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**DEVELOPMENT OF HEALTH SYSTEMS IN THE CONTEXT OF ENHANCING
ECONOMIC GROWTH TOWARDS ACHIEVING THE MILLENNIUM
DEVELOPMENT GOALS IN ASIA AND THE PACIFIC**

Note by the secretariat

SUMMARY

Economic growth and health are mutually reinforcing, and improved health is not just a consequence of economic growth but a crucial weapon against poverty. The Asian and Pacific region has made significant economic and social progress in recent decades; however, the region still faces daunting absolute levels of poverty and regional averages mask huge disparities between and within countries in levels of growth, development and health. It is essential that strong and well funded health systems are developed to deliver efficient and equitable quality health care to all sectors of society.

Against this background, the theme study prepared 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* is summarized in the current document. The study examines the relationship between health and economic growth and how poverty alleviation can be effectively addressed by investing in health. Progress with regard to the achievement of the Millennium Development Goals is considered, as are such issues as demographic and epidemiological change, investment requirements, ways to achieve universal health-care coverage, and the impact of trade policies on access to drugs and performance of health systems. It is suggested that the region has the fiscal and policy space to develop and strengthen health systems, and it is proposed that regional cooperation can play an important role in such issues as effectively responding to emerging diseases, initiating funding mechanisms and collaborating in research, as well as sharing experience in order to develop the health and related sectors. The Commission may wish to deliberate on those proposals as well as others put forward in the study.

CONTENTS

	<i>Page</i>
I. INTRODUCTION	1
II. THE NEXUS BETWEEN HEALTH AND ECONOMIC GROWTH.....	2
III. HEALTH SYSTEMS AND THE MILLENNIUM DEVELOPMENT GOALS.....	4
IV. TOWARDS UNIVERSAL HEALTH-CARE COVERAGE IN THE ASIAN AND PACIFIC REGION	7
V. INVESTMENT REQUIRED TO ACHIEVE THE HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS	9
VI. HEALTH AND TRADE LINKAGES - REGIONAL PERSPECTIVES.....	11
VII. CONCLUSIONS AND RECOMMENDATIONS	14

I. INTRODUCTION

1. The Asia-Pacific region has in recent decades experienced a dramatic economic and social transformation, as reflected in the fact that the average annual rate of growth among its developing countries between 1988 and 2005 has been twice the world average. However, regional averages mask huge disparities between and within countries in levels of growth, development and health. The region faces daunting absolute levels of poverty, with a major share of the world's malnourished children and people living on less than a dollar a day and lacking access to clean water or sanitation and suffering from tuberculosis.

2. Some of the obstacles to improving health and meeting the health-related Millennium Development Goals lie within the health sector. These include low levels of spending on health, weak physical infrastructure for the delivery of health services and a shortage of health workers. Other social factors outside the immediate purview of the health sector also have a profound influence on health. Some of the key factors are poverty, hunger, education and health literacy, attitudes to gender and lack of access to clean water and sanitation.

3. The region also faces new and emerging health challenges. Increased life expectancy has led to rapid ageing of the population in a number of countries in the region, and this trend looks set to accelerate. This has profound implications for planners and policymakers as the disease burden increases demand for costly health services. Similarly, lifestyle changes accompanying economic growth add increasing levels of non-communicable diseases to the existing burden of communicable diseases. Meanwhile, HIV/AIDS, tuberculosis and malaria as well as emerging diseases, such as severe acute respiratory syndrome and avian influenza, threaten devastating setbacks.

4. The evidence underlines the need to give priority to strengthening comprehensive health care and the capacity of country health systems to deliver it. Comprehensive health systems can meet most of the targets but are also the key to delivering sustainable universal health-care coverage, which can go beyond achieving the Millennium Development Goals and deal with the changing demands of ageing societies and new diseases.

5. The region also needs to act on a broad array of other health-related issues, particularly access to drugs and trade in health services. Similarly, the migration of health workers from the Asia-Pacific region to high-income countries outside the region has generated significant remittances and has offered migrants opportunities to develop their skills but can also lead to acute shortages of skilled workers.

6. Greater regional cooperation presents a logical and necessary approach to tackling these and other key challenges. Asia-Pacific countries need to harness their resources, possibly through a new regional financing mechanism, in order to mobilize the huge sums of capital that are needed to develop the health and other sectors. Similarly, a regional mechanism for research and review of health systems and for policy advocacy, would provide strong evidence-based research and analysis

on the problems facing health systems in the region. Regional cooperation can also play a role regarding the issues affecting access to drugs and in managing the flow of international trade in health services; such regional cooperation would be aimed at protecting public health, while, at the same time, maximizing economic benefits.

II. THE NEXUS BETWEEN HEALTH AND ECONOMIC GROWTH

7. Experiences from the Asia-Pacific region and beyond show that the relationship between health and economic growth is mutually reinforcing. As a consequence, investments in health make economic sense as they can lessen the burden of morbidity and mortality and contribute to greater well-being from both health and economic perspective.

8. Higher income levels allow for improved nutritional status, while better health pays dividends in terms of greater potential for educational attainment. Better health also contributes to enhanced productivity of workers and the resultant increase in the labour supply. Furthermore, the increased income that can accrue from the above can generate higher levels of investment and greater capital formation.

