

# Regional Macroeconomics and Health Framework



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## 1. INTRODUCTION

The link between macro-economic growth of a nation and the state of health, which is often understood as an individual attribute, has not been established across the world, especially in the emerging economies of the South-East Asia Region (SEAR). If at all, it is normally believed that a fast pace of economic growth in terms of higher GDP growth is a pre-condition to improve people's health. The fact that health gains can be achieved through efficient allocation of scarce resources even at lower levels of national income is not well understood<sup>1</sup>. The other side of the argument that better health also contributes to enhancement of GDP is often not granted a consideration. The other debate found in the recent past is a close association between health situation of individuals and households and poverty. It is often found in developing economies that ill-health, its acute and chronic manifestation is a dominant cause of poverty. Establishing these linkages is difficult mainly due to the lack of theoretical delineation as well as insufficient data. In this report, an attempt is made to understand these links and associations and present a theoretical delineation.

History is full of examples that much of the major gains in health of individuals and communities occurred as a result of concurrent innovations, change in the understanding of epidemiology, inventions of key medications<sup>2</sup>, and improvements in disposable incomes. The latter facilitated a number of behavioural changes leading to improvement in personal hygiene,

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<sup>1</sup> The examples of Sri Lanka, State of Kerala in India, Cuba and Chile are relevant in this regard.

<sup>2</sup> Some of the prominent and decisive primary health care inventions are DDT, antibiotics, penicillin and vaccines.

healthy and sanitary lifestyles and motivation to seek preventive care as opposed to post-episodic cure and treatment. Advent of scientific explanations for the occurrence of disease, bacteriology and virology provided the basis for people adopting modern medicine, and hygienic practices were the natural fallout of increase in incomes and education. Wars and natural disasters often stimulated thought and innovations in the field of public health as well. In this setting, the need to maintain better health standards was severely felt among the people as health armies and people at large were essential for nation building and income generation. There was thus an evolution of an idea that better health was an end in itself.

Although the relevance of clean environment, proper drainage and sewage systems, and access to clean drinking water were recognized in the very early period; the significance of nutrition in maintaining health was recognized in the 19<sup>th</sup> century. Its importance was highlighted in the context of prevention of diseases such as pellagra, beriberi and scurvy among the sailors. The prevalence of epidemics of smallpox, cholera, measles and other diseases was accentuated by distorted conditions of life and vastly destructive warfare raging in Europe. The Black Death was introduced in China with the Mongol invasion, reducing the population to almost half between AD 1200 and 1400.<sup>3</sup> The 14<sup>th</sup> century marked the devastation of the European population by plague, wars and the collapse of the feudal society. This provided

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<sup>3</sup> Plague epidemic was widespread in Russia during 11<sup>th</sup> to 13<sup>th</sup> centuries. Europe lost 25–50 million people due to plague 1346 and 1350 leading to under population. Plague epidemic continued to strike in London in 1665, in Marseille in 1720, Moscow in 1771 and many parts of Russia, India and the Middle East through the 19<sup>th</sup> century. Plague was found in Australia (1900), china (1911) Egypt (1940) and India (1995) during the 20<sup>th</sup> century. The disease is endemic in rodents in many parts of the world, including the US.

scope for innovations in agricultural and industrial production leading to industrial revolution. Increased commercial and industrial activities led to the movement of people and merchant fleet across the globe. This resulted as carriers of epidemics of typhus, smallpox, measles and plague across Europe. The 18<sup>th</sup> century – 1750–1830, was considered as the period of enlightenment. It was a period of rapid progress in social, economic and political thought. The idea that society was obliged to serve one and all had a profound impact on the approaches to health issues in particular. The American (1775) and the French (1789) Revolutions, together with the economic theory of Adam Smith (*The Wealth of Nations*), helped develop the political and economic rights of the people. The quality of life improved mainly through application of technological innovations including growth of medicine and disease control that concurrently occurred with the economic progress (Tulchinsky et al).

The success in fighting certain infectious diseases has led to widespread complacency in the world of medicines and health research. In the 1990s, organisms resistant to available antibiotics constituted a major problem for the public health and the associated health care system. A stage has been reached wherein the resistant organisms are multiplying faster than the generation of new anti-microbials. This threatens the past efforts in saving lives of millions by resurgence of the diseases. There are other dangers. The pandemic of HIV/AIDS and other emerging diseases will require new treatment methodologies and prevention including new vaccines, antibiotics and risk reduction through education. Public health even now, as in the past, faces ethical issues, which relate to the expenditures undertaken, the priorities and social philosophy.

This report presents links between health and economic development. It will highlight the importance of investments in public and primary health care in the context of macro-economic gains in the SEA Region.

### **Study Area and Objectives**

This study analyses issues for ten Member Countries in South-East Asia Region, viz., Bangladesh, Bhutan, DPR Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka and Thailand. Timor-Leste, which has recently joined the Region, could not be considered. Thailand by far is the most developed country of the Region followed by Indonesia. DPR Korea, India and Sri Lanka are other countries with a record of growing levels of income. Bangladesh, Bhutan, Maldives, Nepal and Myanmar are somewhat being in economic development. While there are many common health problems in these countries, there are notable differences also because of differences in socioeconomic, epidemiological and demographic transitions among these countries.

The 'Commission on Macroeconomic and Health, (CMH)' report (WHO 2001), draws evidence from across the globe, and demonstrates significant linkages of health with economic growth, and health and poverty. CMH strongly recommends undertaking country and regional level analyses and charting out national and regional plans of action. This SEA Region report intends to undertake the following objectives:

- (1) To highlight the importance of monetary and physical investments in primary and reproductive health, mass education and poverty alleviation programmes in the WHO SEA Region;

- (2) Present a profile of health spending (both public and private expenditures); and establish linkage between macro-economic growth and health spending in the SEA Region;
- (3) Identify mechanisms to enhance the health coverage of the poor – whether greater financial investments in specific health sector interventions enhance health care accessibility, and
- (4) The effect of globalization and the introduction of GATS, TRIPS on the availability of drugs, increase in general health awareness.

This report consists of five sections. Section 2 attempts to establish association between macro economy and health. Section 3 presents an overview of disease profiles and cost of care in the SEA Region. Section 4 analyses health care expenditure differentials amongst the countries, especially with respect to public, private and out-of-pocket expenditures. Section 5 explores the mechanisms to improve health accessibility, especially amongst the poor in the SEA Region.

## **2. LINKS BETWEEN HEALTH AND ECONOMY**

The macroeconomic evidence across the world confirms that countries with weaker conditions of health and education have a much harder time achieving sustained growth than countries with better conditions. On the other hand, countries such as China and many Southeast Asian ‘tiger’ economies did have a relative advantage since the initial conditions in terms of health and education were relatively better amongst them (Dreze and Sen, 1998). In healthier economies, individuals live much longer on average and their lifetime economic earning is therefore higher (CMH Report, 2000: p25). Longer-lived households also invest a higher fraction of their income in education and financial savings

because they are at an advantage to make use of the enhanced lifetime and reap the benefits of such investments.

Economic growth requires not only healthy individuals but also education and other complementary investments, such as appropriate division of labour between the public and private sectors, well functioning markets, good governance and institutional arrangements that foster technological advancement. The other way to link health with economic growth is to recognize a simple fact that healthiness of people increases with the increase in personal income. It is empirically found that the income elasticity for the health and nutrition-related products are positive and more than one. As levels of personal income rise, a relatively higher share is spent on consumption of health care products and products enhancing and sustaining better nutrition. At the same time, a person who is healthy devotes quality energy for work and thereby can earn a living. In this context, it can be mentioned that poverty or inadequate income levels contributes to the persistence of ill-health as the person concerned is not able to finance his treatment. This in turn contributes to greater loss of working hours, culminating in a decline in the growth of GDP of the entire economy. "The fact that ill-health reinforces poverty is less understood than the view that poverty causes ill-health" (Shariff, 1999b).

The burden of morbidity from a number of untreated, debilitating but rarely fatal diseases in developing countries, including sexually transmitted infections, has a substantial impact on productivity. Deaths associated with diarrhoea and respiratory infections are rare in industrialized countries but are the major killers of children in developing countries. Diseases that do not occur in industrialized countries, such as, malaria, tuberculosis and

schistosomiasis impose a very heavy burden in less developed countries. HIV/AIDS has caused havoc on both adults and children in the developing world. Furthermore, the ageing of the population in the developing world can be expected to bring increases in the absolute burden of noncommunicable diseases as well. Thus a commonly used indicator of health – life expectancy at birth – is inadequate to highlight the costs associated with morbidity that do not lead to death but cause substantial financial and social stress. ‘Disability Adjusted Life Years’ (DALYs), a newly found indicator, is a better measure but it is difficult to estimate these frequently and at the national and sub-national levels.

The pattern of disease prevalence among the global poor is quite different from that of the population of the world as a whole. Evaluation of global data for the 1990s suggests that communicable diseases are posing a considerably higher threat to world’s poor than the global averages suggest. Communicable diseases cause 59 per cent of deaths and 64 per cent of DALY loss among the 20 per cent of the global population living in countries with lowest per capita incomes. The respective figures are 34 per cent of deaths and 44 per cent of DALY loss among the entire global population. Communicable diseases are responsible for 77 per cent of the mortality gap and 79 per cent of DALY gap between the world poorest and richest 20 per cent, compared with 15 per cent and 9 per cent attributable to noncommunicable diseases (Gwatkin and Guillot, 1999).

Presently, out of US\$ 60 billion spent worldwide annually by both public and private sectors on health research, only about 10 per cent is devoted to 90 per cent of the world’s health problems, which are in the developing countries. The economic and social costs, either directly or indirectly, paid by the humanity as a result

of such misallocation of resources are tremendous. Among the poorer population the direct cost is high, given the vicious circle between poverty and poor health.

Extension of primary and critical clinical services is essential, along with easy and cheap access to appropriate drugs to achieve substantial health gains. Pharmaceuticals already exist that can treat most and prevent many of the diseases causing the bulk of morbidity and mortality in the poorer countries. However, improvements in vaccines for tuberculosis and inventions for HIV/AIDS and malaria are urgently required. It also appears much of the disparity in health status and outcomes are due to differential access to drugs that are already available; sanitation and safe water, which influence the transmission of certain types of diseases (Widdus, 2001). Another dimension to achieve success in improving health amongst the global poor is to deal with associated conditions, such as maternal health and malnutrition, and to combat re-emerging diseases, such as tuberculosis, which spread particularly among the downtrodden. Thus one expects a number of associations among aspects such as safe drinking water, environmental sanitation and even economic growth of the population at risk of disease and sickness.

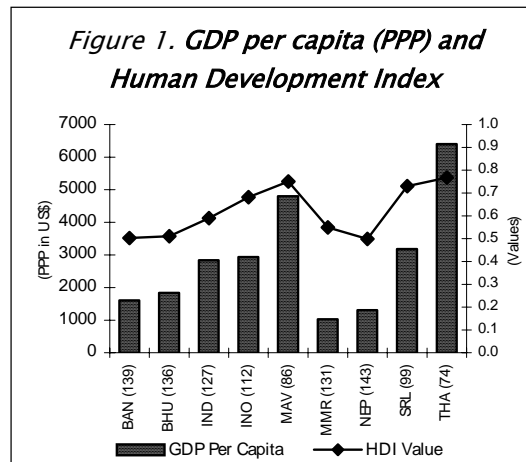
## **2.1 Poverty and Human Development**

The SEA Region is characteristically a poorer part of the world having relatively higher proportions of people who are categorised as poor. Many countries have the national level poverty line to estimate respective size of population categorised as poor. For the sake of international comparisons, Dollar-a-day and two - The SEAR also have high deficits in most of the human development and human poverty parameters as reflected by very low levels of

‘human development index (HDI)’ and related indicators. Human development concept is a decade old measure of human welfare, which encompass three main dimensions of human life, namely, longevity, knowledge and material well-being. This concept very well highlights the importance of multi-dimensional nature of welfare, however, according premium to health, education and purchasing power so as to make international comparisons easier. However, the MDG declarations in 2000 carried forward the above concept somewhat much further in identifying specific goals and tasks; and an analysis suggests the centrality of health in achieving these goals. Investments in factors leading to higher human development and towards MDGs enhance the human capital of individuals and communities.

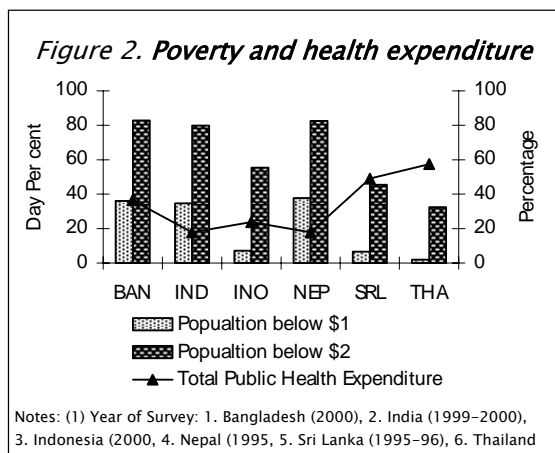
Figures 1 to 4 present recent data for the Region highlighting simple associations between poverty, human development and selected health parameters. The Region includes countries that do not rank very high in terms of HDI values. All countries except Thailand and Sri Lanka have values below 0.7 (Nepal and Maldives below 0.5). Even Thailand and Sri Lanka have values about 0.75 that are not high in the global perspective.

It is striking to note that the level of GDP has high association with the level of HDI in all countries except for Sri Lanka (Figure 1). Sri Lanka has relatively lower level of GDP but considerably higher level of human development index. Indeed



Sri Lanka is often referred to in development economics as an example of success in the Asian region for having achieved higher human development while sustaining incomes at relatively lower level.

The Region has high levels of poverty. India, which has about 68 per cent of the population of the Region, is host to over 300 million people who are categorised as ‘below the poverty line’<sup>4</sup>. However, about 80 per cent of the population in Bangladesh, Bhutan and Nepal and about 60 per cent in India are found to have a per capita per day income of less than 2 dollars a day. Two-dollar-a-day poverty is also as high as 40 per cent in Sri Lanka and 30 per cent in Thailand.



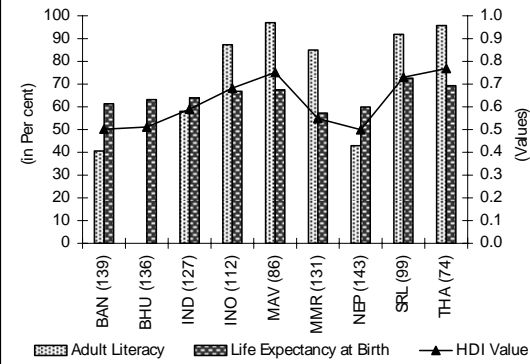
and Nepal and about 60 per cent in India are found to have a per capita per day income of less than 2 dollars a day. Two-dollar-a-day poverty is also as high as 40 per cent in Sri Lanka and 30 per cent in Thailand. Extreme degree of poverty measured in terms of one-dollar-a-day is as high as 40 per cent in Bangladesh, Bhutan and Nepal, and about 10

per cent each in India and Sri Lanka. Figure 2 presents an association between incidence of poverty and total health expenditure as a percentage of the respective country GDP in nominal terms<sup>5</sup>. One clearly sees an inverse association. The total (public, private and household) health expenditures are lower amongst countries having high incidence of poverty such as India, Bangladesh and Nepal and vice-versa, such as in Thailand and Sri Lanka.

<sup>4</sup> In India poverty line is anchored in monetary amounts that are needed to ensure food intake producing 2400 k. cal per capita in rural and 2150 k. cal per capita in urban areas.

<sup>5</sup> The health expenditure as a proportion of GDP is not measured in PPP terms.

Figure 3. Human development index and selected parameters



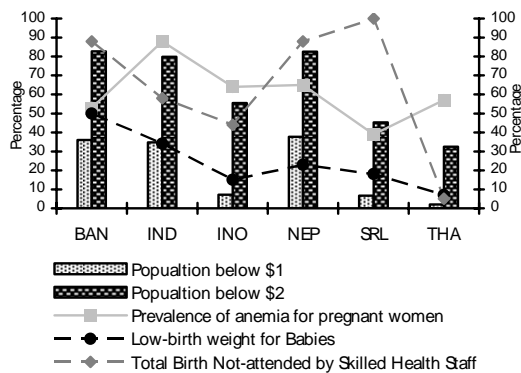
Some associations between selected human development and health parameters with HDI and poverty are presented in Figures 3 and 4. Adult literacy is still a dream in at least Nepal, Bangladesh and India, and the variation between countries on this count is substantial. Life expectancy differentials are also substantial, Thailand and

Sri Lanka being the favourites with higher levels compared to all others that are lagging behind. Similar associations are found

between the incidence of poverty and prevalence of anaemia amongst women and low birth weights amongst children. Anaemia amongst women is still very high (50–80 per cent) amongst all countries, more so in India, Indonesia, Bangladesh, Nepal and Bhutan. It is least but still above 40 per cent in Sri Lanka.

However, low birth weight is a problem in South Asian part of the Region except for Sri Lanka. Proportion of births not attended by skilled health staff is a programme variable that has some

Figure 4. Poverty and health indicators



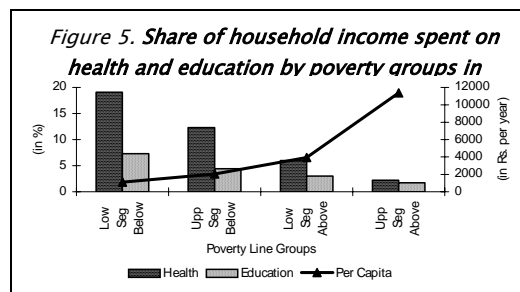
Notes: Data for low-birth-weight babies relates to a period between 1992– 2000, Birth attended by skilled health staff

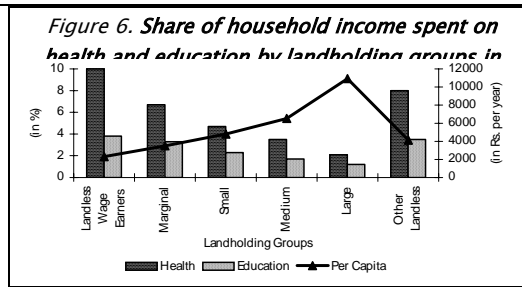
contrasting indications. While Thailand has a better coverage with almost every birth occurring under some institutional and medical care, Sri Lanka does not have such a facility. However, considerably large proportion of births in Bangladesh, Nepal, India and Indonesia still occur in the absence of skilled health staff.

**Box 1**

**High Out-of-Pocket Expenditures on Health: India Case Study**

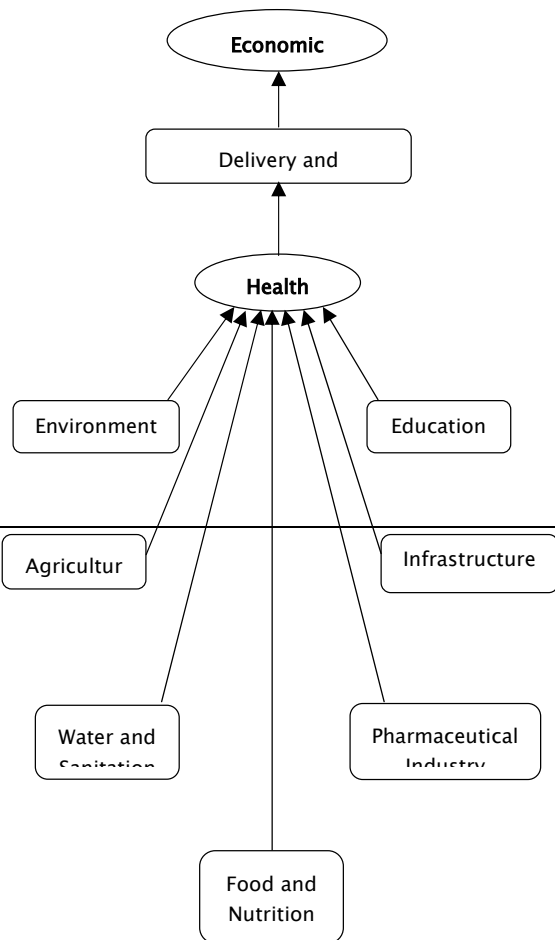
India has a population of over one billion, with two-thirds living in rural areas. The national and state governments have made a commitment through the Indian Constitution to provide basic services such as health care, elementary education, drinking water and sanitation to the masses. In spite of the popular claims by the government of providing free and cheap health services it is found that people spend considerable amounts, as out-of-pocket expenditures to seek health care. In absolute terms although high-income groups spend substantially on medical treatment, in relative terms the poor spend disproportionately higher share of household income on similar treatments (See Figures 5 and 6). In recent years, owing to the adoption of the structural adjustment programmes adopted by the national governments there are severe cuts in public expenditure on health services. Although this provides opportunities for the private sector to thrive, it has adversely affected the poor disproportionately.





About 20 per cent of people are classified as ‘poor belonging to lower segments of below the poverty line’. They have an average per capita income of Rs 1050 per year and spend just about 20 per cent of this household income on purchase of medicine and payments to physicians. Another about 6.5 per cent of this income on an average is spent on providing primary education to the school going children. This puts extraordinary difficulty on the poor to lead a decent life. Similar expenditures according to land size classifications also highlights precarious conditions of those who are landless, marginal and small farmers. It is also observed that the backward classes identified as SCs and STs and religious minorities also pay out a substantial part of their income on health higher than that spent by the other privileged classes.

