenditures in the total health expenditures as illustrated in figure 3.7. Health services in some low-income countries may be financed by external assistance through either budgetary support or the funding of specific vertical projects on health.

Figure 3.7. Government expenditure on health as a percentage of total expenditure on health versus out-of-pocket expenditure as a percentage of total expenditure on health



Governments expand their tax bases as economies develop and they become able to finance some health services for at least part of the population. The financing of health services usually begins with covering public-sector employees and/or the poor from general tax revenues. More sophisticated risk-pooling mechanisms, such as private pre-paid plans or social insurance systems, may also be used.

Most high-income countries have universal (or quasi-universal) health-care systems that provide a more or less comprehensive package of health services (promotive, preventive, curative and rehabilitative) for the majority of the population at an affordable cost. Financing of these universal health-care schemes can be implemented through two main mechanisms as follows:

- Tax-based models: health budgets are derived from general tax revenues.

- Social health insurance models: health services are financed by explicit contributions from employers and formal employees, frequently including the self-employed.

Revenue collection adheres to the principle of fairness in contribution to ensure that people contribute on the basis of their ability to pay in both the tax-based and the social health insurance models. The choice of a particular financing model and its sustainability depends on a number of structural factors (see Chapter 4) (Poullier and others, 2002; Carrin and James, 2004; Schieber and others, 2006).

Comprehensive universal health-care coverage is still a distant promise for most countries in Asia and the Pacific. Australia, Japan and New Zealand have well-developed models of universal health-care coverage in place. It should, nevertheless, be stressed from the outset that there is no deterministic relationship between the levels of economic development and the attainment of significant improvements in health indicators (figures 3.1 and 3.2). Countries do not need to achieve high levels of income to provide some package of health-care services for the majority of their populations. Mongolia, the Republic of Korea, Singapore and Thailand, all introduced universal health-care schemes before achieving high levels of economic development. It is also important to note the vital link between universal health-care coverage and access to essential medicines.

The introduction of universal health-care services in all these cases was the result of strong political commitment on the part of the Governments concerned. The existence of a sense of shared responsibility for the provision of basic public services, especially for the poor, in these societies is also an important factor. It is also true, however, that some level of economic development, as well as bureaucratic and administrative capabilities, are needed for the establishment and management of complex universal health-care programmes.

The establishment of the National Health Insurance programme in the Republic of Korea or the Universal Health Care Scheme in Thailand have been heralded as some of the most successful anywhere in the developing world. These approaches have contributed to significant improvements in health indicators in both countries (box 3.1) (Korean Federation of Health Insurance Funds, 1997; Ministry of Welfare, Republic of Korea, 2003; Moon, 2005; ESCAP, UNDP and ADB, 2005).

Social health insurance is still poorly developed in the Asia-Pacific region. South Asia was the one subregion in the world where social health insurance contributed the least to total health expenditures in 1998. Social health insurance covered a mere 0.9 per cent of health expenditures, as compared with 4.8 per cent in Africa and 28.5 per cent among OECD countries. In 1998, (Poullier and others, 2002). Nevertheless, efforts have been made to introduce health insurance systems across the

Comprehensive universal health-care coverage is still a distant promise for most countries in Asia and the Pacific

Strong political commitment on the part of Governments and some sense of shared responsibility for the provision of basic public services are key requirements for the establishment of universal health-care programmes

Box 3.1. Universal health-care coverage in the Republic of Korea and Thailand

Republic of Korea

Less than 1 per cent of the population in the Republic of Korea had any type of health insurance coverage before the launching of the National Health Insurance (NHI) scheme in 1977. NHI initially covered only employees of large companies. It was not until 1989 that universal coverage was achieved by including socially vulnerable groups and farmers. NHI is a compulsory insurance programme funded through individual contributions and directly managed by the Government. NHI now covers 97 per cent of the population. Additionally, the Medical Aid Programme (MAP) is a tax-based social welfare programme that provides health services for 3-5 per cent of the population, mostly those with a low income. MAP is financed by contributions from the central Government and local governments. There are no significant differences in the quality of services that beneficiaries can access under MAP.

The entire population of the Republic of Korea is guaranteed access to essential health-care services through these two programmes. Significant improvements in the health status of the Korean population have been linked largely to this programme, especially among the poor. Improved health status has, in turn, led to more national productivity (Ministry of Health and Welfare, Republic of Korea, 2003; Moon, 2005; Korean Federation of Health Insurance Funds, 1997).

Thailand

In Thailand, more than 12 million people were not covered by any health-care financing system prior to the introduction of the universal coverage scheme in 2001. The scheme provides for universal and affordable access to a comprehensive package of health interventions. Users of the system had to pay 30 baht (under \$1) per service and the poor were exempt from making any payment. Recently, even this small pre-payment has been done away with. The health-care package includes inpatient and outpatient treatment at all levels (including tertiary care), as well as dental services, health promotion and prevention, ambulance fees and drugs.

The programme has been provided to all Thai people over the last few years; in particular, it reaches the most vulnerable in the population. The scheme has improved access to health care and helped provide protection against catastrophic losses due to illness. There are questions regarding the financial sustainability of the system in the long run despite these achievements. The Government has been forced to inject additional funding to keep pace with running costs.

region. The establishment or expansion of social health insurance plans has been introduced in the following countries in the ESCAP region through the implementation of poverty reduction strategies: Cambodia, Indonesia, Kyrgyzstan, Lao People's Democratic Republic, Mongolia, Nepal, Sri Lanka, and Viet Nam (WHO, 2005c).

In most middle- and high-income countries, health care is usually financed through a mix of mechanisms. Social health insurance systems are often supplemented by government allocations and out-of-pocket expenditures by individuals. Where social health insurance exists it tends to cover formal-sector workers and their families. Services for the unemployed and poor in the informal economy are financed through general taxation. Resources are pooled into general accounts that fund health services for individuals on an as-needed basis regardless of whether the health system is financed predominantly through taxes or contributions the workers. An interesting exception to these traditional models is offered by Singapore. Singapore has a compulsory system of individual saving accounts from which the insured and his/her family can withdraw money to pay for medical services (Barr, 2001). Individuals still have to make out-of-pocket expenditures to cover the cost of some uncovered services independently of the existing health-financing mechanisms.

The impact of catastrophic expenditures can also be reduced via participation in commercial private insurance plans or community-based health insurance schemes. However, private health insurance plans are largely undeveloped in most developing countries of the region. A more detailed discussion of health-financing issues is covered in Chapter 4.

3.4. INEQUITABLE ALLOCATIONS OF HEALTH BUDGETS

Spending on health does not automatically translate into accelerated progress towards achieving the health-related MDGs. Equally important to the ability, effectiveness and efficiency of health systems to provide services is the way in which investments are targeted. A highly inequitable distribution of public investments in health exists in many developing countries in the ESCAP region. Resources are heavily concentrated in urban areas and on secondary and tertiary care, often at the expense of even the most essential health care in rural areas.

Empirical evidence indicates that people at the bottom of the income scale benefit less from public spending on all types of health services than those in higher income groups. These disparities between income groups are even greater with regard to secondary and tertiary care (DFID-HSRC, 2001; Pearson, 2002). Public funding for health in many developing countries is heavily biased towards hospital facilities that are out of reach for the great majority of the rural poor. Nearly 80 per cent of health facilities in India, both public and private, are concentrated in urban areas. In Nepal, where 85 per cent of the population lives in the countryside, only half of the health budget is allocated to rural areas. Bias towards financing the hospital sector in Nepal has actually increased. Allocations to primary care declined from 77 per cent to 57 per cent of

In many developing countries in the Asian and Pacific region, health-system resources are heavily concentrated in urban areas and on hospital care

the health budgets in the 1990s (WHO, 2005c; DFID-HSRC, 2001; Pearson 2002). The poorest quintile in Bangladesh, India, Nepal and Viet Nam benefits 12 per cent or less from public spending on hospital care, while in Indonesia the figure is as little as 3.6 per cent (O'Donnell and others, 2005a).

The poor not only receive proportionately less from public spending on health care but also have lower utilization of health services than higher income groups

The poor benefit less from public spending on health care because of their lower rate of utilization. A survey of health-care utilization by the richest and poorest quintiles in several Asian countries – found that households in the poorest quintile consume less than 20 per cent of publicly provided health services compared with over 40 per cent by the richest quintile. The poorest 20 per cent in Nepal account for less than 15 per cent of non-hospital-care utilization and 6 per cent of non-hospital public funding compared with 25 per cent and 38 per cent respectively for the richest quintile. The income divide in the access to and utilization of health care reflects largely urban/rural disparities. The most costly hospital care tends to be concentrated in cities, whereas the majority of the poor still reside in rural areas. Nevertheless, patterns of investment in health in some developing countries of the region, such as Malaysia, Sri Lanka and Thailand, have preferentially benefited the poor (O'Donnell and others, 2005a).

3.5. POOR WORKING CONDITIONS AND PROFESSIONAL PROSPECTS

Factors such as poor working conditions, low motivation and lack of professional support influence the number and/or performance of health professionals

Shortcomings in the number of health professionals and their performance are frequently related to low levels of investment. They are also influenced by other factors, such as poor working conditions, low motivation and a lack of professional support or career opportunities.

In most developing countries it is common practice for many health personnel to migrate from rural to urban areas and from the public to the private sector. Urban and more accessible areas not only have higher numbers of health professionals per capita but are also able to retain the most qualified staff. These factors further contribute to the rural/urban divide that is created by the imbalance in the pattern of health spending.

The drain on human resources also takes place across international borders as health professionals in developing countries look for better economic opportunities abroad. One in every five doctors in the Philippines retrain as a nurse in order to meet the demand for such professionals in many developed countries. It is estimated that by 2010 there will be a *shortfall* of over 10,000 doctors in the Philippines (Ong, 2005).

3.6. POOR GOVERNANCE AND LOW EFFICIENCY IN HEALTH SYSTEMS

Deficiencies in the allocation of financial and human resources are often compounded by poor management, lack of performance standards and weak accountability systems. All of these factors contribute ultimately to lower overall levels of efficiency. Such shortfalls can increase the possibility of corrupt and illegal practices occurring within health systems.

Health systems can become particularly prone to corruption in certain situations. Information asymmetries, an inelastic demand for services and difficulties in standardizing and monitoring the provision and procurement of services, all contribute to corruption. In several Asian countries health-care ranks as one of the most corrupt public services (Gupta and others, 2000; Utstein Group, 2005; Nissen, 2005; Kumar, 2003).

Table 3.2. Vulnerabilities and corruption risks of health systems according to financing mechanisms

	<i>Vulnerabilities</i>	<i>Corruption risks</i>
PUBLIC		
Tax-based systems	Directly financing of services Free/Subsidized services	Diversion of public funds at Ministerial level Informal/Illegal payments Corruption in procurement Abuses undermining quality
Health insurance	Directly financing of services	Excessive medical treatment Fraud in billing Diversion of funds
PRIVATE		
Private insurance	Separation between finance and provider. Often weakly regulated	Excessive medical treatment Fraud in billing Diversion of funds
Out-of-pocket expenditure	Weaker regulation	Overcharge for services Excessive medical treatment Abuses undermining quality
Community-based systems	Weaker regulation but provider responds directly to community	Similar to tax-based but reduced risk to corruption

Source: Utstein group, *Corruption in the health sector, 2005*, Utstein anti-corruption resource centre, accessed on 2 November 2005 from <http://www.u4.no/themes/health/main.cfm> and Taryn Vian, *Corruption and the health sector. Sectoral perspectives on Corruption* (Washington, D.C., Management Systems International, 2002).

The elimination of corruption and introduction of good governance practices in health systems is paramount in the efforts to achieve the Millennium Development Goals. Corruption has clear negative effects on the efficiency, effectiveness and equity of health systems. Corruption not

Introduction of good governance practices in health systems is paramount to the achievement of the MDGs

only lowers quality and access to services, especially for the poor, but also increases the operational costs of health systems (Utstein Group, 2005). Corruption can occur at multiple levels and can also vary in accordance with the mode of health-system financing (table 3.2). Corruption can occur in the financial management of the health system as part of broader weaknesses in public-sector governance. Two other levels within health systems that are particularly open to abuse can also be identified and include the following:

- (a) *Procurement of infrastructure, equipment and medical supplies.* Selection of bids and the procurement of contracts for the construction and maintenance of health facilities and/or the purchase of equipment can be rigged as a result of bribery or political considerations (Transparency International, 2005; Vian, 2005).

The purchase of drugs and other medical supplies consume a large fraction of public-health budgets in developing countries and, therefore, this attracts unethical and illegal practices. The approval and registration of medicines, and the procurement, selection and distribution of pharmaceuticals and medical supplies are complex processes involving multiple actors within the private and the public sectors. Corruption can occur at any stage: from the time national health agencies and procurement officials place orders to that when manufacturers and doctors or pharmacists become involved. For example, pharmaceutical companies may bribe procurement officials to purchase substandard or overpriced drugs. Also, doctors can unethically select and promote suboptimum or more expensive drugs/tests in exchange for kickbacks or they may sell drugs that should be dispensed free of cost (Vian, 2005).

- (b) *Provision of services by health professionals at the point of delivery.* Health personnel in many developing countries are poorly paid or suffer wage arrears for months. In a survey in India, up to a quarter of respondents admitted having paid bribes for health-care services (Kumar, 2003).

Physicians and nurses may engage in corrupt practices in the absence of appropriate incentive systems to reward good performance or to sanction abuse. Examples include requesting extra payments for providing or expediting services, performing unnecessary services, referring patients to their private clinics, or simply failing to attend to their public posts.

Medicines and equipment can be diverted from public to private clinics in countries where physicians serving in the public sector are also allowed to work in private practice. Doctors may also bill for services not rendered (Transparency International, 2005; Utstein Group, 2005; Vian, 2005).

Corruption can extend to the qualifications of health personnel. Bribes or political influence can be used by unqualified personnel to obtain educational degrees or to be appointed to health services (Utstein Group, 2005; Vian, 2005).

In contrast with many other public services, however, corruption in health-care services can have life-threatening consequences. People, including the poor, may decide to avoid free public-health facilities and instead pay for treatment by private practitioners if they perceive that this is the only way they can get good quality treatment. In countries where the private sector is poorly regulated – or regulation is not enforced – the effectiveness and quality of private health care may, however, also be inadequate.

3.7. WEAK HEALTH-INFORMATION SYSTEMS

Health-information systems are a key to improving the efficiency of health systems. Scientific evidence on the causes of death, prevalence of diseases and their multiple determinants is essential for formulating policies and interventions. Health-information systems are also important because they can be used to assess the impacts of policies and interventions.

The establishment of effective disease-surveillance mechanisms helps to identify epidemiological outbreaks, monitor and respond to them in an appropriate, efficient and prompt manner. The outbreaks of SARS and avian influenza clearly illustrate the importance of having efficient surveillance and an early warning system in place.

Many developing countries in the region lack the capacity to put in place systematic health-surveillance systems. Such systems should collect information on births and deaths, data on censuses and household surveys, epidemiological information, data on the services provided, and track resources. Health-surveillance systems are an important component of well-functioning health-information systems. In many developing countries a large proportion of all deaths are not reported to national registration systems. The information that is reported is often not standardized or is not included in national databases even where data about diagnosis and treatments are collected locally. Inefficiency or wastefulness within health systems are often not recognized, thus preventing a more optimum allocation of scarce resources because of the lack of data.

3.8. LOW LEVELS OF CAPACITY AT LOCAL LEVEL IN DECENTRALIZED HEALTH SYSTEMS

Several countries in the region have embarked on a process of decentralizing public health services as part of broader processes of public-sector reform. Decentralization of health services can be an important tool in the strengthening of health systems. It can enhance efficiency

Health-information systems detect health and disease trends, allow better responses, and are key to improving the efficiency of health systems

Empirical evidence concerning decentralization experiences across the region provides mixed results

and effectiveness regarding the allocation, use and management of resources. Decentralization can result in better alignment of health-care services with specific local needs, by bringing resources and decision-making closer to both health providers and communities. Community participation in health policy decision-making and health provision can improve local health outcomes. Decentralization also fosters multisectoral and multi-agency collaboration at the local level (WHO, 2002c).