9. Economic growth allows for more resources to be channelled into health as well as the development of health systems. This can offer coverage to all segments of society, especially the poor and vulnerable groups, who bear the greatest burden of disease. Both public and private sector investments can contribute to the development of health systems. They can also contribute to ensuring sustainability and quality in the delivery of health-care services.

10. Awareness of the risk factors associated with both infectious diseases and non-communicable diseases depends to a great extent on the resources allocated to health promotion and on the level of education. A positive environment in this regard can be generated by favourable economic conditions, and the same could be said for lifestyle factors, including awareness of the benefits of a balanced diet and physical exercise, as well as the harmful effects of smoking and alcohol and drug abuse.

11. Technical progress, which encompasses advances in knowledge and institutional and managerial capacities in the health and related sector has played a major role in improving health outcomes over the last century and is set to continue to do so. Investment in research and development often yield high rates of return, which makes them attractive to the private sector. Strategic partnerships between the public and private sectors can make the results of research and development work for the public good, such as producing and making available drugs at low cost.

12. While the ESCAP region has indeed witnessed significant progress in terms of economic growth and health outcomes at the aggregate level, considerable variations exist between and within countries. Although certain countries, especially some East Asian countries, have experienced spectacular economic growth in recent years, one third of the countries of the region have an annual per capita income of less than \$1,000, and almost half of these have an annual per capita income less

than \$500. Moreover, almost two thirds of the world's poor live in the Asia-Pacific region, most of whom are in South Asia, which is the subregion with the weakest health outcomes.

13. Health trends, such as those related to life expectancy and infant mortality, also show significant improvements in aggregate terms. For instance, people in the Asia-Pacific region now live nearly 30 years longer than they did 45 years ago. However, wide variations also exist across the region and within countries. Economic crises, income inequalities, wars and other disruptions have had negative impacts on life expectancy and infant mortality but poor governance and a lack of appropriate health policies have also played a part.

14. Indeed, while high income levels can bring about positive health outcomes, without the appropriate policy environment and emphasis on equity and quality of service, investments could be squandered. Experiences from the Indian state of Kerala as well as Sri Lanka and Viet Nam show that pro-poor policies and efficient use of available health infrastructure and trained health personnel can go a long way, even with relatively scarce resources.

15. Evidence from the ESCAP region shows that the relationship between income and health is not a linear one. At low income levels, health improves sharply with increases in income, but when income rise beyond a certain point it becomes weak, although the relationship remains positive. Well-targeted social policies, including greater allocation of resources to the health sector, can do much to improve health outcomes along with increased income.

16. The potential savings generated by investments to establish comprehensive responses to both communicable and non-communicable diseases would not only yield great economic benefit, but would also lead to huge reductions in morbidity and mortality. For instance, over the period 2005 to 2015, the combined national income lost as a result of non-communicable diseases in China, India and the Russian Federation is projected at \$1,097 billion. In Cambodia, India, Thailand and Viet Nam, HIV/AIDS is set to impoverish some 5.6 million people each year between 2003 and 2015.

17. National macroeconomic policy can be designed and implemented so that it is conducive to the development of an efficient health sector. Corruption and poor allocation of resources can be tackled by improving governance at all levels so as to improve health and promote growth. Furthermore, deficiencies in human capital can be addressed by generating the funds and creating institutions to train health personnel, which could improve the delivery of health services, especially to those in the greatest need.

18. Investment in targeted public social protection mechanisms could be used to protect the most vulnerable and needy groups, including women and the poor. Such groups bear the greatest burden of out-of-pocket expenditures, a form of spending that is both inequitable and inefficient in the way resources for health services are mobilized. To succeed in protecting these groups and ensuring that they have access to health services requires greater emphasis on health sector improvements at the national, regional and global levels.

III. HEALTH SYSTEMS AND THE MILLENNIUM DEVELOPMENT GOALS

19. As a region, Asia and the Pacific is making good progress towards achieving a large majority of the Millennium Development Goals by 2015; however, behind the regional averages a less optimistic picture emerges. In absolute numbers, the scale of deprivation faced by the Asia-Pacific region is daunting. It accounts for a major share of the world's population living in rural areas without access to sanitation, underweight children, people suffering from malnourishment, people living on less than a dollar a day and the number of cases of tuberculosis.

20. With regard to Millennium Development Goal 4, Target 5, progress in reducing under-five mortality rates has been steady in the ESCAP region as a whole over the past decade. However, the target remains elusive for many countries as close to 5 million children across the region still die every year before reaching their fifth birthday. As for Goal 5, Target 6, half a million women around the world die every year as a result of complications from pregnancy and childbirth, half of them in the ESCAP region.

21. With regard to Millennium Development Goal 6, Target 7, the latest estimates show that over 9 million people in the ESCAP region were living with HIV/AIDS in 2005 and the regional share of the global pandemic is likely to keep growing. If prevention and care programmes are maintained at current levels, it is estimated that the number of people living with HIV/AIDS in the region could reach 18 million by 2010. Pandemic trends in the region indicate that HIV/AIDS is spreading rapidly among younger age groups and that young women aged 15 to 24 have higher prevalence rates than men of the same age group. With regard to Goal 6, Target 8, malaria remains entrenched in rural areas. The ESCAP region also has the largest share of the global burden of tuberculosis in absolute numbers: 12 of the 22 countries with the highest number of new cases in 2004 were in the ESCAP region.