**Figure 7. Mutli-sectoral links to health**



## 2.2 Multi-Pronged Strategic Investments Promoting Health

It is interesting to note that health is crucially linked with the economic, political, environmental, cultural and social factors characterising the Region. It is therefore essential to ensure the efficient functioning of these

sectors to realize major breakthrough in the health sector achievements. In most of the countries the health care system lays a lot of emphasis on primary care. Together with this health approach, it is essential to ensure that people have access to high and improved quality of life in terms of clean drinking water, improved sanitation, hygienic living conditions, reduced levels of pollution and so on. Health and environment are inextricably linked with each other and in turn are affected and influenced by other external factors. For instance, development projects meant to bring socioeconomic and health-related benefit to the people and community at large is associated with unintended impacts that amplify existing hazardous conditions in the countries of the Region. Together with achievements in the health sector, it is also essential to ensure that the people have access to other basic needs. It is identified that the people should have food to eat as it is already emphasized that lack of nutritious diet renders a person more susceptible to diseases. Here, one can argue that countries should have enough supply of foodgrain, which is best attainable through an increase in the production of foodgrains. Hence the agricultural sector needs to be strengthened, which is of relevance to the economies that are heavily dependent on the agricultural sector. Education and health are considered as assets for promoting economic development. Education itself has an essential impact on the health of the individuals. It results in increased awareness among masses, which is one of the most effective means of controlling the spread of diseases, speaking broadly. Apart from this aspect, education also improves the quality of life, which has a positive impact (through individual efforts) on improving the health standards (see Figure 7 for schematic intersectoral linkages affecting health and economic growth).

In addressing the various issues related to health care, it is often experienced that in spite of availability of all the components of health care, people have limited access to these health services primarily due to lack of infrastructural facilities. Some of the countries comprise islands or dense forest areas, which makes communication difficult. Lack of infrastructure makes conditions worse and the services are not delivered to the people in need. It is essential to provide efficient infrastructure in order to deliver the services. Another problem quite exclusive to the low-income countries is the lack of life-saving drugs. Even where people wish to purchase drugs, they are not available, which is cause for serious concern. The working of GATS/TRIPS under WTO has been instrumental in addressing the issue of patents and property rights, which can improve the availability of drugs for the less developed countries provided some careful and tactful negotiations are put in place. However, low-income households can assess the benefit of being a part of the global nexus from the prevailing prices of drugs in the domestic market, which continue to restrict the purchase of drugs.

The above discussion tries to hint at the fact that conditions of poor health prevailing in any country is the fallout of a host of reasons some of which are controllable while others require global consensus. It is not difficult to cite the fact that health of an individual is linked to social, economic, geographical as well as political environment in which he lives. Therefore, in addressing the issue of health and devising ways to improve the conditions of health, it is neither worthwhile nor practical to concentrate on health alone and neglect the other sectors. Here, it is important to identify the linkage between the health sector and other social as well as economic sectors. A multi-pronged strategy, as is commonly referred to, is perhaps a desirable and result-oriented

method which can be undertaken in order to achieve a substantial gain in improving the standards of health care and providing better health for one and all. Often, a policy which recommends pulling out of resources from the education and finance health needs is not advisable. Health care as it exists is of two types: curative health care wherein efforts are directed to help the ailing individual recover, and preventive/promotive health care where the focus is on development and improvement of the living and working conditions so that the people do not fall victim to these deadly diseases. Keeping in view the latter strategy, it will be advisable to provide certain basic standards of living to the people such that they are in a position to defend themselves. This calls for investment in the educational sector, sanitation and family welfare together with health. The hierarchy of health in social sector programmes is often damaging in sustaining health standards for the people living in low-income countries. It is often realized that providing medical relief to a large proportion of people in need is burdensome for the government with limited budget. It is also equally true that the cost of treatment falls heavily on the economically worse off sections. Therefore concerted efforts which help prevent the spread of endemic diseases such as HIV/AIDS, tuberculosis, malaria and others are likely to be less expensive and hence less burdensome for both the government and the people. Herein, the thrust lies on a multi-sector strategy, which in turn broadens the horizons of health care.

### **2.3 Water Resources and Sanitation**

The interaction between health and water cannot be overstressed, for provision of safe drinking water has the most visible impact on public health as well as national development than any other inventory measure. Pathological conditions of human beings

associated with unsafe and inadequate water are classified under the headings of water-borne diseases (i.e., cholera, typhoid, amoebic and bacillary dysentery and other diarrhoeal diseases) caused by ingestion of contaminated water, water-washed diseases like scabies, trachoma and flea; water-based diseases that includes dracunculiasis and schistosomiasis; and water-related diseases (i.e., dengue, filarisis, malaria, trypanosomiasis and yellow fever). Improved water and hygiene can reduce morbidity and mortality rates of some of the most serious diseases by a factor of 20 to 80 per cent. However, provisioning of water is one of the national objectives of many countries in the Region that has been difficult to fulfil. Lack of resources to develop, maintain and sustain water-related infrastructure has proved to be difficult due to inadequate budgetary allocations.

Despite a mammoth effort during the International Drinking Water Supply and Sanitation Decade (1981–90) with an outreach of safe drinking water and disposal facility extended to 1600 million and 750 million people respectively; by the end of 1990 there remained a total of 1015 million people without safe water and 1764 million without adequate sanitation, mostly due to addition of 800 million population in developing countries. Efforts in outreach paint a dismal picture after 1990. A quarter of humanity remains without proper access to water and sanitation, 5 million human beings die from illness linked to unsafe drinking water and bad water-related hygiene; furthermore every eight seconds a child dies of water-related disease. Nearly half of the population of the developing world suffer from one or more of the six main diseases associated with water supply and sanitation (diarrhoea, ascariis, dracunculiasis, schistosomiasis, hookworm and trachoma). WHO estimates that it costs an average of \$ 105 per person to provide

water supplies in urban areas and \$ 50 in rural areas, while sanitation costs an average of \$ 145 in urban areas and \$ 30 in rural areas. These kinds of resources are simply not available in countries such as Bangladesh, Nepal, Bhutan, India and Myanmar. However, the hope for the majority of people in these countries is in community and cooperative action on the one hand, and change in the mindset with respect to what is considered clean potable water and environmental hygiene and sanitation. In this context of rapidly increasing population and the shortage of resources (financial and physical) in providing clean drinking water and sanitation, it is worthwhile to assert the validity of a multi-pronged strategy. Together with the allocation of resources for provision of clean drinking water and better standards of sanitation it is also essential to restrict the increasing growth of population. Similar strategies will be counterproductive and complementary rather than being contradictory.

## **2.4 Environment**

Health and environment are inextricably linked with each other and in turn are affected and influenced by other external factors. For instance, development projects meant to bring socioeconomic and health-related benefit to the people and community at large is associated with unintended impacts that amplify existing hazardous conditions in the countries of the South-East Asia Region. At the same time, improved health environment allows better use of natural resources generating higher amounts of GDP. For example, in Sri Lanka a reduction in the prevalence of malaria in the endemic areas during the second half of 1970s contributed to a 9 per cent increase in GDP as people moved over to hitherto

malarial infested areas and used natural resources (World Development Report, 1993).

Unrestrained development in countries has brought in its wake, pollution and disease outbreaks caused by improper management of water supply and human and other wastes. It also causes deforestation and environmental degradation, exposing people to a variety of health risks. Uncontrolled urbanization and industrialization has overstrained the capacities of local governments to provide basic amenities to the people. Rural areas of the Region are not free from the above health hazards. Unsafe drinking water and inadequate excreta disposal are responsible for a majority of the illnesses. Further, indoor air pollution and unrestrained use of pesticides and herbicides in agriculture poses significant health risks. Occupational hazards at work place and contaminated ground water result in ill-health and the death of millions of people.

## **2.5 Food and Nutrition**

Overall inadequacy of food intake to meet the needs for growth, immune function, cognitive development and reproduction affects 30 per cent of children and 25 per cent of women, while 56 per cent of all under-5 deaths is indirectly associated with some form of malnutrition. Malnutrition is the result of an interaction between food intake, disease risk factor and behaviour. Disease is the result of exposure to disease, resistance and treatment at home and medical interventions. Frequent diseases associated with anorexia, fever and diarrhoea have the greatest effect on nutrition. Malnutrition in turn reduces resistance to disease. Reducing the effect of disease on nutrition involves immunization, improved water supply and sanitation, improved hygiene and access to

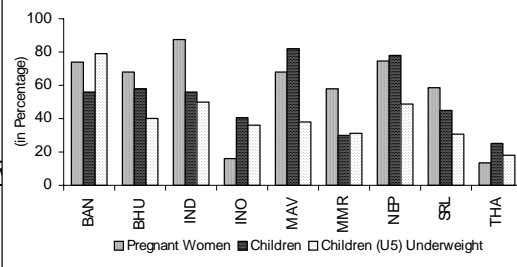
minimum nutrition inputs in the context of health care (World Bank Group 1997, p 63).<sup>6</sup>

The highest levels of malnutrition and under-nutrition has been found to be present in the SEA Region, in fact higher than the chronic food deficit countries of Sub-Saharan Africa (Figure 8). The high levels of anaemia among women, especially those pregnant, reveal the high degree of nutritional deficiency in the Region. Women are found to have inadequate intake of iron supplemented diet. Practically in all countries of the SEA Region, health of women and children in particular is neglected. Often social norms and practices contribute to the low health and nutritional status of women. Poor health conditions of children and the prevalence of malnutrition are reflected by the prevalence of underweight among the children and also incidence of stunting and wasting. The main cause of malnutrition among infants is identified as low levels of breastfeeding and poor methods of weaning. In Thailand, for example, only 4 per cent of the children less than 3 months are breastfed. There is a divergence in this practice in the rural and urban areas, as observed in countries like Nepal and Maldives. Bangladesh and India have high levels of breastfeeding practices exceeding 50 per cent. Universal and healthy breastfeeding practices are found only in Sri Lanka and Bhutan.

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<sup>6</sup> Health, Nutrition and Population: The Human Development Network, Sector Strategy. The World Bank Group. 1997.

**Figure 8. Anaemia and undernutrition among women and children**



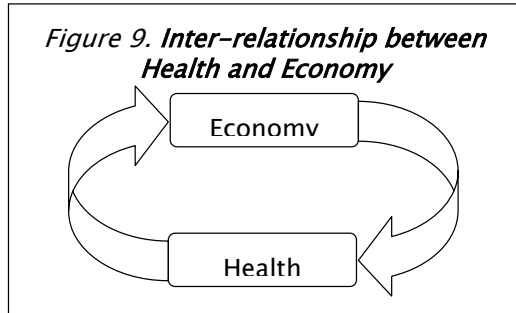
The widespread

prevalence of anaemia increases the incidence of a host of diseases. For example, nearly 20 per cent of maternal deaths in Bangladesh are attributed to anaemia. Diarrheal diseases and respiratory infections constitute the major killers and are also sources of morbidity and malnutrition among children in Bangladesh. Thalassaemia is a major problem in Maldives with 18 per cent of the population being reported to be carriers of the disease. In Myanmar, women and children are found to consume low levels of protein and calories, resulting in high levels of malnutrition. In Sri Lanka, worm infection, nutritional deficiency and malaria are cited as the most common causes of anaemia among the people. Another feature reported from Nepal is that even when the per capita energy consumption levels have increased in the last two decades there is no improvement in the nutritional levels as manifested in wasted and stunted children. In Indonesia, the problems of malnutrition are related to that of Protein Energy Malnutrition (PEM) and micronutrient malnutrition. India has the dubious distinction of being host to the largest number of malnourished and anaemic women and children in the world.

Most of these countries have high levels of vitamin A deficiency (VAD) and iodine deficiency disorder (IDD). Low levels of iodine consumption have resulted in the prevalence of IDD and VAD among children. Although a number of comprehensive health programmes to improve the health and nutritional levels of the masses are in place, they are not accessible to those in need. Lack of adequate funds to sustain the programmes and geographical bottlenecks has hindered programme implementation. For instance, in Indonesia the coverage of iodine supplementation programme has not been a success because of geographical and

socioeconomic factors. Also, lack of survey reports and adequate data on the nutritional profile has resulted in under representation of the nutritional status of the population under consideration.

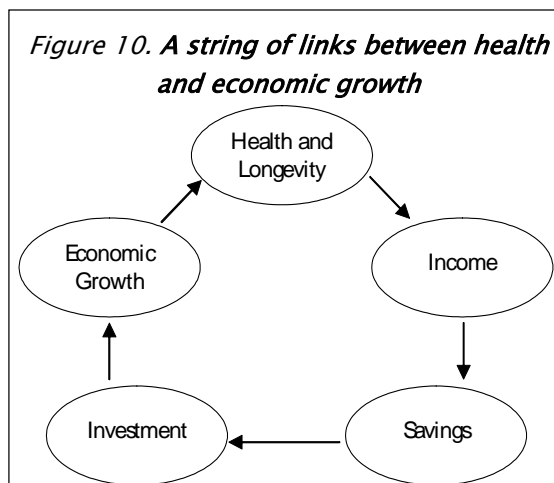
## 2.6 Economic Growth and Health



Health is a cause rather than an effect of economic development (see Figure 9). History is a witness to the fact that important breakthroughs in public health, disease control and improved nutritional intake has given rise to great takeoffs in economic

development – rapid growth of Britain during the industrial revolution, rapid growth of Japan in the 20<sup>th</sup> century, and Europe and East Asia in the 1950s and 1960s. Health is among the basic capabilities that gives value to human life (Sen, 1999). Health and education are two cornerstones of human capital and, furthermore,

health is the key determinant of education and vice versa. There exists a correlation between better health and higher economic growth (Figure 10) for health determines job productivity, the capacity to learn in school and the



capability to grow intellectually, physically and emotionally. Elimination of disease and improvement of individual health will enhance income-earning capacity over three times.

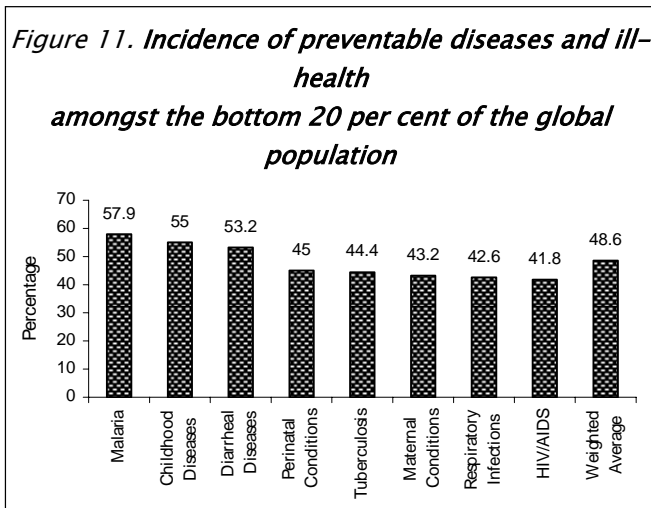
It is erroneous to assume that better health is a by-product of economic growth. Disease burden slows the economic growth that is presumed to solve the health problems. For example, more than half of Africa's growth shortfall relative to the high-growth countries of East Asia could be explained statistically by disease burden, demography, and geography, rather than by more traditional variables of macroeconomic policy and political governance (Bloom and Sachs, 1998). On the other hand, treatment of leprosy in the state of Tamil Nadu improved individual income three-folds. Thus health improvement helps the poor more than the rich in augmenting income. Disease reduces the number of years of healthy life expectancy. The society afflicted with a high infant mortality rate lacks the secure knowledge of its children's longevity, witnesses higher rates of fertility, and experiences "quality-quantity" tradeoff in child rearing. Disease burden diminishes the return to business and infrastructure investment in addition to the effects on individual worker productivity. The adjacent figure presents a simplified link between health and longevity with income, savings, investment and economic growth, which in turn help improve health and longevity.

The Millennium Development Goals (MDGs), agreed by the world's heads of government at the Millennium Summit in 2000, stress the linkages between overall poverty alleviation and investments in health. Health investments will allow people in prime age to seek out better gainful employment. Women are more likely to benefit from improved health in terms of economic gains through employment. Thus one can clearly find a linkage between longevity, opportunities to earn higher income for a longer period

of time leading to savings and investments leading to higher economic growth (For details refer to MDGs in Appendix 1).

## 2.7 Human Value Dimension

The existing differences in the health profile of high and low-income countries are quite distinct (see Country Profiles & Health Indicators at Annex 1). The economic viability in providing health services may be considered from the cost-effectiveness point of



view which could be one of the discriminating factors between the rich and poor countries. It can be argued that the asset ownership profile and productivity levels of people living in low-income countries, who are usually leading a subsistence life, are negligible. Due to the subsistence nature of the production and

consumption pattern and a lack of marketable surplus, the contribution to the national income is also meagre. Thus a case may be made that benefits that accrue may not be sufficient to compensate for the cost incurred in improving the health situation of the masses. This could provide an economic rationale for not providing health services or at least reluctance to invest in the health sector in less developed countries. However, it could be stressed that the poorest of the poor are the least burdensome on the economic resources. There-fore, the benefits arising from

investment in their health will be more than the cost of providing the services. Besides, given a high incidence of sickness and ill-health (see Figure 11), a high proportion of programme benefits would accrue to the poorest 20 per cent of the population. Percentages of deaths occurring among the bottom 20 per cent of the population are as high as 50 per cent in cases of malaria, childhood diseases, prenatal sickness, diarrhoeal disease, tuberculosis, maternal conditions, and respiratory infections, with an overall weighted average of 49 per cent. Thus, primary healthcare delivery programmes, which have a focus on such diseases and health conditions, benefit the poor most and are cost-effective. The robust gains out of primary health programmes, coupled with the assumption that a long healthy life provides incentives to invest more in education and other inputs that enhances individual capacity to earn more, enables accelerated gains that would be disproportionately large. Thus the inter-linkage between healthy lives and increased longevity translates itself into skill formation – an essential prerequisite to gear the process of economic development.

## **2.8 Health Spending**

Most of the developing countries confront periods of macroeconomic imbalances: rising inflation, imbalances in aggregate demand and supply and foreign exchange crisis. In order to tackle these imbalances, the countries undertake structural adjustment programmes, often in collaboration with international lending agencies. The structural adjustment programmes and stabilization processes often necessitate cuts in government expenditures, devaluation of currency, relaxation of price controls and restraint on wage levels. In the context of the present analysis of health expenditure, it is observed that a

reduction in government expenditure in the social sectors results in a squeeze on health spending. The consequences of such a reduction have diverse negative effects on the health status of the economically worse off section in particular.

Primarily as government moves out of the health sector, where it previously existed as a major provider of health services, the private players come in. This increases the cost of acquiring health services. Keeping into consideration the heterogeneity of the population in the countries under study, not all are affected due to the reduction in public health expenditure. It is the economically disadvantaged who bear the brunt of the situation. The poor find themselves in a position where they cannot avail of the private health services. In this context, government plays a vital role in providing health services for the people in need. This may be a part of the total fallout of structural adjustment programmes. Relaxation of price controls on essential services, especially non-health services, results in people spending more on these goods and services. This reduces their spending on health services. Health spending among the poor is much more income and price elastic compared to the well-off sections. Estimates reveal that they tend to spend a greater proportion of their income on acquiring health services. Even if the nominal income of the people is unaffected, the rise in the general price levels results in a fall in the real income whereby the share of income spent on health services shrinks. Nutrition has considerable influence on the health status of the people. In periods of crisis, people resort to less nutritious diet whereby their intake of essential vitamins and nutrition is reduced. This makes the people more susceptible to certain diseases. At the same time, they are unable to access

medical treatment and continue to suffer from preventable diseases (Bell and Reich, 1988).

In the health sector, the already negligible proportion of health expenditure, as a percentage of GDP, has increased at a decelerating rate in South Asia over the past three decades. In 1960, health expenditure in the Region was as low as 0.5 per cent of GDP, which increased insignificantly to 0.9 per cent of GDP in 1996–98. In Bangladesh, the proportionate share of health expenditure rose from 0.8 per cent in 1990 to 1.6 per cent between 1996–98. In India, the proportion of health expenditure of GDP had been fluctuating at extremely low levels of less than 1 per cent over the last three decades. The expenditures in the health sector had increased in Nepal from 0.2 per cent of GDP in 1960 to 1.3 per cent in 1996–98. Sri Lanka, with health achievements equivalent to the East Asian countries, had been reducing health expenditures from 2 per cent of GDP in 1960 to 1.4 per cent in the late 1990s (Human Development in South Asia, 2001: p 55–56).

Families and government programmes acted to cushion each other to ward off the impact of crises in Thailand on education and health. There is no evidence of negative effect on national health outcomes. The number of reported cases of malnutrition continued on a downward trend in 1998. Household's real expenditure on both private and public health services declined significantly. While out-of-pocket expenditure on medical and institutional care was 36 per cent lower in 1998 than in 1996, self-medication increased by 12 per cent during the same period. The decline was lower for the poor who undoubtedly tried to sustain essential health expenditure and who also benefited from the public health services. The government maintained its level of investment in health with real expenditure on health down by 5 per cent in 1998

from 1997 levels, but still 11 per cent higher than what it was in 1996. The decline mainly affected investment expenditures. The government enlarged its health safety net by increasing the coverage of public health insurance. Use of public health services increased between 1996 and 1998, with the number of outpatient visits rising by 22 per cent.

The effects of the crisis on health were complex and heterogeneous but clearly negative in Indonesia. Household expenditure on health declined from 1.4 per cent of GDP in 1997 to 1 per cent in 1998. The use of public health services, following the crisis, declined by 1.8 per cent, from 7.2 percent to 5.4 per cent for adults and by more than 7.1 per cent points for children (WDI 1999).

## **2.9 Mechanisms through which Health Affects Households and Economy**

Irrespective of the economic, social and political profiles of any country and stages of economic development, the effects of ill-health on the well-being of the people are quite universal. Contraction of any disease, be it communicable or otherwise, results in acute physical pain and suffering to the individual concerned. Herein starts the process of accounting economic loss and social turmoil. It is worthwhile to lend a thought to this aspect of ill-health, in passing. Disability and death arising thereof has certain psychological dimensions, conveniently overshadowed by more awesome economic and political considerations.

The individual suffering is translated into crisis, the burden of which is borne by the other members of the household. Ill-health results in increased medical expenditure, which in most of the

poor households is met by a subsequent curtailment of other essential expenditures. In the event of ill-health of the sole breadwinner of the household, it is observed that a fall in income due to disability and at times death is accompanied by rising medical expenses. The most common curtailment are reduced food intake by women and children. The workload of women increases substantially so as to supplement the reduced household income. Children are found to drop out of school and join the labour market at a very early stage in order to add to the family income. In many ways, the quality of life enjoyed by the household undergoes a dramatic change. As the expenditure on nutrition, education and other basic needs are squeezed, the health of the other members in the household are adversely effected. There are evidences of under-investment in children's education and other basic requirements across the Region. Apprehending such recurring crisis arising out of ill-health and high rates of infant mortality, the poor households consider their children as a future security. Whereby they choose to have more children further aggravating the problem of uncontrollable population. Perhaps the worst consequence of ill-health pertaining to the economic well-being of the household can be cited in terms of the households being caught in the poverty trap. Increased medical expenses and cost of care results in the disposal of household assets (e.g. land, livestock, jewelry, etc). Under such circumstances, even the not so poor or near-poor are caught in the poverty trap.