Decentralization has played an important role in reducing gaps in health indicators across regions. In the Philippines differences in the infant mortality rate between the richest region and the poorest region have not only been reduced but also reversed. Local governments have increased their financial contribution to aggregated government expenditure on health. The share of local governments in government expenditure on health quadrupled throughout the 1990s, exceeding the input from the national Government. Health insurance programmes at the provincial level have provided important experiences on which to build the Philippines national health insurance system (Eufemia, 2003; Lieberman and others, 2005). Most routine health outlays in Indonesia are now made by regional governments. Greater levels of decision-making at the local level have fostered innovation in health-care management and delivery (Lieberman and others, 2005).

Even in successful cases, however, the potential benefits of decentralization have not been fully realized. In some cases decentralization has even had detrimental effects and has contributed to the weakening of health systems (Lieberman and others, 2005). The transfer of managerial responsibilities to lower administrative levels has not always been accompanied by a parallel level of devolution in financial resources and political authority. Many local governments lack the necessary capacity to plan and manage local health services. Regional and local hospitals and clinics have been allowed to collect user fees for services and drugs in order to cover funding shortfalls. The collection of user fees has had an adverse effect on health-care access, especially among the poor. The Department of Health of the Central Government in the Philippines matches and even exceeds contributions by local governments to cover certain health functions. Many poor local governments lack the necessary financial resources for delivering their new mandates, however (WHO, 2002c; Lieberman and others, 2005).

Difficulties in attracting qualified health personnel to work in the provinces has also been an important factor hindering the ability of local governments to fully reap the opportunities of health-system decentralization. Health personnel actually comprise one of the groups most reluctant to accept decentralization. The Government of the Philippines established an attractive two-year benefit package to retain doctors in remote provinces. After the package expired the programme was unable to retain the doctors. Schemes for mandatory placement of physicians in provinces in Indonesia were received with discontent and opposition by health professionals (Lieberman and others, 2005).

The lack of technical and managerial capacity by local governments is often compounded by the lack of regulatory, monitoring and enforcement mechanisms by the central Government. A related issue is the fact that local governments often have little to offer health professionals in terms of competitive pay, career opportunities, prestige and other incentives (WHO, 2005c).

In conclusion, a number of structural conditions at the central and local levels have an adverse effect on the impact on the decentralization of health services. A balanced approach to devolve authority and resources, while building capacity and ensuring accountability, is required to avoid the exacerbation of inequalities in decentralization. More than simply a technocratic fix – as it has often been portrayed and even enforced in developing countries – decentralization is ultimately a political project that cannot be taken out of the overall context of the countries in which it is implemented. Successful decentralization of health services requires a strong central Government and a well-functioning bureaucracy.

3.9. OBSTACLES OUTSIDE HEALTH SYSTEMS

Progress towards achieving the health-related MDGs also depends on factors outside the health sector. A comparison of the performance of national health systems, as ranked by WHO, with positive achievements on health indicators, such as the under-five mortality rate or the maternal mortality rate, indicates only partial correlations (WHO, 2000a). The health-seeking behaviour of individuals, their ability to access health services and ultimately their health status also depends on a wide range of socio-economic, environmental and international determinants.

3.9.1. Socio-economic Determinants

Poverty and Hunger

During the last decade significant advances in the ESCAP region have been made in reducing poverty (Goal 1, target 1). The proportion and absolute number of people in the region living below the international poverty line of one United States dollar per day between 1990 and 2001 fell from 31 per cent to 20 per cent, that is from 931 million to 679 million people, respectively (ESCAP, UNDP and ADB, 2005). Progress in the region has been determined largely by rapid economic growth in China and India. Many other countries in the region have made significant economic progress and have either already achieved their targets or are expected to do so by 2015. Only five countries in the ESCAP region (Armenia, Bangladesh, Sri Lanka, Lao People's Democratic Republic and Mongolia) have experienced worsening poverty rates between 1990 and 2000 (ESCAP, UNDP and ADB, 2005).

Economic growth is a necessary condition for achieving target 1 of the MDGs but it is certainly not sufficient on its own. It is also imperative to ensure that the benefits of growth are shared broadly. In several countries, including the fast-growing economies of China and India, economic growth and progress towards reducing poverty have been accompanied by increases in inequality, especially between rural and urban areas (UNDP, 2005a: 59-61).

Poverty and low education levels are key determining factors for health seeking behaviour

Poverty and low levels of education are key determining factors for health-seeking behaviour. The richest 20 per cent of the population in Bangladesh are three times more likely to seek medical attention than the poorest quintile (Ahmad, 2003). Child and maternal mortality and the prevalence of diseases, which are considered under Goal 6, are closely related to poverty (Wagstaff, 2002).

Under five mortality is highest in the poorest households

Under-five mortality tends to be higher among the poorest quintile households as compared with the richest quintile, that is, higher by 2.8 times in India, 2.7 times in the Philippines and Viet Nam, and 3.7 times in Indonesia (WHO, 2005c; Lieberman and others, 2005).

Maternal malnutrition, including subclinical micronutrient deficiencies such as iron and iodine deficiencies, and high workload levels during pregnancy increase the risks of complications during pregnancy and underweight babies. Estimates of foetal growth retardation in South and South-West Asia range from 25 to 50 per cent of all pregnancies (Bhutta and others, 2004). Low birth-weight babies may have delayed physical and mental development and be at higher risk of developing certain NCDs, such as hypertension, diabetes and coronary artery disease, later in life. The cycle of poverty and ill health is thus perpetuated throughout life.

The correlation between income levels and health outcomes is often reflected in urban/rural disparities. Rapid economic development in China during the last two decades has increased GDP per capita in some of the larger coastal cities to levels enjoyed in developed countries. Many of these coastal cities have achieved low maternal mortality rate. In remote and poor areas, especially in the west of the country, the collapse of rural cooperative health-care systems and the transition to a fee-based system has, however, undermined the access of many poor women to affordable and good quality emergency obstetric care (United Nations, 2003b).

There is a clear and strong correlation between poverty and the prevalence of HIV/AIDS, malaria, tuberculosis and non-communicable diseases

A large body of literature also supports a strong correlation between poverty and the prevalence of HIV/AIDS, malaria and tuberculosis (Bates and others, 2004). While the prevalence of NCDs in developing countries has been traditionally associated with the most affluent urban sectors, recent evidence indicates that NCD risk factors, such as smoking and obesity, are becoming increasingly more common among the poorest groups (ESCAP, 2005a).

The high cost of drugs is an important factor limiting access to medicines for the poor. Import tariffs and other taxes on medicines account for a high proportion of the final price of medicines, up to half in some Asian countries (IPN, 2005).

Education and health literacy

Adequate and appropriate education is a prerequisite for achieving health literacy. Education provides a tool for the poor to break out of the cycle of poverty and hunger. Significant progress across the ESCAP region has been made in increasing school enrolment and completion rates. Most countries in the region have primary enrolment rates above 80 per cent. However, 13 countries, especially in South and South-West Asia and North and Central Asia, have reported a worsening situation vis-à-vis Goal 2 over the 1990 benchmark levels (ESCAP, UNDP and ADB, 2005).

Ensuring adequate levels of health literacy is crucial in making informed decisions regarding health risks. Education helps to ensure a better understanding of health-promotion measures that are critical to preventing diseases and improving health status. Girls' education is particularly important in addressing many of the health disparities prevailing in the region, especially with regard to improvements in maternal and child health.

Poor education about the modes of transmission of HIV/AIDS increases vulnerability to infection and fuels discrimination against people living with HIV/AIDS. A survey in Indonesia found that 88 per cent of intravenous drug users used non-sterile needles/syringes, but less than a third felt they were at high risk of HIV infection (UNAIDS, 2004b). Even in areas in Asia and the Pacific where malaria is endemic, correct knowledge about the mechanisms of malaria transmission, methods of prevention and treatment is low. The findings apply even when malaria is perceived by local people as a major health issue and especially among the illiterate (Uza and others, 2002; Kyawt-Kyawt and Pearson, 2004).

Traditional efforts to improve health literacy among the population have often been limited to public campaigns and top-down messages. Such efforts have contributed to improving public health and reducing the prevalence of many infectious diseases. Health-education programmes that use participatory strategies that empower local communities are more likely to have a favourable impact. Such approaches require the training of not only individuals and households but also teachers and other community leaders on health education, risk prevention and health promotion.

Health literacy is crucial for making informed decisions regarding health risks and gaining better understanding of health-promotion measures

Girls' education is particularly important to improvements in Goals 4 and 5.

Gender inequality is one of the major underlying determinants behind the lack of progress on many of the Millennium Development Goals

Gender inequality

Gender inequality is one of the major underlying determinants behind the lack of progress being made in achieving many of the Millennium Development Goals. In many societies, social and cultural norms accord lower status to women and lesser value to their lives. These social and cultural constructs in turn influence the way societies, communities, families and women themselves respond to their health needs.

Discriminatory practices against females start even before birth. It is estimated that selective abortion of female foetuses and violence against, and neglect of, newborn girls account for a gap of 50 million females in South Asia. It is also estimated that, in the Indian state of Punjab, one in five girls is missing owing to sex-selective abortions (Oxfam, 2004). Discrimination against girls continues throughout their childhood and adolescence. In many households girls do not enjoy equal access to food as compared with their brothers, and girls are less likely to be hospitalized for childhood illnesses; thus, they experience higher mortality rates (WHO, 2005c).

Achieving gender equity in education is pivotal to empowering women and providing them with access to information on health services. This is one of the areas in which the ESCAP region has made significant progress. Most countries have already achieved gender equity targets for primary education and show very positive trends (even higher female ratios) for secondary and tertiary education. Reducing gender disparities in education will, nevertheless, still require significantly greater efforts in Afghanistan and Pakistan (ESCAP, UNDP and ADB, 2005).

Increasing the availability and cultural acceptance of family planning has been instrumental in reducing fertility in the ESCAP region, from an average of 5-7 births per woman in the early 1960s to half that figure in 2000. Such lower birth rates have also contributed to reductions in child and maternal mortality rates. Nevertheless, fertility rates still exceed or are around five live births per woman in several ESCAP countries: Afghanistan, 6.8; Marshall Islands, 5.4; Maldives, 5.3; Bhutan and Pakistan, 5; and Cambodia 4.7 (WHO, 2005i). Afghanistan, Bhutan and Cambodia reported contraceptive prevalence rates among married women below 20 per cent.⁶

Men represented the largest fraction of people living with HIV/AIDS at early stages of the HIV/AIDS epidemic but the number of women infected with HIV has been increasing steadily. Women currently account for 46 per cent of all the people living with HIV/AIDS worldwide (UNAIDS, 2005a). Women are at higher risk of HIV infection partly because of their biological susceptibility but also because of social factors, some of which are as follows:

⁶ Of the countries in the region for which data on the use of modern types contraception are available.

- Lack of skills in refusing sexual relations or negotiating safer sex
- Domestic violence
- Inadequate information
- Lack of access to services concerning sexually transmitted diseases

Women represented 26 per cent of all adults living with HIV/AIDS in South and South-East Asia in 2005. While in East Asia women account for 18 per cent of people living with HIV/AIDS, in the Pacific, women account for 55 per cent of the total. All these figures represent increments from two years previously. The increase was especially significant in the Pacific subregion where women represented 44 per cent of adults living with HIV/AIDS in 2003 (UNAIDS, 2005a). Epidemic trends in the region also indicate a gradual encroachment of the epidemic among younger groups. Prevalence rates are higher among young women (aged 15 to 24 years) than among men in the same age group. Sex within marriage constitutes the main mode of infection for many women in Asia because their husbands infect them (UNAIDS, 2005b).

Women are differently affected by non-communicable diseases and the risk factors for such diseases. For example, women have become prime targets for fostering the habit of smoking tobacco, as tobacco corporations search for new markets even where smoking prevalence is lower among women. Tobacco advertising often equates smoking with slimness, portraying it as a sign of women's emancipation and sex appeal. The association between poverty and obesity occurs at lower levels of GNP per capita among women than among men (Monteiro and others, 2004; ESCAP, 2005a).

Exclusion, stigmatization and discrimination

Throughout history, migration has been a critical factor in the spread of communicable diseases. Migration is also an important determinant influencing progress towards achievement of the MDGs. The role that mobile populations have in the transmission of HIV/AIDS is well documented. Human migration has also contributed to the spread of tuberculosis and the re-emergence of malaria in certain areas (Waddington and Black, 2005).

Migrant workers and displaced people can be considered a vulnerable group. As people move to new areas they can be exposed to new diseases for which they have not developed an immune response. Migrants are often among the lowest income groups living and working in conditions that are considered to pose a high risk for contracting certain communicable and non-communicable diseases. Migrants in many countries – in some cases even legal migrants – can be excluded from public-health services

in the recipient country. They not only face economic and legal barriers but also cultural and linguistic obstacles and are subject to discriminatory practices that can affect their health-seeking behaviour.

Certain minorities often also confront linguistic, cultural and political barriers in the access to health services and information in addition to economic and/or geographic limitations

Improvements in poverty and health indicators have not permeated uniformly to all ethnic groups in some countries in Asia. Certain minorities also confront linguistic, cultural and political barriers in their access to health services and information in addition to economic or geographic limitations. Lower levels of education, limited access to contraception, emergency obstetric care and immunization have all contributed to higher MMRs and IMRs among tribal populations in South Asia and among communities living in the highland areas of the Greater Mekong Subregion. In India, chronic malnutrition among tribal women is one and a half times more frequent than among other women, while the number of deliveries attended by skilled personnel is 12 times lower. As a result, both MMRs and under-five mortality rates are higher among scheduled tribal groups than the general population (Bhat, 2002; Deogaonkar, 2004). Mild malnutrition among communities living in the hill areas of Thailand is three times higher than the national average, while IMR is 1.7 times higher. Diarrhoea, malaria, dengue fever and tuberculosis are major causes of mortality among ethnic minorities in the highlands of the Greater Mekong Subregion, with HIV/AIDS and substance abuse comprising important emerging health problems (ADB, 2001).

The systematic stigmatization and discrimination to which many social groups are subjected make significant impacts on their health status and their ability to access health care and other public services. People living with HIV/AIDS comprise one of the groups most seriously affected by discrimination. One of the first population groups in the ESCAP region to be infected with HIV were intravenous drug users, commercial sex workers and men who have sex with men. These groups are marginalized groups in most Asian societies. The illegality of their source of livelihood, sexual identity and behaviour create barriers for them to access health information and services.

Stigma and discrimination can have a negative impact on prevention, care, and treatment efforts among people living with HIV/AIDS

Stigma and discrimination can have a negative impact on prevention, care and treatment efforts among these groups (UNAIDS, 2005d). Only a minority of the population most at risk benefit from prevention programmes (only 1 per cent of men who have sex with men, 5.4 per cent of intravenous drug users or 19 per cent of commercial sex workers), according to a 2004 survey in 16 countries of the Asian and Pacific region (UNAIDS, 2005b). Punitive policies and laws on homosexuality, commercial sex and drug use tend to drive these groups underground, making it even harder to reach them for preventive services.

Australia and New Zealand have revised their laws concerning sex work and drug use in order to create a more conducive environment for the control of HIV infections among commercial sex workers and intravenous drug users and for the protection of public health. Cambodia and Thailand, among the developing countries in the ESCAP region, have been quite successful in their efforts to reduce the prevalence of HIV/

AIDS among high-risk populations. Commercial sex workers have been included in public prevention campaigns, even though commercial sex work is illegal in both countries (Detlers, 2005). Addressing the pandemic in India, in contrast, will require more effort to engage all stakeholders in open discussions about sexuality, sexual behaviour and HIV/AIDS (ESCAP, UNDP and ADB, 2005).