22. The obstacles to progress towards achieving the health-related Millennium Development Goals are manifold. Deficiencies in physical infrastructure exist with regard to health facilities, which may either be lacking or in shortage, or operating under unhygienic or unsafe conditions. For example, the unavailability or inaccessibility of emergency obstetric care and antenatal care facilities in many rural areas are major contributors to the slow progress towards achieving Goals 4 and 5 in many countries of the region. Clinics and hospitals can be overcrowded, with patients having to wait long periods for diagnosis and treatment, and the availability of hospital beds is low in some countries. In some cases, emergency obstetric care is available, but poor intra-partum and post-natal practices result in increased risk of neonatal infection.

23. Deficiencies in human resources are reflected in the fact that the region has 60 per cent of the world's population, but only 30 per cent of the global stock of health workers. It has an average of 20 health workers per 10,000 people, as compared with 110 per 1,000 people in North America and Europe. The region also has one of the world's lowest rates of births attended by skilled health

personnel: only 37 per cent in the South and South-West Asian subregion. Deficiencies in human capacity are especially acute with regard to HIV/AIDS, non-communicable diseases and mental health. In the case of HIV/AIDS, many countries in the region suffer a severe shortfall of health professionals with specialized training in, inter alia, treatment regimes, monitoring procedures and drug resistance.

24. Shortcomings in the access to essential and reliable medicines and vaccines are major concerns. About one third of the world's population does not have access to essential medicines that could save or prolong their lives. Domestic structural problems, such as the low capacity of many health systems, poor quality controls for drugs and vaccines or a lack thereof, and/or bottlenecks in the distribution and dispensing of medicines, limit access to effective drugs.

25. Deficiencies in public spending and other investments in health must be addressed. Many countries in the region spend less than 5 per cent of GDP on health – or less than the \$30 to \$40 per capita that the Commission on Macroeconomics and Health estimates is necessary to ensure the delivery of an essential package of interventions. Social, environmental and economic determinants play a role in achieving the health-related Millennium Development Goals. In this regard, poverty is a key determinant of health status. For example, child and maternal mortality and the prevalence of diseases under Goal 6 are closely related to poverty.

26. Adequate levels of health literacy are crucial in enabling people to make informed decisions regarding health risks and to gain a better understanding of essential health promotion measures to prevent diseases and improve health. The ESCAP region has made significant progress 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 the South and South-West and North and Central Asian subregions, have reported regression with respect to Goal 2 when set against 1990 benchmark levels.

27. Gender inequality is one of the major factors underpinning the lack of progress on many Millennium Development Goals. In many societies across the region, social and cultural norms accord lower status to women and their well-being and interests. These norms influence the way societies, communities, families and women themselves respond to their health needs. Achieving gender equality in education is pivotal to empowering women and providing them with access to information on health services.

28. Unsafe water and poor sanitation are major contributing factors to the burden of infectious diseases, especially among infants and children. Although the Asia-Pacific region is well endowed with water resources, close to two thirds of the 1.1 billion of the world's population lacking access to improved drinking water live in the region. The number of people without coverage for improved sanitation services in Asia and the Pacific is also higher than in any other region of the world, despite significant progress during the last decade.

29. Migration has been a critical factor in the spread of communicable diseases and is still an important determinant influencing progress towards achieving the Millennium Development Goals. The role played by migrant and mobile populations in spreading HIV/AIDS is well documented. Human migration has also contributed to the spread of tuberculosis and the re-emergence of malaria in certain areas. In many receiving countries, migrants are excluded from public health services, in some cases even those who are legal.

30. The systematic stigmatization and discrimination to which many social groups are subjected have significant impacts on their health and their ability to access health and other public services. Among the first population groups in the ESCAP region to be infected with HIV were injecting drug users, sex workers and men who have sex with men. In most societies in the region, the illegal nature of their source of livelihood, sexual identity and behaviour hinder their access to health information and services.

31. People with mental and physical disabilities are often subject to discrimination and rejection by others, including their own families, and can find themselves without a home or 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 and face higher barriers than non-disabled people in accessing public services, including health care.

32. Health systems in the Asia-Pacific region need to prepare to tackle the challenges related to rapid ageing of populations and epidemiological changes leading to a rise in non-communicable diseases. In the ESCAP region, the number of older persons (over 65 years of age) increased by nearly 3.5 times in half a century: from 64 million in 1950 to 234 million in 2000. This number is projected to reach 918 million by 2050, a nearly a four-fold increase. This demographic change has a profound impact on the disease burden in the region and, consequently, the nature of the demands on health systems.

33. Developing and least developed countries in the region have traditionally faced a higher burden of communicable diseases, such as malaria, tuberculosis, waterborne diseases and other infectious diseases. Hitherto, it was a commonly held belief that so-called "lifestyle diseases", such as diabetes and cardiovascular diseases and other non-communicable diseases such as cancer were more prevalent in developed countries. However, due to the increase in the population of older persons, as well as changing lifestyles, many countries in the region now face a high prevalence of non-communicable diseases and injuries. This is, of course, in addition to the persisting burden of communicable disease.