Yet another evident fallout of ill-health is the loss of valuable work hours and life-years, which translates itself into a decline in personal income. Aggregating the loss of all personal income culminates in the shrinking of national income. The adverse effects of ill-health trickles down from the individual concerned to his household and to the economy at large. The issues concerning the

household might appear trivial in the first instance, but can take serious proportions when conceived from the point of view of the economy as a whole. In order to control the endemic nature of the diseases characteristic of the Region, there has been a growing pressure on the government to reallocate the already scarce resources. This is compounded by the declining government revenue as a result of decrease in the number of taxpayers. Ill-health resulting in disability and death has reduced the number of people employed in the organized sector. In the light of these issues, it is essential to gear our efforts in analysing the fact that ill-health aggravates poverty rather than restricting our view to the fact that poverty accentuates conditions of ill-health. Healthy life translates itself into longer lifespan and increased productivity, brightening the prospects of enhanced personal as well as national income.

Apart from the fall in personal and national income and the subsequent impoverishment of the household, it is also observed that deteriorating levels of productivity can be detrimental to the productivity of the firms. Ill-health results in long periods of absenteeism from work. This results in a decline in output while the quality of work is also hampered. Firms have been facing rising costs of expenditure. This trend can be attributed to additional costs incurred in order to compensate for long periods of absenteeism and declining productivity of the workforce. Better health of the workforce is an asset for the firm by virtue of which it can compete in the world market and assure itself of positive returns. It would not be surprising if investors hold back their investments in the Region overburdened with diseases. Better health of labour force improves a firm's capacity to compete in international bidding process and long-term sustained business

opportunities (Refer to Direct and Indirect Costs Associated with Selected Diseases, Appendix 1).

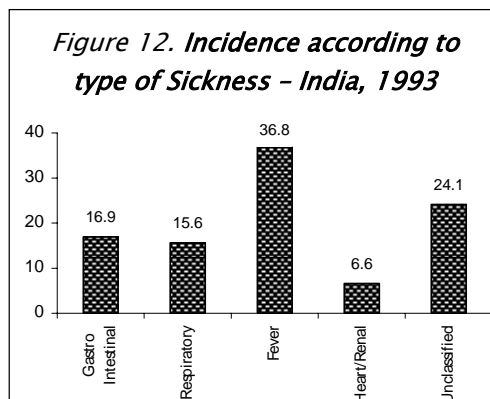
Cost of illness can be effectively measured in a recent economic terminology – Disability-Adjusted Life Years (DALYs). DALYs saved include increased years of life as well as reduced years of living with disabilities. As observed in the CMH report, it has been estimated that the direct economic benefit of saving 330 million DALYs would add up to at least \$186 billion per year. The estimates are in line with the assumption that each DALY saved yields an economic benefit of one year's per capita income of projected \$ 563 in 2015. The account of the DALYs saved could be instrumental in overcoming the observed trends of deceleration in national income. It is claimed that the per capita income would rise by millions, thereby leaving lesser people below the poverty line. Estimation of the DALYs is an effective way of formulating health policies, keeping in view, the prevailing economic, social and cultural conditions.

Keeping in view the existing disease profile and the degree to which they continue to affect various sections of the population, a brief insight into the associated and discernible costs would help to develop a perception as to how preventable diseases continue to affect the lives of millions. It has already been brought to light that there exists a widespread disparity in the burden of diseases between high and low-income countries. Conditions are worse, when one looks at the fact that the burden has fallen disproportionately on the poor. In general, there are certain identifiable direct and indirect costs of ill-health. These costs seem to have considerable effect on the individuals as well as the economy as a whole. Hence there are various channels, most of which are interlinked through which the burden of disease

translates itself into economic damage. The cause of concern is the fact that most of these diseases are preventable and the losses arising out of their incidence can be controlled. Therefore, before directing our efforts towards formulation of plans and policies to restrict these costs and strive towards a disease-free world, it becomes almost mandatory to highlight both the direct and indirect costs of ill-health.

### 3. DISEASE PREVALENCE AND COST OF CARE<sup>7</sup>

The major medical discoveries and health care breakthroughs have worked in tandem to ensure and reaffirm that the world health situation has improved and that there has been a noteworthy decline in the morbidity rates. Yet, the disease profile in the less developed countries is very different and there is dearth of data and analysis that present the true state of affairs. There are significant differences in the risks of disease and ill-health faced by the global poor<sup>8</sup> and rich.



Respiratory infections and diarrhoeal diseases each caused more than 10 per cent of total deaths, and peri-natal conditions and childhood diseases were each responsible for almost 8 per cent of deaths; all prevalent amongst the relatively poor. Respiratory infections and diarrhoea remained at the first place in terms of DALY loss (Figure 12). A noncommunicable disease, ischaemic heart

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<sup>7</sup> See Appendix III for more details

<sup>8</sup> Particularly the poor living in less developed economies.

disease, was in fifth place, and was responsible for only 7.3 per cent of deaths. On the other hand, among the global rich, all the top five causes of death and of DALY loss were noncommunicable diseases, with ischaemic heart disease and malignant neoplasms at or near the top. (For details, please see Annex 3).

The population at high risk of morbidity and morbidity also varies considerably. Given high levels of perinatal and neonatal mortality, it is children of both sexes under the age of 5 years who suffer the most in developing countries. Women follow this in reproductive ages, especially those pregnant and lactating. Reproductive health services are not easily accessible to a large number of people in the countries of the Region. The morbidity can be judged from the shape of 'U - shaped curve' when plotted by age (Figure 13). Health and caring support for the old is one of the serious denials in the Region. Data in Table 1 suggest that though there is a high prevalence of diseases of the poor such as tuberculosis, malaria and HIV/AIDS in the countries, there are considerable variations across the Region.

**Table 1. Incidence and prevalence of selected diseases**

Country	Incidence of tuberculosis <sup>a</sup> 2000	Prevalence of HIV/AIDS <sup>a</sup> 2001	Prevalence of malaria <sup>a</sup> 2000	Prevalence of under-nourishment <sup>b</sup> 1998-2000
Bangladesh	242	16	40	35
India	184	380	7	24
Indonesia	280	12	920	6
DPR Korea	175	<1	454	34
Myanmar	168	760	224	6
Nepal	208	66	33	19

Sri Lanka	58	32	1,110	23
Thailand	140	1,345	130	18
Bhutan	–	<16	285	–
Maldives	–	<25	–	–

*Notes:* (1) a: per 1,00,000 population. (2) b: % of population.

*Source:* World Development Indicators, 2003', World Bank.

The aspect of cost of care can be looked into from two dimensions: it is observed that most of the countries except Bhutan has a high proportion of out-of-pocket expenditure, which is a matter of concern, especially keeping in mind the fact that a substantial portion of the population belongs to the low income category. An attempt is made to give an account of the other modes of financing health care services together with that of the out-of-pocket expenditure and the costs associated in incurring such expenditures. As can be traced from the status reports of the different countries, private household expenditure on health in Myanmar increased from Kyat 38 in 1989 to Kyat 249 in 1997 and Kyat 565 in 2002. Even in Nepal, taxation and out-of-pocket expenditure comprise around 50 per cent of the total expenditure on health. It is not surprising to note that in Bangladesh around 46 per cent of the household expenditure is incurred on purchase of drugs from private pharmacies.

Considering the costs of the diseases borne by the individuals, it is observed that a considerable part of the cost is self-financed. For example, in India, expenditure on short duration morbidity and major sickness are estimated to be Rs 121 and Rs 49 per person respectively. Direct costs including the cost of medicines, doctor's fees, travel and diet constitute nearly 75 per cent of the total cost. A total of Rs 170 per person is spent annually on treatment, which is Rs 969 per annum per household. Table 2 presents survey data on

the structure of household health expenditures. The share of 'fees and medicines'<sup>9</sup> alone was as high as around 75 per cent in case of short duration illness and about 65 per cent in case of long duration illness. While the annual expenditure on short duration illness was around Rs 125, it was about Rs. 50 for long duration illness. However, the most important dimension of expenditure is cost per sick person and per reporting person. These expenditures have been very high in India – around Rs. 1100 and Rs. 1200 respectively.

Consider these expenditures for the bottom 20 per cent of the population whose annual per capita income is Rs 1050 at 1994 prices. Such an expenditure often devastates the family lives of a large number of people in India and other countries of the Region. Therefore the public health expenditure needs to be revised and the renewed strategy should be such that the poor are able to access the services. In many cases, the quality of the service provided is so poor that people prefer private health care. At times the public health care services are so sparsely distributed that availing the public health service units is almost impossible.

*Table 2. Cost of treating illness by income group (Indian 1994 Rupees)*

Household Income Groups	Cost of short illness		Cost of long duration illness			
	Fees and medicines	Proportion of total cost	Fees and medicines	Proportion of total cost	Per sick person	Per reporting person
Upto 20,000	116	0.74	44	0.63	997	1,150
20,001–40,000	129	0.74	52	0.66	1,092	1,229

<sup>9</sup> 'Fees and medicines' includes hospital registration charges, fees paid to physicians and paramedics and purchase of medicines.

40,001–62,000	108	0.73	51	0.69	1,141	1,285
62,001–86,000	152	0.85	56	0.61	1,196	1,332
Above 86,000	112	0.71	62	0.67	1,424	1,552

Source: Shariff, 1999a

India still has a high incidence of tuberculosis and leprosy among the low-income groups such as wage earners, and amongst women and lower social groups such as SCs, STs and minorities. The cost of medical treatment as a proportion of the respective annual per capita income is very high in India, often due to prolonged illness because of non-treatment. In fact, areas which report low costs of health care are found to lack access to primary health care facilities provided by the public health care system. With rising levels of education and economic development the populations tend to have better access to health care facilities. Gender disparity with respect to health care is more pronounced among high income families. Households tend to spend more on males with respect to health care.

According to the CMH proposal, for countries with a per capita income of US\$ 500, the desirable level of health expenditure as a percentage of GDP would be 6 per cent. In this case the government should aim to spend 1 per cent more of GDP on health by 2007 and 2 per cent by 2015, a point already highlighted. Sri Lanka had a per capita GNP of \$851 in 1996 and if it had to spend \$30 on health care services per person, then health expenditure to GNP ratio should be 3.53 per cent. However in Sri Lanka, this ratio was only 3.2 per cent. Keeping in view the current status of the burden of diseases, it is estimated that the cost of care per person will be as high as US\$ 45. Similar accounts of cost of care for other

countries can be useful in conceptualizing the pattern of investment in the health sector and the contribution of each participant in the entire network.

Keeping in view the present scenario of health spending and the impact it can have on people belonging to low income groups, it is desirable to adopt certain other alternatives of health financing. Health insurance has been already in place in most of the countries. It is well depicted in the case of India, that health insurance is an “income protection plan for the poor” (Krishnan, 1996) and proposes hospitalization insurance plan for persons below the poverty line. It is a common observation that the health insurance in most of the countries cover people in the organized sector with the effect that the poor people are subject to financial risk. Hospitalization insurance plan aims at providing coverage to the people availing hospital services. Health insurance for the poor in general attempts to relieve the burden of expenses, which during continuing episodes of illness increases. It is clearly observed that in India the poor people spend more on health services than the richer class as a proportion of their total income (see Box 1). This could be attributed to low levels of government intervention. Similar cases may be cited in other countries as well. The long-term objective of health financing should be to reverse the present ratio of 3:1 as between private or public health expenditure. The establishment of decentralized governance structures such as the one through the Indian *Panchayati Raj* seems a viable institutional strategy to bring about this change.

## **4. STRUCTURE OF HEALTH EXPENDITURE**

Health intervention is perhaps the most sensitive issue in the analysis of health and its effect on the people and the economy as a whole. Health problems are vast in the Region and the people affected are numerous. The nature of intervention should be such that the economic losses arising out of sickness can be minimized. The government plays a major role in the field of intervention supported and aided by private players and donors from the rest of the world. Therefore, any attempt to address all the issues together in a bid to provide respite for one and all would be too much to ask of national governments, which are still struggling to provide its people with the basic amenities of life. The developing countries are always in the act of balancing their scarce economic resources and the ever-increasing demand for enhancing public expenditure in the social sector (see Annex 2).

### **4.1 Fiscal Squeeze**

Practically all countries of the Region are in the process of implementing structural adjustments and integrating their respective economies in the global markets. Both the processes demand a substantial departure from the existing economic practices. Often, as these processes are imposed by multilateral funding institutions such as IMF, and emerging institutions regulating and promoting international trade such as the WTO, the governments are under fiscal stress. This leads to cutting down expenditures on softer sectors such as primary education, health, poverty alleviation and social protection programmes, both at the national and local (state) levels to cope up with the demands of reforms and globalization. In the low-income economies where the

governments, in spite stated policy and often-constitutional guarantees for providing public health and primary education, have resorted to massive cuts in such expenditures. This severely affects the poor in coping with the inability arising out of illness. It is the proportion of expenditure curtailed, which renders health services inaccessible by the poor people.

Herein lies the need to develop a structure, which would address priority health conditions that would help to increase the effectiveness of public health policies. This, in effect, would help provide directives for the other participants in providing effective health care. Such a policy framework finds relevance in the context of tight budgetary conditions. Often continuing fiscal deficit and huge external and unilateral debts restrict public sector investments in the health sector. Therefore, narrowing down the area of investment would result in better utilization of scarce resources. It is a common observation that health budget is usually a part of the national state budget. Hence the nature of health spending is left to the discretion of the national government. In this context it is desirable to suggest that health budget should be evolved independent of the national budget. Often the allocation to the health sector from the consolidated fund leads to underinvestment, during periods of fiscal constrains. Exclusive health budgets seem efficient strategies as they will be based on local needs and account for health profile of the people and prevailing social and economic circumstances.

By using the concept of 'diminishing returns', it is argued that it is likely to cost less to improve the health of the poor than to improve the health of the rich, as the health improvement brought by a given increase in per capita income diminishes progressively as income rises.

Health expenditure decisions are often biased towards high specialty, hospital-based curative services with a strongly associated urban bias (Shariff, 1999a). In India, there have been large investments on the cure and prevention of heart diseases, cancer and making these services available for the patients. However, the cost of providing these services far exceeds the number of people who benefit from these services. Currently available intervention options appear capable of reducing death and disability from communicable diseases at considerably less cost than from non-communicable diseases in the developing countries. The burden of the disease can be used as a parameter to enhance investment and provide increased services in order to contain the incidence of the disease.

In countries like India, investment and research in immunization coverage, diarrhoeal diseases, tuberculosis, malaria and the like would help to improve the health status in a bigger way, as the burden of these diseases is enormous. In countries where child malnutrition is conspicuous and the women are reportedly anaemic, public investment needs to be directed towards the attainment of ways and means of eradicating hunger arising out of poverty. Childhood diseases pose a serious problem in these countries and as a way to restrict the continuance of this trend immunization coverage should be boosted up. The national health policies should reflect in its objectives the issues that require immediate consideration in the health sector.

In spite of the growing concern the world over that essential health services should be made available to the poor at a cheaper cost, one finds unacceptably high economic stress amongst them in seeking health care. Often the health policies worked out to help the poor live healthier lives have increased the plight of the people

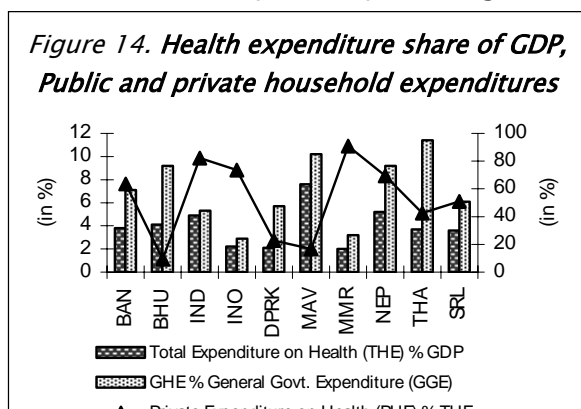
more than ever. The point is that anything which has quality, has a price and, therefore, the public health care services, which are free, lack quality. Those who are better off, often using political influence or through paying bribes, appropriate better quality services made available through the public hospitals. The poor who dare to reach public services suffer due to the unavailability of free supplies or get poor quality services that often endanger lives. This has even wider effects on the health situation in the developing world. The private outlets, on the other hand, are expensive and only a section of the population can afford such services. Out-of-pocket financing proves to be burdensome for the masses. In response to this, governments have encouraged the promotion of health insurance services which have been used to benefit the comparatively richer sections. Even social insurance cannot be availed of by people from all income groups and mostly serve the purposes of those engaged in the formal sector. Now, with the entry of foreign competitors in the insurance market, it would become difficult for one and all to avail such services. Let us, however, find out as to what is the structure of the public, household and private share of the total health expenditures in the SEA Region.

Reprioritization and reallocation of resources do not necessarily mean shifting the gear away from education, health and poverty alleviation; rather it is the other way round. However, national governments make a mistake in highlighting the importance only of health care at the expense of other essential public services. The cost of neglecting other social considerations can outweigh the gains accruing from enhanced health services. Herein it is suggested that reprioritization and reallocation be achieved on the basis of health surveillance and epidemiological

reports, which undergo massive alterations with time. Budgetary prudence appears innate in the respective government’s capacity to reform economic sectors such as manufacturing, provision of public utilities and so on which can be privatized and resources thus saved rededicated to social sectors.

## 4.2 National Health Expenditures

Limited data on various facets of health expenditures including the share of households, private and public sectors are presented in Figure 14. Overall, all the countries of the Region spend considerably lower percentage of their respective GDPs on health.



They range from 7.6 per cent in Maldives, followed by Nepal at 5.2 per cent, to a very low of 2 per cent in Myanmar. Countries with large populations such as India, Bangladesh and Indonesia spend 4.9, 3.8 and 2.2 per cent of their respective GDPs. There are

substantial qualitative differences across countries as to what is the structure of expenditure and source of monies. For example, over 77 per cent of expenditure in DPR Korea, 83 per cent in Maldives and 90 per cent in Bhutan is undertaken by their respective governments, whereas the public expenditure in Myanmar is less than 10 per cent of the total expenditure. The share of public expenditure in India, Indonesia and Bangladesh is 18 per cent, 26 per cent and 36 per cent, respectively. In effect, the out-of-pocket expenditures of households in the countries are

substantial, 63 per cent of the total expenditure is borne by the households in Bangladesh. Given a highly unregulated private health market, the masses suffer substantially. All countries spend a substantially low proportion of the total public expenditures on health compared to developed countries. For example, Indonesia spends the least with only 2.9 per cent of government expenditure followed by Myanmar with 3.2 percent. India spends 5.3 per cent of its total government expenditure on its health sector. It is Thailand, which spends 11.4 per cent of all its total public expenditures on health followed by Bhutan and Nepal at 9.2 per cent.

Among the ten South-East Asian countries, Korea ranked highest in per capita expenditure on health (US\$ 392) followed by Maldives (US\$ 137) whereas the lowest ranked countries such as Nepal, Bangladesh, Indonesia, India and Bhutan on this account spend only US\$ 12, 13, 15, 23 and 25 respectively. Tax funded per capita expenditure on health for India, Indonesia, Nepal and Bangladesh is only US\$ 4 each whereas it is US\$ 303 and US\$ 114 for Korea and Maldives. This shows that the higher the GDP-population ratio is, the higher is the per capita government expenditure on health.

#### **4.3 Rationale for Strengthening Government Intervention**

It is often observed that, when used, donor funds tend to replace domestic reserves. Donor assistance should be an add-on rather than part of the national budget. Donor assistance is supposed to supplement the domestic reserves in order to bridge the gap between the amount required to finance the health services and the resources available. However, if the donor funds keep replacing domestic resources, the chances of narrowing down the difference

will not be achievable and it will not be surprising if the differences increase.

An analysis of the structure of health care expenditure suggests that individual and households spend substantially on fees, drugs and transport. All these out-of-pocket expenditures lead to non-treatment, delay in treatment incurring high costs leading to asset liquidation and indebtedness (Shariff et al.2002). Many patients take recourse to private practitioners due to the inaccessibility of government facilities and this drives the costs even higher. Private services are not only expensive but the sector is unregulated and also inefficient due to unclear demarcation of allopathic and other types of medicines at least in the South Asian context. However, even public services are of poor quality, yet the relatively poor use such services which have relatively lower direct costs. For example, in the states of Tamil Nadu and Karnataka in India, it was found that, of all outpatients visiting private practitioners, 58 per cent spent between Rs. 100–Rs. 200, 23.9 per cent spent between Rs. 200–Rs.300, and 6.9 per cent spent more than Rs. 300 on medicines in the preceding three months. By comparison, the numbers for government hospitals are 28.3 per cent, 12 per cent and 5.4 per cent respectively. In short, only about 10 per cent of outpatients visiting a private doctor spent less than Rs. 100, as against almost 55 per cent of outpatients at a government facility. Most patients expressed the need for reliable and low cost government services since the cost of visiting private practitioners is prohibitive.

*Table 3. National health spending in India: sources and uses  
(Percentages)*

Uses	Source
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	Central govt.	State and local govt.	Total govt.	Corporate 3 <sup>rd</sup> Party	House- holds	Total
Primary care	4.3	5.6	<b>9.9</b>	0.8	48.0	<b>58.7</b>
Secondary and tertiary inpatient care	0.9	8.4	<b>9.3</b>	2.5	27.0	<b>38.8</b>
Nonservice provision	0.9	1.6	<b>2.5</b>	NA	NA	<b>2.5</b>
Total	6.1	15.6	<b>21.7</b>	3.3	75	<b>100</b>

*Source:* World Bank (1995b).