A 2004 survey undertaken by the Asia-Pacific Network of people living with HIV/AIDS found that, for the countries involved in the study (India, Indonesia, Philippines and Thailand) discriminatory practices against people living with HIV/AIDS still prevail at all levels (APN, 2004; UNAIDS, 2005b). The majority (80 per cent) of respondents reported having experienced some form of discrimination. Of those who experienced discrimination, 31 per cent did so at the community level, 18 per cent within the family and 18 per cent in the workplace. In all four countries the major place of discrimination was within the health sector: up to 54 per cent of the respondents reported having experienced some type of discrimination at this level (APN, 2004).

Stigma and discrimination exert a strong influence on personal perceptions of self-worth and the will to fight for one's right to be healthy (UNAIDS, 2005d). Fear of discrimination can be a major deterrent to taking an HIV test and can deter the use of condoms. Stigmatization can also lead HIV-positive mothers to breastfeed their children – and transmit the virus – for fear of being identified as HIV-positive if they fed them milk from commercial sources. Prejudice against women, ethnic minorities, sexual minorities and other marginalized groups exacerbates HIV/AIDS-related stigma and discrimination and limits the inclusion of such people in HIV-prevention efforts.

People with mental and physical disabilities are also often subject to discrimination and rejection by others, including their own families. They may become homeless or be abandoned in institutions. There are an estimated 400 million people with disabilities in the ESCAP region; the vast majority of them are poor or socially excluded. They face higher barriers than non-disabled people to access public services, including health-care services (ESCAP, 2004).

3.9.2. Environmental Determinants

Water and sanitation

Unsafe water and poor sanitation are major contributing factors to the burden of infectious disease, especially among children. Although the region is well endowed with water resources, close to two thirds of the 1.1 billion people worldwide who lack access to improved drinking water live in Asia (table 3.3). The number of people without access to improved drinking water in China alone equals those without this service in all of Africa. Developing countries in the Pacific subregion have the world's

Close to two thirds of the 1.1 billion people that lack access to improved drinking water live in Asia

lowest level of coverage for improved drinking water: 52 per cent of the population compared with 58 per cent in sub-Saharan Africa (WHO-UNICEF, 2004).

Table 3.3. Number of people lacking access to improved drinking water and sanitation in 2002

	<i>Without improved drinking water (millions)</i>	<i>Without improved sanitation services (millions)</i>
ESCAP subregions	675	1 948
East and North-East Asia ^a	303	749
South-East Asia	115	208
South and South-West Asia ^b	234	938
North and Central Asia ^c	20	50
Pacific ^d	3	3
Latin America and Caribbean	60	137
Sub-Saharan Africa	238	437
Northern Africa	15	40
Eastern Mediterranean (Western Asia)		
Developed regions	15	20

Source: WHO and UNICEF, *Meeting the MDG drinking water and sanitation target: A mid-term assessment of progress* (Geneva and New York, WHO and UNICEF, 2004). Non-ESCAP countries grouped as described in WHO-UNICEF Joint Monitoring Programme for water supply and sanitation (<http://www.wssinfo.org/en/welcome.html>)

^a Data do not include Japan.

^b Data do not include Turkey.

^c Data include Ukraine and Belarus.

^d Data do not include Australia and New Zealand.

The number of people without coverage of improved sanitation services in Asia and the Pacific is higher than in any other region of the world

The number of people who are not covered by improved sanitation services in Asia and the Pacific is higher than in any other region of the world, despite the significant progress achieved during the last decade (table 3.3). Over half of the global population without improved sanitation – approximately 1.5 billion people – live in China and India alone (WHO-UNICEF, 2004). Of the 27 countries in the world with less than a third of the population covered by improved sanitation, 7 are in the ESCAP region. Only 37 per cent of the population in South and South-West Asia have access to improved sanitation and only 8 per cent do so in Afghanistan. Coverage extends to 45 per cent in the developing countries of East and North-East Asia and to 55 per cent in developing countries and territories in the Pacific (WHO-UNICEF, 2004). None of the countries in the WHO South-East Asian Region have adequate programmes in place for surveillance and control of drinking water quality.

The availability of clean water is essential for washing and sanitation. Water can also be a medium for water-borne pathogens. Water- and faeces-borne diseases are the second most frequent cause of child mortality after respiratory diseases. Diarrhoea is a major obstacle to the achievement of Goal 4. It is the cause of approximately a fifth of all deaths among under-five children in the developing world (Kosek and others, 2003; WHO, 2005k). Water-borne bacterial infections account for up to half of the 750,000 people, mostly children, who die every year in the ESCAP region as a result of diarrhoeal diseases (ESCAP, 2004).

Diarrhoea is responsible for 8.5 per cent of all deaths in South-East Asia and 7.7 per cent in Africa. In Afghanistan, where only 13 per cent of the population has access to safe drinking water, diarrhoea is the main cause of under-five mortality, killing over 85,000 children every year (WHO-UNICEF, 2004; CDC Foundation, 2005). A study in India has indicated that access to sanitation facilities can reduce neonatal, infant and under-five mortality in urban slums by up to 50 per cent. The introduction of piped treated water can reduce mortality from diarrhoea at all ages by over 40 per cent within five years (Awasthi and Agarwal, 2003).

Stagnant water can be a breeding ground for vectors, such as mosquitoes, and snails carrying pathogens that cause diseases such as malaria, dengue fever, filariasis and onchocercosis. New pathogens and new strains of established pathogens continue to be discovered in addition to classical pathogens that cause diseases such as typhoid and cholera. Some of these water-borne pathogens include the *Helicobacter pylori*, which can produce gastric ulcers and cancers, and *Mycobacterium avian*, one of the leading causes of death by opportunistic infection among HIV/AIDS patients (WHO, 2003).

Water can also be contaminated with hazardous chemicals, such as arsenic salts, excessive fluoride and pesticides. Up to 200 million people in the ESCAP region are exposed to drinking water with high levels of arsenic. Chronic ingestion of arsenic is associated with skin lesions, peripheral vascular disease, hypertension and cancers. Almost all districts in Bangladesh have been affected by arsenic contamination of underground water reservoirs and up to 50 per cent of the population is estimated to be at risk of arsenic poisoning (Khan and others, 2003). Contamination of water reservoirs with pesticides is also a widespread problem in many countries of the region and has been linked to a higher incidence of cancer, birth defects and infertility.

Access to improved water and sanitation services in cities is far better than in rural areas in most developing countries of the region. Most countries in the region for which data are available have already achieved their targets or are on track with regard to servicing their urban areas. The urban-rural gap is being progressively closed, although coverage in rural areas still tends to be 10-20 per cent lower; in Mongolia and Papua

New Guinea it is up to 40-50 per cent lower. Coverage with regard to improved sanitation is generally lower than for improved water supply, and the urban-rural gap for improved sanitation tends to be greater (ESCAP, UNDP and ADB, 2005).

Indoor air pollution

Indoor burning of biomass fuels is a widely used method for cooking or heating throughout the region. Long-term exposure to indoor pollution, especially by women and infants, is responsible for the high prevalence of several chronic diseases, such as chronic obstructive pulmonary disease, lung cancer, and blindness. Such pollution kills 2 million people around the world every year, 28 per cent of them in India alone. Indoor air pollution is also fuelling the spread of tuberculosis (Mishra and others, 2002).

Other environmental changes

Changes to the environment caused by humans can also affect health. Deforestation and climate change can alter the geographical distribution of malaria and other vector-borne diseases by modifying the life cycle of both vectors and pathogens (Sutherst, 2004). Outbreaks of Japanese encephalitis in Sri Lanka have been linked to irrigation projects that increased the population of mosquitoes. Air pollution, industrial waste and agricultural fertilizers and pesticides contaminate land and water resources, degrade the environment and form important health hazards for humans. Increased exposure to Ultraviolet-B radiation, resulting from the depletion of stratospheric ozone, has also been linked to higher incidence of malignant melanomas (Haines and Patz, 2004).

3.9.3. Determinants Associated with International Economic Regimes

Globalization is bringing rapid and drastic changes to the environment, lifestyles and living conditions of populations across the region. Economic liberalization and market integration are also affecting the capacity of Governments to plan and implement national development strategies. As argued earlier, privatization of public services, including health care, and deregulation of many government functions often undermine the ability of the poor to access basic facilities, such as education, water, sanitation and health.

Globalization trends affect public governance of social development in ways that are not always in line with the promotion of health. For example, little investment is made in research and development of drugs and vaccines for diseases afflicting the poorest countries. Likewise, new protocols governing international trade limit the production of and trade in medicines that are essential for the achievement of the health-related MDGs.

Skewed research and development

Health research can play an important role in the achievement of the health-related MDGs. The 1990 Commission on Health Research for Development recommended that developing countries allocate at least 2 per cent of their national expenditures on health and 5 per cent of project/programme aid from aid agencies for research and research capacity-strengthening (Evans, 1990). Several developing countries in the ESCAP region, such as India, Malaysia, the Philippines and Thailand, have responded to that call and have significantly increased their investment in health research (Neufeld and others, 2001).

Of the \$ 73 billion invested in health research worldwide every year by both the public and private sectors, less than 10 per cent is allocated to health problems that account for 90 per cent of the global disease burden – the so-called 10/90 gap (Global Forum for Health Research, 2004a). The investment that pharmaceutical industries make in research and development (R and D) is determined by market forces and the prospects of returns on such investment. For example, only 5 per cent of the 16 million people in the world affected by tuberculosis are able to pay for treatment, so there is little incentive for pharmaceutical companies to invest in new R and D to combat this disease (Global Alliance for TB Drug Development, 2005). Even fewer resources are dedicated to tropical diseases that affect millions of people around the world, such as African trypanosomiasis, leishmaniasis, dengue fever and Chagas disease. The specific issues affecting women's health are also often neglected in biomedical research (Trouiller and others, 2002; Doyal, 2004; IPN, 2005).

The 10/90 gap: less than 10% of the resources for health research and development are allocated for health problems that account for 90% of the global disease burden

New developments can, nevertheless, help to correct the 10/90 gap. Of the top 12 pharmaceutical companies in the world, 7 have initiated R and D projects on neglected diseases – over 30 projects in total during the last five years – including those on tuberculosis, malaria and dengue fever. Interestingly, all these projects are conducted on a not-for-profit basis, with strategic positioning in new markets. Corporate social responsibility and considerations for improving the company's reputation are the main motivators. The creation of public-private partnerships and the influx of new public and philanthropic money for at least half of these projects have also been instrumental in the success of many of these new ventures (London School of Economics, 2005).

Trade agreements and the production and trade in generic drugs

The production of generic drugs, from antibiotics to anti-retrovirals (ARVs), by the pharmaceutical industry in the region has saved millions of lives and offers the best hope for affordable treatment for many. The production of generic ARVs has made affordable treatment possible for many people living with HIV/AIDS around the world who would not have been treated otherwise. Only 5 and 12 per cent of people living with HIV/

AIDS in need of ARVs actually received them in the WHO South-East Asian and Western Pacific regions respectively (UNAIDS, 2005c). There were 27 manufacturers of generic ARVs in eight Asian countries in 2004 – 13 of them in India alone – compared with only one in Africa and four in Latin America. At least half of the Asian manufacturers produce ARVs for export and many of them – mostly in China, India and the Republic of Korea – also produce the active ingredients for ARVs (AmfAR, 2004).

The introduction of generic ARV has reduced the price of treatment of HIV/AIDS in some countries by as much as 98%

The introduction of generic competition has reduced the price of ARVs by as much as 98 per cent over the last 10 years (ASEAN Secretariat, 2005: xiii). The cost of anti-retroviral treatment (ART) in countries such as Brazil, India or Thailand is now below \$300 per year. In comparison, A first-line ARV regime in Kazakhstan or the Russian Federation can cost on the order of \$6,000 to \$8,000 (Subramanian, 2004; UNAIDS, 2004a; WHO, 2005j; Boyewich, 2005).

Box 3.2. Providing universal access to anti-retroviral therapy in Thailand

The State-owned Government Pharmaceutical Organization (GPO) of Thailand has been producing generic ARV preparations of since 2000. GPO began the production of a combination of three ARV drugs (GPO-VIR), the patents of which had expired in Thailand or had been relinquished in May 2002. This reduced the cost of anti-retroviral treatment to \$27 per month per patient. The Thai health system provides GPO-VIR at no cost to the 50,000 low-income people living with HIV/AIDS that need it (Guennif, 2003).

The Thai government reaffirmed its commitment in August 2005 and announced plans to provide low-cost ARV treatment to all people living in the country who need it. The programme will also include treatment for tuberculosis for the one third of people living with HIV/AIDS who tested positive for tuberculosis. This would make Thailand the first country in the region to provide affordable ARV access to all.

TRIPS and other trade agreements can limit the availability of essential drugs in many Asian countries

The production of, and trade in, generic versions of new drugs is threatened by the international patent regime and trade agreements regulating intellectual property rights. Implementation of provisions within WTO, such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and other protocols included under bilateral trade agreements, can limit the availability of essential drugs in many Asian countries. Weak patent protection for pharmaceuticals in many developing countries and compulsory licensing have for decades made possible the imitation of patented drugs (Subramanian, 2004; Satyanarayana, 2005). The TRIPS agreement is aimed at raising levels of patent protection in developing countries to those prevailing in developed nations, such as a 20-year protection period and limited possibilities for compulsory licensing and imitation. Developing countries are net users of R and D-intensive products.

A stricter patent regime can result in much higher costs for essential medicines, which would have devastating consequences for the poor. The importance of linking universal health coverage with successful access to essential medicines needs even greater emphasis within this context.

Some of the most contentious issues regarding TRIPS were clarified at the WTO Doha Ministerial Meeting in 2001, which concluded that the TRIPS regime should not prevent member countries from taking measures to protect public health. The Doha Declaration on the TRIPS Agreement and Public Health⁷ provided “flexibilities” aimed at helping poor countries to access cheaper generic drugs. The final agreement established that countries should be able to manufacture generic drugs introduced before the enactment of TRIPS in 1995 (WTO, 2001; Oxfam, 2003; DFID, 2004).

TRIPS already provided countries with the possibility of using compulsory licensing – entitling Governments to issue a permit allowing a third party to use a patent held by another after payment of a “reasonable” royalty to the holder. The Doha Declaration further emphasized the freedom of Governments to determine the grounds on which compulsory licences are issued. Both the TRIPS Agreement and the Doha Declaration provide for complete freedom in parallel importation. This enables countries to import patented products from other countries that sell them at lower prices (ASEAN Secretariat, 2005). An agreement reached in August 2003 (“paragraph 6”) allows for least developed countries that lack production capacity to issue a compulsory license for the amount of medicines needed. The exporting country then issues a “back-to-back compulsory licence” to ensure that medicines are not diverted to third countries. WTO jurisprudence also allows generic manufacturers to produce patented drugs for the limited purpose of testing in preparation for future manufacturing, the so-called Bolar provisions (ASEAN Secretariat, 2005).

Developing countries remain under high pressure from developed countries to comply closely with the terms of the TRIPS Agreement. Expectations exist that even go beyond TRIPS provisions in protecting manufacturers in developed countries as part of regional and bilateral trade agreements. The TRIPS Agreement requires countries only to protect the disclosure or prevent misappropriation of data on clinical tests. However, some bilateral trade agreements impose data exclusivity. Data exclusivity prevents generic firms from relying on information about the effectiveness and safety of drugs – information required for regulatory approval – generated by a brand-name company during a certain period after the latter has gained its own approval (ASEAN Secretariat, 2005).