34. Advances in new technologies, such as those related to information, communication and space technologies (ICST), present great opportunities for improving access to and the quality of health systems. ICST offers Governments and citizens a means to cope with increasing demand for

health-care services through substantial productivity, access and quality gains. It can also help to reshape the future of health-care delivery, making it more citizen-centred.

35. Sustainable progress to achieving health-related Millennium Development Goals is only possible by a comprehensive approach centred on strengthening health systems in order to deliver a package of essential health services in an equitable and efficient manner. This would entail addressing deficiencies in infrastructure and the supply of essential drugs. It also means effectively addressing the determinants of health related to gender, education, poverty and environment, as well as broader determinants related to trade and economic policies.

IV. TOWARDS UNIVERSAL HEALTH-CARE COVERAGE IN THE ASIAN AND PACIFIC REGION

36. Providing universal health-care coverage, built upon well functioning health systems, is essential in protecting the population of the ESCAP region from catastrophic health expenditures leading to poverty. The region is exceptionally diverse in its levels of economic development and the state of its national health systems. No single answer or set of issues will be relevant to all countries. However, there are several success stories in achieving universal health-care coverage at all levels of development and these can provide important lessons.

37. Most countries in the region already have health policies in place that support the principle of universal health care; however, in practice it is understood that the existence of such a principle does not necessarily translate into universal access or equity in the provision of health services, and most Governments do recognize this in their policies.

38. There is wide diversity in the performance of health systems in the region in ensuring effective and equitable access to health services. Although higher-income economies in the region do generally better, it is also true that some low- and middle-income economies also do well, underlining the importance of health policies and health system design. Empirical evidence from the region shows that the developing countries at all income levels that have had most success in achieving widespread access to health services are performing best across the whole range of health Millennium Development Goal indicators.

39. The countries in the region that have achieved universal health-care coverage typically fall into two different groups:

(a) Predominantly tax-financed systems with universal coverage, as in Brunei Darussalam, Malaysia, New Zealand, Sri Lanka, Thailand and Hong Kong, China;

(b) Social insurance systems with universal coverage, as in Australia, Japan, Mongolia and the Republic of Korea.

40. The key lessons that can be drawn from the experiences of countries in the region that have made good progress towards achieving universal coverage are as follows:

(a) Although, most countries in the region indicate that they already have health policies that support the principle of universal health care, they are in reality struggling to find ways of implementing it;

(b) The administrative and managerial skills to successfully implement social insurance systems may be lacking in the poorest countries, and in these cases only the tax-financed approach has proved successful;

(c) Whichever approach is adopted, coverage of poor populations requires significant tax-financing by the Government, in the form of either direct budgetary support to free Government health-care facilities or tax contributions to social insurance funds in lieu of premium payments by the poor;

(d) Implementing universal health-care coverage has significant financial and administrative implications and cannot be achieved without political commitment placing it at the forefront of the political and policy agenda. Academics and researchers in the fields of health and equity in countries within the region need to find a way to ensure that their research findings are used as evidence for shaping policy;

(e) None of the successful countries have achieved universal health-care coverage using explicitly targeted mechanisms, and all emphasize universality in entitlements and access to services or insurance coverage. Where targeting does take place, as in Malaysia and Sri Lanka, it tends to be informal and not explicit;

(f) Universal health-care coverage must involve both reductions in the price barriers faced by the poor, whether they are official prices or co-payments, and the actual physical supply of services to ensure that the poor are not prevented from accessing services;

(g) Economic development, in particular its tendency to lead to the expansion of formal sector employment and the strengthening of government capacity, is an important precondition for the successful implementation of a social insurance strategy to achieve universal health-care coverage;

(h) Countries that have achieved universal health-care coverage have not attempted to do so by restricting the package they offer to low-cost, cost-effective services of a very basic nature;

(i) Successful countries have often learned from international experience when designing and building their systems, although they have always chosen locally appropriate solutions and strategies;

(j) Regional cooperation can play an important role in helping countries in the region to share their experiences with different approaches to achieving universal health-care coverage and with mechanisms to strengthen health systems. It would also enable a better understanding of existing success stories.

V. INVESTMENT REQUIRED TO ACHIEVE THE HEALTH-RELATED MILLENNIUM DEVELOPMENT GOALS

41. Low levels of spending on the social sector, combined with weak implementation of policies to optimize investments in health, have led to slow progress towards achieving the health-related Millennium Development Goals in many countries of the ESCAP region. In view of the high levels of out-of-pocket expenditure and limited private sector capacity in such countries, Governments should ensure that the investments necessary to strengthen health systems are made. Furthermore, the available policy space should be utilized optimally through the implementation of pro-poor policies to ensure that the benefits of increased investments accrue to the neediest sections of society. Public funding in certain Asian and Pacific countries is likely to fall short of the investment levels required; hence, private sector and external funding will be necessary.

42. For a clearer picture of both the overall investment requirements and the gap between what is available domestically and what is needed, studies need to be analysed. This raises the issue of the validity of transposing findings from one setting to another and also working with differing methodologies. Most important is the matter of improving the collection and processing of reliable data and recognizing that, although quantifications serve a certain purpose, increased spending does not guarantee superior health outcomes, since issues of efficiency, equity and quality are important.