One of the most important ways of tackling and controlling the rising levels of poverty among the masses has been recognized as investment in health. A poor person has labour as his only resource, and its supply depends upon the health and skill conditions. Therefore, if the person has the means of exploiting this resource then perhaps he will be able to find a better standard of living for himself and his dependants. There are both empirical and conceptual reasons for believing that interventions against communicable diseases and interventions applied in poor population groups have more favourable cost-effectiveness ratios than interventions against noncommunicable ailments, or those applied to better-off populations.

A nationwide survey on health expenditure, conducted in 1998, reports that Bangladesh spent a total of US\$ 1308 million on health in 1996/97, equivalent to 3.9 per cent of GDP. This works out to US\$ 11 per capita expenditure. Of the total expenditure, 13 per cent spent from revenue budget, 18 per cent from

development budget, 3 per cent from other public revenues, 3 per cent from other public revenues, 3 per cent from non-profit NGOs and 63 per cent by households. Of the per capita expenditure about one third (US\$ 4) was public sector spending and two thirds private spending. Out of the household expenditure 46 per cent spending was on purchasing drug from private pharmacies. A more up-to-date estimate of per capita health spending is US\$ 13 (WHO 2000). Only 5 per cent additional resources could be generated through user fees.

Health service is a public good wherein the market fails to allocate services among individuals who are in need. Here the government plays a crucial role in making these services available. A public good is defined as a commodity the consumption of which by a particular individual does not exclude the consumption opportunities of the other individuals. In the case of provision of health services, the problem of free riding arises. As different individuals share the benefits, it is difficult to motivate a single individual to undertake the initial investment. The government, out of completely altruistic motives, invests in the health sector. Apart from direct investment the government plays a vital role in broadening the information network across the country so that awareness among people in the remote area is enhanced. New scientific innovation can also prove to be beneficial for the spread of health information among the masses, which is a responsibility of the government keeping in view the level of investments required in this area.

The positive external factors linked with the provision of health care render government's participation even more important. The health programmes directed towards the cure of tuberculosis help to arrest further spread of the disease. Similarly,

the immunization coverage undertaken for the children ensures ways of arresting the spread of the disease among other infants. If the external factor is not taken into account, then private provision of the treatment may appear to be very costly as a result of which the patient will be deterred from going for medical relief. In such cases, the subsidization of health services can work in the interest of the nation as a whole.

Government intervention can be called forth in the event of market failure of health insurance wherein the problems of adverse selection and moral hazard are inherent<sup>10</sup>. A high-risk individual will be eager to take an insurance coverage and in its process, he will be less careful about his own health. This will have an adverse impact on the macro health situation. At the same, time the insurer will try to avoid giving insurance to a high-risk individual. In this case, the problem of adverse selection will crop up, as the individual who is at low risk today may become a high-risk individual. Therefore, the presence of the government in the health insurance sector can help cope with the problems of market failure. Considering the fact that the proper and efficient functioning of the health sector of any nation is crucial for providing health services to the people in need, this calls for close coordination between the activities of the state and the private partners. In addressing the issue in a cost-effective manner it is essential to weigh the magnitude of the benefits derived from the public health programmes against costs incurred. All the public health programmes should include the cost-benefit component as a means of restructuring the future modes of health care.

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<sup>10</sup> Adverse selection is caused by relatively higher enrolment in the insurance scheme by those who have relatively higher risk of sickness, disease or death. Moral hazard prevails, as those already enrolled will attempt to obtain disproportionately larger benefits from out of the insurance schemes.

#### **4.4 Relative Gains of Investments in Health Sub-sectors**

It is essential that available resources are prudently allocated to such sub-sectors that improve efficiency of investments in terms of welfare enhancing public goods. For example, an estimate suggests that an investment to the tune of \$ 12 per person in low-income countries will be sufficient to reduce the disease burden by almost one third (around 226 million DALYs). However, in middle income countries a higher per capita expenditure equal to \$22 will bring little gain and reduce the disease burden only by 15 per cent (45 million DALYs). If one takes all developing countries of the world into account, then a total cost per capita worth \$15 (in this case the total cost would be \$62 billion) will reduce the disease burden by 25 per cent or 301 million DALYs (World Bank, 1993).

Another important dimension is the relative importance of expenditures on 'public health' and 'essential clinical services'. In fact, there are demands to include essential clinical services within the ambit of public health. Both these sub-sectors together contribute substantially to the reduction in disease burden. For example, in low-income countries, for as low per capita cost as four dollars for public health and eight dollars for clinical services there can be a reduction of over 32 per cent of all DALYs amounting to 226 million years of DALYs. Thus investments in public health and essential clinical services are the most efficient health sector investment sub-sectors in low-income economics. One can clearly attribute the primary health and essential clinical services as public goods that produce community and national level returns as opposed to private gains that are produced by curative and high specialty medical services.

## **5. REFORMS, PRIVATE SECTOR AND DONOR SUPPORT**

### **5.1 Public and Private Compact**

In the developing countries, governments often finance and play a dominant role in providing vital social services such as basic health care, primary education, water and sanitation, as they are public goods; their market prices alone would not capture their intrinsic value and social benefits. Public investments also ensure that basic social services are available equitably to different population and cultural groups. Public provisioning, however, is not always the best solution when institutions are weak due to lack of government resources and management and accountability for the use of public resources is low. The experiences of developed countries suggest that these basic services should be comprehensively provided by the state early on, followed by more targeted interventions, and then public-private partnerships to serve different markets and different sectors of people (HDR, 2003). A compact between public and private on the one hand, and the rich and the poor countries on the other is essential to augment the health care services on a needs-based approach amongst the developing world. Public investment alone is insufficient in low-income countries and they often do not have resources to enhance social (health) sector delivery, investing in newly-emerging diseases such as HIV/AIDs and chronic disease of the poor such as the TB, malaria, cholera and so on.

The private sector is commonly excluded from national health programmes in the developing countries. The importance of the private sector in achieving health sector objectives within developing countries has now begun to appear in policy debates and approaches. In fact, the private sector caters to a large

proportion of population in selected health services such as curative care, clinical tests and related services, and so on. For example, over 70 per cent of the health care market is dominated by the unregulated private sector in India and many countries of the Region. The poor not only access private sector but most of the poor often go to informal sector providers. This pattern is widespread and more prevalent in rural areas where the poor are often concentrated. Since nearly all payments are out-of-pocket these payments are a serious burden and a source of risk for the poor, for whom a hospital stay or prolonged illness can lead to a slide into poverty after they have depleted all their savings and assets. Moreover, recent household surveys of many countries around the world indicate that private providers play a significant role in health care delivery, even to the poor (Gwatkin and others, 2002). Reviews of disease control and child and reproductive health programmes have similarly found that the private sector will prove to be a contributing factor in controlling the burden of disease in the Region. Private drug retailers are usually the first and often the only point of contact with the health system for a wide variety of conditions of public health system including MCH.

In the health sector, the term “Public-Private Partnership (PPP)” is used to refer to virtually any ongoing relationship between the public and private sector. Three distinct forms may be identified: (1) global public-private partnership, (2) domestic public-private partnerships with commercial sector, both production and distribution, and (3) domestic public-private partnerships with health care providers. (HDR 2003) observed that in Latin America, several MNCs<sup>11</sup> invest by purchasing established companies that

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<sup>11</sup> Mainly US-based corporations like Aetna, CIGNA, Prudential, American Insurance Groups etc.

sell indemnity insurance or prepaid health plans, associating with other companies in joint ventures and agreeing to manage social security and public health institutions. In the SEA Region, where a high proportion of poor live, it may be argued that in order to improve the quality of services poor patients receive, government can 'contract' or 'purchase' services from private sources for identified poor patients. The government needs to dedicate funds and programmes, to diseases and services that are critical and disproportionately affect the poor, such as MCH, reproductive health and family planning services. Exclusive efforts to improve delivery of quality products to rural areas and slums and regulating the informal providers located in those areas will pay high dividends. In many places, it seems to be a promising and flexible mechanism that can often be harnessed to local needs.

## **5.2 Private Participation in Health Services**

The agencies and institutions which can be entrusted with the responsibility of providing health services are government, public-private partnership, NGOs, and community-based approach. The focus is on making people pay for services which improves sustainability of service provisioning. The idea of the government paying for these services seems unsustainable.

The number and proportion of private practitioners can be taken as a proxy to private participation in care. One notices a considerable increase in the availability of private doctors in delivering health services in DPR Korea, India and Malaysia. This has forced the managers of the public health sector and policy-makers advocating the need for public health intervention to analyse the cause of such an occurrence. Clinical services and

drugs are essentially private goods, and there are evidences of market failures. Limited regulatory capacity in most of the Region has aggravated this issue. For example, over-treatment is a major problem in private healthcare. Unregulated private pharmacists also over-treat for illnesses or over-prescribe expensive drugs. Such use of medicines leads to dangerous treatment practices, higher health care costs and growing drug resistance. Thus, the governments are to make a compact very carefully with strict regulation of professional ethics. In one way, private participation has bloomed which is a desired objective in establishing public-private compact. However, this does not mean that the services delivered through such arrangements have reduced the burden of diseases or that the proportion of population for whom preventable diseases continue to be threat are able to access it better. A line of action could be such that the type of people who are indeed benefiting from the enhanced private sector participation be taken into account. One of the primary objectives to envisage public-private partnerships in health is to ensure that the shortcomings in publicly provided health sector be compensated by the presence of the private sector, and the nature of association as comprehended is complementary and not contradictory. In the era of globalization, private participation of health services is inevitable. But the private health providers should be more accountable and responsible in their attitudes in providing services, especially, to the poor. There should also be healthy competitions among private health providers themselves so that people may get clinical as well as curative care at low cost. In the process, if one sector displaces the other and if the health needs of population are not addressed, then the basic purpose of establishing health partnership will be marred.

**Table 4. Private doctors in developing countries**

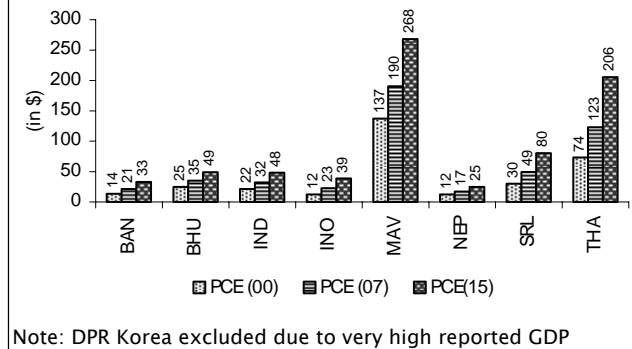
Countries	Private doctors/ million population	Private doctor percentage of total
Pakistan	107	32
Indonesia	6	6
Thailand	40	18
Malaysia	202	57
India	286	73
DPR Korea	398	86
Papua New Guinea	16	25
Asia Average	232	60

### 5.3 Rich and Poor Country Compact

There are three ways in which health financing in less developed countries can be improved:

- (1) Improve the efficiency of resources already dedicated to health.
- (2) Increase allocating to health through reallocation of budgetary allocations and through dedicated new streams of resources that can be generated; and
- (3) Increase donor-funding flows to priority sub-sectors of health.

**Figure 15. Estimates of domestic resources at the rate of + 1 per cent and + 2 per cent of GDP by years 2007 and 2015 respectively**



The CMH report rightly emphasizes all the three, although not in the same order of importance. The first and foremost task for all the countries of the Region is to improve the efficacy of health investments in such a way that they produce large public good. This can be

achieved to canalise the available funding to preventive, promotive and public health activities. Besides, an emphasis on reproductive health and essential clinical services is most important.

As discussed above, the current allocations to health in all the countries are far too low. Additional allocations to health can be undertaken by budgetary reallocations which have become feasible because of the structural reforms process that are sought in most of the countries. The CMH report has recommended that domestic resources to health be increased by 1 per cent of GDP over and above the current level by 2007 and to 2 per cent of GDP by 2015. Considering an annual average GDP growth rate of 5 per cent for all the countries and assuming that the current rate of growth of population will continue for the entire period, the per capita availability of domestic resources are estimated. It is clear from Figure 11 that even with this kind of additional resource mobilization of domestic resources barely provide for in the range for \$20 to \$30 for Nepal, Bangladesh, Indonesia, India and Bhutan

by 2007 at current prices. This availability will be in the range of \$25 – 50 by the year 2015. As Sri Lanka and Thailand devote relatively higher amounts right now the additional resources, if raised domestically, will have about \$50 for Sri Lanka and \$123 for Thailand by 207. Their respective availability will be \$80 and 206 by 2015. Maldives has reported relatively higher allocation on health and therefore the domestic availability will be \$190 and \$268 respectively for the years 2007 and 2015. Since these estimates are at current prices and not constant prices, there will still be a huge gap of the CMH standard requirement of \$ 34 if 2000 prices are to be met at least in the case of Nepal, Bhutan, Bangladesh, Indonesia and India. This can be compared with the MDG declaration that calls for an increase in total annual health outlays; increase in budgetary outlays for health by 1 per cent of GNP by 2007 and 2 per cent of GNP by 2015 compared with current level, and increase in donor assistance to the tune of \$14 billion per year in 2007 and \$21 billion per year in 2015 and scaling up of service from the bottom by civil society.

In helping low-income countries to achieve their health objectives and bridge the existing gap in health financing, high-income donor countries have an extremely important role. Low-income countries suffering from high burden of diseases cannot wait until their economic growth would trickle down and pull the poor out of the poverty trap. They need large injections of external finance so that they may substantially step up their investment in health, education, agriculture, water and sanitation. The need for partnership between the low-income and rich countries to enable the former scale up their essential health interventions has been very well brought out by the CMH Report. It should also be noted

that out of the eight goals of the Millennium Development Goals, the eighth goal is concerned with establishing partnership between the poor and the rich countries to meet the first seven goals. And, out of these seven goals, three, namely, reduction in child mortality; reduction in maternal mortality; and reversing the incidence of HIV/AIDS, malaria and other diseases are directly related to health. It may be worthwhile to highlight that three of the seven Millennium Development Goals and eight of the 18 related targets are directly health-related. Therefore, partnership between the rich and poor countries for health development in the latter is essential for realization of the MDGs.

The CMH in fact estimated the funding gap for each country and recommended per capita quantum for bilateral and multilateral aid requirement. However, it is difficult to foresee that this kind of support will come by easily. In fact, the funding countries are reluctant to support in the absence of a dependable assurance that funds will be spent for the stated and prioritized objectives and that transparent monitoring and evaluation mechanisms are put in place to assist sustainability in outside funding.

This calls for installing implementative approaches, which in fact address two very important objectives. First, there is an urgent need that countries evolve implementative platforms, institutions, procedures and inventory control systems that bring utmost amounts of transparency and accountability. In countries that are poor or those that have pockets of poverty, it is important that services, especially those, which are subsidized, are targeted for yielding better results. While accounting procedures of international standards should be resorted to keep track of the

input flows and logistical support, it is important that credible output measures are agreed upon to undertake annual or regular evaluation of the programmes being implemented. An improvement in such an administrative and governance system alone can enhance the confidence level of the donors, which should be the second objective of the state policy of the countries in the SEA Region.

**Overseas Development Assistance (ODA)** for health has increased steadily since 1975 at an annual growth rate of 3 per cent in real terms. Aid to health has continued to grow, averaging close to US\$ 3.5 billion a year during 1996–1998. Approximately 7 per cent of total bilateral and multilateral ODA has been directed to health during the most recent years (WG6 of CMH report: p 12). CMH calculates that if the donor countries contribute around 0.15 of their GNP, i.e., one penny for every \$10 of their income, and if that effort is matched by a suitable increase in effort within the low-income countries themselves, it should be possible to avert 8 million deaths per year by the end of this decade. As of 2007, the donor contribution should be around US\$ 27 billion per year or roughly four times the current US\$ 6.7 billion in official development assistance for health. The amount should increase to US\$ 38 billion by 2015. The economic gains would be around the order of US\$ 360 billion per year during the period 2015–2020, several times the costs of scaling up the health interventions themselves, accounting for both the donor and the recipient country efforts. Substantial increases in health assistance over a short period of time, however, without fundamental reforms in the prevailing management structures, at both donor and country levels, will risk continued inefficiencies, and delivery failures

resulting in delay in reducing avoidable deaths and disease among the poor.

There are several identifiable sources of **development assistance for health (DAH)**. Governments with tax payer's money are the fundamental source and funds are delivered through public agencies in aid receiving countries. Recently, however, private foundations have been contributing increasing and significant amount of resources as DAH. About 47 per cent of DAH is allocated to countries that spend less than US\$ 20 per capita on health and about 28 per cent to those spending less than US\$ 40 per capita. The overall amounts of DAH are very small, amounting to less than US\$ 1 per capita even in countries with low total expenditures (WG6 of CMH report: p14).

It is estimated that philanthropic contributions arising from international activities amounted to a sum of nearly US\$ 508 million in 1994. Overall, international donations grew to US\$ 679 million in 2000, with about US\$ 109 million or 16 per cent allocated for health purposes of all types (WG6 of CMH report: p17–p18). There has been a clear change in the forms of DAH over time. The objectives have shifted from single purpose efforts to control of particular diseases or to improve, for instance, family planning programmes to efforts to expand health system capacity and strengthen national health policy framework through systemic reforms and global initiatives for improving disease control. There are also significant variations in the mode of DAH. Donors are allocating more resources to programme and adjustment type lending and moving away from highly specific project-based approaches. It is estimated that 65 per cent or more of the

resources in the health sector are allocated for physical goods (civil works, pharmaceuticals, medical equipments and supplies), 10 to 15 per cent for technical assistance and training and the remainder for a range of recurrent expenses. Only a minuscule proportion of assistance is allocated for policy research and evaluation at the country level and for other economic and sectoral analyses.

DAH is often prioritized so as to get larger gains out of limited resources. For example, an estimated US\$ 660 million of DAH was allocated to family planning and reproductive health programmes. Another US\$ 875 million were provided as systemic support to the health systems followed by US\$ 254 million (29 per cent) of it to primary health care and US\$ 148 million to secondary and tertiary care. Half of the funds (approximately US\$ 1 billion) went to the support of transfer of ideas and knowledge and the other half to the transfer of equipment (drugs, vaccines, contraceptives, other supplies and local institutional capacity building). International concern also calls for wealthy nations combined to provide an additional \$100 million a year directly to the world's poorest countries to help them fight the global TB epidemic. To meet this objective, all donor nations need to devote 0.2 per cent of their foreign aid budgets towards controlling TB.

*Table 5. Disease and health sub-sector specific donor funding*

Diseases	Support (in million US\$)	Percentage
HIV/AIDS including sexually transmitted disease	337	20
Vaccine preventable childhood disease	250	15

Maternal and perinatal conditions	180	10
Malaria	87	5
Tuberculosis	81	4.5
Noncommunicable diseases	47	3

Source: Summarized from p17 of the Report of the Working Group 6 of CMH.

It should be realized that the active involvement of the industrialized countries in the global efforts to provide financial assistance to the low-income countries to address the burden of diseases are often beneficial for the former class. Keeping in view the huge labour force, which is readily available from the low-income countries, the developed countries often find themselves benefiting in financing the needs of the low-income countries. As for the donor agencies, the type of governing body present and the rules of conduct set out are significant in contributing to the effective operation of these agencies. The macroeconomic conditions of the host countries and their tuning with the existing public health systems also determine the effectiveness of the donor activities in general.

Monterrey Consensus of Millennium Declaration calls on the developed countries that have not done so to make concrete efforts towards the target of 0.7 per cent of GNP as ODA to developing countries and 0.15 per cent to 0.20 per cent to the least developed countries. If the members of the OECD's Development Assistance Committee (the world's 23 largest donors) actually delivered ODA equal to 0.7 per cent of their GNP, aid would be \$165 billion a year, that is three times the current level.

This amount is well above the total requirement to achieve all the Millennium Development Goals (HDR, 2003; p146).

## **6. GLOBALIZATION, WTO AND TRIPS**

Almost all the economies in the A-PR are in transition from the subsistence mode to the labour-market mode of production through the processes of macroeconomic reforms and integration of the respective economies into the global economic frame through multilateral trade agreements spearheaded by the World Trade Organization (WTO). This entails a shift of productive resources, such as capital, labour and land assets, from inefficient use to efficient and market-linked utilization, which generates relatively higher levels of income.<sup>12</sup> As this process challenges the traditional age-old systems within the local area, it often generates inequalities and to some extent resistance, especially in rural and remote areas. However, households need to be insulated from the adverse impacts of economic shocks, and this can be achieved by framing formal and creditable social security and social protection policies.

Trends in increased travel, global awareness, information flow, and commerce, collectively termed globalization, have raised the level of interest about the possible causes and consequences of the uneven distribution of disease, particularly of emerging infections. Globalization also poses some enormous new challenges and threats. The information network has been reinforced as a result of this but the benefits derived and their widespread dispersion is still a matter of query. However, it accentuates the brain drain mechanism. In the health sector, it is observed that doctors, nurses

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<sup>12</sup> One example of this is the emergence of contract farming across India and many other countries of the A-PR.

and other individual proficient, in this field, move to developed countries in pursuit of jobs due to better working conditions, lucrative pay packet and high living standards. Although the fact remains that their need is felt severely in the developing countries where the incidence of certain diseases is extremely high and in some specific cases it is found exclusively in these developing countries. Within a country, globalization results in the shift of health personnel from the public to the private sectors. In the poorer regions, the economically worse off class depends heavily on the public sector health services due to low cost provisions. However, the quality of service is pathetic in most of the cases.

Epidemiological surveillance reveals that enhanced economic opportunities have resulted in the movement of people from one part of the world to another which are distinct from each other in a number of significant ways. This has been responsible for the transmission of several diseases which were earlier specific to a particular region. In the same way, liberalization has been responsible for the transmission of health problems related to tobacco consumption, in particular, across borders. The changing lifestyles of people and economic activities have been instrumental in defining the disease profile specific to a particular country. There is reported incidence of transfer of tobacco products to the low-income countries wherein consumers are unaware of the harmful consequences of tobacco consumption. This is the outcome of increased commercialization of tobacco in order to boost its sales. As a result, increasing attention is being directed at the need to reduce global disparities in health.