⁷ See World Trade Organization, document WT/MIN (01)/DEC/2, available from <<http://docsonline.wto.org>>.

Governments that wish to take advantage of the flexibilities offered by the Doha Declaration are required to enact complex legal frameworks regulating patents and trade. Governments are also required to ensure adequate coordination among government departments, such as those concerned with health, trade and industry. Developing and implementing such actions implies high levels of technical capacity that exceed those that exist in many developing countries.

A weak patent system can deter pharmaceutical companies from R and D of new drugs. Spending on R and D is higher for pharmaceutical companies than other industries. R and D of a new drug can take between 8 and 12 years and may require outlays of up to 30 per cent of the total cost of the development, production and marketing of a drug. Pharmaceutical companies in the United States on average invest 15.6 per cent of global sales on R and D as compared with 3.9 per cent for United States industries overall (Danzon and Towse, 2003). The challenge is thus to create a patent regime that provides incentives for R and D by pharmaceutical companies but also ensures the recovery of invested costs and maximizes the distribution of new medicines at a lower cost for developing countries.

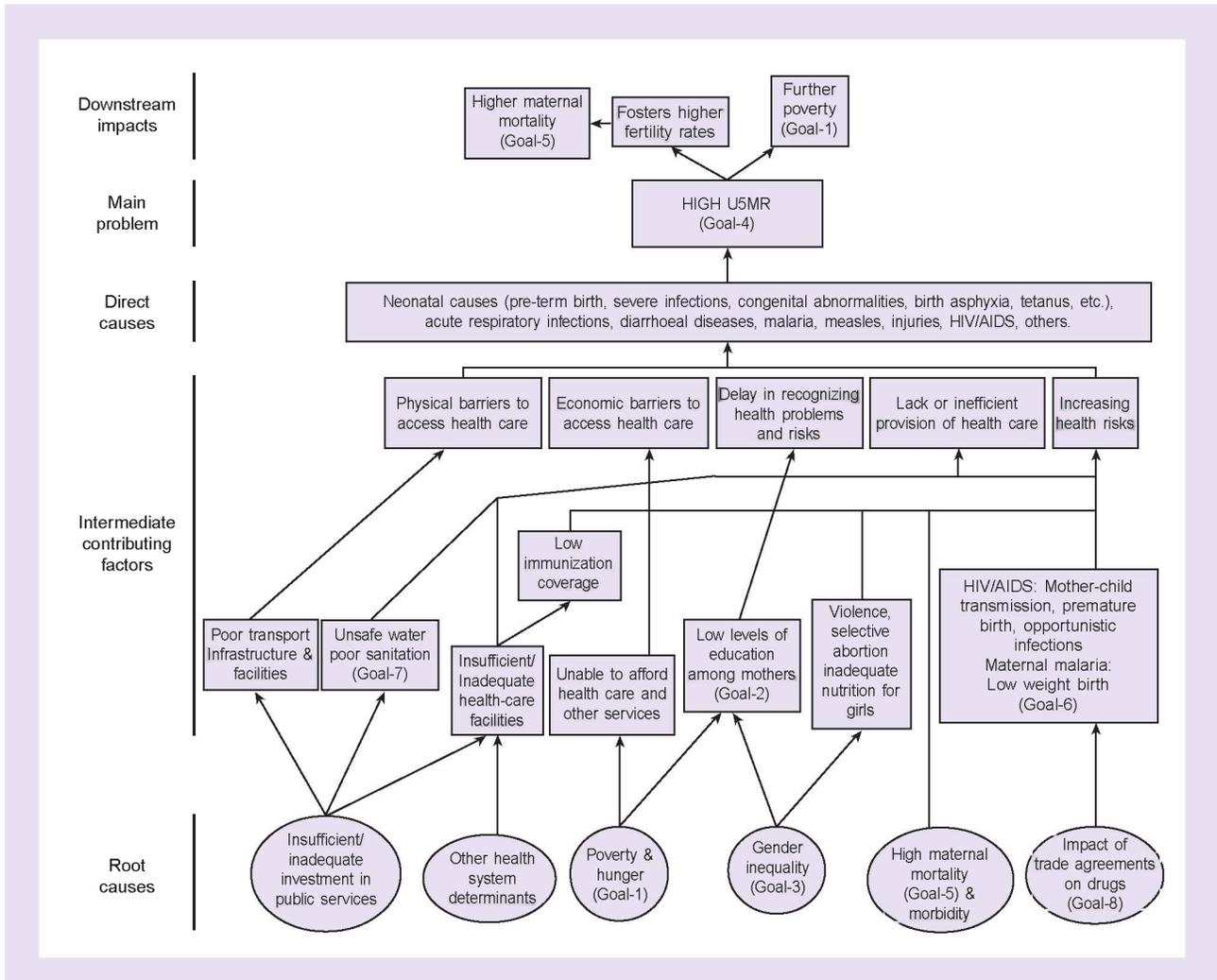
3.10. EXPLORING THE INTERCONNECTEDNESS AMONG DETERMINANTS

3.10.1. Determinants Upstream of the Health-related Millennium Development Goals

Deficiencies within health systems – unavailability or lack of good quality maternal and infant care – impinge directly on child health and infant mortality. Factors outside the health sector, such as poverty or inadequate investment in public services (water and sanitation and transport infrastructure) also have an important impact on health (figure 3.8). Some interventions at the household level, such as breastfeeding, nutrition, rehydration after diarrhoea, can be as important for infant survival as those provided through the health system. Women's empowerment, including women's health literacy, is critical to improvements in Goal 4 because mothers determine the health-seeking behaviour of their children or for them. These and other root causes and contributing factors lead to a number of direct causes of under-five mortality.

Maternal health and Goal 5 are closely related to the availability and quality of health services. As previously mentioned, continuous and affordable access to good quality emergency obstetric care and antenatal care is pivotal to bringing down maternal mortality rates. Low levels of maternal care can be caused by physical shortcomings and the physical inaccessibility of facilities and the shortage of experienced professionals. Maternity services comprise an area particularly susceptible to extortion, even though such care is often covered by public health services. Financial constraints

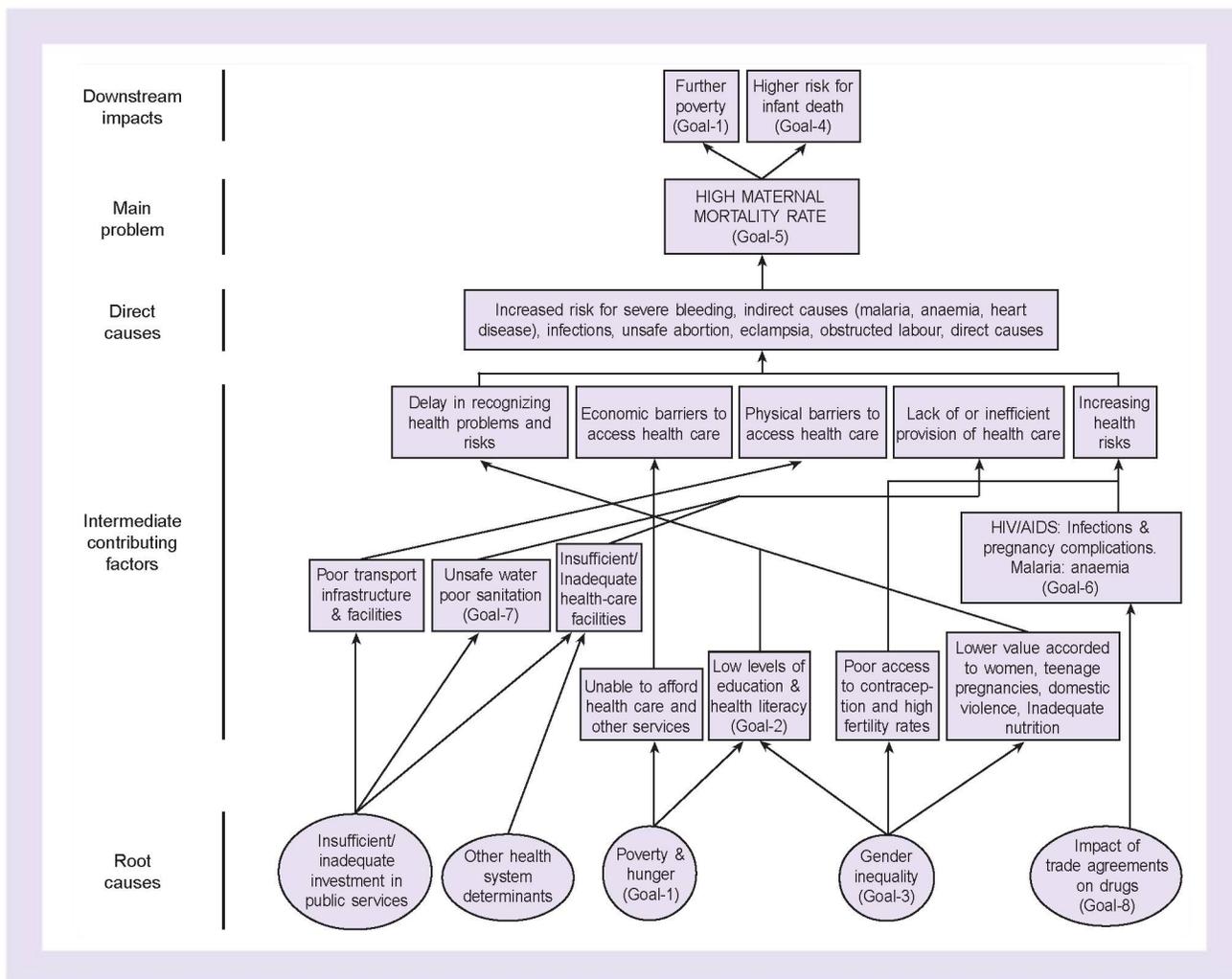
Figure 3.8. Under-five mortality (Goal 4): problem-tree analysis



may cause low utilization of such care even when good quality maternal care services are available. As previously discussed, a lower demand for women’s health services can also be due to low levels of health literacy or discriminatory practices within the household (figure 3.9).

Problem-tree analyses of the factors underpinning Goals 4 and 5 – as shown in figures 3.8 and 3.9 – not only help to visualize the interactions among determinants but also to conceptualize the level at which they operate. Tree analysis is useful to determine the root causes of the main problem and/or to identify the direct, contributing and intermediate factors. This approach helps to identify common root causes of health-system determinants, inadequate non-health public services,

Figure 3.9. Maternal mortality (Goal 5): problem-tree analysis



poverty, gender inequality and access barriers to drugs. Vertical approaches to health and disease, including the MDGs, have often targeted direct causes. The identification of the root causes that preclude progress towards achieving the health-related MDGs can help to inform the design of multisectoral strategies (see discussion in Chapter 4).

Analysing the root obstacles in the case of Goal 6 is even more complex because of the wide range of health system and non-health system determinants involved. HIV/AIDS imposes severe challenges on health systems because a wide range of interventions need to be delivered in an ongoing basis and on multiple levels. The scaling up of voluntary counselling and testing requires that counsellors be trained to attend to the emotional needs of people living with HIV/AIDS, educate

households and communities where people living with HIV/AIDS live and contribute to the promotion of awareness and eradication of discrimination. Likewise, expanding anti-retroviral therapy requires not only the availability of anti-retroviral drugs but also attention to structural factors. The existence of appropriate infrastructure and human resource capacity are vital for ensuring a timely and uninterrupted supply of drugs and diagnostic and monitoring services. The impact of trade agreements on the availability of drugs has been previously discussed.

Health systems in many countries of the region are overstretched and are unable to cope with these challenges, especially in the context of the “3 by 5”⁸ and “universal access” initiatives (UNAIDS, 2005c). Efforts to develop successful HIV/AIDS prevention and treatment programmes can, in turn, help to strengthen health systems as a whole and derive benefits for the achievement of other health-related MDGs. Lack of access and the counterfeiting of essential medicines not only limit progress in achieving MDG targets related to HIV/AIDS but also those concerned with other infectious and non-communicable diseases. Epidemic outbreaks of other diseases and health threats, such as avian influenza and SARS, can also weaken national health systems and create serious financial and human-capacity burdens.

3.10.2. Downstream Determinants of Health MDGs

Economic development and the achievement of Goal 1 will not be possible without significant advances in the health-related MDGs. As illustrated in figures 3.8 and 3.9, poverty is at the root of the lack of progress towards achieving the health-related MDGs, and is also a consequence of ill health (Wagstaff, 2002). Low government expenditure on health means that, in the absence of well-developed health protection systems in the region, a substantial proportion of health-care expenditure is paid directly by households in the form of out-of-pocket expenditures. Contrary to what is often argued, the willingness of the poor to pay for health services does not indicate the capacity to pay. The purchase of health services is not an easily dispensable expenditure; the poor are willing to sell their assets or go into debt to cover out-of-pocket expenditures for medical services. Out-of-pocket expenditures for health services consume over a quarter of all household resources after food costs in at least one tenth of all households in Bangladesh, China, India, Nepal and Viet Nam (Doorslaer and others, 2005). Reliance on out-of-pocket expenditures to pay for health services and medicines affects the poor in particular. Out-of-pocket expenditures are a major cause of vulnerability and impoverishment for individuals and households. They contribute to the vicious circle of ill health and poverty.

Poverty is at the root of the lack of progress towards achieving the health-related MDGs, and is also a consequence of ill health

⁸ Treating 3 million people by 2005.

More than 78 million people in Asia have been pushed below the poverty line and an even larger number were driven more deeply into poverty because of catastrophic health expenditures

In low- and middle-income Asian countries 78 million people have been pushed below the poverty line as a result of out-of-pocket expenditures, and a larger number of those who are already poor were driven deeper into poverty because of catastrophic health expenditures (Doorslaer and others, 2005). Close to 45 per cent of the landless in Cambodia lost their land because they had to cover costs incurred as a result of serious illness of a single family member (WHO, 2002b). Of the rural households in China that used health services, 18 per cent of them incurred health expenditures that exceeded their total household income (Liu and others, 2003). Ill health also has indirect costs for households, that is through the loss of income opportunities owing to job absenteeism, lower productivity, hospitalization and premature death.

Infectious and parasitic diseases are a major barrier to the elimination of poverty in Asia and the Pacific. Economic losses caused by the HIV/AIDS epidemic in the region were calculated at over \$7 billion annually (ADB and UNAIDS, 2004). At current levels of prevention and treatment, financial losses in the region could reach \$27 billion annually by 2015. If prevention efforts are scaled up and anti-retroviral therapy is expanded, this figure could be reduced by a third to \$17 billion (UNAIDS, 2005b).

HIV/AIDS can erode efforts made in other areas to reduce poverty

HIV/AIDS can erode efforts made in other areas to reduce poverty and achieve Goal 1 and other Goals. Calculations indicate that HIV/AIDS will impoverish close to 6 million people in Cambodia, India, Thailand and Viet Nam every year between 2003 and 2015 (ADB and UNAIDS, 2004). In Cambodia, HIV/AIDS is neutralizing the effect of anti-poverty strategies almost completely. Economic impacts are even greater in subnational areas suffering from advanced localized epidemics (UNAIDS, 2005b).

The chronic nature of non-communicable diseases is an important factor tipping households into poverty and slowing progress towards achieving Goal 1

The chronic nature of non-communicable diseases is also an important factor tipping households into poverty or slowing their progress in getting out of poverty. A major cause of poverty is long-term disability as result of chronic disease. In Bangladesh, each episode of smoking-related illness can cost up to \$66 which is equivalent to two to three months of an average income (Ali and others, 2003). A study in India indicated that the direct costs of diabetes can consume up to a quarter of the annual household income of low-income groups (Shobahan and others, 2000).