43. Various recent studies have estimated that developing countries from all regions will need additional financing ranging from \$20 billion to \$94 billion every year until 2015 to achieve the health-related Millennium Development Goals. These studies also suggest that \$15 billion to \$33 billion per year are needed from donor countries and agencies.

44. Total investment requirements for health in the Asia-Pacific region vary depending on the estimates used. The figures of the Commission on Macroeconomics and Health, of over \$30 per capita spending on health, would make the challenges seem quite daunting. However, figures closer to \$20 per capita, based on the estimates of the United Nations Millennium Project and experiences from Sri Lanka and Mongolia, are more manageable. In fact, with greater allocation of resources to the health sector, efficient use of these resources and pro-poor policies, achievement of the health-related Millennium Development Goals is possible for all countries. Economic growth would make the figure of \$20 per capita easier to attain but it is important to keep communicable diseases, such as HIV/AIDS and avian influenza, in check. In some countries, such as the least developed countries, external funding will be needed to complement domestic resources. For the least developed countries of the ESCAP region, achieving \$20 per capita spending on health would imply investment needs of a modest \$3.6 billion annually, or \$32.4 billion from 2007 to 2015, in addition to the funding that can be generated domestically.

45. Increased spending needs to take into account not only the achievement of the health-related Millennium Development Goals, but also demographic change and changing disease patterns. These

could have a significant influence on health-care expenditure. It has been estimated that these factors alone would compel countries in the Asia-Pacific region to increase annual spending by two percentage points. Ageing is likely to impose high costs, largely because older persons are more likely to suffer from chronic conditions and conditions requiring treatment by costly modern technologies and pharmaceuticals.

46. Expenditure on prevention and health promotion is one way to lessen the morbidity and mortality burden that would prevail in view of current trends. Social health insurance mechanisms need to incorporate prevention and health promotion more effectively. Using the average prevention expenditure level of 3.82 per cent of total health expenditure from 15 selected middle- and high-income countries where national health accounts are available, as well as estimates by the Commission on Macroeconomics and Health, would imply average annual investments of about \$3 to \$4 per capita. Lower figures, as little as half of these sums would be derived on the basis of alternative experiences and the estimates mentioned above.

47. Investments of this nature, as well as those required for the prevention and treatment of communicable diseases such as malaria, TB, HIV/AIDS and avian influenza, may seem large, but the benefits are not only reductions in mortality and sickness but also considerable economic savings or gains in terms of higher work attendance, productivity and incomes. Higher government expenditure on health, would, however, need complementary services both within and outside the health sector, such as transportation links to hospitals and easy access to water and sanitation. Furthermore, the achievement of the health-related Millennium Development Goals can be expedited by policies and institutional capacities that enhance growth, such as stimulating trade, developing infrastructure and attracting investment. Governments also need to create favourable conditions for institutions to invest in or deliver social services through organizations or regulations and legal frameworks.

48. To finance the investment gap, it is essential that both domestic and external resources be used more efficiently. This is especially the case in the least developed countries, many of which have a long way to go to achieve the Millennium Development Goals. Donor countries still fall short of providing the targeted 0.7 per cent of their gross national product as aid. They need to increase commitments but also to assist developing countries by allowing greater access to their markets. On the other hand, countries receiving assistance need to develop carefully formulated, coherent and consistent policies that ensure the most cost-effective and equitable use of resources.

49. In all, a consistent sector-wide approach to planning and implementing interventions targeted at health-related Millennium Development Goals should be emphasized to increase health sector coordination, strengthen national leadership and ownership and enhance countrywide management and delivery systems. Plans should address both prevention and treatment in order to cope with changing demographic and epidemiological patterns, as well as other variables. In addition, legislation should be used to facilitate more investments for the prevention and treatment of diseases and contribute to reducing the stigma faced by those with certain conditions, such as HIV/AIDS.

VI. HEALTH AND TRADE LINKAGES - REGIONAL PERSPECTIVES

50. The health sector is impacted by other sectors, including those related to trade and the economy. Apart from policies and regulations specific to the domestic health sector, a variety of international commitments, rules and practices influence a country's ability to provide effective health care coverage to the whole population. They cover, among others, trade and investment in health-care services and products, including pharmaceuticals. They make a significant contribution to health systems without being regulated or influenced by policies within the purview of the health sector and therefore act as broad determinants of health.

51. Achieving sustainable progress in providing affordable access to drugs in the region requires coherent policies and practices to overcome a number of supply- and demand-driven constraints. They include policies conducive to productive research and development of pharmaceutical products and innovation in areas relevant to the region; balanced implementation of intellectual property rights regimes; fair competition; and public-private sector partnerships.

52. The Asia-Pacific region has the largest number of people without access to essential medicines. It is estimated that 1.7 billion people worldwide are without access to essential medicines and 60 per cent of them are in the ESCAP region.¹ The Asia-Pacific region has three fifths of the world's population but its share of the world pharmaceutical market is only 18.1 per cent. Of this, Japan contributes 11.4 per cent and the rest of the region contributes only 6.6 per cent. The world trade in pharmaceuticals is dominated by the industrialized countries. The Asia-Pacific region is a net importer of pharmaceuticals and levels of inter- and intraregional trade in pharmaceuticals are also quite low. The World Health Organization estimates that only 10 out of 188 countries surveyed have a sophisticated pharmaceutical industry with significant research capacity. High-income countries account for 96 per cent of global health research expenditures. The concentration of investment and capacity for drug research and development in high-income countries has resulted in neglect of tropical diseases and diseases common in the developing world, with very few drugs meant for tropical diseases having been discovered during the last 30 years.