GATS under WTO regime characterises services as being traded via four modes of supplies: (1) **Consumption abroad**: such as seeking treatment abroad where health facilities are better than those available in the home country. A good number of the rich

from the poor country do seek such consumption. More recently the reverse is true, where those who have trust and confidence from the rich countries are seeking out speciality health care from less developed but enterprising economies, such as India, as the cost of care is substantially less. Such practices do not focus on the needs of the poorer sections of the society who are in dire need of prevention. (2) **Movement of persons:** this concept has implications for brain drain of medical, paramedical and technical personnel. (3) **Commercial presence:** the present urge for entering into foreign collaborations through joint ventures, including alliances and management tie-ups, mergers and acquisitions in the health sector. This aspect has proved to work against the interest of the low income nations because in most of the cases the social and economic costs associated with such alliances cater to the needs of a very small section and cost effective health provision is neglected. Such commercial resources are essential in generating resources for supplementing scarce public sector investments in health care. (4) **Cross border supply** in health services includes, telemedicine and traditional cross border delivery of medical samples and diagnosis.

Hence the country's alliances with the rest of the world and international organizations in particular have a significant contribution in building up the health sector. However, the concern is to ensure that the masses benefit from the available health services. The national health policies as well as policies related to the foreign collaborations are channels through which such cost-effective measures can be envisaged. (WG4 of the CMH report).

It has been argued that inadequate access to pharmaceuticals plays a role in perpetuating the existing disparity in health conditions. Drugs and vaccines may not be accessible because of weak distribution, lack of infrastructure or because development of

the desired products has been neglected. This situation can be tackled with push interventions – to lower the costs and risks of product development for industry, with pull interventions – providing economic and market incentives, and with the creation of infrastructures allowing products to be put into use. There is an important role played here by multilateral trade institutions such as TRIPS under GATT. The patent rights envisaged by WTO under TRIPS are geared to protect the free play of market and sustain the competitive instinct in the area of international trade. One of the other objectives is to ensure the uniformity of prices across the globe which is not tenable for the low-income countries, particularly, because higher prices for essential items prove to hinder the accessibility of the economically worse off section. Patenting of products and processes provide an incentive to undertake R&D to improve the quality of products and services.

The glaring inadequacies in the provision of health services through public sector enterprises further create the demand for private health care and private health insurance even among segments which cannot afford such insurance schemes. Privatization of health services is a part of the process of liberalization in the developing countries. However, the catalytic role of WTO in negotiating on health services is not yet observable, as pointed out by Lipson's background note (WG4, CMH report). The general observation is that the beneficiaries of such services have been the social elite and the interests of the poorer section have been neglected altogether.

Under the WTO regime, TRIPS seems to have gone against the interests of the developing countries. The developed nations have been eager to acquire larger economic benefits and accordingly the policies are less favourable towards the less developed countries.

The existing national policies have at times proved to be a hindrance in obtaining the desired objectives. A balance between the international objectives and national aspirations would prove to be effective in ensuring the effective functioning of the public health system and attaining the much desired objective of health for all. However, the trends of operation of WTO are undergoing enormous changes, as can be seen in the context of India. It has made provisions for the poor countries to override the patents of multinational drug companies and order cheaper generic drugs that are not manufactured within the country from countries such as India. This move is primarily in response to the widespread occurrence of death from curable infectious diseases owing to the lack of medicines. It has been assured that the availability of drugs would not be restricted to diseases such as HIV/AIDS, tuberculosis and malaria. India and Brazil with their thriving generic drugs industries could be the potential source of supply of medicines for the poor countries in grave public health crisis, such as those in Africa (TOI, August, 2003). However, the developed countries have been keen on ensuring that their interests in patenting of drugs are safeguarded. It is expected that competition will gear up among the drug manufacturers resulting to large scale slashing of prices.

## **Research and Development**

Of late it has been realized that research and development (R&D) in the area of health is absolutely crucial both as a means of deciphering the nature of the diseases as well as the required measures to overcome them. Extensive R&D is needed in the field of epidemiological transition of the diseases. It has already been observed that the nature of disease profile is not uniform the world

over and therefore the measures, which are adopted to mitigate the health effects, cannot be generalized. Hence it becomes crucial to adopt strategies which fall in line with the nature of the existing problems. As a foreground for conducting R&D in developing health facilities and improving the availability of drugs and their accessibility, record of epidemiological transition is essential. Investments in R&D in establishing priority research concerns, although expensive both in time and money, can lead to research of a particular disease and production of a cost-effective intervention. The inclusion of such factors could well result in priorities that differ significantly from a list produced on the basis of burden of disease estimates alone.

The poor economies cannot afford to undertake extensive R&D programmes as the cost of such efforts cannot be realized through the price that users are willing to pay or can afford to pay. This is a dominant reason as to why it is desirable to promote partnerships and induce multilateral aids in order to finance R&D in the health sector without the overriding consideration of realizing the costs incurred or at least compromise upon the profit expectations in the initial stages of development. This provides incentives in activating R&D in the manufacturing of several life saving drugs (Widdus, 2001).

This could be brought about by direct intervention of the government or local bodies, especially through the assistance of nongovernmental organizations. In this context, emphasis is laid on the partnership between public and private agencies and similar collaborating agencies. R&D should be directed to detect the nature of incidence of the common diseases and highlight the necessary interventions. The diverse nature of the existing health

status must be taken into account and appropriate measures designed in order to prepare a foreground for intervention. There is a lot of pressure on the developed countries to develop R&D in the detection and cure of diseases which are prevalent in the developing countries without the idea of the state of health and epidemiology in developing countries. The health situation being very different may not be adequately addressed by the policies formulated in foreign lands. A proper insight of the existing problem can be developed only in the land of the affected. This provides a scope for community-based approach to the problem. The entire burden of health care cannot be transferred to the developed world. The other alternative would be to forge a partnership between the developing and developed countries in addressing the issue of health care to begin with and then conceive region-specific policies in order to provide better health for the people in need. R&D should not only incorporate the nature of disease common among the population and ways of controlling them but also lay adequate attention on the economic impact of the disease. This could help develop cost-effective ways of financing the expenditure incurred in controlling such diseases. The information network needs to be strengthened. The 'Population in Need' (PIN) should be clear in order to make the policy interventions effective.

## **7. MECHANISMS TO IMPROVE HEALTH ACCESS TO THE POOR**

### **7.1 Improve Efficiency of Investment**

All the countries in the SEA Region have under-financed the health care sector. The main sources of health sector financing currently

are government financing and private out-of-pocket spending by households. Extrabudgetary financing is still limited in most of the countries. Diversification of financing beyond the government budget is probably the key to expanding the resources available to the health sector and to the poor. Again, out-of-pocket financing is not an equitable source of financing. The poor have very limited resources to devote to health care, so excessive reliance on out-of-pocket financing leads to an inequitable distribution of health care. In addition, the heaviest burden of out-of-pocket expenditures falls on the least healthy who are therefore less able to bear this additional burden. User fees are already restricting access of the poor to services. Thus for most of the countries a reduction of the share of out-of-pocket expenditure borne by the poor is needed. A strong case can be made that governments should expand their commitment of resources to the health sector. The highest priority for the use of additional resources should be to raise the utilization of key public health services by the poor. Fortunately, most governments in the Region have some scope to reallocate health sector subsidies from less efficient to critical public health services that will benefit the poor.

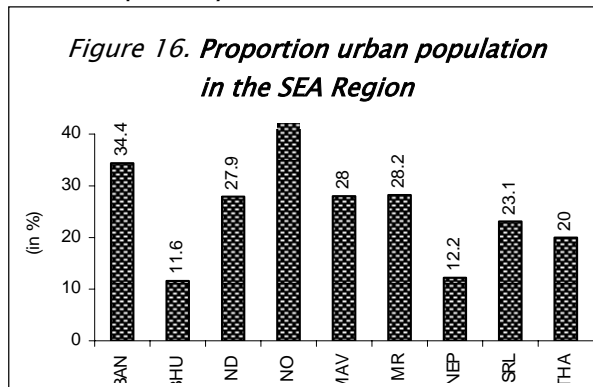
This calls for installing implementative approaches, which in fact address two very important objectives. First, there is an urgent need that countries evolve implementative platforms, institutions, procedures and inventory control systems that bring utmost amounts of transparency and accountability. In countries that are poor or those that have pockets of poverty, it is important that services, especially those which are subsidized, are targeted for yielding better results. While accounting procedures of international standards should be resorted to keep track of the input flows and logistical support, it is important that creditable

output measures are agreed upon to undertake annual or regular evaluation of the programmes being implemented. An improvement in such an administrative and governance system alone can even enhance the confidence level of the donors, which should be the second objective of the state policy of the countries in SEA.

## 7.2 Reduce Urban Bias in Health Care Delivery

The choice of Western allopathic health care as the dominant practice in the SEA Region clearly favoured urban and centralized delivery, although efforts were made for home delivery of certain services even in rural areas, through a three-tier delivery system<sup>13</sup>. Over time however, higher emphasis to curative and hospital care provided a continued basis for a high degree of urban bias in health care delivery across the region.

A recent summary of international evidence argues that the poor are more likely to use primary health care facilities than secondary health care facilities, and more likely to use secondary facilities than tertiary facilities. To reduce the rural-urban gap in health care there is a need for public investments in



<sup>13</sup> For example, in India health provisioning was based on the urban hospital, the rural dispensary and public health extension activities.

building rural subcentres and primary health centres in the rural areas posted with adequately-trained dedicated staff and equipment. Elementary clinical services, preventive care, immunizations and reproductive care services are the most important to be provided in the rural area. Mobile clinics, ambulatory services and referral services for out-reach activities are other viable options to be considered. Incentives to physicians and paramedical staff can be part of a motivating strategy so as to encourage them stay in rural and remote areas. Participation of NGOs, voluntary civil society organizations will help improve rural delivery of health care at low cost.

### **7.3 Decentralization of Health Services Improves Efficiency**

As part of political and civil service reforms, decentralization is most common in all the countries of this Region. Decentralization increases popular participation in decision-making because it brings government closer to people-making it more accessible and more knowledgeable about local conditions and needs. Thus decentralization can also be a viable means to provide health access to the poor if it can be made more responsive to the local needs and allows local people to participate in programme implementation. Some forms of decentralization create the possibility of mobilizing additional resources for the health sector at the local level. Where local authorities retain and allocate at least some locally-generated tax revenue, community groups, such as, village health committees, youth clubs, mothers' clubs, village development committees and so on can be actively involved in providing health care when they are supported to identify their own local needs and equipped with both financial as well as non-financial resources. Some examples of the community-based

schemes are (a) village health care posts in Bangladesh; (b) model village in Bhutan and in Sri Lanka; (c) mothers' club in Nepal and, (d) integrated health post and village maternity health posts in Indonesia. While careful planning so as to identify local stakeholder for devolution of authority is needed, the success in providing health care through decentralization depends upon the availability of sufficient local resources to train and maintain local staff. Although decentralization may be a strategy to promote efficiency and public accountability, it is important not to overlook the role of the central authority, particularly the need to establish equitable means for allocating resources and to ensure the existence of effective mechanisms for managing the health market. Actually each country has to consider or identify an appropriate mix of centralized and decentralized functions, responsibility or authority to best meet policy objectives.

#### **7.4 Tripartite Health Insurance**

Although a minority of the population incurs catastrophic expenses at any one time, any one may face the risk of such costs at some time in life. Most people are willing to pay to convert this risk through insurance, which is based on average healthcare costs. In the SEA Region where a higher proportion of poor lives; they most often lack savings and access to credit, have trouble in financing for even routine outpatient care in primary health facilities and are compelled to look to family and friends for assistance, sell their assets, or do without the needed health care.

Generally, unmet demand for risk-pooling services could be satisfied through private insurance. But the problem of 'selectivity' (meaning that the insured pool has much higher average health care cost than the general population) as well as the problem of

collecting premium payments is difficult since most of the labour force is still engaged in agriculture or informal sector work in this Region. These conditions severely limit the potential for private, voluntary health insurance (Saadah and Knowles, 2002). The risk-pooling needs of the general population can be most practically met by encouraging the systematic expansion of mandatory social health insurance coverage. Most governments, such as Thailand and Indonesia, are actively developing and testing ways to extend social health insurance coverage to previously uncovered groups (World Bank, 2003). The regional strategy should give high priority to supporting innovative pilot programmes to extend risk pooling to agriculture and informal sector workers as well as to scaling up successful approaches.

The problem of universal social insurance arises because utilization rates of the insured tend to be higher than the uninsured that results in inequity in health care utilization. Social insurance programmes could avoid this problem by reimbursing government providers for the full cost of services, not just for user fees. This type of policy also can open the competition between private and public providers. For the successful social health insurance scheme in the SEA Region, introduction of 'cost-controls' (e.g. coinsurance, copayments, and deductibles) should be a high priority (Saadah and Knowles, 2002). These devices also help to control inequalities in use between the insured and the uninsured. The appropriate policy should be to limit social health insurance coverage initially to catastrophic care and gradually deepen benefits as coverage and income rise.

## **7.5 Community Health Financing**

One of the most urgent and vexing problem in the SEA countries is how to finance and provide health care to poor people who live in the rural areas or work in urban informal sectors. All the countries of the Region have tried to expand risk protection through universal coverage by designing and implementing traditional public financing instruments, such as general revenues and social insurance. But estimates of the expenditure gap to achieving universal access to health services at low income levels through such public financing mechanisms range from US\$ 25–50 billion to over US\$ 100 billion (WG6 of CMH). In this context, community financing, notwithstanding its shortcomings, is often the only viable option for providing some financial protection and access to basic health care services for the poor. It is important to note that people already undertake upto about 80 per cent of total health expenditures form out-of-pocket sources, and what is needed is a mechanism to channel and regulate these expenditures in community health financing schemes provided the poor are ensured of dependable health access.

Discouraged by the inability of governments to reach rural populations and people engaged in the informal sector, communities have increasingly been mobilizing themselves to secure financial protection against the cost of illness for excluded population groups (Bennett et al., 1998; Atim, 1998; Musau, 1999; Jakab, 2001 and Krishnan, 1996). A range of health financing instruments have emerged over the past decade, including micro-insurance, community health funds, mutual health organizations, rural health insurance, revolving drug funds, and community involvement in user-fee management. Their common feature is the active involvement of the community in revenue collection,

pooling, resource allocation and service provisioning. Three most recent contributions are – micro-credits, micro-savings, and financial intermediation (Dror et al. 2000) and there has been an increasing awareness of the links between social capitals, such as community networks and institutions, and societal links.

Governments should contribute to the effectiveness and sustainability of community health financing schemes for rural, informal sector and poor populations through key policies. It can help increase access for the poor to insurance and reduce the payment at point of service. Governments can also pay part or all of the contribution for deserving poor members in community financing schemes. Alternatively, they can subsidize the scheme directly following set criteria regarding the socioeconomic status of membership. For schemes whose members are predominantly poor, governments are exploring options to ensure the availability of reinsurance to enhance the sustainability of these schemes. Other policies may include prevention and case management techniques to limit expenditure fluctuations; technical support to strengthen the management capacity of local schemes; and establishment and strengthening of links with formal financing and provider networks.

## **8. CONCLUSIONS**

The focus of all the sections discussed above has been to highlight the significance of physical health investments directed towards the benefits of the poor in particular, a class that dominates in the SEA Region. The health expenditure pattern of the individuals clearly indicates the fact that health care is an expensive and often unaffordable task. Thus arises the issue of accessibility of primary and essential curative health services by those belonging to low-

income households and those located in remote areas. Matters get worse as the burden of communicable diseases falls heavily on the poor, particularly those living in less developed economies. The economically downtrodden are therefore saddled from both sides. The obvious conclusion will be to ask the government to take centre stage in resource mobilization and its allocation. However, with growing awareness the world over, the task of financing health services is no longer restricted to the government alone. Considerable participation of local bodies, NGOs, women's forum and other social and religious groups in dealing with the issue of health care cannot be denied although the results of such cumulative action still has a long way to cover. From the economic point of view it is perhaps not so difficult to convince national and international players that health is important as the linkage between health and GDP is quite clear. However, in a world where low-income countries in particular are facing the menace of communicable diseases and fast growing threat of HIV/AIDS, STD and tuberculosis, the generation and multiplication of the national income cannot be the only steering force behind promoting healthy lives. As is appreciated by one and all, healthy life is a basic right of every individual irrespective of the fact whether he is able to earn and add to the national income or not. To address the entire issue of health care from humanitarian perspective will call for a massive transformation of the mindset of the people, which is quite unimaginable.

In pursuing the important economic objectives, therefore, it will be necessary and also possible to achieve better health status of the masses and those in need with concerted efforts of the government, civil society organizations, the private sectors and donor country organizations. Keeping track of the amount of out-of-pocket expenditure incurred by individuals, it will be desirable

to induce these expenditures into community financing. It will be effective in curbing the exorbitant levels of health expenses and also ease out the burden of financing at the time of a health crisis. Advocating decentralization is not to assert the fact that the role of the government will be taken over by private players often identified to be more efficient. The idea is not to divide the stakeholders, executing the task of health delivery into watertight compartments. Rather it is an attempt to pool all the efforts so that an effective and efficient method of delivering health services so often envisioned can be observed in reality. However, differences in ideology cannot be ruled out. Private participation is bound to be guided by profit considerations. In most of the cases, it has worked to the benefit of the economically well-to-do people but are detrimental to the interests of the poorer section. Government regulation can be an effective means of controlling the profit levels of the private players. Health service does not comprise medicinal treatment alone. The idea that availability of stocks of life-saving drugs will improve the health of the people has to undergo a change. It is observed that most of the essential life-saving drugs is quite expensive, purchasing which the poor people are caught in the poverty trap. It is desirable to conceive (if not achievable) of an environment wherein the conditions of primary health care is such that the susceptibility of the people to communicable and infectious diseases is reduced by conspicuous levels. Therefore, the provision of clean drinking water and better sanitation should be focused upon under public health programmes. It is cherishable to promote awareness among the masses through primary health care so that the costs of treatment can be avoided by leading healthy lives.

Apart from providing primary health care together with curative health services, it is essential to boost health

epidemiology. Highlighting not so pervasive aspects of health inadequacies should be taken care of as this often defocuses and thus the more pertinent issues move out of sight only to emerge as a menace. For instance, the case of obesity in India that is brought into light tends to overshadow the more gruesome issue of malnutrition and undernourishment, especially among women and children. There are cases of obesity and attempts to control the growing incidence has less scope in a country like India where quite a substantial portion of the population and the most vulnerable sections are victims of malnutrition and undernourishment. Here one can make a case for reprioritization and make health care efforts much more effective. It provides a clear insight into the future course of action. Health strategy envisaged once needs to undergo alterations on the basis of research into the present state of affairs. It becomes important to scrape away the shortcomings and loopholes and update the strategy so that the health intervention programme executed is cost-effective.

As already mentioned, it is necessary to take note of the fact that improved health standards in the low-income countries is a boon for themselves as well as the rest of the world. In an era of globalization where there is convergence of many sorts, it is not wise to conclude that improving health standards have hardly any relation with the economic standards and achievements of the developed nations. The low-income countries have huge stocks of human capital and the low wage rates prevailing in these labour-abundant countries have given the developed countries an opportunity to use cheap labour and reap higher profits. The low-income countries provide a huge market for most of the products manufactured in the developed nations. The amount of foreign

collaboration pouring into most of the countries in this Region clearly indicates the chances of profitability gauged by the developed countries in trading with the countries of the SEA Region.

**Box 2**

**A Enduring Success in Health: Sri Lanka – A Case Study**

Sri Lanka is unique so far as it has been successful in raising the health and nutrition status of the people, despite having relatively lower levels of per capita GNP and public expenditure on health. The current levels of both life expectancy and literacy are comparable to any of the well-developed countries of the world. The progress dates back to the structural adjustment programme, which began in 1977 as a means of remedying the persistent deficits in the balance of payments and growing unemployment. The crisis period in Sri Lanka necessitated a rethinking about the efficacy of policies and envisaged new ways to deal with health and nutrition. Government encouraged the fee-levying mode of acquiring health services and continued providing subsidized health services to the population in need. The government was well aware that in order to realize the goals of the national health policy, individual or household health behaviour must change. This strategy helped achieve sustained improvement in health parameters with only a modest public expenditure of about 1.8 per cent of GDP, since the 1950s, which in fact witnessed a massive and continuous decline after the 1974–75 oil shock. However, statistics do not reveal any full-scale privatization of health services in the country. There was, however, a rise in the household expenditure on health care and related services.

Considering infant mortality rates as one of the indicators of the health situation in the country, it has been observed that IMR had declined by almost 50 per cent from 1977 to 1984. It is interesting to note that during this period when IMR declined, nutritional deficiencies existed. Therefore, the declining IMR could be attributed to the provisioning of efficient health care facilities to the vulnerable groups. The immunization coverage also got a boost during this period as it was extensively provided free of cost. Even before the advent of structural adjustment programme of 1977, Sri Lanka managed to increase average life expectancy by an incredible 12 years between 1946 and 1953. The life expectancy at birth has consistently improved in the last few decades: 42.8 years in 1946 to 73 years in 2001. For females, the life

expectancy was 76 and for males it was 71 in 2001. The total fertility rate in Sri Lanka has progressively decreased over the years. According to the latest Demographic Health Survey, it was 2.3 in 1993 as against 2.8 in 1987 and 3.4 in 1974, which led to a population growth rate of one per cent. The fertility rate further decreased to 2.1 per cent in 2001. The maternal mortality ratio at 30 deaths per 100,000 live births is well below that of countries with similar levels of per capita income.

Sri Lanka also managed to reduce maternal mortality rates by appropriate fashioning of a synergistic package of health and social services that reach the poor. The strategy has been changed from expanding the promotion of services to increasing utilization, and specifically the improvement of quality. The development programmes have been based on the concept that basic health care acts in synergy with basic education, water and sanitation and integrated rural development with community participation, especially of women. The affordable operational cost has been achieved by a judicious mix of health personnel where the well-trained but relatively low cost, midwives are supervised by nurse-midwives and medical doctors. The lowering of salary scales of health professionals has made engagement of more public servants possible without a proportional increase in operating expenditure. The civil registration of maternal deaths and generation of area specific mortality data helped in confronting leaders and politicians and in initiating and sustaining maternal health programmes.