The specialized treatment of non-communicable diseases imposes high costs on health-care systems and national economies, thus diverting resources from other health actions. For example, the total cost of tobacco-related diseases amounted to 1.5 per cent of GDP of the Chinese economy in 1989 (Jin and others, 1995; Chen and others, 1997). Total costs imposed by diseases related to unhealthy diets and/or physical inactivity represented 2.1 per cent of China's GDP (Popkin and others, 2001).

CHAPTER 4

ADDRESSING HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS THROUGH MULTISECTORAL APPROACHES

Many programmes addressing the health-related MDGs have been carried out through vertical disease-specific campaigns. Vertical approaches simplify management, implementation, monitoring and evaluation. Their intensive and focused nature often renders quick outcomes while also offering donor-favoured clear and traceable links to resources. However, the longer-term sustainability and impact of many of these strategies has been questioned (Raviglione and Pio, 2002; Mills, 2005). In fact, vertical approaches have frequently been found responsible for insufficient allocation of resources for the development and strengthening of health systems.

Vertical projects are often managed by individual NGOs or agencies within the Ministry of Health but are divorced from other health or health-related projects. Funds, supplies and human resources for these projects are often to be used exclusively for the purposes of these projects. Restrictions in the use of resources have resulted in other activities related to the targeted issue being neglected. This occurs despite the fact that the long-term sustainability of programmes may ultimately depend on sharing resources and broadening working methods. The narrow focus of vertical approaches causes opportunities for complementarities and synergies to be missed rather than realized as a result of integrating these projects within broader and integrated health-care systems.

The multitude of factors impinging on health dictates that progress towards the achievement of the health-related MDGs will require strengthening of health-care systems as well as interventions outside the health sector. Coordination and integration of vertical approaches within comprehensive frameworks that address the multiple determinants of the health-related MDGs is essential. Investment and actions in health-related sectors allow for synergies that allocations and interventions in health systems alone cannot provide.

In the area of maternal health, for example, vertical projects have been implemented to address specific issues, such as to increase the proportion of deliveries attended by skilled personnel and to reduce

The long-term impact and sustainability of many vertical and disease-specific programmes has been questioned

Multisectoral approaches to the health-related MDGs provide for synergies and complementarities that vertical approaches within the health sector alone cannot provide

Multisectoral approaches that address the underlying determinants not only have higher impacts on health but are also more sustainable and cost-effective

maternal anaemia. While many vertical projects can and do contribute to improvements, sustained reductions in maternal mortality requires addressing the multiple underlying factors outlined in previous chapters of the report. Integrated approaches include the provision of appropriate health-care services through improvements in infrastructure, human capital, stocks of blood and drugs, logistical support, management and monitoring. They also include adequate transport systems, women's health education, promotion of health-seeking behaviour and community services.

Obstacles precluding progress toward achieving the health-related MDGs coexist and interact with each other. Addressing common factors simultaneously is essential. Addressing the underlying determinants not only provides greater long-term health impact but is also more sustainable and cost-effective. Evidence indicates that increasing investment in the health-care sector, without necessary investments in non-health sectors such as education, housing, infrastructure and gender equity, will not be sufficient to achieve the health-related MDGs.

The possibilities for synergies within integrated and multisectoral approaches are almost unlimited. For example, it has been estimated that lengthening by 10 per cent the number of years of schooling for women or increasing by 10 per cent the density of paved roads will have a greater effect on reducing child mortality rates than an increase by the same percentage in public health spending (WHO, 2005c). Improved transport links to health-care facilities enables mothers to reach facilities, thus saving the lives of mothers and children. Improved transportation also improves the logistics of enabling perishable medicines and vaccines to reach clinics in a timely manner.

In the case of tuberculosis, likewise, multisectoral approaches not only consider the prevention or treatment of tuberculosis itself. They also include interventions addressing other determinants, including living conditions, such as crowding, ventilation and indoor pollution and coexisting medical risks, such as HIV co-infection, diabetes and malnutrition. In the case of non-communicable diseases, education campaigns fostering healthier lifestyles can simultaneously have an impact on the incidence of a number of conditions ranging from cancers and cardiovascular diseases to improved mental health.

Few other health issues exemplify the need for multisectoral approaches better than HIV/AIDS. HIV/AIDS involves complex underlying factors that undermine all sectors in societies. Scaling up of prevention responses to HIV/AIDS to optimum levels can cut the 12 million new infections expected to occur in Asia and the Pacific between 2005 and 2010 by half (UNAIDS, 2005b). Tackling the multiple aspects of the HIV/AIDS pandemic requires innovative multilevel and multisectoral responses that go beyond the usual standard biomedical approaches delivered

exclusively through health-care systems. Effective strategies in the prevention and treatment of HIV/AIDS require collaborative and coordinated efforts by all stakeholders in society, from individuals and communities to Governments. A comprehensive approach by Governments should extend beyond the Ministry of Health to involve all relevant line ministries and levels locally and nationally.

Multisectoral approaches at the societal level include the participation of NGOs, associations of people living with HIV/AIDS, health professionals, youth groups, business associations, unions, religious institutions, schools and research institutions. Empirical evidence has shown that the involvement of civil society and communities in the design, implementation and monitoring of HIV/AIDS programmes improves their effectiveness. Participation also promotes ownership and commitment, and supports long-term sustainability.

In countries with capacity limitations with regard to health facilities, specialized trained personnel and access to ART, involvement of civil society organizations can also contribute to closing the capacity gaps. The respect and trust enjoyed by civil society can be instrumental in encouraging inclusive attitudes towards people living with HIV/AIDS, helping rooting out discrimination and stigmatization. One noteworthy example of multisectoral approaches to HIV/AIDS is offered by the Cambodian HIV/AIDS Strategic Plan (see box 4.1).

Box 4.1. Multisectoral approaches to HIV/AIDS: the Cambodian experience

Cambodia is one of the few developing countries in the region that has managed to slow down its HIV/AIDS epidemic despite having the highest HIV/AIDS prevalence in the Asian and Pacific region. Several factors have been instrumental in this success: (a) early and strong political commitment on the part of the Government, (b) involvement of commercial sex workers as essential stakeholders in the implementation of prevention programmes, and (c) engagement of all relevant ministries, civil society and the private sector in multisectoral approaches (Detels, 2004). Two years after the first HIV infections were detected in 1991, the Government established the National AIDS Committee, which was renamed the National AIDS Authority (NAA) in 1999; this is the agency responsible for policy and coordination in the country's response to the epidemic. The policy board of the NAA includes senior officials from 12 ministries. One of the few effective surveillance systems existing in the developing world informs the design, implementation and monitoring of programmes. Coordination and implementation is decentralized, to the extent possible, at the provincial, district and commune levels. (Saphonn and others, 2004; NAA, 2005).

(Continued overleaf)

(Continued from preceding page)

Since 1993, several strategic plans have successively expanded areas for action from an initial focus on surveillance and prevention to include voluntary testing and counselling and care for people living with HIV/AIDS. The current plan (2006-2010) was developed through a participatory approach involving the Government, external donors, the private sector, civil society groups and people living with HIV/AIDS. It delineates an operational plan for action. The plan is aimed not only at preventing new infections and providing care for people living with HIV/AIDS, but also at alleviating the impacts of HIV/AIDS at the individual, household, community and societal levels (Saphonn, 2004; NAA, 2005).

A "100 per cent condom use" programme was piloted in 1998 with positive results. Condom use among commercial sex workers increased from 38 per cent in 1997 to 91 per cent in 2001. Consistent use of condoms has also increased among the main groups of clients of such workers. The success of the programme is due largely to the committed participation of all the stakeholders involved: local authorities, owners of commercial sex establishments, commercial sex workers, NGOs and others. Actions covered under the programme include health education, mapping of commercial sex establishments, regular examination and free treatment of sexually transmitted infections for commercial sex workers, ensuring that condoms were available and monitoring their use. The prevalence and the incidence of HIV/AIDS and other sexually transmitted infections among commercial sex workers and their male clients have declined. The programme has, however, failed to reach large segments of indirect sex workers who constitute up to 50 per cent of the women working in the commercial sex industry. A more permissive regulation of this sector has meant that condom use among indirect sex workers is only 61 per cent of that among commercial sex workers (Saphonn and others, 2004). Care for people living with HIV/AIDS also figures prominently in HIV/AIDS programmes and ART has been scaled up to reach 7,200 people living with HIV/AIDS in 2005. Home-based care has been expanded in recent years with the help of NGOs, thus reducing the burden on overstretched medical facilities. Home-based care also helps to ensure more comprehensive medical, psychological and social support for people living with HIV/AIDS and households affected by HIV/AIDS, including orphans (Saphonn and others, 2004; NAA, 2005).

Capacity and funding gaps are major obstacles in extending and scaling up a multisectoral approach to HIV/AIDS in Cambodia. The current strategic plan highlights several areas where more efforts will be needed to enhance a multisectoral response. These include integrating HIV/AIDS in national development planning; engaging more sectors; decentralizing the response to lower levels; improving coordination; scaling up prevention, care, support and mitigation services; increasing resources and improving absorptive capacity; and monitoring and evaluation (NAA, 2005).

4.1. STRENGTHENING HEALTH SYSTEMS

Achieving the MDGs will not be possible without strengthening national health-care systems, even where economic development or improvements on other MDGs are substantial. Strengthening health systems

will require not only increasing the availability, accessibility and affordability of health services but also improving the quality, management and efficiency of health systems.

4.1.1. Ensuring universal access to primary health care

The embedding of progress on health indicators within the general context of poverty reduction brings the issue of equity to the forefront. Equal access to essential basic services, including health care, is essential for making real improvements. Reducing child and maternal mortality or the incidence of HIV/AIDS, malaria and other diseases ultimately means ensuring affordable access to health-care services for all. Health care is a public good with clear positive benefits. Governments assume the major responsibility for the provision of health care, or at least contribute substantially to its funding.

Governments have the prime responsibility for ensuring access to basic primary health care for all, especially for the most vulnerable groups in society

Strengthening primary care services

The existing bias towards hospital care in many health systems in the region excludes the poor from accessing basic health services. The strengthening of primary care should be at the foundation of health systems, as stated in the Alma-Ata Declaration⁹ (ESCAP, 2003 and 2005c). Primary health care is an efficient way of utilizing limited resources for improving the health status of the poor and the marginalized. It is key to achieving the health-related MDGs. Experiences from Sri Lanka and the Indian state of Kerala prove abundantly that health indicators can be significantly improved, despite low levels of economic development.

Strengthening primary health care has been key to improving health indicators in low-income countries

Improving the availability of primary-care facilities does not necessarily serve the poor if public services are not up to high standards. Studies in Nepal indicate that improved physical access has a only a modest impact, whereas improving the quality of health posts in rural areas can increase the utilization of certain health-care services, such as antenatal care or child immunization (Acharya and Cleland, 2000). A number of factors in many countries of the region often lead the poor to use fee-based private health care rather than the theoretically “free” public equivalent. Some of these factors include staff absenteeism, inadequate drug supplies, demands for extra payments and the overall low quality of health care in public facilities (DORP, 2003; Mannan, 2005). It is, therefore, central that improving access to health care be accompanied by efforts to improve the quality of services provided.

⁹ Report of the International Conference on Primary Health Care, Alma-Ata, 6-12 September 1978, in: World Health Organization, “Health for All” Series, No. 1, WHO, Geneva, 1978.

Primary health-care interventions in the areas of nutrition, maternal and child health care, family planning, health education and prevention of infectious diseases can have a significant impact on the progress developing countries are making towards achieving the health-related MDGs (table 4.1). Priority should be given to interventions that reduce the exposure of women to the risks posed by pregnancy and delivery as well as abortion, while improving the prevention and management of neonatal infections.

Table 4.1. Primary care interventions for achieving the health-related MDGs

<i>MDGs</i>	<i>Effective primary care interventions</i>
Goal 4	Skilled birth attendance Encourage early discharge from hospital Early and exclusive breastfeeding Kangaroo mother care for low-birthweight infants ^a Oral rehydration to treat diarrhoea Immunization Antibiotic treatment of pneumonia
Goal 5	Family planning services Prenatal care <ul style="list-style-type: none"> • Iron supplementation • Tetanus immunization • Identification of high-risk births Essential obstetric care during/after delivery or abortion <ul style="list-style-type: none"> • Skilled personnel • Availability of antibiotics and oxytocics^b • Facilities for blood transfusion and caesarean
Goal 6	Prevention, counselling, testing for HIV/AIDS Directly observed treatment short-course (DOTS) for tuberculosis Identification of drug-resistant tuberculosis, malaria and HIV/AIDS Prevention of main non-communicable disease risk factors Promotion of healthy diets and exercise

Sources: Goodburn, Elisabeth and Oona Cambell, Reducing maternal mortality in the developing: sector-wide approaches may be the key. *British Medical Journal*, 2001.

^a Kangaroo mother care is a method of care involving skin-to-skin contact, usually with the infant's mother.

^b Drugs.

Primary health care provides the basis for the integration of vertical programmes into multisectoral strategies

Primary care should form the foundation for the integration of the myriad of vertical programmes into multisectoral and comprehensive frameworks. Primary care also needs to be integrated with higher-level referral systems to ensure that comprehensive health care is available. Primary care should provide curative care, but also rehabilitative, promotive and preventive services, so that it can effectively contribute towards the achievement of the health-related MDGs. Primary care

should also allow for the participation of individuals and communities and involve community workers, and traditional healers, along with health professionals.

Addressing the main risk factors for non-communicable diseases at the primary level through preventive and health-promotion interventions would reduce the need for secondary and tertiary care. The primary interventions proposed in table 4.1 can be integrated and implemented through sector-wide strategies. The integrated and multisectoral approach to maternal mortality provided by the expansion of emergency obstetric care in rural Bangladesh is a good example (see box 4.2).

Box 4.2. Integrating primary care interventions to improve maternal health in Bangladesh

Making emergency obstetric care accessible to rural populations is critical to reducing maternal mortality rates and infant mortality rates. Emergency obstetric care coverage in Bangladesh has improved significantly in recent years. In 1993, the Government of Bangladesh, in collaboration with the United Nations Population Fund, initiated a programme to improve the availability and quality of emergency obstetric care services through the existing district-level maternal and child welfare centres. Ensuring that the centres are within a reasonable distance and reachable by proper transportation was as important as making these facilities available, affordable and properly equipped and staffed. Investments were made in the physical infrastructure, equipment, staffing and training of the centres as well as in management information systems and transport arrangements. Integral to the approach was monitoring through a monthly supervision process in order to ensure the quality of services (Gill and Ahmed, 2004). Great efforts were also made to coordinate coverage and activities at the maternal and child welfare centres with NGOs and other development agencies in the district. All 64 district centres provided comprehensive reproductive and emergency obstetric care services by 2003 (Gill and Ahmed, 2004). The maternal and child welfare centres also train family-welfare visitors from surrounding areas in order to expand emergency obstetric care and establish referral systems for complicated cases. Teams at these facilities are formed through a participatory planning process incorporating gender equality into their interventions. Community groups promote education and information campaigns among men and households with the support of the local government. Issues in campaigns include gender equality, birth planning, recognition of risky pregnancies, emergency preparedness, preparations for safe delivery and transportation logistics (UNICEF, 2004).

Prioritizing universal access

Making primary health-care services available does not necessarily serve the poor in an equitable manner. Primary health care needs to be coupled with strategies that guarantee equity in access to ensure that

the poor benefit from health improvements. Market-based approaches to health-sector reform during the 1980s emphasized the efficiency of the private sector in the provision of health care. The emphasis of the private sector led to a division of labour between the public and private sectors. The public sector was often limited to the supply of essential – and often of low quality – basic health care to the poorest of the poor. Cost-recovery strategies in other situations required the introduction of fees in public-health facilities from which the poor were theoretically exempted. It was argued that increases in the quality of services offset the deterrent effect for the poor if appropriate waivers were in place (Bitran and Giedion, 2003). These schemes frequently failed to provide reliable and good quality health-care services for the poor, even for life-saving health-care services (DFID-HSRC, 2001; Freedman, 2005a and 2005b).