53. There are signs of emerging capacity in such countries as China and India, which have emerged with significant innovative capability and as the leading producers of active pharmaceutical ingredients in the regional market. They are also identified as competitors for a share of the global market. The capacity for pharmaceutical research may now improve as many countries in the Asia-Pacific region are focusing increasingly on biotechnology. Recognizing its growth potential and strategic importance, many Governments in the region have identified biotechnology as a key focus area.

¹ World Health Organization, *The World Medicines Situation* (WHO/EDM/PAR/2004.5) (Geneva, World Health Organization, 2004), chap. 7.

54. The status of intellectual property rights protection could have an impact on the prices and availability of pharmaceuticals in the region. A significant proportion of exports from China and India are generic drugs which have been developed through reverse engineering, and this source may be affected with changes in patent laws, with implications for consumers, as well as producers. Generic competition from developing countries has contributed to opening access to antiretrovirals for HIV/AIDS treatment. At the same time, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS),² as it stands, does offer a number of flexibilities which are often not fully exploited by countries in the process of framing national legislation. The TRIPS Agreement allows Governments to make exceptions to patent holders' rights in such cases as national emergencies, or if anti-competitive practices have been employed, or if the patent holder does not supply the invention, provided certain conditions are fulfilled. For pharmaceutical patents, the flexibility has been clarified and enhanced by the 2001 Doha Declaration on the TRIPS Agreement and Public Health.³ In the declaration, WTO Member States agreed that that the TRIPS Agreement does not and should not prevent members from taking measures to protect public health. They underscored the ability of countries to use the flexibilities that are built into the TRIPS Agreement, including compulsory licensing and parallel importing. The increasing prevalence of bilateral free trade agreements between countries in the region and developed countries also has implications for both developing and developed countries in the region, as the pharmaceutical-related commitments in some of these bilateral and regional agreements extend beyond the requirements of the TRIPS Agreement.

55. The actions that ESCAP member States need to take to protect affordable access to drugs involve implementation and enforcement of strong regulations on the supply and demand side to ensure that essential drugs remain accessible to their populations. The future calls for maintaining a delicate balance between the need to encourage innovation and the imperative to provide affordable access to drugs. Countries in the region need to establish and implement national programmes for health research with long-term funding. Attention has to be paid to the acquisition of new knowledge and technologies that will drive such research. Other key supply-side actions include: the utilization of all available flexibilities under the TRIPS Agreement, the implementation of safeguards, such as parallel imports and compulsory licensing, and the removal of barriers to the introduction of generic drugs. Demand-side interventions include policies to promote rational drug use and the prescription of generic drugs. Adopting regional approaches to issues such as using flexibilities under trade agreements is a logical development and can provide creative solutions based on cooperation and collaboration.

² See *Legal Instruments Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, done at Marrakesh on 15 April 1994* (GATT Secretariat Publication, Sales No. GATT/1994-7).

³ World Trade Organization, document WT/MIN(01)/DEC/2. Available from <http://docsonline.wto.org>.

56. Cross-border trade in health services is a growing phenomenon with a vital bearing on the functioning of health systems. Policymakers in health and economic ministries need to have a better understanding of its potential impact. Trade in health services is conducted in four modes, namely:

- (a) Mode 1: Cross-border supply;
- (b) Mode 2: Consumption abroad;
- (c) Mode 3: Commercial presence;
- (d) Mode 4: Movement of natural persons.

57. The region has seen a considerable increase in international trade in health services. Mode 1, which relates to cross-border trade, is still developing in the region, but the rapid expansion of telecommunications and information technology has led to more widespread use of telemedicine across borders. Telemedicine requires much more development before it can become a viable force for cross-border health-care delivery, as issues related to licensing, liability and quality remain unresolved. Mode 2 covers services rendered in the territory of one member to a consumer in another member. It involves the movement of consumers for medical education or treatment. Movement of patients abroad is becoming a major business for destination countries, such as India, Malaysia, Singapore, Thailand and some others in the region.

58. Mode 3 includes investment in hospitals, management of hospitals or health insurance. Anecdotal information indicates that foreign participation is still limited in the health-care sector of ESCAP member countries. In Indonesia, it accounts for just 1 per cent of hospital beds, and in Thailand it contributes 3 per cent of total investment in private hospitals. There is also outward investment by Indian, Malaysian, Singaporean and Thai entrepreneurs in the health sector overseas. Mode 4 covers the temporary movement of natural persons. Migration of health workers is commonly seen in some ESCAP member countries. The countries in the South and South-East Asian subregions serve as source countries for health workers moving to destination countries, such as Australia, Canada and the United States of America as well as the United Kingdom of Great Britain and Northern Ireland and other European countries. Countries in the region also serve as a source of nurses for OECD and some Middle Eastern countries. While this migration of health workers has significant benefits in the form of remittances, it nonetheless has negative effects, such as depletion of human resources and loss of vital investment in human capital made by developing countries.