People living in northern and northeastern Tamil region have been deprived of getting adequate benefit from the country's progress in health sector due to nearly 20 years of civil conflict. Furthermore, there remains a fair scope for increased health intervention owing to the changing population characteristics. Malnutrition among children and iron deficiency among pregnant and lactating women are still serious problems and iodine deficiency may be more of a problem than is actually realized. A large part of the population is still at a high risk of contracting malaria. The rising proportion of ageing population in the country has resulted in an increase in the incidence of

noncommunicable and degenerative diseases in adults such as heart diseases and diabetes.

The government's commitment to planning and implementing far-reaching reforms is a significant asset of Sri Lanka's efforts to improve the health and nutritional status of its poor population, to enhance the performance of the health care delivery system, and to promote the sustainability of health care financing. Sri Lanka has also established that political will along with judicious programme strategies are important in improving health indicators in developing countries.

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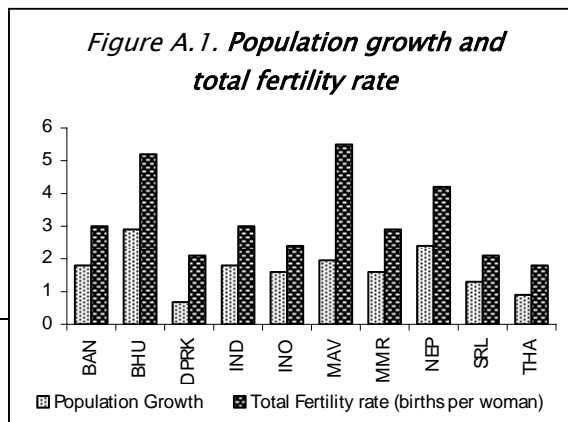
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## Annex 1

### COUNTRY PROFILES AND HEALTH INDICATORS

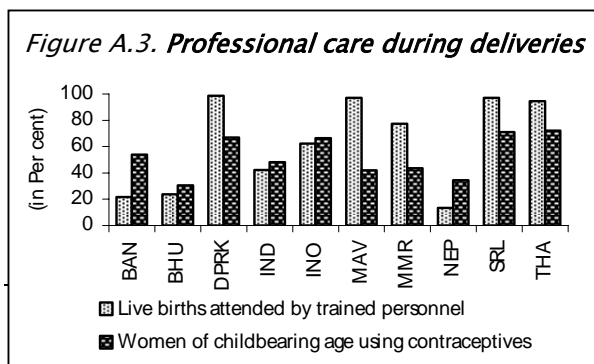
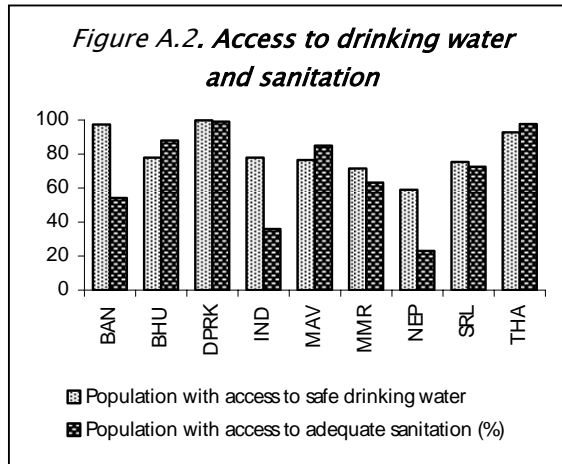
Historically, even today's less developed countries have come a long way in improving their health situation. For example, life expectancy at birth that was around 40 years during the middle of the 20<sup>th</sup> century improved to over 65 years by the end of the last decade. Similarly, both infant and child mortality fell significantly during the same period. Despite these improvements, absolute levels of health deprivation indicators are still high amongst the relatively poorer countries. The nature, type and epidemiology of diseases are those identified as diseases of the poor – tuberculosis, diarrhoea, especially afflicting children, acute respiratory infections, malaria and other viral fevers, hookworm, ringworm and threadworm causing extreme degree of malnutrition and anaemia among children and so on. There are also diseases, such as leprosy, epilepsy and blindness, that cause life-long debilitation.

WHO's South-East Asia Region consists of two of the world's most populous countries namely, India and Indonesia, followed by Bangladesh, Thailand and Myanmar. The least populated countries, in terms of absolute numbers, are Maldives, Bhutan, Sri Lanka, DPR Korea and Nepal, which, together, account for nearly 67 million of the total population, partly because they are geographically smaller nations. Although, in none of the countries under analysis has



population growth stopped, it is growing more slowly than what it was 3–4 decades ago. This is mainly due to competitive interaction between two forces, namely, decline in death rates, particularly among infants and children and decline in birth rates.<sup>14</sup> India, the most populous country, has a population growth rate of 1.8 per cent, adding about 17 million children per year. The Region is densely populated; population density is highest in Maldives followed by Bangladesh, India, and Sri Lanka (see figures A.1–A.4 and Table A. 1).

Economically, Thailand and Maldives have relatively high per capita income in the Region. They are followed by Sri Lanka, Indonesia, Bhutan, India, Bangladesh and Nepal. Comparing Gross National Income (GNI)<sup>15</sup> per capita adjusted for purchasing power parity more or less portrays the same picture. Practically all countries, excepting Thailand and Indonesia, can be regarded as low-income poor countries as classified by the CMH Report (2001)<sup>16</sup>. There are considerable differences in



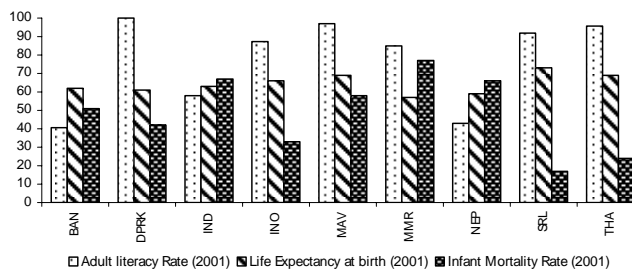
highest in Bhutan (2.9 per cent) followed by Sri Lanka (1.3 per cent).  
 measured as GNP - Gross national product.  
 the one presented in the earlier section, internal documents.

the rate of growth of the respective national economies. The average GDP growth rate for the six-year period 1996–2001 ranges from a low of 1.3 per cent per annum in Thailand to a high of 8.5 in Myanmar. The relatively better (above 5 per cent) growth averages, besides Myanmar, have been recorded in Bhutan (6.4 per cent), India (5.8 per cent), Bangladesh and Maldives (both at 5.3 per cent), and Nepal (just about 5 per cent level). Although the relatively developed economies of the Region are Thailand and Indonesia, they both have recorded a relatively lower rate of GDP growth during the six-year period 1996–2001. Both these countries were affected by the now well known ‘South-East Asian financial crisis’ of 1997–98 that caused high levels of volatility in growth amongst these countries. Both these countries are part of the many ‘Asian Tiger Economies’ which have gone through extreme degrees of economic reversals; in fact, Thailand was the first country to lead such a crisis in the Region. However, in recent years, their growth rates have been robust and are fast bouncing back.

*Table A.1. Vital socio-economic indicators*

Country	Population (in millions)	Population growth	Density	Per capita income in dollars (2001)	PPP (2001)	Life expectancy at birth (2001)	Under 5 mortality rate (2001)	Infant mortality rate (2001)	Total fertility rate (births per woman)	Adult literacy rate (2001)
Bangladesh	133.4	1.8	1025	370	1680	62	83	51	3	40.6
Bhutan	0.8	2.9	18	550	1350	63	95	74	5.2	-
DPR Korea	22.6	0.68**	187	-	-	61	55	42	2.1	100.0
India	1033.4	1.8	347	460	2450	63	93	67	3	58.0
Indonesia	213.6	1.6	115	690	2940	66	45	33	2.4	87.3
Maldives	0.3	1.96**	934	1,460	-	69	42	58	5.5	97.0
Myanmar	48.3	1.6	73	-	-	57	109	77	2.9	85.0

Figure A.4. Literacy rates and life expectancy



Nepal	23.6	2.4	165	250	1450	59	91	66	4.2	42.9
Sri Lanka	19.6	1.3	290	880	3560	73	19	17	2.1	91.9
Thailand	61.2	0.9	120	1,940	6550	69	28	24	1.8	95.7

Notes: \*\*in percentage for the period 2000–2005.

Source: World Development Report, 2003 and Basic Indicators 2002, WHO, SEARO, 2003.

Despite dramatic improvements in health and nutrition standards in the SEA Region in the recent past, the current state of health, of children in particular, is low with the exception of Sri Lanka, Thailand and Maldives. While these countries have reasonably high life expectancies at 73 years in the former and 69 years each in the latter two, life expectancy in many countries of the Region is around 60 years, the lowest being 57 in Myanmar. One of the biggest influences on rising life expectancy rates has been a sharp drop in under-5 and infant mortality rates. In Myanmar, more than 100 out of every 1000 children die before reaching their fifth birthday. Bhutan, India, Nepal, Bangladesh, DPR Korea, Indonesia, Maldives and Thailand have high U5-mortality rates at 95, 93, 91, 83, 55, 45, 42 and 28 respectively per 1000 live births. Sri Lanka is the only country where the U5-mortality is relatively low. IMR too ranges from a high of 77 in Myanmar to a low of 17 in Sri Lanka. Other countries where IMR is more than 40 are Bhutan, India, Nepal, Bangladesh and DPR Korea. In terms of fertility rate, except Thailand, Sri Lanka, DPR Korea and Indonesia, other countries have above average rates and associated population growth compared with global standards.

In the entire SEA Region, adult literacy rate has improved significantly with DPR Korea, Maldives, Thailand, and Sri Lanka recording over 90 per cent literacy. Low literacy countries are Bangladesh, Nepal and Bhutan with only around 40 per cent being

literate. India has a literacy rate of 57 per cent. However, compared to all the countries of the world, these countries have lagged severely behind in gender equality and seem to have bypassed the education push witnessed in recent decades favouring girls' education. A major impediment for relatively adverse health, demographic and educational conditions in most of the Region can be attributed to a lack of public investments in the social sector and absence of a private sector providing such services.

### **Health Indicators**

Reproductive health initiatives and contraception are two of the most important gender-linked social and health development indicators of modern times. Excluding Sri Lanka, Thailand and DPR Korea, and to some extent Indonesia, the Region has a poor record on these indicators. For example, births attended by trained personnel is as low as 23 per cent in Bangladesh and Bhutan and only 42 per cent in India; similarly the usage of contraception is less than 50 per cent in India, Myanmar, Nepal, Bhutan and Maldives. Thus, there is a clear need to improve these basic public health facilities in the Region.

Access to safe drinking water<sup>17</sup> is an important pre-condition to keep people free from diseases. Most of the countries in the Region have achieved substantial progress on this front, except Nepal where only 59 per cent of the population has access to safe drinking water. In all other countries, more than 70 per cent of the

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<sup>17</sup> There are a number of debates as to the definition of what is regarded as safe drinking water. There is no uniformity of definition across countries, and also that there is no recognition of the fact that the same household may access water from multiple sources thereby judging whether the household has access to safe drinking is debatable.

population has access to safe drinking water, the highest being in DPR Korea (99.9 per cent). In terms of access to sanitation, Nepal (23 per cent) and India (36 per cent) presents a grim picture, whereas for others it ranges from 73 per cent in Sri Lanka to as high as 99 per cent in DPR Korea. In terms of health-related physical indicators, such as availability of physicians and hospital beds, excepting DPR Korea, conditions in all other countries are inadequate.

### **Millennium Development Goals (MDGs)**

It is appropriate now to discuss the global cooperative efforts that are taking place in addressing various aspects of poverty and deprivations in health, environment and educational sectors. The most recent efforts have come by through Millennium Development Goals (MDGs), which were adopted at the United Nations Millennium Summit of world leaders (September 2000). The MDG declaration recognizes the importance of global interdependence in addressing various aspects of poverty and deprivation and call upon countries to do more in their attack on inadequate income, widespread hunger, gender inequality, environmental degradation, and lack of education, health care and clean water. The specific goals which are targeted to be achieved by 2015 are: (i) halve extreme poverty and hunger; (ii) achieve universal primary education; (iii) empower women and promote equality between women and men; (iv) reduce under-five mortality by two thirds; (v) reduce maternal mortality by three quarters; (vi) reverse the spread of disease, especially HIV/AIDS and malaria; (vii) ensure environmental sustainability, and (viii) create a global partnership for development, with targets for aid, trade and debt relief.

An analysis of the above-mentioned goals reflects unparalleled importance of health, recognizing the fact that improved health condition of the populace is not only an end in itself but also a means to achieve other fundamental goals of poverty reduction and economic development. This is self-evident since out of eight goals, eighteen targets and forty-eight indicators; three goals, eight targets and eighteen indicators are related to health, reflecting the centrality of health in stimulating development and eradicating poverty.

Though the past thirty years have seen dramatic improvement in the developing world in terms of increased life expectancy, reduction in child mortality and improved maternal health, many children still die before reaching their fifth birthday and many women die in pregnancy and childbirth. An assessment of progress of Millennium Development Health Goals in the South-East Asia Region shows somewhat mixed results. Although many countries have succeeded in cutting maternal and child mortality rates, and reversing incidence of HIV/AIDS, such as Thailand, many others are lagging behind. However, over 70 per cent of the total population of the SEA Region still faces a higher risk on these counts.

A most recent assessment is reassuring. Populous and poorer South Asian countries made significant and homogenous progress during the 1990s and no country faced reversal in key indicators for the MDGs (UNDP, 2003). Further, in poorer countries, like Bangladesh and Bhutan, now a smaller percentage of children die before the age of five due to reduction in U-5 mortality by more than 6 and 5 percentage points, respectively. As far as India is concerned, though at country level the progress is well, but performance at state levels varies enormously. Indonesia and Cambodia are two contrasting countries. The former succeeded in

reducing U-5 mortality whereas the latter in fact witnessed a 2-percentage point increase in this measure. In Myanmar, though U-5 mortality rate is declining, the progress was slow during the 1990s and this country was identified among top priority countries where the situation is less desperate but the progress is still insufficient. These countries are either making progress from low levels of development or achieving slow or negative progress from higher levels. In the case of HIV/AIDS, the Region together accounts for nearly 7.2 million infected people and effective steps have to be taken to reduce the infection rate. Countries of the Region should gain from Thailand's success in preventing the spread of HIV/AIDS by more than 80 per cent since the early 1990s.

Apart from Bangladesh, Bhutan and Indonesia, the Region is also home to a number of high performing countries in terms of MDGs and related goals. For instance, Sri Lanka added 12 years to life expectancy at birth in just seven years (1945-52). Other countries, such as DPR Korea, Malaysia and Thailand, are high performers and have combined their economic and social progress judiciously. Their gains suggest a certain sequence of priority investments and synergies among various complementary indicators of MDGs. However, a matter of concern is that though in many Southeast Asian economies national averages boast adequate progress towards goals, sub-state level analysis shows significant inter-group disparities – between men and women, between rural and urban areas, between different ethnic group and races – and call for looking beyond country average (UNDP, 2003). Raising sub-national goals and targets is of particular importance for health because it seeks to lower average rates of the entire population unlike in the case of education and poverty-related

goals, which focuses only on uneducated segment and hungry population. A look at sub-national targets for the South-East Asia Region reveals appalling disparities between different groups in terms of benefits accruing from progress in the health sector, thereby acting as a deterrent that will halt progress towards many health goals. In terms of physical indicators of health, in rural Nepal only 20 per cent of physician posts are filled, compared with 96 per cent in urban areas (WHO, 2000), and in Cambodia, though 85 per cent people live in rural areas, only 13 per cent of government health staff are located in such areas.

The SEA Region is characteristically typical with respect to gender inequality of various types. Due to sex and gender based discrimination in access to health and education, there is a growing evidence of 'missing women' phenomenon, especially in India, despite women's biological advantage vis-à-vis men. The incidence of sex selective abortions has increased, especially in India, which is additionally contributing to already affected precarious sex ratios in many regions in India. Though this gender gap in mortality rate shows improvements in Bangladesh, in India only small improvements have been witnessed (Klasen and Wink, 2002).

Meeting the health goals by 2015 is feasible, but requires a change in the current trajectory to which many of the poor countries of the region are subjected to. It also calls for modification of public policies emphasizing both domestic and external resource mobilization to augment limited resources; achieving greater equity by focusing on poorer areas and communities; and bringing efficiency into the health system by making vertical integration between programmes for specific

disease with general health.<sup>18</sup> Re-orienting development priorities and policies, building capacities, involving community, and reaching out to partners in civil society and private sectors are other aspects where attention required to be made (UNDP, 2003).

### **Direct and Indirect Costs Associated with Selected Diseases**

The countries in the Region are going through different stages of demographic and epidemiological transitions. These stages have a strong bearing on the nature, extent and type of disease. The Region still has relatively higher occurrences of communicable diseases compared with noncommunicable and degenerative illnesses. There is also a predominance of water and airborne sickness although the mortality due to these causes may have come down. While dealing with the disease profile of the countries under study, the common characteristic that is observed is that all these diseases are preventable. This reinforces the zest to control and combat these diseases which are endemic in nature. The most commonly reported diseases, which seem to paralyse millions of people in terms of disability and premature death have an economic as well as a social cost. In the context of our present analysis, the focus will be to take an account of the economic costs associated with ill-health of the masses. This helps in analyzing the nature of incidence of diseases in the Region and the subsequent steps to be undertaken in addressing the issues. It should be realized that the line of action should be such that effective policy proposals emerge, which will be effective in controlling this global burden of disease and ensuring health for all, one of the desired objectives of the WHO.

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<sup>18</sup> An example of the successful vertical integration is the case of India's tuberculosis programme.

Diseases such as tuberculosis, malaria, and HIV/AIDS pose a serious threat to the people belonging to the productive age group. It has been observed that Tuberculosis is a leading problem worldwide, particularly in the developing countries. Southeast Asia alone accounts for 40 per cent of the disease. In view of the seriousness of the problem, WHO in 1993 declared it to be a 'Global Emergency'. What concerns the health activists and the policy-makers is the age group that is most vulnerable to these diseases and the resulting economic losses due to the aforesaid reasons.

In the SEA Region, the incidence of TB ranges from 140 per 100 000 in Thailand to 280 in Indonesia. It is the lowest in Sri Lanka at around 58. Things become worse when the person suffering from TB also contracts AIDS. It is estimated that in 2000, between 56 and 80 per cent of AIDS patients in the SEA Region were also suffering from tuberculosis. TB is also reported to be the largest single infectious cause of women's death in the Region. The growing menace could result in wiping away of the most productive age group in the country. The huge economic losses would flow down the generations to come. There will be a loss of productivity at the individual level resulting in reduction of the national income. The World Bank estimates that the negative growth in GDP can be expected when HIV prevalence rates reach 5 per cent. There are several other dimensions of the losses. The family of an AIDS infected patient is also crippled. The quality of life enjoyed by the household members is bound to deteriorate. For instance, if the breadwinner is HIV-positive, the children are often compelled to drop out from school and work to compensate for the loss in income. At times the elderly have to prolong their stay in the labour market to generate income. Also, when the

mother in particular falls prey to any of these diseases the lives of her children and the dependent souls in the household are adversely affected. Often the effects, apart from the direct economic losses, are more alarming and call for immediate attention.

Several studies conducted in different parts of the countries of interest reveal that the incidence of malaria is more common in tropical and subtropical countries. The link between malaria and poverty is very subtle. The poor living conditions, lack of sanitation and general health awareness aggravate the situation. Children and women are the worst affected by the disease. Often the conditions of malnutrition in children are exacerbated by the disease (Gallup and Sachs, 2001). In highly endemic areas, malarial mortality is concentrated among children under the age of five and the disease, therefore, has effects on the age structure of these populations. The effect could be that in the regions where adequate measures to control the disease are not undertaken, the future stock of human capital would shrink (Pia Malaney, 2003).

Tobacco-related illnesses are yet another global threat, which seems to account for the lives of millions. A 1994 World Bank study revealed that the use of tobacco results in a global loss of US\$ 200 000 million per year, with half of the losses occurring in the developing countries. The economic losses resulting from the growing incidence of the disease is similar to that of the other diseases. The major illnesses associated with tobacco consumption are oral and lung cancer. The incidence of these diseases is high among the low-income people in the Region. The loss of individual income is felt more severely among the poor.

Perhaps the most pressing health problem in this region which has cornered global concern and national initiatives in addressing the issue has been maternal and child health. Most of the countries have accelerated investments in dealing with reproductive health. It is observed that expenditure in female health care is more cost-effective. In the developing countries, one third of the DALYs lost by women aged 15 to 44 years result from reproductive health problems (World Bank 1993). WHO estimates reveal that half a million women die due to complications in pregnancy and childbirth every year. The reproductive health of the women in the low-income countries is worse affected by the prevalence of malnutrition and degrading means of livelihood. Apart from the conditions in which the women are compelled to live, the available health services have aggravated the problem. The health systems are too weak to cater to specific requirements of the people. Poor coverage, lack of antenatal care, absence of trained assistance during delivery, and lack of access to essential emergency obstetric services account for the high levels of maternal morbidity and mortality.

There is a complex interplay of socioeconomic, environmental and cultural factors that contribute to the reproductive ill-health of the women in the developing countries. Poverty, ignorance, illiteracy and malnutrition are the major determinants of women's health status. The age at marriage and pregnancy play a crucial role in determining the health of the individual. Investments in women's health are beneficial for the community as a whole. As cited in the case of HIV/AIDS, the incidence of a particular disease effects the individual as well as the family members, which have far-reaching effects. National economies, communities and households all depend upon women's paid and unpaid labour and

ultimately benefit from investment in women's health (World Bank, 1994).

Overall inadequacy of food intake to meet the needs for growth, immune function, cognitive development and reproduction affects 30 per cent of children and 25 per cent of women; 56 per cent of all under-five deaths is indirectly associated with some form of malnutrition. Malnutrition is the result of an interaction between food intake, disease risk factor and behaviour. Malnutrition in turn reduces resistance to diseases. The highest levels of malnutrition and under-nutrition have been found to be present in the SEA Region, in fact, it is higher than the chronic food deficit countries of Sub-Saharan Africa. The high levels of anaemia among women, especially pregnant, reveal the high degree of nutritional deficiency in the Region.