Empirical evidence in some countries in Asia and the Pacific indicates that, although the poor and other vulnerable groups are exempted from certain fees at public clinics, high levels of bureaucracy and the often adversarial attitudes of staff make such exemption systems functionally non-existent (Paphassarang and others, 2002). The introduction of fees for health services in China has also increased access barriers for the poor. The fee-based service system contributed to large disparities in child and maternal mortality between the wealthy eastern provinces and the more remote and poor western regions of China (Blumenthal and Hsiao, 2005; WHO, 2005c). The poor also face indirect costs, such as travel expenses, and the opportunity cost of time in addition to out-of-pocket expenditures to pay for fees. All these factors can act as important deterrents in health-seeking behaviour among the poor.

Establishing separate health-care networks based on the ability to pay has paved the way for health systems where health-care services are seen as charitable income transfer from the better-off to the poor. This perception is the opposite of what is required: envisioning of health as a fundamental right to which all are equally entitled (Freedman, 2005a). Health systems should be built or reformed around the principles of equity, universal access, community participation and intersectoral collaboration enshrined in the Alma-Ata Declaration of 1978.

The pro-poor bias of health systems in Malaysia, Sri Lanka and Thailand is not so much a result of a focus on primary care, as it is to emphasis on universalism and the implementation of systems that expand accessibility to health services with no or low fees (O'Donnell and others, 2005a; O'Donnell, 2005b). The development of mechanisms to finance more equitable access to health care are examined in the next subsection.

4.1.2. Mobilizing resources to finance health care and improve expenditure prioritization

The strengthening of health systems would require a significant expansion of public-sector funding for health. Low levels of government expenditure on health continue to be the key constraint for the achievement of the health-related MDGs in the region. Investments in health-care facilities and human resources clearly need to be made, but other significant investments are also necessary. Sectors such as water and sanitation, food security, education and physical access to health facilities are important for achieving the health-related MDGs. The question remains as to how developing countries can mobilize the necessary resources.

Rapid economic growth has been an important factor in financing health infrastructure and human resource development in some ESCAP countries. Increasing investments in health do not, however, necessarily follow economic growth. Public allocations to health care have not increased in tandem with the strong economic growth experienced recently in many countries of the Asia-Pacific region. In China and India, government expenditures on health as a percentage of total public spending and total health expenditure have even declined over the five years from 1998 to 2002, the most recent period for which data are available (WHO, 2005i).

Revenues from general taxes and social insurance schemes are the most common ways through which Governments raise resources for health. The decision to establish a tax-based or a social insurance system is guided by political, economic and social considerations. The institutional arrangement for funding other social benefits, such as unemployment and pension benefits, is also important. Neither a tax-based nor a social insurance system alone can claim to provide better impacts on health outcomes, responsiveness and efficiency, or be more equitable. Equity in access or contribution to health care is determined by progress in implementing a tax system that is fair to the poor, as well as weighted wage-deduction scales and effective tax-collection mechanisms.

Of the 30 OECD member countries, fifteen have a predominantly social insurance system, 12 have a tax-based model and 3 have a mixed system (WHO, 2005i). The choice of one finance mechanism over another should be decided based on factors such as the Government's capacity to collect taxes and workers' contributions, the structure of the country's economy and its fiscal situation. One of the most influential structural conditions in this regard is the relative size of the informal economy and the possibility of collecting taxes. It is important to note, however, that many informal economy workers are among the very poor and are unable to pay taxes. The informal economy in many countries in the ESCAP region employs the largest share of the non-agricultural work force – up to 66 per cent of the non-agricultural sector in Thailand, 63 per cent in Indonesia, 52 per cent in India (Carrin and James, 2004; Chen and others, 2004).

Strengthening health systems would require a significant expansion of public-sector funding

Despite recent strong economic growth in many countries in Asia and the Pacific, public allocations to health care have not increased accordingly and have even decreased in many cases

The informal economy in many countries in the ESCAP region employs the largest share of the work force

The mobilization of resources from taxation can be particularly difficult in many developing countries. Many developing countries have a small tax base owing to their low levels of economic activity, low income levels and large informal economy. Developing countries often lack effective and efficient systems for tax collection and management. Tax-based systems can draw from a broad base of sources, but the specific allocation to health is subject to the political cycle. Many countries in the region have accumulated significant fiscal deficits, while others have managed to keep them under control through various procedures. Some countries sell stakes in State-owned enterprises and broaden the tax base through sustained economic growth.

The introduction of social health insurance through compulsory contributions by employers and employees requires a strong degree of leadership and commitment by the Government

The introduction of social health insurance through compulsory contributions by employers and employees requires a strong degree of leadership and commitment by the Government. Social insurance systems are often perceived as more transparent than tax-based ones. The reliance of social insurance systems exclusively on wages means that they often need to be subsidized through government contributions. The sustainability of social insurance systems is also sensitive to the structure of the economy. In Kazakhstan, the Government introduced a social insurance model in 1996 but high unemployment and lower-than-expected payroll contributions pushed the system into deficit. In 1999, Kazakhstan had to revert to a tax-based model (European Observatory, 1999; McKee and others, 2002).

Universal health care has usually been achieved through a gradual process that extended coverage of the population receiving such care under the scheme or the basket of health-care services provided

Universal health care has usually been achieved through a gradual process that extended coverage of the population receiving such care under the scheme and/ or the basket of health-care services provided. Governments need to decide the main mode of financing; they also face other important choices that need to be addressed. Governments need to decide issues concerning the targeting of the population and the package of services to be offered.

There are multiple paths to universal health care but some general trends can be outlined (figures 4.1, 4.2 and 4.3). One of the first groups covered in social health insurance systems are employees working in the public sector. In the Republic of Korea, the coverage initially included employees in large companies. Coverage was progressively extended to small companies and the self-employed to encompass ultimately the entire formal economy.

Achieving universal coverage and providing the poor and unemployed with access to health-care services requires mechanisms of cross-subsidization by those employed or the use of general tax revenues to complement the health insurance fund. Tax-based models are often restricted to vulnerable groups, such as the poor, the retired and the unemployed. Health-care services can be expanded to increasingly larger

segments as countries improve their revenue capacity through the tax-based model. Alternatively, a tax-based model focused on vulnerable groups can be supplemented with a social health insurance system.

Individuals usually have to make direct payments to obtain certain services independently of the model of health financing. It is critical to introduce private insurance mechanisms – whether through for-profit corporate insurers or non-profit community-based schemes – in order to avoid catastrophic expenditure and subsequent impoverishment. Governments in low-income countries can play an important role in fostering the establishment of community-based health insurance schemes. Governments can act as the re-insurer and lender of last resort. Governments can also consider the possibility of subcontracting and purchasing services from the private sector in countries where the low quality of public health care has favoured the use of private providers.

Governments in low-income countries can play an important role in fostering the establishment of community-based health insurance schemes

Earmarked taxes, such as punitive taxes on tobacco or alcohol, have also been used to fund health programmes. In Thailand, the Health Promotion Foundation (Thai Health), funded by a 2 per cent tax on tobacco and alcohol, provides technical and financial assistance for programmes promoting healthier lifestyles among the Thai population (ESCAP, 2005a). Revenues from taxes on tobacco products in Nepal have been used to finance maternal and child care and subsidize medical expenditures for low-income households (Tsai and others, 2003).

Governments need to consider tapping into resources available from non-governmental stakeholders in order to mobilize all resources available within the country, such as the private sector and NGOs. An enabling environment for the establishment of such partnerships needs to be created in order to be able to tap into such resources.

Governments need to consider tapping into resources available from non-governmental stakeholders in order to mobilize all resources available within the country

For many developing countries, additional external funding is and will continue to be crucial to expand and improve public health services. Official development assistance for the health sector in developing countries in the ESCAP region amounted to \$803 million in 2003. This compares to disbursements of \$1.1 billion and \$1.9 billion for water sanitation and education respectively during the same year (WHO, 2005c). In some countries in Asia and the Pacific external assistance accounts for large proportions of the total health expenditure: Afghanistan, 42.6 per cent (for 2002); Democratic People's Republic of Korea, 59.0 per cent; Papua New Guinea, 34.3 per cent; Solomon Islands, 41.0 per cent; and Timor-Leste, 35.7 per cent (WHO, 2005i).

Some of these aid flow figures represent a significant increment compared with that of earlier years, but important issues continue to be raised with regard to the way assistance is delivered and used.

Health interventions by donor countries have frequently been administered in the form of project/programme support, focusing on specific health issues and targeting through vertical approaches. As previously stated, this has often resulted in fragmentation, poor coordination, duplication and, more often than not, lack of sustainability and long-term impact.

It is therefore important that donor assistance be coordinated and aligned with national poverty reduction strategies in terms of priorities and cycle. There has been a trend in recent years to provide assistance through budget support. Budget support assistance enables recipient countries to carry out long-term planning and increase predictability in investments. Integrating single projects into system-wide assistance and budget-support assistance can also improve efficiency and strengthen management capacity. Potential problems of fungibility need to be addressed through institutional reforms that improve accountability and transparency.¹⁰ Even in the case of diseases and causes of illness that can and should be targeted, such as HIV/AIDS, tuberculosis and malaria, absorptive capacity remains a concern. Absorbing high levels of aid flow and using them efficiently require the existence of sound institutional frameworks and macroeconomic policies.

It is important to increase budgets for the public health sector, but it is also necessary to ensure that health allocations are made in ways that are efficient, effective and promote equity

It is important to increase budgets for the public health sector, but it is also necessary to ensure that health allocations are made in ways that are efficient, effective and promote equity. The majority of the poor in many countries of the region benefit much less from public spending on health than do the richest groups. Promotion of universal access to all levels of care has been the basis of pro-poor health strategies in Thailand, Malaysia and Sri Lanka (O'Donnell and others, 2005a).

Another important aspect to consider in terms of prioritization of expenditure on health is the increasing prevalence of non-communicable diseases (NCDs) and the need to address their risk factors. The long-term and expensive care required for treating NCDs can overwhelm the financial and human resources of health systems, even in developed countries. Making investments in prevention and health-promotion strategies provides a more effective allocation of resources and can free up funds that can be used to address the burden of communicable diseases.

¹⁰ For further information on the fungibility of donor aid, see Pablo Gotret and George Schieber, *Health Financing Revisited: A Practitioners Guide* (Washington, D.C., World Bank, 2006) p. 145. They describe the fungibility of donor aid as "the diversion of funds to public expenditures other than those for which the aid is intended, including tax reduction or debt repayment."

4.1.3. Improving efficiency, management and accountability

Achieving the health-related MDGs requires institutional reforms to improve the efficiency and management of health systems. Increasing efficiency, effectiveness and accountability entails making changes in the incentive system, the creation of transparent frameworks for action, coordination and monitoring. Interventions will need to include the following:

- Improvement of health information systems;
- Development of human capacities;
- Decentralization of management;
- Introduction of quality and performance standards;
- Allowing and encouraging the participation of non-governmental stakeholders in the design, implementation and monitoring of health policies.

Improving health information systems

Responding to increasing demands to expand health-care services requires that countries have accurate information on their health-financing flows and structures with regard to their funding sources. Such information would need to include details on external assistance from donors and NGOs, levels of total expenditure on health, public and private contributions to the total expenditure on health, distribution of expenditures by health-care level (primary, secondary and tertiary as well as curative or preventive) and type of health providers. WHO and other international organizations have been promoting the development and implementation of national health accounts as a standardized framework for data collection to improve the tracking of financial flows to health.

Many countries in the ESCAP region collect data on health expenditures, but often the data do not conform to standards in terms of the methodology and structure required under national health accounting systems. A survey conducted in 2001 by the Asia-Pacific National Health Accounts Network indicated that only a few countries in the region had permanent national health accounts and provided at least annual updates (APNHAN, 2001).¹¹ Developing regular and sound national health accounts is fundamental to strengthening health systems. National health accounts provide information to ensure the optimum allocation and use of financial resources available in the country.

Achieving the health-related MDGs requires institutional reforms to improve the efficiency and management of health systems

Responding to increasing demands to expand health-care services requires that countries have accurate information on their health-financing flows and structures with regard to their funding sources

¹¹ Those countries are Australia, China, Japan, Philippines, Republic of Korea, Sri Lanka, Thailand and New Zealand.

Improving human resource capacity

Addressing the human resource challenge is fundamental to the strengthening of health-care systems

Addressing the human resource challenge is fundamental to the strengthening of health-care systems. High emphasis on training skilled personnel at all levels is vital. Governments and associations of health professionals have a critical responsibility to ensure that doctors, nurses and other health personnel receive adequate education, training and continued professional development.¹²

Traditional health practitioners in many countries of the region are the first contact for those seeking health-care services and they enjoy a high level of respect in their communities. Traditional health practitioners are especially important in rural areas. Their recognized importance can be instrumental in the dissemination of health education messages. Traditional health practitioners can also contribute to the achievement of the MDGs through the contribution of their knowledge about the health needs of their communities. Health authorities should consider easing restrictions on traditional health practitioners and institutionalize their practices.

Reversing the drain of health personnel migrating from rural to urban areas requires that health professionals in rural areas be offered adequate incentives

Reversing the drain of health personnel migrating from rural to urban areas requires that health professionals in rural areas be offered adequate incentives, with satisfactory wages, better working conditions and career opportunities. The Philippines College of Physicians is encouraging all its members to sign a covenant that will require all doctors to stay in the country for three years after completing their studies and to serve low-income patients free of cost (Ong, 2005).

Making use of information and communication technologies

Information and communication technologies (ICTs) can play a critical role in strengthening health systems in developing countries of the Asia-Pacific region

Information and communication technologies (ICTs) can play a critical role in strengthening health systems in developing countries of the Asia-Pacific region. ICTs can facilitate the dissemination of health information and improve the effectiveness of programmes for disease prevention and health promotion. Text messaging through mobile phones has been successfully used in some African countries to answer basic medical questions and send tips on HIV/AIDS prevention (BBC, 2004). ICTs can also serve as a channel for sharing treatment practices or to transmit information on epidemic surveillance. These technologies have also proved to be valuable training instruments for continuing education of health workers. ICTs can, furthermore, improve governance and efficiency by facilitating administrative coordination, increasing transparency and allowing for better planning and distribution of financial and human resources (UNDP, 2004; UNDP, 2005c).

¹² Continued professional training would include at least refresher training, upgrading and training on new methods and techniques.

The most commonly used application of ICTs for health has been the provision of remote health care and support, otherwise known as telemedicine. Telemedicine plays an important role in reducing physical and economic barriers for remote populations and undercovered areas to access health care. Much of the attention raised by telemedicine in developed countries revolves around sophisticated technologies, such as high bandwidth Internet to send digital images which may be out of the reach of most developing countries. Low-technology telemedicine systems, such as mobile telephones, are now readily available even in resource-poor settings.

Telemedicine plays an important role in reducing physical and economic barriers for remote populations and undercovered areas to access health care

Low-technology systems have the potential to improve access to health care for populations in developing countries. Health facilities and health professionals in many Asian countries are heavily concentrated in urban centres, while people living in rural areas have to travel long distances to get even the most basic health care. The use of this type of technology by traditional birth attendants in some villages in Africa has helped to reduce maternal mortality by more than 40 per cent within a period of only three years (United Nations, 1999).

The Asia-Pacific region is home to several initiatives in which telephones and dial-up computer connections link rural clinics to district hospitals. Such initiatives have reduced the need for patients to commute or for health personnel and some equipment to be redeployed to remote areas (see box 4.3). Approximately 60 per cent of the people in the ESCAP region live in rural areas and many others are dispersed across hundreds of small islands in the Pacific (United Nations, 2003c). Telemedicine offers unbounded possibilities that can be harnessed in these situations to achieve the MDGs. Governments, NGOs and the private sector need to pilot and scale up experiences such those featured in box 4.3 in order to expand the role of telemedicine in providing health-care services and information to remote and underserved areas.