59. A case study has been undertaken on the movement of patients across borders for treatment in the region. The factors prompting people from developed countries to travel for health care include the increasing popularity of cosmetic surgery, non-coverage of certain procedures by health insurance schemes, increased waiting lines for surgical procedures under national health schemes and the availability of comprehensive information on the Internet. Other factors are the emergence of high-quality, state-of-the-art medical facilities in the region, especially in the private sector, and the significant cost difference between developed and developing countries for the same procedures and

aftercare with no difference in quality. Benefits that accrue to receiving countries include increased tourism, technical upgrading of medical care and improvement in the quality of health services. Some of the drawbacks are the creation of a two-tier system for health-care delivery, an “internal brain drain” from the public sector to more lucrative jobs in the private sector, and the possible development of a technocentric approach to health care. This would mean adopting costly medical technology for the treatment of diseases even if cheaper and equally effective alternatives are available, thus driving up treatment costs.

60. The policy options available to countries in the region include adopting protective policies to ensure that trade in health services does not impact the delivery of public health services and facilitatory policies that optimize the economic benefits from such trade while at the same time protecting public health. Protective policies include: (a) ensuring that the modern technological and other resources of private hospitals, which may come through foreign investment or medical travel, are made accessible to all through policies that encourage the treatment of poor patients; (b) adopting policies to retain health workers and slow the migration of highly skilled professionals by addressing issues related to labour and wage policies, and incentives for medical personnel to stay in the country; and (c) collecting and exchanging reliable information on trade in health services. This would help in quantifying the benefits and identifying potentially negative impacts, thereby allowing timely policy interventions. Facilitatory steps include creating multisectoral task forces, accrediting hospitals in receiving countries, adopting adequate standards of care, maintaining medical records and patient confidentiality and ensuring the portability of health insurance. Regional cooperation is also of vital importance in all of the areas mentioned above.

VII. CONCLUSIONS AND RECOMMENDATIONS

61. Analysis of evidence at the regional and global levels confirms a clear two-way linkage between health and growth. However, while economic growth may have contributed significantly to improved health outcomes over the last century, examples from within the region indicate that significant improvements in health outcomes can be achieved without large increases in income. Evidence from the region also shows that improvement in health is a strong contributor to labour productivity and economic growth. Health can be used as a fundamental tool for reducing poverty and hunger. Nevertheless, the importance of improvements in health for economic growth has been underestimated, and these improvements could provide a foundation for more sustainable economic growth.

62. This pattern is evident in the uneven progress of Asia-Pacific countries towards achieving the health-related Millennium Development Goals. There are wide disparities in levels of health between and—just as starkly—within countries. Hidden behind national averages is the fact that, in many countries, there are large regions and groups of people, the most vulnerable and disadvantaged, who have not benefited from the economic growth and progress that has taken place. The achievement of

the health-related Goals has been slow and variable in many Asia-Pacific countries, in large part because of inadequately funded health systems with serious deficiencies in infrastructure, human resources and the availability of essential drugs. The key to achieving the health-related Goals in the Asia-Pacific region lies in adopting a comprehensive health systems approach in which interventions are delivered through well- functioning and strong health systems.

63. It is also important for countries to look beyond the Millennium Development Goals. Some countries in the region are ageing rapidly and the prevalence of non-communicable diseases is also rising. These demographic and epidemiological changes have serious ramifications for health systems as they will increase the burden of tertiary facilities and increase demand for rehabilitation and care services. These demands can only be met by efficient, equitable and well-funded health systems capable of delivering a minimum package of quality health services to all sections of the population. Improving levels of health also requires action to address key determinants of health, such as education, gender equality, environment, sanitation and safe drinking water, some of which are also covered by specific Millennium Development Goals. Progress on these issues requires action that is mainly outside the purview of the health sector. Broad determinants related to economic and trade regimes have a significant impact on the performance of health systems through their influence on such areas as affordable access to drugs and migration of health professionals. Managing these broad determinants is as important as dealing with issues that are within the purview of the health sector. Action to deal with the problems may be categorized as national-level actions and those that come under the general heading of regional cooperation.

64. The key actions required at the national level include:

(a) *Comprehensive strengthening of health systems*: this should focus on the following main areas:

- (i) *Strengthening of infrastructure*: different countries have varying structures for delivering health care which depend on the historical evolution of their health systems and the models adopted for providing health care. Many countries in the region urgently need to upgrade this infrastructure;
- (ii) *Upgrading the availability and quality of human resources*: the shortage of trained human resources in the region's health systems is one of the main constraints on the achievement of the Millennium Development Goals and needs to be addressed urgently;
- (iii) *Providing affordable access to quality essential drugs*: ensuring a supply of good quality essential drugs at affordable prices would require actions within and outside the health sector and is important for the achievement of the Millennium Development Goals. The response of countries in the Asia-Pacific region must involve strong regulations and their enforcement on both

the supply and demand sides. The key is to find a balance between encouraging innovation that facilitates the development of new medicines and safeguards that protect access to drugs;