Keeping in view the existing disease profile and the degree to which they continue to affect various sections of the population, a brief insight into the associated and discernible costs would help to develop a perception as to how preventable diseases continue to affect the lives of millions. It has already been brought to light that there exists a widespread disparity in the burden of diseases between high and low-income countries. Conditions are worse when one looks into the fact that the burden has fallen disproportionately on the poor. In general there are certain identifiable direct and indirect costs of ill-health. These costs seem to have considerable effect on the individuals as well as the economy as a whole.

As can be well perceived, the direct cost of ill-health can be measured in terms of the physical pain and suffering. Together with this, the contracted lifespan and the hours of work lost due to disability curtail the income generated both for own self and the

economy as a whole. The time and money spent in undergoing medical treatment also account for the cost. Ill-health affects working and consequently the working capacity of the individual. The associated losses continue in future as well. Childhood disabilities often impair a person from working most productively in the adulthood.

In considering the economic consequences of a disease on an individual household, it is usually observed that the cost of treatment and other related costs compel the household to spend much of the resources on medical care resulting in depletion of assets and incurring of debts. This results in the households being trapped in conditions of acute poverty. The increasing expenditure on health results in reduction of other necessary household expenditure. In terms of the intergenerational spillovers, it has been observed that the financial crunch arising out of ill-health in terms of lost income and increasing expenditure translates into under-investment in education and general care of children in the family. Often children are forced to join the labour market at an early age forgoing education. It has been found that in Africa, orphaned children are growing up without any knowledge of agriculture. The economic situation gets worse, as the quality of future stock of human capital is endangered. It would not be surprising to find similar cases in the low-income economies covered in this report.

Diseases impose costs on the society as well. Considering the labour market in particular, it is observed that continuing episodes of illness results in a reduction in productivity which in turn affects the profitability of firms. Apart from concerns regarding falling profits and reduced national income, the firms encounter increasing costs of production. This arises due to the allowances

that the firm has to make in order to cope up with absenteeism, low productivity arising out of ill-health of the work force. It has also been observed that the level of investment undertaken is gradually decreasing due to low profits.

The endemic nature of AIDS and its concentration among a particular class of people severely hinders economic progress in terms of loss in work hours and deceleration in income generation in the economy. In particular, malaria and other infectious diseases such as tuberculosis pose risk for people living in a region where the incidence is severe. This adversely affects a host of economic activities. The movement of the ailing individuals from one part to another within the region or across the globe would result in the spread of disease, making life riskier for other people as well.

The resource allocation exercise of the government in other sectors gets constrained by mounting health expenditures. In the case of the AIDS pandemic, it has been observed that governments in many countries are concentrating on the growing menace and all possible attempts are being made to control the disease. In the process, much of the scarce resources are being shifted to address the issue of AIDS, on the cost of basic education, food and nutrition, where government have a dominant role to play. Considering the different channels of resource mobilization, it has been observed that the persistence of ill-health among the working classes has resulted in a decline in the number of people belonging to the organized sector. This in turn has adversely affected the taxes mobilized by the government.

The reigning high rates of child mortality and Under-5 mortality cause the population to rise. In most cases people belonging to the low-income groups consider children as old age

security. Therefore, as the rates of infant mortality increase, couples tend to opt for more children to compensate for the deaths. This has drastically increased the population in most of the low-income countries. Reproductive health problems affect women as well as other members of the household too. Nurturing and child care efforts are hindered due to maternal morbidity and mortality of the mother. In a situation where health of women and children are already miserable, ill-health of females exacerbates the problem. Nutritional levels of children are likely to decline even more.

As far as the economists are concerned, the costs of illness can be effectively measured in terms of Disability- Adjusted Life Years (DALYs). The DALYs saved include the increased years of life as well as the reduced years of living with disabilities. As observed in the CMH report (WHO, 2001), it has been estimated that the direct economic benefit of saving 330 million DALYs would add up to at least \$186 billion per year. The estimates are in line with the assumption that each DALY saved yields an economic benefit of one year's per capita income of projected \$ 563 in 2015. The account of the DALYs saved could be instrumental in overcoming the observed trends of deceleration in national income. It is claimed that the per capita income would rise by millions, thereby leaving lesser people below the poverty line. Estimation of the DALYs is an effective way of formulating health policies, keeping in view, the prevailing economic, social and cultural conditions.

## **Annex 2**

### **NATIONAL HEALTH POLICIES IN SEAR COUNTRIES**

#### **Thailand**

In spite of the current economic crisis that started during the second half of the 1990s, the health status among the general population in Thailand has improved remarkably during the past three decades, as shown by the declining trend of IMR, MMR and increase in life expectancy. The first and foremost objective of Thailand's health policy is to deliver essential health services oriented towards building health rather than treating ill-health by focusing on ensuring equity, equality, efficiency, consumer satisfaction and protection through decentralization, health care reform, hospital autonomy, health financing reform, health insurance, quality assurance and community participation by structural adjustment programme and international health cooperation<sup>19</sup> and also strong support from the non-health sectors and national NGOs.

The Ministry of Public Health (MOPH) formulated a National Health Act in 2002. If passed by the National Assembly, it will provide direction on national health reform. Due to fertility decline, the age structure of the population along with the disease pattern has changed, and the emphasis has shifted towards chronic

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<sup>19</sup> Cooperation of multilateral institutions such as WHO, ADB, UNICEF, UNAIDS and the World Bank

disorders. However, some diseases, both communicable (especially, malaria, HIV/AIDS<sup>20</sup>, tuberculosis) and noncommunicable (especially, coronary heart disease, cancers, diabetes mellitus and accidents) and also mental health problems have become major causes of morbidity and mortality in Thailand. Under these circumstances, Thailand aims at health promotion and protection needs with greater attention and concerted efforts to address both noncommunicable and communicable diseases.

**Thailand's Success in Preventing HIV/AIDS (HDR, 2003)**

- Since peaking in the early 1990s, new HIV infections have dropped by more than 80 per cent.
- **Political Will Complemented by Financial Commitment:** established National AIDS Prevention and Control Program (NAPCP), chaired by Prime Minister. By 1997, government spending on AIDS control programmes was \$82 million a year.
- **Multiplayer Collaboration:** from government to patients to private practitioners to Buddhist monks to NGOs to media, all have worked together to plan and implement AIDS program.
- **Targeting High Risk Groups:** Government tried to reduce male visits to brothels and promoting the use of condoms by sex workers; as a result, HIV prevalence among sex workers fell from 50 per cent in 1991 to less than 10 per cent in 2001.
- **Education Campaigns:** Condom Use program and AIDS Information Program were made available everywhere and the messages helped dispel the stigma associated with HIV/AIDS.

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<sup>20</sup> The incidence of HIV/AIDS has declined to a large extent in Thailand in recent years.

- **Monitoring and Evaluation:** Three surveillance systems collect information on HIV and STDs. The collected information is used to detect new HIV infections and guidance for subsequent control.
- **International Support:** Abundant international support, i.e. support from UNAIDS, USAID, AusAID etc., both on financial and technical fronts, played a great role to implement control programs successfully.

### **Myanmar**

From the centralized socialist to market economy adopted since 1988, Myanmar is going through far-reaching changes involved with political considerations and cooperation between various government sectors and civil society. Out of the twelve national socioeconomic development objectives, uplifting of health, fitness and education standards of the entire nations is an important one. Though notable progress in the various demographic indicators, like reduction of IMR, TFR, U5-mortality, has been achieved, maternal mortality ratio and high percentage of low birth weight still remain a serious concern. Despite the increasing trend in CPR, there is still as high as 44 per cent of unmet need. Communicable diseases such as common childhood diseases, particularly, diarrhea and acute respiratory infections (ARI); malaria, and dengue remain major health problems that constitute excess burden on the people, on the health services, and on the economy of the country. Tuberculosis compounded by HIV/AIDS has re-emerged as a major health problem particularly in the broader areas. Polio eradication and leprosy elimination programmes have made significant progress during the last decade.

Though water supply and sanitation have improved significantly and traditional medicine is formally recognized, the nutritional level of the general population, particularly among U5 children, is low and needs greater attention. Recognizing the main role of “health” for sustainable development, MOH is committed to strengthen its health system so that equitable access to essential primary health services is ensured, even in the remote areas and for the poor. Research in health, addressing the issue of poverty and health and inequality in health, and communities’ contributions have also been envisaged.

### **Indonesia**

After a highly centralized system of governance, Indonesia is going through rapid democratization and results in decentralization of political and bureaucratic power since the late 1990s following the severe economic crisis. Indonesia now has an important opportunity to make major changes in the health system and set the course of Indonesia’s health system for the decades to come. Though many childhood infectious and parasitic diseases have been controlled through universal immunization programmes, communicable diseases, like tuberculosis, malaria, STDs and HIV/AIDS, and hepatitis-B, continue to be a major challenge to the health system and a major cause of morbidity and mortality. It is worthwhile to mention that two killer communicable disease, namely, leprosy and polio, are on the verge of elimination.

WHO’s strategic directions for Indonesia focuses on six priority components for the period of 2001 through 2003, which are discussed below:

- (1) **Health policy and system development:** The fundamental changes in the government strongly affect the health sector. Between 2000 and 2003, WHO will try to attempt to narrow the gap between policy intentions and policy implementation by developing responses and taking proactive stances on the issue of governance. It will also try to work with other developmental partners like World Bank, ADB, UNDP and USAID etc. towards improving health systems and to make health policies more pro-poor. It also includes policy, institutional development, financing and regulation and proper management with active support system.
- (2) **Communicable disease control:** Under the decentralized system of government, new immunization programmes to contain the spread of hepatitis B are being implemented. The control of STDs and HIV/AIDS is complicated by social and cultural attitudes towards these diseases and interventions. Thus, efforts are needed for surveillance of emerging diseases easily transmitted with increased globalization. Under the decentralized system, technical strategies for the communicable disease control programme needs improvement.
- (3) **The Health of women and children:** Though the levels of IMR, perinatal mortality and U5 mortality have been reduced during the past decades, yet morbidity and nutritional levels of U5 children and maternal mortality need greater attention.
- (4) **Promoting healthy environment and lifestyle:** WHO will try to promote the issue of safe sanitation, potable water etc. under the decentralized system and will also try to change the unhealthy lifestyle of the masses.

- (5) **Emergency preparedness and response:** WHO will prepare policy to respond in the emergency situation like unwanted natural calamities, and
- (6) **Partnerships and coordination:** WHO will implement its policies and programmes through governmental agencies, NGOs and other international organizations.

### **Bangladesh<sup>21</sup>**

Bangladesh has experienced a significant decline in infant and child mortality. The country has been polio-free for the last three years and has already achieved the elimination goal for leprosy at the national level. It also brought down the levels of fertility, maternal mortality to a certain extent. The average life expectancy has increased to over 60 years in 2000. However, the maternal death rate is still very high. Although it has brought down infant and childhood mortality and morbidity through disease prevention and control programmes like EPI, CDD, ARI, communicable diseases such as tuberculosis, malaria, dengue, kala-azar remain as serious threats to health. Noncommunicable diseases like cardiovascular diseases, hypertension, neoplasms and diabetes mellitus are also increasing. Though the country at present is at low prevalence of HIV, due to globalization, supplemented by rapid urbanization, the country faces a threat of HIV/AIDS pandemic in the future. Though arsenic contamination of groundwater is also a serious problem for which several mitigation efforts and alternative approaches to providing safe water to population are under way.

During the period of 1972–1997, Bangladesh implemented its health and population sector activities formulated within the

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<sup>21</sup> Provided by WHO–Bangladesh

framework of Five-year Development Plans. In 1998, for the first time, the Government of Bangladesh (GOB) adopted a sectorwide approach in the health sector moving from the project approach. The new programme Health and Population Sector Programme (HPSP) was formulated for five years. Major components were implementation of Essential Services Package (ESP), restructuring and decentralization of service delivery, integration of support system, improvement of hospital service delivery, strengthening of policy and regulatory framework and other important public health services.

As the five-year HPSP ends in 2003, the present government has formulated the next sector programme which is called the Health, Nutrition and Population Sector Programme (HNPSP). The Conceptual Framework for HNPSP has recognized the importance of CMH recommendations regarding the linkage between improvements in health and poverty reduction. The Conceptual Framework emphasized the achievement of the long-term vision and the targets set in the Interim Poverty Reduction Strategy Paper (i-PRSP) through various HNPSP programme activities. The framework set the HNP sector goal as sustainable improvement of the health, nutrition and family welfare status of the population of Bangladesh, especially vulnerable groups, i.e., the poor, women, children and elderly. During HNPSP period following issues will be addressed:

- Continuing to finance and provide services that preferentially meet the health needs of the poor (“targeting services” through ESP)
- Channelling health services and/or financial entitlements for services towards the poor (“targeting people” through demand

side financing such as health voucher, pre-paid schemes, insurance for catastrophic illness)

- Preferential allocation of incremental resources (personnel and facilities) to poor and underserved areas (geographical targeting through poverty mapping)
- Addressing cross-cutting issues, including non-financial barriers to health service use by the poor (through “close-to-client” and pro poor quality health services)
- Ensuring participation and representation of the poor in local-level planning and stakeholders consultation (through health watch groups and community clinic management committees)
- Monitoring trends in health inequalities and in benefits incidence and related target setting (through equity and benefit-incidence analyses).

Within the context of i-PRSP, the priority objectives of HNPSF include: reduction of maternal mortality rate (MMR), total fertility rate (TFR), infant and under 5 mortality rate (IMR/U5MR), malnutrition, burden of TB, malaria and other diseases.

## **Nepal**

Socioeconomic development in Nepal has been hindered by its topographical location, rapid population growth, rapid urbanization, mainly in Kathmandu valley, and frequent changes of the government.

Mortality and morbidity rates are alarmingly high among women and children. 80 per cent of U5 deaths are caused by perinatal conditions, ARI, diarrhoea and measles. It is to be noted that for each category between birth and 44 years, female loses approximately 25 per cent of more DALYs than males. Among

adult males (15–44 years), TB, accidents and injuries, ARI etc. were the leading causes of deaths, whereas, among females, it is maternal disorders, TB, and injuries (largely burns). Increase in the newly emerging and re-emerging diseases like malaria, kala-azar, Japanese encephalitis, TB and HIV/AIDS have been noticed.

Keeping this heavy burden of diseases the Government of Nepal has identified the following key issues on health:

- Strong need for specific focus on interventions aimed at child survival.
- To ensure improved domestic environment and better access to safe drinking water and sanitation.
- Need for effective reproductive health programme, especially in the rural areas, in conjunction with increase in female literacy, addressing the issue of neglect of girl child and improving the overall status of women in the society.
- Emphasis to be placed on improving the operational efficiency of ongoing intervention programmes and enhancement of community awareness through effective IEC.

The government is now also trying to address the issues related to organizational, operational and management efficiency of the health sector to fulfil the above-mentioned issues. Nepal has a clear vision and health policy framework for health sector development set out in its Second Long-term Health Plan (SLTHP) for medium term period 3–5 years. The main policy in SLTHP focused on the provision of an “Essential Health Care Services Package”. The essential features of this package include:

- To substantially reduce mortality, morbidity and disability without increasing expenditure, by redirecting resources and

by adopting alternative financial mechanisms including NGOs and the private sector, donor agencies like NORAD, USAID, Rotary, UNICEF and WHO.

- To improve efficiency and effectiveness of the health system by more inter- and intra-sectoral coordination and by overcoming management and organizational constraints.
- To ensure technically competent and socially responsible health personnel to be available to provide quality healthcare to all the citizen of Nepal, particularly those living in the rural areas.
- To conduct research and development by providing data, analysis and interpretation.

### **Bhutan**

In spite of the high IMR, MMR and malnutrition among the U5 children, the health status of the citizens of Bhutan has improved remarkably, especially, during the last decade. Respiratory tract infections, diarrhoea, dysentery, skin diseases, viral and other intestinal infections, peptic ulcer and gastritis are the leading causes of morbidity and mortality in Bhutan. With socioeconomic development, some non-communicable diseases like rheumatic heart diseases, renal problems, neoplasms are becoming more common. The major health problems and key issues in health for Bhutan are a combination of number of factors that include:

- Spreading of population through large mountainous terrain that raises the cost of health delivery and maintaining sound health infrastructure. Also, due to population growth and subsequent pressure on social services, there is an urgent

need of health care financing, which can make available and affordable a self-sustaining health delivery system.

- There is an acute shortage of human resources for health (very inadequate number of medical and paramedical personnel). To overcome this problem, government developed the Master Plan for Human Resource Development for Health in 1995. Technical assistance from WHO, financial and managerial assistance from ADB has also been sought. Collaboration with other donor agencies like, DANIDA, Government of India, UNFPA, UNICEF, EU and so on have also been made.
- The availability of essential drugs and vaccines has been one of the key factors in the overall improvement of health care of the country. Towards national self-sufficiency, a Health Trust Fund Initiative has been established.
- Another key issue is the weak health information system in all programmes. Some progress to strengthen the information system by collecting data, compiling and analysing it has been made. There is much room for further improvement.

The overall health policy for the 8<sup>th</sup> Five-Year Plan (1997–2002) aims to promote the health of the whole population so that its citizens are able to lead a socially and economically productive life through better health care at an affordable cost in the spirit of social justice and equity.

In the area of disease control, the important programmes include the control of tuberculosis, malaria, childhood illnesses, leprosy, and STD/HIV/AIDS and spread of immunization. Environment control and management programmes that include safe drinking water, sanitation etc. are also placed on top priority.

## **DPR Korea**

The economic situation coupled with difficult terrain and extreme winter and a combination of continuous floods and draughts in recent years have increased the strain on the health care system and added to DPR Korea's overall disease burden and environmental and economic difficulties. Both communicable and non-communicable diseases, such as malaria, tuberculosis, ARI, diarrhoea, cancer, CVDs and malnutrition are the prime causes of mortality and morbidity.

The followings are the priority health areas during 2000–2005:

- Health systems development by improving the quality of health care at the primary level through improving the technical capacity and human resource development. It also sought the extensive use of *Koryo* traditional medicine in conjunction with modern medicine.
- Control of communicable diseases by higher coverage of immunization for vaccine preventable diseases like polio, DPT, measles, hepatitis B etc. Prevention and control of HIV/AIDS, malaria, TB and other vector-borne diseases are also a high priority.
- Control of noncommunicable diseases by improving food and nutrition, early and appropriate management of diabetes, promoting healthy lifestyles.
- Essential supplies of drugs and vaccines; medical instruments and first-aid medical services.
- Technology development by promoting health research and disease control.

DPR Korea has a national policy of universal health care by providing comprehensive and compulsory free medical care to all its citizens. The Public Health Law that was adopted in 1980 stresses prevention of diseases through prophylactic measures as well as promotion of national self-reliance in health science and technology. In 1999, the Ministry of Public Health developed a medium-term national health development programme for 2000–2005, the main goal of which is reorientation of health care services, including health workers, in order to achieve the level of health status before the 1990s. To achieve this goal the government also sought the help of international agencies like WHO, UNDP, UNICEF, FAO, UNFPA etc. These agencies are involved in various sectors such as food security, health and nutrition, water and sanitation, education and relief and rehabilitation and coordination.

### **India**

Although over the past 50 years a substantial gain has been achieved in the health status of the Indian citizens, which is indicated by increased life expectancy, reduction of IMR, TFR, eradication of smallpox and guinea worm diseases, and reduction of polio and leprosy, India accounts for 16 per cent of the world's population and 21 per cent of the global burden of diseases. Current estimates indicate that MMR and U5 mortality is still high along with low birth weight and malnutrition. Various communicable as well as noncommunicable diseases like malaria, kala-azar, dengue and Japanese encephalitis, TB, leprosy, recently HIV/AIDS, cancer, diabetes etc take a heavy toll every year. In a vast country like India, a wide disparity is observed in the health indicators between rural and urban populations, between states as

also between districts within states, and between communities within districts.

Although India has a vast network of governmental, voluntary, and private health infrastructure, the problems of persistent gap in manpower and infrastructure, poor referral services, unaccountability, lack of inter-sectoral coordination, increasing dual burden of diseases, increasing cost of healthcare have been identified as impediments by the government.

To address these problems, the following priority areas have been identified in the Ninth Five-Year Plan:

- Improve access and enhanced quality of primary health care by improving efficiency and accountability of health care infrastructure.
- To promote the development of human resources for health, that will be adequate in quantity and appropriate in quality.
- Develop, improve and implement programs for controlling communicable and non-communicable diseases.
- Improve nutritional status and programme for environmental and occupational health.
- Improve emergency and disaster prevention and management.
- Increase involvement of Indian System of Medicine and Homeopathy.
- Enhance research and development in the health sector.

During the Ninth Plan, Family Welfare Programmes focused on the quality coverage of health care to women, children and adolescent through integrated Reproductive and Child Health Care (RCH) Programme, by safe management of unwanted pregnancies, nutritional services to vulnerable groups, prevention and treatment

of RTIs, STDs, gynaecological problems, providing reproductive health services to the adolescents and by screening and treatment of cancers, especially, uterine, cervix and breast cancers.

Various steps have been taken for the effective involvement of NGOs in the health care and family welfare programmes. The National Population Policy 2000, announced by the Government of India, has medium-term objective to achieve a TFR of 2.1 and IMR of less than 30 per 1000 live births by 2010 through new institutional structures, additional funding, and promotional and motivational measures needed for adoption of small family norm. Active involvement of locally-elected bodies in programme implementation and special schemes for the emancipation of women have also been envisaged. The Tenth Five-Year Plan, which will be implemented soon, is expected to emphasize on issues like decentralization, mix of public and private services, integration of various programmes, introduction of new technologies, social security aspect and implications of globalization.