Making health systems more participative, accountable and responsive

Participative decision-making on health policy and the transferring of service-delivery management to lower administrative levels within health systems can help to improve the efficient use of resources. It is necessary for the central Government to build technical capacity at the provincial and local level to ensure that the availability, accessibility and quality of services are not compromised. Improved capacities also contribute to the quality of community involvement in the design, implementation and monitoring of health programmes. The *Rogi Kalyan Samiri* initiative in India provides an interesting example of how community

Participative decision-making on health policy and the transferring of service-delivery management to lower administrative levels within health systems can help to improve the efficient use of resources

Box 4.3. Teledoc: mobile telephones for health care in rural India

Teledoc was initiated in 2001 as a pilot project run by the Jiva Institute for Ayurvedic Medicine and funded by the Soros Foundation to provide low-cost remote health care to 15 villages in the Indian state of Haryana.

Village-based health-care workers who are able to communicate in local dialects and have knowledge of local conditions, examine the patient and send diagnostic information to a central clinic using mobile telephones that are GPRS-enabled.¹³ The telephones are equipped with technology that feeds into record-management systems at the base clinic. Ayurvedic^a doctors analyse the data in the base clinic and prescribe medicines that are then picked up by field workers and are delivered to patients' homes. The total cost of the consultation is \$1.50 (Bhattacharyya, 2004; Jiva, 2004).

The project provides affordable access to diagnostics and treatment for rural people. The system saves patients and their families from the need to travel to the central clinic. Health workers in the field also provide health education and awareness on issues of sanitation, HIV/AIDS and health-promoting behaviour.

Teledoc was awarded the World Summit Award for E-Health at the United Nations World Summit on the Information Society in 2003. The project has been scaled up to the national level since April 2004; Teledoc is estimated to have provided 9 million consultations in 10,000 villages in 2006. Although the targets of Teledoc are small villages and low-income populations, the project has been conceived as a sustainable social enterprise business with estimated profits for April 2006 of over \$500,000 (Bhattacharyya, 2004; Jiva, 2004). The Teledoc model is currently being developed in other Asian countries using the most widely available short message technology (UNDP, 2005d).

^a Ayurvedic medicine is an ancient system of health care in India. It includes healthy living along with therapeutic interventions and is closely related to mental, social and spiritual aspects of life as well as physical health.

participation can improve the effectiveness and efficiency of health service delivery. At the same time, community participation also promotes accountability and a sense of ownership (see box 4.4).

¹³ The general packet radio service or GPRS is the most widely used wireless service in the world.

Box 4.4. Rogi Kalyan Samiti

Rogi Kalyan Samiti (RKS) has its roots in efforts to check an outbreak of plague in western India in 1994. People in Indore (Madhya Pradesh State) participated in cleaning up and restoring the local hospital to prevent a possible epidemic and to prepare the hospital for such an occurrence. The initiative was carried out without the need for government funds. The success of this experience in community-based hospital management led to the establishment of the RKS or the "Patient Welfare Committee".

RKS works to improve the functioning of hospitals by contributing to improving equipment, human resource capacity and management. The initiative is also aimed at increasing community participation and establishing public-private partnerships in health-service delivery. RKS provides free treatment to patients below the poverty line. Financing of RKS activities comes from the introduction of user charges – from which the poor are exempted – fund-raising through donations, grants from the Government and donor agencies as well as the commercial exploitation of surplus land. RKS has been replicated in other districts and throughout the various levels of the health system in Madhya Pradesh. RKS has succeeded in improving hospital care and patient intake, increasing community ownership and improving the morale of health personnel (Mohanty, 2000; Government of Madhya Pradesh, 2004).

4.1.4. Creating new partnerships for health

The participation of non-governmental stakeholders in the design, implementation and monitoring of health programmes can enhance the mobilization of resources and contribute to greater efficiency. Governments need to create legal environments that allow and encourage the participation of civil society and private actors as partners in the achievement of the health-related MDGs. These partnerships create possibilities for complementarities and synergies by capitalizing on the comparative advantage and responsibilities of each stakeholder. Governments should guarantee equity in access and the quality of services. The private sector can provide much needed resources, including those related to human capacity. The engagement of civil society provides for better identification of local needs, especially those of the poor and marginalized. A better alignment of resources, improved cost effectiveness and cost efficiency will result from working in a more complementary and coordinated way.

Involving communities

Prevailing biomedical approaches limit the participation of individuals, households and communities, even though they are the ultimate beneficiaries of health programmes. Beneficiaries become passive recipients of health services in prevailing approaches. Multisectoral strategies, however, create incentives to involve communities as key stakeholders and this contributes to their success and sustainability.

The participation of non-governmental stakeholders in the design, implementation and monitoring of health programmes can enhance the mobilization of resources and contribute to greater efficiency

It is essential that individuals, households and communities are adequately informed about their rights and how to protect them

Empowering communities to assert their right to health can also contribute to making Governments accountable for the availability and quality of the services provided. In some instances, communities are not empowered to demand services or they may not be aware of, or know how to exercise, their rights. It is essential that individuals, households and communities are adequately informed about their rights and how to protect them, and are empowered to demand them from government officials, interest groups and NGOs. Participatory initiatives, such as those used in health-system reform in Bangladesh, have empowered local communities and provided decision-makers with better knowledge about local health priorities (see box 4.5).

Box 4.5. Empowering communities in health decision-making in Bangladesh

A key priority for health authorities in Bangladesh has been the participation of all stakeholders in the ongoing process of health-sector reform and the preparation of the Health and Population Sector Programme. The main goal of this participatory exercise has been to build consensus for a strategic plan for reform that incorporates stakeholders' perspectives on health-service delivery. Special emphasis is placed on the assessment of needs and the identification of problems and potential solutions. Accountability and transparency within the health system is promoted through the participation of all stakeholders in the elaboration, implementation and monitoring of the programme (Ahmad, 2003).

Villages were randomly selected for participatory rural appraisal discussions involving (a) users of health services; (b) community leaders such as local officials, teachers, religious leaders at local mosques and social workers; (c) health-care and family-planning fieldworkers; and (d) professional groups. The participatory activities revealed that poor rural women – the majority of users in these discussions – have little information available to them about health services. Most users were not aware of their right to health. Group discussions also showed a great level of consensus on the major health problems that local communities face. The discussions highlighted problems in the health system related to inefficiency, low-quality care, lack of a referral system, gender discrimination, access barriers and poor coordination between the public and the private sectors. Discussion participants also agreed on the main areas that need to be covered by the essential service package, including reproductive health, sexually transmitted diseases, child and adolescent health, communicable disease control, health care for the elderly and environmental health, specifically arsenic contamination of water resources (Ahmad, 2003).

The information obtained through this participatory process served to inform policy makers making new government policies, such as the adoption of a patient's rights charter and the establishment of national and local committees, with the participation of women's groups, NGOs and government officials. The committees monitor local health needs and services and inform the Government (Ahmad, 2003).

HIV/AIDS is one of the areas where many programmes have succeeded in involving all relevant stakeholders. The Bangladesh CARE Shakti Project has trained intravenous drug users to educate other users about the risks of HIV/AIDS and ways to prevent infection (ESCAP, UNDP and ADB, 2005). The participation of commercial sex workers and intravenous drug users as important partners in interventions for HIV prevention has proved very successful in countries such as India and Thailand. The commercial sex workers and intravenous drug users advance issues of importance, including helping the formal sector to expand access to anti-retroviral therapy (see box 4.6). Other local organizations, including grass-roots groups, can also be used to foster community participation in health-care initiatives. Temples and mosques have played an important active role in several countries in South-East Asia by providing health information to members of their communities (ESCAP, UNDP and ADB, 2005).

Involving the private sector

The private sector can be an invaluable partner in the achievement of the health-related MDGs. The private sector is assuming a greater share in the provision of all types of services throughout the region in health care as well as in water, sanitation and transportation. The provision of these types of services has historically been monopolized by Governments. Partnerships between Governments and the private sector could help to mobilize additional resources and expertise and expand the range of health-care providers.

Private spending on health represents most of total health expenditures in many countries in the region. High reliance on the private health sector, if not properly checked and regulated, can exacerbate the deprivation of the poor and their unequal access to basic health services. The role of the public sector in health, as both health-care provider and regulator, needs to be strengthened rather than decreased. Governments need to develop adequate regulatory frameworks to ensure that private providers have the appropriate capacity and accountability. The regulatory frameworks also need to ensure that services do not exclude vulnerable populations. Regulating the private sector not only means controlling private providers but also providing them with incentives to improve the quality of their services and expand their coverage. The role of the Government as regulator extends to health services provided by local governments, community organizations and traditional practitioners.

Health-service delivery offers multiple avenues for public-private partnerships and collaboration. Pressure from civil society and the considerations of corporate social responsibility are playing an important role in changing the strategies of pharmaceutical companies so that they pay more attention to neglected diseases in their R and D programmes.

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Governments can engage private companies to find cost-effective ways to modify their activities, such as reducing the emission of pollutants or ensuring healthier environments for workers and the population at large.

In the context of economic liberalization and increasing market integration, however, Governments also need to ensure that national health and development priorities are not undermined by the interests of private corporations, whether domestic or foreign. There will also be occasions where Governments need to enact and enforce legislation to establish clear rules for action and responsibility by private actors. Governments of many developing countries unfortunately lack the technical capacity to regulate private health providers or the judicial system is ineffective in preventing negligent and criminal behaviour. Multilateral agencies, bilateral donors and NGOs have an important role to play in building this capacity. Countries in the region should also enhance cooperation in this area through the harmonization of legislation pertaining to medical training and private practice, standards in pharmaceutical production and trade in drugs and medical supplies.

4.2. PROMOTING EQUITY AND INCLUSION TO ACHIEVE THE HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS

4.2.1. Poverty

The health-related MDGs may be achieved despite the lack of progress among the poorest groups or geographic areas within countries, because the health-related MDGs are evaluated from the macro perspective, that is by reductions in national averages. Domestic and external programmes for poverty reduction must prioritize interventions that improve the health condition of vulnerable groups, specifically targeting the poorest groups and regions through equitable interventions.

The health-related MDGs should be at the forefront of social and economic development policies, including poverty reduction strategy papers (PRSPs). In the ESCAP region, 11 countries have so far produced PRSPs (WHO, 2001b; 2004d; and 2005m). Early evaluations by WHO indicate that most PRSPs incorporate health among their priority anti-poverty actions. The conceptualization of health within PRSPs should not, however, be seen as just a service to mitigate the impact of poverty but rather as a pre-condition for economic development and poverty reduction. Governments should consider ministries of health as key participants in the design and implementation of national development policies in order to ensure that health objectives are adequately represented in poverty reduction strategies.

The health-related MDGs should be at the forefront of social and economic development policies

Governments should consider ministries of health as key participants in the design and implementation of national development policies

4.2.2. Education

There is a strong link between levels of education and health status, as previously stated in the present document. Lowering child and maternal mortality or reducing the prevalence of diseases under Goal 6 will require increasing the levels of general education and, more specifically, of health literacy. Education campaigns can increase awareness about the signs of pregnancy complications, childhood diseases, HIV/AIDS, malaria prevention, the risks of substance abuse, non-communicable diseases and other issues. Public campaigns also need to emphasize health promotion messages in relation to healthier lifestyles, such as personal hygiene, better diets and increased physical activity.

There is a strong link between levels of education and health status

Programmes aimed at improving health literacy should make use of the widest possible range of communication channels, including the mass media, schools, places of work and community groups, such as religious and sports-based groups. Programmes aimed at health promotion and the prevention and modification of risk behaviours are particularly effective when targeted at the young. As a result, it is important to integrate education on these issues into the school curricula. Those responsible for the design and implementation of educational campaigns should ensure that messages reach the poor and vulnerable groups, using accessible channels and communication strategies.

Those responsible for the design and implementation of educational campaigns should ensure that messages reach the poor and vulnerable groups

However, the effectiveness of public campaigns in bringing about attitude and behavioural change has been questioned. Sophisticated and large-scale campaigns in many developed countries that publicize the risks of tobacco or alcohol consumption have often had limited impact. Likewise, HIV/AIDS campaigns based on simplistic messages about condom use have often been ineffective. Promotion of a life-skills approach to health risks, designed around the biological, emotional and social needs of adolescents, may have greater impact in modifying attitudes and behaviours.

4.2.3. Gender

Addressing the sociocultural, legal and political barriers that prevent women from accessing health information and services equally to men requires the taking of important steps. The most important of these include strengthening advocacy on gender equality and the empowerment of women through targeted legislation. Overcoming gender disparities requires starting to protect girls in early childhood and ensuring that they have equal access as boys to health, food and education. Efforts need to continue throughout adolescence and motherhood to ensure that women have access to reproductive health and are protected from violence. Health and other relevant ministries need to mainstream gender equality in all development initiatives. A women's rights approach to health is an essential component that can feed into mainstreaming efforts.

Health and other relevant ministries need to mainstream gender equality in all development initiatives

Preventing maternal death is a social justice and women's human rights issue. Improving women's health requires a comprehensive response that improves the access of women to health services while addressing the underlying causes rooted in gender relations. Women's empowerment at the individual and household level should include the right of women to take control over their reproductive life through expanding their access to contraception. Tackling the challenges posed by the spread of HIV/AIDS will also require addressing women's and girls' lack of empowerment at its origin (ESCAP, 2005d)

4.2.4. Reducing stigma and discrimination

The government has a critical role to play in reducing stigma and discrimination

The Government has a critical role to play in reducing stigma and discrimination against particular population groups, such as ethnic minorities, commercial sex workers, drug users and people living with HIV/AIDS, and promoting their inclusion in society. Public campaigns should put special emphasis on eradicating prejudicial attitudes that people may have, from an early age. Schools must teach children tolerance and pluralistic values by promoting curricula that emphasize respect for self and for others. Community groups and leaders can play an important role in attaining such goals. The Sangha Metta Project in northern Thailand has used the leverage of Buddhist monks and nuns in Thai society to educate people about HIV/AIDS prevention and promote the acceptance and integration of people living with HIV/AIDS in their communities (see box 4.6).

Box 4.6. Shanga Metta Project in Thailand

The Shanga Metta project was initiated in 1997 by a lay Buddhist teacher at Mahamakut University in Chiang Rai, Thailand.

The project involves Buddhist monks and nuns playing an active role in the prevention of HIV infection and caring for people living with HIV/AIDS. The project trains Buddhist monks and nuns in HIV/AIDS issues, promoting positive attitudes toward people living with HIV/AIDS, and emphasizing attitudes of understanding, compassion and solidarity.

Monks visit the homes of people living with HIV/AIDS to provide counselling and advice on home-based care and training on meditation. Trained monks raise awareness about HIV/AIDS among villagers using their leverage of trust and influence in their communities. They teach children and young people about the risks of substance abuse and educate them on strategies to prevent HIV infection.

Monks also play an important role in encouraging the integration of people living with HIV/AIDS in the community and in avoiding prejudice and discriminatory attitudes. Monks and nuns also operate medicine banks and collect donations for people living with HIV/AIDS and their families and provide assistance with accommodation, food, schooling for orphans and funeral costs (UNAIDS, 2005d).

(Continued overleaf)

(Continued from preceding page)

By 2004, the project trained over 3,000 monks and nuns. These religious figures have become a channel to whom HIV-positive people can disclose their status and request information about support groups and assistance programmes. The project has improved the openness and acceptance of people living with HIV/AIDS in their communities which is almost more important to such people than material support. The project has also encouraged people living with HIV/AIDS to take a more active role in their communities and temple activities. Shanga Metta has also assisted in the establishment of similar projects in other South-East Asian countries (UNAIDS, 2005d).