(b) *Universal coverage of a minimum package of health services:* universal coverage of a minimum package of health services is vital not only for providing affordable access to health services to all sections of the population, but also towards achieving the health-related Millennium Development Goals. A rights-based approach to health within a country or region can provide an authoritative basis for providing universal access to health care. Within the Asia-Pacific and in other regions, there are two distinct approaches that have been demonstrated to achieve universal health-care coverage: (i) tax-financed national health services, and (ii) social health insurance financing. The relevance and appropriateness of these two strategies will depend on the national context, but in general social insurance approaches have only proved feasible in middle-income or rich countries, while the tax-financed national health services approach has been adopted by successful low-income economies. The key challenge in attaining universal health-care coverage lies in ensuring that government tax revenue is made available to finance coverage for the poorest and most vulnerable groups, regardless of whether the general approach is the social insurance or tax-based health services model;

(c) *Increasing investments in health:* the dual strategies of strengthening health systems and providing universal coverage require a massive increase in investment for the health sector. This calls for a significant effort by all stakeholders, including Asia-Pacific Governments, donor countries and aid agencies;

(d) *Addressing the determinants of health:* the fact that a country's health status is not solely dependent on policies within the health sector makes it imperative for health considerations to be integrated into policymaking at all levels. Such integration would help to strengthen policies promoting health. It would also help to identify potential risks to health arising from specific policies and would enable such risks to be mitigated or minimized. It should embrace policies on trade, agriculture, environment, transport, labour, planning and education, as well as poverty alleviation and the social sector;

(e) *Health promotion and healthy settings:* health promotion goes beyond health care to healthy living in healthy environments. The healthy environment approach emphasizes the importance of the relation between people and their environment and acknowledges the linkages between sustainable development and health on the one hand and between deterioration of human settings and health risks on the other. Action to promote health requires multiple approaches, relies on interdisciplinary inputs and operates at several levels over long periods of time. It demands coordinated action by all stakeholders, including Governments, health and other social and economic sectors, non-governmental and voluntary organizations, local authorities, industry and the media;

(f) *Integrating new technologies, including ICST, to improve health systems:* ICST can improve access to health services and promote health equity, quality and efficiency. However, the effective use of ICST depends on the existence of the required infrastructure. Basic and reliable electric power infrastructure and ICST infrastructure covering whole countries are a prerequisite. E-health should be used to promote health equity and improve access for vulnerable and remote populations rather than being a tool to only benefit the richer sections of society.

65. Many of the problems and constraints affecting the achievement of the Millennium Development Goals cut across the borders of countries and regions. Action taken by one country cannot solve a problem that straddles many countries and regions. Such a problem would warrant simultaneous action by all. Furthermore, the resources available in one country may not be adequate to tackle a common problem. The programmes, policies and services that affect more than one country in the region should therefore be treated as “regional public goods”. Cooperation at the regional level presents a practical and logical approach to tackling these issues, but it is one that has been greatly underutilized in the ESCAP region. Concrete areas for regional cooperation have been identified in the theme study, some of which are elaborated below.

66. *Regional mechanisms for financing increased investments in health:* many Asia-Pacific countries may not have the capacity to generate domestic resources on the scale needed to achieve the health-related Millennium Development Goals and provide universal coverage for the population with a basic package of health services. They will need to attract substantial external resources. The region requires considerable investment in health sector infrastructure, human resources and medical supplies. Investment for upgrading and maintaining infrastructure alone is estimated at over \$100 billion between 2007 and 2015. Existing mechanisms for coordinating official development assistance and other forms of external assistance to the health sector have not had the desired impact and there is a need to explore new options and funding sources to finance the region’s health sector.

67. *Health systems research mechanism:* the Asia-Pacific region has an overarching need to develop an agenda for research into the functioning of health systems, with specific reference to financing, delivery patterns, effectiveness, equity and quality. There has been little regional interest in health systems research to date. This is perhaps due to a combination of factors, including an unwillingness to fund it, lack of capacity and lack of understanding of its importance. This gap has to be closed through a regional mechanism to review health systems if the country-specific evidence required for the strengthening of health systems is to be found.

68. This regional mechanism could be set up with the objective of supporting and promoting evidence-based health policy through the comprehensive analysis of health care systems and the factors influencing them. It could work on a wide range of topics relevant to countries in the region and aim at creating capacity for policy-oriented research and analysis. It would follow the principles of developing and implementing partnerships with Governments, international agencies and academic

institutions working in the field of health and the sharing of experiences across the region on a range of issues in order to arrive at policy conclusions. The proposed mechanism would utilize the expertise of a broad range of academics, policymakers and experts to bring out trends in indicators related to health and suggest areas of reform.

69. Other areas identified for regional cooperation which have been elaborated in the theme study are the following:

- (a) Working towards universal health-care coverage;
- (b) Effective surveillance against communicable diseases;
- (c) Regional action to ensure affordable access to drugs;
- (d) Regional cooperation to optimize the benefits of trade in health services.

70. Greater regional collaboration can clearly help to accelerate progress towards the health-related Millennium Development Goals and to tackle the region's daunting level of poverty. Collaboration can lessen the effect of huge disparities in development levels. It can also leverage the region's strengths to develop strategies for tackling the challenges and to mobilize the resources needed to implement them. Delaying cooperation could lead to lost opportunities and higher costs.

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