### Annex 3

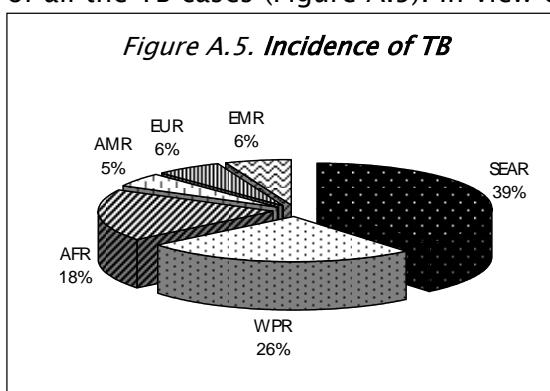
#### COSTS ASSOCIATED WITH SELECTED DISEASES

##### Tuberculosis (TB)

Tuberculosis (TB) is a leading public health problem worldwide, particularly in the developing countries. South– East Asia alone accounts for 39 per cent of all the TB cases (Figure A.5). In view of the seriousness of the problem, WHO in 1993 declared it to be a Global Emergency.

In the SEA Region, the incidence rates of TB are high ranging from 140 per 100 000 population in Thailand to 280 in Indonesia.

While the most populous country, India, has a prevalence rate of 184, it is Sri Lanka that has lowest incidence of only 58. Nearly three million cases and 700 000 deaths occur every year in the SEA Region, and six countries, namely, India, Indonesia, Bangladesh, Indonesia, Myanmar and Thailand account for 95 per cent of these deaths. TB afflicts people mainly in the economically productive ages between 15–60 years, directly affecting the household's and the nations' economic well-being. As the likelihood that a patient suffering from TB also has a high risk of being afflicted by HIV/AIDS, this has further complicated the treatment strategy for TB afflicted persons. Moreover, tuberculosis is the largest single infectious cause of women's deaths in the Region.



It is estimated that in 2000, between 56 and 80 per cent of AIDS patients in the Region were also suffering from tuberculosis. Both the diseases affect men and women in the most productive age groups. TB levies a tremendous social and economic cost on individuals as well as nations. It has been estimated that up to one third of the household income and between 4–7 per cent of National GDP is lost on account of morbidity and mortality due to TB. On the whole, this disease alone costs around US\$ 4 billion every year in the Region.

Curing the infected person in the early course of the disease best prevents tuberculosis. Properly formulated programmes can cure up to 90 percent of the patients and check the rise of the endemic.

### **Malaria**

Malaria risk has always been geographically specific, mostly confined to the tropical and subtropical zones. However, the link between malaria and poverty is very subtle. The nexus between malaria and poverty can be established by the fact that poor countries predominate in the same regions as malaria. It has been empirically observed that the rate of economic growth in the malarial countries has been dismal. The incidence of malaria is closely related to ecology and climatic conditions. Personal behaviour, using bednets, personal hygiene, treatment of sewage water and the general level of development have an important bearing on the incidence of the disease. The traditional view about the severity of malaria is that it significantly contributes to child mortality and can also cause acute disease in pregnant women. Malaria also has life-long effects on cognitive development and educational levels through the impact of chronic malaria induced

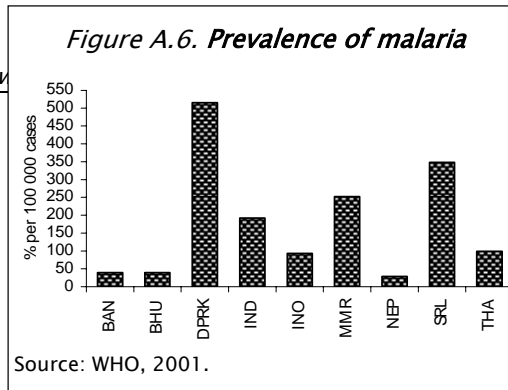
anaemia and the time lost in school due to illness. It is also found that malaria, along with other childhood infectious diseases, exacerbates malnutrition (Gallup and Sachs, 2001)<sup>22</sup>. Approximately one million children under five are lost to the disease every year. The incidence of the disease does not depend on poverty per se. It is the geographical location, which determines the severity of the disease on human population. Like other diseases, malaria too diverts household savings into less productive area.

A disease like malaria, which kills between one and two million people a year across the world, cannot but have a significant demographic impact. Further, this impact is highly concentrated, as 90 per cent of the malaria incidence is concentrated in the African continent. There are certain endemic regions in South-East Asia which have high incidence of malaria such as the Myanmar–Thailand border, Myanmar–India–Bangladesh borders and in parts of Bhutan. However, malaria does more than just increase death rates. In highly endemic areas, malaria mortality is concentrated among children under the age of five, and the disease, therefore, has effects on the age structure of these populations. It also potentially has long-term effects in terms of the timing and nature of the demographic transition in countries where it is prevalent. The critical role that malaria plays in the demography of highly endemic countries has been

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<sup>22</sup> There is substantial evidence of links between malaria and a number of other illnesses. Acute and chronic malaria infections can alter the immune system and increase vulnerability to other infections and response to vaccines. Malaria is also associated with hyperreactive malarial splenomegaly, chronic renal damage and the nephrotic syndrome and Burkitt's lymphoma. It has been found to inhibit appetite and growth in children and infants. Furthermore, acute malarial infection can have chronic health consequences: cerebral malaria has been found to cause long-term neurological damage in a significant percent of those who do survive.

emphasized by improvements in life expectancy and reductions in the crude death rates in regions with successful malaria control policies. A particularly good example is the case of post World War II Sri Lanka (Malaney, Pia. 2003).



### Micro and Macro Level Impacts of HIV/AIDS

The burden of AIDS and its effect on the lives of millions is enormous. As a result of the AIDS pandemic, individuals in their prime time of working lives are struck down as a result of which the aggregate economic growth is slowed down. The economic losses to the society as a result of truncated lives, due to a combination of early deaths and chronic disability, is phenomenally large. The economy is threatened by the adverse impact of AIDS on savings and productivity. The huge macroeconomic costs to the economy come from costs of treatment, which diverts the bulk of the savings away from productive investments. The loss arising from the death of a person infected with AIDS is not restricted to the individual and the family or the economy at large but it also has an impact on the future generation as well. Premature disability or death results in the families being thrown into conditions of abject poverty.

Since a large proportion of HIV-infected population falls in the reproductive ages, the impact on productivity, costs and economic environment is considerable. The vulnerability of the workers at the workplace is being recognized as one of the greatest threats to

manufacturing firms and industrial houses. Business leaders are increasingly seeing the advantages of creating HIV/AIDS programmes for their workplaces and, beyond the workplace, in the vicinity.

Employers are likely to face increased labour costs because of low productivity, absenteeism, shortage of labour, shorter working hours, sick leave and other benefits, early retirement and additional training costs. Both well-educated and skilled, as well as uneducated and unskilled workers are equally affected by HIV/AIDS. Even otherwise, healthy workers have to devote time in caring for the sick, which takes away a considerable part of their time at work. Educational and training programmes for new or older workers are threatened because additional funding for such training is often not available. HIV/AIDS also affects the business environment by putting pressure on public services, reducing savings and investments, and slowing economic growth. World Bank estimates that negative growth in GDP can be expected when national HIV prevalence rates reach 5 per cent. Of all the factors that affect enterprise, efficiency and profit, the skills base is one of the most important.<sup>23</sup>

Apart from these, there are other serious indirect effects on individuals, households and the society at large. Sharp increase and changes in the pattern of household expenditure is expected to be associated with a depletion of savings. Many will incur additional debts, and assets, including land, livestock and implements may be sold to meet the growing medical needs or

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<sup>23</sup> An analytical report on the business response to HIV/AIDS (UNAIDS, 2000) points out that, "with the progressive changes in the ways companies are valued, the strength of intellectual capital is becoming increasingly important relative to financial capital".

loss of income. Studies have pointed out that it impacts on schooling, with children being withdrawn from school and pushed into the labour market at an early age. In the case of a migrant worker losing a job because of inability to work, there are ripple effects, even if he does not return to the native village, because the remittances to the village may be curtailed or entirely cut off. As a consequence, elderly members of the households are forced to stay back in the labour market for long. Due to the AIDS-led disability, the number of female-headed households is on the increase wherein the burden of running the household falls heavily on the woman. Often the person affected is subjected to social exclusion and also loses family support in many cases. There have been reports of increased orphans due to the infection<sup>24</sup>

Measuring the macro-economic impact of HIV/AIDS is not easy. There are two clear dimensions. One is the cumulative amounts of income loss to individuals and loss to individual firms at the national level. The other relates to the redistribution of scarce development resources, with an increasing demand for expenditure on health and social services. Increased morbidity and mortality rates at the national level could lead to a collapse of the educational system through shrinking size of both teaching staff and school-going population. In addition, increased expenditure is incurred in order to monitor high-risk groups, establish prevention strategies and provide for health care costs and to initiate welfare initiatives.

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<sup>24</sup>A child born of HIV/AIDS infected mother may have only a 30 per cent chance of being infected, but almost 100 percent chance of becoming an orphan.

### **Some Costs related to Tobacco Related Morbidity and Treatment, and DALYs**

Tobacco consumption accounts for the death of 3.5 million people annually across the globe: one death in every nine seconds. It is estimated that the number of deaths by 2020–2030 would exceed 10 million, with 70 per cent of the deaths occurring in the developing countries. Scientific evidence reveals that at least 25 diseases are related to smoking. The smoking trend was initiated in the developed world in the 1940s and 1950s. About 20 per cent of the deaths in the 1990s were due to tobacco products. In the age group 35–69 years, about 35 per cent of the deaths among men and 15 per cent among women are caused by tobacco. Apart from the tragic health consequences, smoking encompasses several other economic and social costs (WHO, 1998).

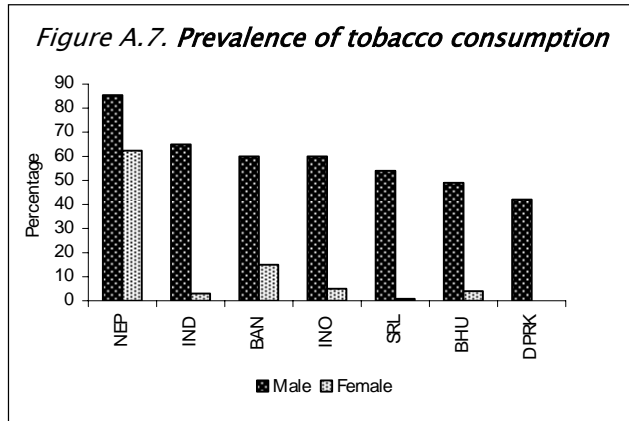
**Social and economic costs:** Tobacco consumption exposes an individual to the risk of lung cancer, extending this risk even to passive smokers. A 1994 World Bank study revealed that the use of tobacco results in a global loss of US \$ 200 000 million per year, with half of the losses occurring in the developing world. The costs include direct medical care for the tobacco-related illness, absenteeism from work, fire losses, reduced productivity and the foregone income due to mortality. In spite of the growing awareness regarding the harm of tobacco consumption, the consumption of manufactured tobacco has more than doubled in 1992 from 1967, from 2.8 trillion to 5.7 trillion cigarettes, with the per capita cigarette consumption increasing by 25 per cent during the same period globally.

An effective means to control smoking will be to curb the social acceptance of the smoking habit and the adoption of

tobacco tax measures and strong legislation banning the sale and purchase of tobacco. Tobacco control may be of low priority for countries striving for economic and social development, while trying to reduce infectious diseases. However if appropriate measures are not undertaken to control the menace, the millions of lives saved through prevention of early deaths from infectious diseases may be lost in the middle age as new generations of adolescents and young adults take up smoking. Tobacco controlling mechanisms should direct towards the prevention of smoking by the productive age group and also ensure that the non-smokers are not induced into smoking. Cessation efforts need to be promoted and encouraged. Preventing involuntary exposure to the environmental tobacco smoke would reduce the risk amongst children and non-smoking men and women. Action against the tobacco epidemic requires a clear idea of the epidemic's scope. The amount of tobacco consumed in a population is an important measure of the magnitude of its tobacco problem.

There are several public programmes, which are under operation in almost all the countries of the Region. The notion of World No-Smoking Day has been designed to publicize health hazards related to smoking. Legislation has been passed in several countries in order to prevent advertisement and promotion of tobacco consumption. Taxes and duties have been levied in certain countries in order to discourage the purchase of tobacco and other related products as is found in India and Nepal. Efforts are made to prevent passive smokers from developing tobacco-related health problems through strict prevention of smoking in public and certain selected places.

Tobacco consumption is found to have different forms: smoking, chewing being the most widely practiced in the SEAR



Source: Data for Maldives, Myanmar and Thailand not available

countries. In general, smoking rates are higher among males than females. In most of the countries smoking habits are found to be prevalent among the age group 25 years and above. Also, it is observed that smoking habits are more pronounced among the

low-income groups. As reported in Bangladesh, about 80 per cent of the rickshaw-pullers are smokers. At the same time, evidence also reveals that doctors and medical students comprise a sizeable section of the population in Thailand and Indonesia who smoke. There is a high prevalence of bidi smoking among the people in Sri Lanka. In Thailand, most of the people living in the northern parts of the country smoke where it is traditional for the women also to smoke.

The most common disease associated with the consumption of tobacco is oral cancer. Oral cancer is the most common form of cancer in the southern part of Asia with over 90 per cent attributable to prolonged exposure to tobacco chewing and smoking. India has one of the highest rates in the world. Oral cancer accounts for one third of the total cancer cases. Tobacco related cancers account for about half of all cancers among men and one fourth among women. In Bangladesh, cancers of the oral cavity, pharynx and larynx account for 30 per cent of all cancers.

Smoking is also considered to be an important risk factor for male ischaemic heart disease patients in the age group 40–50 years in Bangladesh and Bhutan. In Indonesia, it is estimated that nearly 57 000 deaths related to tobacco consumption occur every year, predominantly among males. Chronic lung disease is reported to be an important cause of morbidity and mortality in Bhutan. However, cases of lung cancer are rare. In Nepal, there are reports of lung diseases due to high rates of smoking together with the existence unventilated indoor fires for cooking and heating.

### **State of Reproductive Health**

WHO estimates that half a million women die due to complications in pregnancy and childbirth every year: about 99 per cent deaths take place in the developing countries. The risk of dying in the developing countries is almost 50 to 100 times higher than that in the developed countries. A typical woman is exposed to the risk not just once but 6 to 8 times in her lifespan. About 20 to 40 percent of the deaths of the women in the childbearing age can be attributed to child birth and pregnancy complications. In the US, the figure is less than 1 per cent. It has also been observed that maternal morbidity is as harmful as maternal mortality. Adolescents under the age of 15 are 5 to 7 times more likely to die in pregnancy and childbirth than women in the lowest risk age group of 20–24 years.

Millions of women are malnourished and suffer from chronic anaemia, malaria and intestinal diseases that weaken their ability to bear healthy children and survive deliveries. The health of a child depends immensely on the health of the mother. In the developing countries, one third of the DALYs lost by women aged 15 to 44 years result from reproductive health problems (World Bank 1993). Highly cost-effective interventions for those costing

less than \$100 per DALY saved can benefit more females than males between the age of 5 to 44 years.

Weak health systems, poor coverage and quality of antenatal care, lack of trained assistance during delivery, lack of access to essential emergency obstetric services for high-risk and complicated cases, and lack of referral and transport system, are major reasons for high levels of maternal morbidity and mortality. One of the priority areas for interventions has to be to ensure that every delivery is attended by trained personnel who can recognize complications and provide timely interventions to save lives. Besides, provisioning on the antenatal, intra-natal and post-natal services, that have a bearing on the health of both the mother and the child are important low-cost interventions. In a number of countries, such as in India, a package of immunizations, prophylaxis and supplements are provided through the public health institutions. Polio, measles immunizations, iron and folic acid tablets, vitamin A supplementation, family planning products are part of this package. Thus the package consists of safe motherhood, family planning, prevention and management of reproductive tract infections including sexually transmitted diseases, prevention and treatment of complications of abortion, and adolescent health.

There is a complex interplay of socioeconomic, environmental, and cultural factors that contribute to the reproductive ill-health of populations, particularly women, in developing countries. Poverty, ignorance, illiteracy and malnutrition are major determinants of women's health status. Also significant are the age at marriage and pregnancy, the number and frequency of childbearing, and the numbers of unwanted pregnancies and abortions that contribute to morbidity and mortality among women and their babies. The lower the status and worth of women in society, the higher the maternal

mortality. And, not least important are the health service-related factors such as lack of access to quality reproductive health services. Globally, WHO estimates that reproductive ill-health accounts for 36.6 per cent of the total disease burden in women as compared to 12.3 per cent for men of the same age. Data shows that maternal mortality is three to four times in the 15–19 year age group compared to the 20–30 year group. Antenatal care and trained attendance delivery varies from 18 to 97 per cent and from 6 to 97 per cent, respectively. Other disease such as HIV infection also contributes to reproductive ill-health.

Several studies conducted reveal that investment in women's health is beneficial not only for women in particular but also for the family and community at large. It is in line with the argument that women play a crucial role in ensuring healthy lives for the family. Women, through their interactive roles at home, are the key providers of health and nutrition to the dependent souls at home. A woman, therefore, has to lead a healthy live herself in order to ensure that the children are healthy. The health of women does not depend only on the health services being accessible, but primarily on their economic status and the degree of health awareness. The educational status of women is relevant in this context. It has been found that in the group of communicable diseases, which also include maternal health and perinatal diseases, there is a higher proportion of death and disability among poor women than among poor men even after maternal conditions are removed from consideration. It has been observed that literate women are more health conscious and, therefore, the prevalence of diseases related to maternal health and otherwise is less among this particular class of women. Consequently, there is a divergence of health status among rural and urban women in general. Women with increased economic independence are able to provide better health and

nutrition for themselves and the children. At the same time, it cannot be ignored that the women who are actively engaged in economic activities find it difficult to spend time at home are, therefore, less aware of the health status of the family and their needs. Apart from providers of direct health care such as nursing and medication, women provide better health through the provision of nutritional diet. It cannot be ignored that women are the major processors of food.

The distressing condition of maternal health in the developing countries reflects the poor and scarce health facilities that are available to women in spite of claims of huge public expenditure on reproductive health. However, it can be argued that often the geographical and socio-cultural barriers prevent women from accessing the available health services. Thus, it can be inferred that the available health services are inadequate to cater to the health requirements of women in particular. Improvements in women's health increase personal and family productivity and also help ensure healthier generations in future. National economies, communities and households all depend on women's paid and unpaid labour and ultimately benefit from investment in women's health (World Bank 1994).

### **State of Nutrition**

Overall inadequacy of food intake to meet the needs for growth, immune function, cognitive development and reproduction affects 30 per cent of children and 25 per cent of women, while 56 per cent of all under-5 deaths is indirectly associated with some form of malnutrition. Malnutrition is the result of an interaction between food intake, disease risk factor and behaviour. Disease is the result of exposure to disease, resistance and treatment at home and medical interventions. Frequent diseases associated with anorexia,

fever and diarrhoea have the greatest effect on nutrition. Malnutrition in turn reduces resistance to disease. Reducing the effect of disease on nutrition involves immunization, improved water supply and sanitation, improved hygiene and access to minimum nutrition inputs in the context of health care (World Bank Group 1997, p 63).

The highest levels of malnutrition and under-nutrition has been found to be present in the SEA Region, in fact higher than the chronic food deficit countries of Sub-Saharan Africa. The high levels of anaemia among women, especially pregnant women, reveal the high degree of nutritional deficiency in the Region. Women are found to have inadequate intake of iron supplemented diet. Practically in all countries in the Region, health of women and children in particular are neglected. Often social norms and practices contribute to the low health and nutritional status of women. Poor health conditions of children and the prevalence of malnutrition are reflected by the prevalence of underweight among children as well as incidence of stunting and wasting. The main cause of malnutrition among infants is identified as low levels of breastfeeding and poor methods of weaning. In Thailand, for example, only 4 percent of the children less than 3 months are breast-fed. There is a divergence in this practice in rural and urban areas, as observed in countries like Nepal, Maldives. Bangladesh and India are found to have high levels of breastfeeding practices exceeding 50 percent. Good breastfeeding practices are found only in Sri Lanka and Bhutan, where it is universal.

The widespread prevalence of anaemia has resulted in the incidence of a host of diseases. Nearly 20 per cent of maternal deaths in Bangladesh have been attributed to anaemia. Diarrhoeal diseases and respiratory infections constitute major killers and are

also a source of morbidity and malnutrition among children in Bangladesh. In Myanmar, women and children are found to consume low levels of protein and calories, resulting in high levels of malnutrition. In Sri Lanka, worm infection, nutritional deficiency and malaria are cited as the most common causes of anaemia among the people. It is interesting to note that in Nepal the per capita energy consumption levels have increased in the last two decades without any improvement in the nutritional levels of the children, reflected by the prevalence of underweight, stunting and wasting. In Indonesia, the problems of malnutrition are related to that of Protein Energy Malnutrition (PEM) and micronutrient malnutrition.

*Table A.2. Indicators of under-nutrition*

Country	Prevalence of anaemia in pregnant women in percentage	Prevalence of anaemia in children in percentage	Children(under-5) underweight in percentage
Bangladesh	74.0 (1981-82)	????	56.0 (1995-96)
Indonesia	16.0 (1992)	40.5 (1995)	36.1 (1995)
India	87.5 (1991)	56.0 (1991)	50.0 (1995-96)
Nepal	74.6 (1998)	78.0 (1998)	48.8 (1998)
Sri Lanka	58.6 (1994)	45.0 (1994)	30.7 (1993)
Bhutan	68.0 (1995)	58.0 (1995)	40.1 (1996)
Maldives	68.0 (1991)	82.0 (1991)	38.0 (1994)
Myanmar	58.0 (1994)	30.0 (1994)	31.2 (1994)
DPR Korea	NA	NA	NA
Thailand	13.4 (1995)	25.2 (1995)	18.0 (1993)

Source: Country profile downloads from the internet

Most of these countries have high levels of vitamin A Deficiency (VAD) and iodine deficiency disorder (IDD). Low levels of iodine consumption have resulted in the prevalence of IDD and VAD among children. Most of the countries have adopted comprehensive health programmes to improve the health and nutritional levels of the masses. However, because of lack of access to most of these programmes, due to the lack of funds as well as geographical hindrances, people have not been able to benefit from these programmes on a large scale. For instance, in Indonesia the coverage of iodine supplementation programme has not been a success because of geographical and socio- economic factors. Also, their lack of survey reports and adequate data on nutritional profile have resulted in the under representation of the nutritional status of the population under consideration.

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