Information and education campaigns should be complemented with the enactment of legislation that protects the right to good health of the poor, minorities and other vulnerable groups. Several countries in the Asian and Pacific region have introduced anti-discrimination laws to protect the rights of people living with HIV/AIDS (APN, 2004). However, legislation by itself is not sufficient, despite the progress that has been achieved in anti-discriminatory legislation with regard to HIV/AIDS. Stigma and discrimination against people living with HIV/AIDS still persists. The need for all stakeholders to increase their advocacy efforts to ensure that protective legislation is enacted and upheld is clear.

4.2.5. Promoting Healthy Settings

Increasing recognition of the health problems associated with poor housing and inadequate urban infrastructure led to the creation of the healthy cities movement in the mid-1980s (Durongdej, 2003). The movement was born out of the acknowledgment that many of the determinants that influence people's health lay outside the realm of health systems. Against the background provided by the previously mentioned Ottawa Charter, the concept has since been extended to a wider range of settings – healthy villages, communities, schools and workplaces, among others (Werma and others, 1999; WHO, 2005n). The healthy-settings approach emphasizes the importance of the relationship between people and their environment. It acknowledges the linkages between the deterioration of human settings and health risks. It also emphasizes the relationship between sustainable development and health.

The term "setting" does not simply refer to the physical environment but also to the holistic concept of supportive environment that includes social, political and economic dimensions (WHO, 1991 and 2000b; Durongdej, 2003). Supportive environments extend from the local to the global level and include all aspects of human life, such as home, neighbourhoods, communities and places for leisure, work and worship.

Information and education campaigns should be complemented with the enactment of legislation that protects the right to good health of the poor

The healthy-settings approach emphasizes the importance of the relationship between people and their environment

The conceptualization of healthy settings provides a framework for multisectoral approaches. Issues such as unsafe water, poor sanitation, indoor pollution and the impacts on human health caused by environmental degradation can be addressed using the healthy-settings approach. A healthy-settings perspective also encourages the participation of individuals and communities and emphasizes the responsibilities that local governments should assume in creating healthy local settings (WHO, 2002d).

Establishing healthy cities, villages, schools, workplaces etc., creates the conditions necessary for making improvements in the achievement of Goals 4 to 6 and other goals related to water, sanitation and education. The first healthy cities projects in Asia and the Pacific were initiated during the late 1980s and early 1990s in Australia, Japan and New Zealand. Projects have since been introduced across the region and are currently under way in cities in Bangladesh, Cambodia, China, Fiji, India, Indonesia, the Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Nepal, Papua New Guinea, the Philippines, the Republic of Korea, Sri Lanka, Thailand and Viet Nam (see box 4.7) (WHO, 2000c; and 2005n). The region is also home to a number of other global and regional urban management and governance initiatives, such as Agenda 21,¹⁴ Sustainable Cities Programme and the Metropolitan Environmental Improvement Programme. Some of these initiatives include urban infrastructure and environmental components with clear impacts on health (WHO, 2000c).

Promoting healthy settings cannot be carried out exclusively through public campaigns and education

Promoting healthy settings cannot be carried out exclusively through public campaigns and education. Governments need to enact legal frameworks that regulate the responsibilities of the private sector, civil society and individuals. The issues amenable to health promotion legislation in the context of healthy settings are broad. For example, legislation should establish appropriate standards of quality for basic services, such as health care, water and sanitation. Legislation should also ensure that remote areas are covered and that price structures are affordable for the poor.

Legislation and government action in the area of urban planning and infrastructure can help to create healthy settings through promotion of public transport, the creation of green and open spaces for leisure exercise and other actions. Establishing healthy workplaces or healthy schools requires that Governments regulate the manufacture, sale and advertising of products that have an impact on health; examples include tobacco and alcohol. Governments can also promote healthier lifestyles by strengthening regulations on food standards and labelling. The private sector has an important role to play in creating healthy workplaces by providing employees with options for health and safety.

¹⁴ *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992* (United Nations publication, Sales No. E. 93.I.8 and corrigenda), vol. I: *Resolutions adopted by the Conference*, resolution 1, annex II.

Box 4.7. Healthy cities project in Cox's Bazar, Bangladesh

Cox's Bazar is a coastal city of 70,000 inhabitants where 45 per cent of the population live below the poverty line and only 20 per cent have access to indoor piped water. The principal health problems of the city include malaria, diarrhoea, skin diseases and respiratory infections (Harpham and others, 2001).

The Cox's Bazar Municipal Authority developed a healthy city plan in 1995, under the sponsorship of WHO, UNDP and the Department of Development Cooperation of the Netherlands Ministry of Foreign Affairs. The plan included programmes for environmental improvement, healthy schools, healthy markets and job training. The healthy city plan was developed in consultation with all stakeholders in the society. Municipal authorities, political parties, NGOs, community-based organizations and individual citizens participated in the design and implementation of the programme. Women were actively involved and their issues were the subject of several healthy city plan activities. The poor were targeted through interventions in the slums where most live and through a focus on issues that most affect their health. Community awareness and participation in the healthy city plan is very high, with more than 90 per cent of primary stakeholders involved at some point in the process. Funding for plan activities comes from local government allocations, but also includes NGO and private resources (Burton 1999; Harpham and others, 2001).

The healthy city plan was implemented by task forces on health, infrastructure development, poverty alleviation, environment, education and on tourism. Advocacy and education on issues related to public health were high on the agenda of the healthy city plan. Some members participate in more than one task force, allowing for lateral and multisectoral coordination. Some of the most successful activities developed under the healthy city plan included distribution of medical supplies, construction of drains, disposal of waste and road safety. (Burton, 1999; Kenzer, 1999; Harpham and others, 2001).

4.3. PRIORITIZING HEALTH IN PHARMACEUTICAL RESEARCH AND TRADE REGIMES

Current regimes regulating the R and D of, and trade in, drugs and vaccines form an important obstacle to the achievement of the health-related MDGs. Interventions at the national level are necessary but greater regional and global collaboration will also be essential. Collaboration will help to overcome barriers to accessing good quality drugs and vaccines. Good collaboration will make it possible to create a fair framework that prioritizes the health of millions in developing countries.

4.3.1. Aligning health research with the health needs of the poor

The 2004 Mexico Ministerial Summit on Health Research recognized the pivotal role that research has to play in building vibrant health systems and in informing actions to improve people's health and accelerate national development (Mocumbi, 2004; Global Forum for Health Research, 2004b). The Mexico Statement on Health Research, which synthesized the recommendations of the Summit, reflected on the need for closer collaboration between health researchers and policymakers. The Statement called for actions by national Governments to develop national health research policy. Allocation of necessary funding for health research to reduce inequity and social injustice was also emphasized. The Statement also recognized the need to ensure that research on essential drugs, vaccines and diagnostics is guided by the principle of equity.

Governments in developing and donor countries have the responsibility to correct current imbalances in R and D by creating incentives for companies to fund their public R and D programmes and invest in neglected diseases. It is essential that Governments in the ESCAP region establish the fundamental right to access essential medicines and eliminate or significantly reduce taxes on medicines. The promotion of universal coverage is an important aspect for countries to consider in working towards improving access to essential medicines.

Individual countries should align research funding with domestic priorities

Individual countries should align research funding with domestic priorities and explore the possibilities of public-private partnerships. In an increasingly globalized world, Governments need to engage in international collaborative research efforts to address global health priorities. The urgency of this task is clearly illustrated by the current situation with regard to avian influenza. As yet, there is still no completely effective vaccine for avian influenza and there is also a potential shortfall of anti-retroviral drugs for combating a major outbreak in human populations.

4.3.2. Creating fair trade rules that work for the health of the poor

The Doha Declaration provided for the introduction of certain safeguards in the interest of national public health

The Doha Declaration provided for the introduction of certain safeguards in the interest of national public health and improved access of the poor to pharmaceuticals. Least developed countries can exploit exemption from patent protection on life-saving drugs until 2016 and countries lacking manufacturing capacity are allowed to import cheaper generic medicines produced by other countries under parallel importing provisions.

Making use of TRIPS flexibilities is, however, not without complications. Issuing compulsory licensing requires a great deal of technical capacity within national bureaucracies, developing networks of collabora-

tion between the health and the trade ministries and enacting national legislation. Developing countries that produce generics are also under political pressure from developed countries to conform to strict patent regulations. Companies holding the original patents can be strongly involved in lobbying on this matter.

Evidence from several countries in the region demonstrates that generic production is feasible within the parameters of the TRIPS Agreement when there is a strong government commitment to public health. National capacity to initiate drug manufacturing and regulate the safety, quality and efficacy of pharmaceuticals is also essential. India is the fourth largest producer of medicines in the world, supplying 8 per cent of the world's drugs in terms of volume (OPPI, 2005). Compliance with TRIPS, however, may affect the capacity of India to produce new generics for its own market and for export.

The current system of anti-retroviral therapy at no or low cost in Thailand can be undermined as resistance to the current anti-retroviral therapy regime starts to develop in the future. Higher protection on data can also delay the approval and introduction of new generic copies of anti-retrovirals.

International organizations, NGOs and other development agencies can play an important role in this regard. They can be instrumental in creating advocacy among the richer countries for the right to access medicines in developing countries. They can also help to fill existing gaps in technical and institutional capacity within the bureaucracies of developing countries in order to exploit the flexibilities afforded to them by the TRIPS Agreement to the maximum extent possible. International development organizations can also assist developing countries to step up efforts for regional collaboration in research, production and distribution of medicines and the harmonization of legislation on intellectual property rights.

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CHAPTER 5

CONCLUSIONS

Achieving the health-related MDGs in the Asian and Pacific region is within reach if Governments in the region address a number of important issues. The key recommendations to facilitate the achievement of the health-related MDGs is available in a numbered list in the Executive Summary. The conclusions summarize the main points.

Concerns that need attention include the strengthening of health systems by addressing gaps in human resources, infrastructure and medical supplies. The linkages between the three health-related MDGs and the five other Goals also need to be taken into account. Improving linkages would allow for the development of positive synergies among processes at the national and international levels to achieve the health-related MDGs. Improved synergies would also ensure efficient use of resources.

Some common elements need to be implemented to strengthen health systems, particularly in countries that are lagging behind in the achievement of the health-related MDGs.

One of the first steps that needs to be undertaken is that primary health services be made available and accessible to the entire population. Ensuring equitable access can significantly improve the indicators for the health-related MDGs and contribute to poverty reduction. A total of at least 78 million people in the Asia-Pacific region have been pushed below the poverty line due to catastrophic health expenditures. Many more have been pushed more deeply into poverty.

Governments have the prime responsibility for ensuring access to primary health care for all, especially for the most vulnerable groups. The persistent trend towards concentrating health-system resources in urban areas and on hospital care needs to be reversed.

It is crucial that emergency obstetric and antenatal services be integrated into primary health services so that the targets of reducing child and maternal mortality can be achieved. The adoption of a health-systems approach that integrates vertical programmes addressing specific diseases can ensure that sparse resources are efficiently utilized. An

integrated health-systems approach is more effective and sustainable in the long term, although it should be added that some selected vertical programmes may be necessary in specific country situations.

The Asian and Pacific region has the world's lowest level of government expenditure on health and the highest contribution of out-of-pocket expenditures. Governments should increase budget allocations for health in view of the centrality of health in the development process. Public allocations to health care can be increased because many countries in the region have recently shown strong economic performance. Increasing budget allocations also makes economic sense because of the high rates of return on investments in the health sector.

Providing universal coverage of the population with a minimum level of health care seems to be the most sustainable way to achieve the health-related MDGs. To achieve universal coverage, it would appear that the majority of people in low-income countries will depend on tax-funded government health services. Several countries in the region have been very successful in providing such services. The growing income levels of large segments of the population in the region also provide an opportunity to introduce or expand social health insurance as an alternative means of raising funds for health services.

Human resources for health

As far as human resources for health are concerned, the ESCAP region as a whole is underserved by health-care professionals (20 per 10,000 population, a ratio that is five times lower than that of North America and Europe). Low levels of investment in human resources are one important aspect. Other factors, such as poor working conditions, low motivation and lack of professional support, influence the number and performance of health professionals. The migration and emigration of health professionals is adversely affecting the provision of health services in some countries. More health workers need to be trained and retained in order to make significant progress. These issues need to be holistically addressed through comprehensive human resource policies at the country level and through cooperation at the regional and global levels.

Ensuring affordable access to drugs

Affordable drugs must reach those who need them. Trade regimes should strike an adequate balance between the protection of intellectual property rights and the requirements of those who are in dire need of medicines. Countries in the Asian and Pacific region need to make full use of the public health safeguards provided in the Doha Declaration. Other means of reducing drug prices could include regional procurement. Countries should also address problems related to logistics and supply as these factors can greatly improve cost efficiency. Policies to promote the

rational prescription of drugs and the use of generic drugs are also important. Furthermore, ESCAP member countries need to join forces to address the significant problem of counterfeit drugs sold in the region.

Despite recent progress, too few resources are allocated for research on health problems that account for 90 per cent of the global disease burden; these consist mostly of HIV/AIDS, tuberculosis and malaria. The collaboration of regional research facilities on existing and new research initiatives should be strengthened.

Additional public spending on health has little or no effect on the improvement of a number of health indicators in countries with poor governance. Better checks and balances and overall transparency and accountability need to be reinforced. Participative and transparent decision-making on health policy will improve the quality of health systems. Transferring the management of service delivery to decentralized administrative levels could help to improve the efficient use of resources. Central Governments need to build their technical capacity for management in order to be effective at the provincial and local levels and to ensure that the availability, accessibility and quality of services are not compromised.

ICTs could play a critical role in strengthening health systems in developing countries of the Asia-Pacific region. ICTs can facilitate the dissemination of health information, improving the effectiveness of programmes for disease prevention and health promotion. Health information systems detect health and disease trends, enabling a better response and improved efficiency of health systems.

The participation of non-governmental stakeholders in the design, implementation and monitoring of health programmes can enhance the mobilization of resources and contribute to their greater efficiency. Partnerships enhance the possibility for the development of synergies if they are built on the comparative advantage of each stakeholder.

Empowering communities to assert their right to health can also contribute to making Governments accountable for the availability and quality of the services provided. The private sector can be an invaluable partner in the achievement of the health-related MDGs. The private sector is assuming a greater share in the provision of all type of services that have been historically monopolized by Governments throughout the region; such services include not only health care but also water, sanitation and transportation. At the same time, it is important to have a strong regulatory system that ensures the quality and affordability of partnerships between Governments and the private sector so that they can help to mobilize additional resources and expertise and expand the range of health-care providers.

Addressing health determinants beyond the health sector

Poverty and low education levels are key determinants in health-seeking behaviour. Improving health literacy is crucial to making informed decisions regarding health risks and gaining better understanding of health-promotion measures. Health care should not be seen just as a service to mitigate the impact of poverty, but rather as a pre-condition for economic development and poverty reduction. There is also a strong link between education levels and health status. Lowering child and maternal mortality or reducing the prevalence of diseases under Goal 6 will require increasing the levels of general education and, more specifically, the levels of health literacy.

Gender inequality is one of the major underlying determinants behind the lack of progress being made in many of the MDGs. The education of girls, for example, is particularly important to improvements in Goals 4 and 5. Addressing the sociocultural, legal and political barriers that prevent women from accessing health information and services requires strengthening the advocacy on gender equity as well as empowering women through targeted legislation.

The attainment of targets related to clean drinking water and sanitation is important for achieving the health-related MDGs. Unsafe water and poor sanitation are major contributing factors to the burden of infectious disease, especially among children.

However, the picture is not all bleak, as more and more countries appear to be adopting the MDG targets in their national development plans. Such integration of the MDGs may provide the required impetus for the region to make more progress towards achieving the health-related MDGs.

CHAPTER 6

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