CHAPTER: 1 INTRODUCTION

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1.1 INTRODUCTION:

Aspects and Definitions of Health

Health is a dynamic state on the wellness-illness continuum, ranging from high-level wellness, to states of illness/premature death. Health is a unity and harmony within the mind, body and spirit, which is unique to each person, and is as defined by that person. The level of wellness or health is, in part, determined by the ability to deal with and defend against stress. Health is on a continuum with movements between a state of optimum well-being and illness which is defined as degrees of disharmony. It is determined by physiological, psychological, socio-cultural, spiritual, and developmental stage variables.

Health is viewed holistically as an interacting system with mental, emotional and physical components. We also consider health as a basic and dynamic force in our daily lives, influenced by our circumstances, beliefs, culture and social, economic and physical environments.

Health can also be viewed, as the absence of illness, functionally, as the ability to cope with everyday activities, or positively, as fitness and well-being. In any organism, health is a form of homeostasis. Health also implies good prospects for continued survival. In sentient creatures such as humans, health is a broader concept.

According to the (WHO), there is no one "official" definition of mental health. Cultural differences, subjective assessments, and competing professional theories all affect how "mental health" is defined. In general, most experts agree that "mental health" and" are not opposites. In other words, the absence of a recognized mental disorder is not necessarily an indicator of mental health. However, according to WHO 1994 it is defined as “a state of complete, physical, mental and social well being and not merely the absence of disease or infirmity.

Health is one of those terms which most people find it difficult define although they are confident of its meaning. Therefore, many definitions of the health have been offered from time to time, including the following:
• The condition of being sound in body, mind or spirit especially freedom from physical disease or pain’ (Webster) “soundness of body or mind; that condition in which its functions are duly and efficiently discharged’ (Oxford English Dictionary)
• “A condition or quality of the human organism expressing the adequate functioning of the organism in given conditions, genetic and environmental”
• “A modus Vivendi enabling imperfect men to achieve a rewarding and not too painful existence while they cope with an imperfect world”
• “A state of relative equilibrium of body forms and function which results from its successful dynamic adjustment to forces tending to disturb it. It is not passive interplay between body substance and forces impinging upon it but an active response of body force working toward readjustment”

1.2 IMPORTANCE OF HEALTH FOR HUMAN CAPITAL AND DEVELOPMENT

Health as Input

Many of the conventional approaches to health consider the need to justify expenditures on health through the advantages it can bring to the economy. World Bank’s 1993 World Development Report, Investing in Health focuses on the benefits that improved health would have on economic growth. Subsequently in the year 2001 report by the Commission on Macroeconomics and Health, Investing in Health for Economic Development, draws on similar types of arguments made by such authors as David Bloom et al (2004), whose human capital and ‘quality of labor’ persuasions are well-known. The approach adopted here is that healthier is wealthier: we should care about health, not only because it is an intrinsic good, but also because it contributes to economic growth. It is argued that health, through its contribution to the quality of human capital, as well as increases in savings and investment that correspond to longer lives, has a strong and significant effect on economic growth. This approach puts economic growth as an end and health as a means of achieving this end.
Health as output

The reverse has also been argued, where wealth is seen to be a necessary input for the achievement of health (specifically infant mortality) outcomes. Indeed, Pritchett and Summers (1996) argue that ‘wealthier nations are healthier nations’, as demonstrated by the strong and consistent association between per capita income and child mortality. They suggest that the effect of income on health is causal (not accounted for by reverse causation or a third variable) and that, for every unit change in per capita income. We will ultimately save children’s lives. Thus, economic growth assumes a central role in development objectives.

Whether wealth to be the input and health the output – or the reverse, where health is the input for economic growth outputs – we are confined by our own conventional conceptions of inputs and outputs that relate to one another in a predictable and reliable fashion. Health necessarily improves wealth and wealth invariably improves health. Such approaches lead us to the critical question of whether economic growth is necessary for improving health. Sen (1999) asserts that this is not always the case. It is not always necessary to wait for high economic growth to take place before focusing on improving health. Indeed, the success of pre-reform China, Costa Rica, Sri Lanka and the Indian state of Kerala in improving the health and life expectancy of their citizens without substantial increases in income, supports the claim that economic growth is not a pre-condition for health improvement.

Health in the context of the human development and capability approach

One of the distinguishing features of the human development and capability approach is its focus on the process of generating health. This stands in contrast to conventional approaches, which are mainly concerned with outputs we can measure and the commodities/resource inputs needed to achieve these outputs. Moreover, the capability approach recognizes that different people may have different values in terms of health and often weigh these against other dimensions in life. In acknowledging human diversity and agency, the capability approach suggests that people may require different kinds of resources to achieve the outcomes they value and have reason to value. It suggests that there are numerous factors influencing how
different individuals convert resource inputs into valued functioning’s. These ‘conversion factors’ occur at the individual, social, institutional and environmental level. Individual factors that determine how a given resource will be used include, for example, age, gender, metabolic rate, pregnancy, illness and knowledge. Social or family dynamics are also relevant in converting resource inputs to health outputs of value. Formal rules or informal regulations similarly intervene in our ability to use resource inputs to achieve desired functioning’s. And, lastly, our natural or man-made environment can facilitate the efficient (or inefficient) use of given inputs. Sen (2002, p.660) writes that a considerable empirical evidence exists to substantiate the importance of conversion factors in translating health inputs into valued health outputs. With respect to individual conversion factors, the evidence is largely physiological. For example, there are distinct physiological differences between men and women that render female infants with higher survival rates and longer life expectancies. Likewise, there are physiological changes that take place in the process of ageing that alter the immune systems of individuals and their respective susceptibilities to ill health. Conversion factors also include a number of external conditions, such as the natural or manmade environment in which we operate formal or informal rules and regulations to which we subscribe, and the social or family dynamics that determine our daily lives. The WHO Commission on Social Determinants of Health has called attention to some of these factors: what they refer to as ‘social determinants’ effectively encompass a variety of conversion factors that differ between social groupings. As the commission states in its final report, ‘inequities in health arise because of the circumstances in which people grow, live, work and age, and the systems put in place to deal with illness.

One clear example of a conversion factor in health is education. Numerous studies have demonstrated that educated individuals tend to have lower mortality and morbidity than their less educated counterparts. For example, evidence from Sweden suggests that adults with doctorates have lower mortality rates than adults with professional degrees or master’s degrees, and those with professional or master’s degrees have lower mortality rates than those with bachelor’s degrees (Erikson, 2001). Moreover, children of educated mothers fare better in terms of health than those whose mothers have less education. For example, evidence from El Salvador
indicates that, if mothers have no education, their babies have a one in ten chance of dying in the first year of their life. The infant death rate falls to a quarter of that if mothers have at least secondary education (World Bank, 2006).

The importance of conversion factors indicates that, in order to achieve health equity, health policy cannot be isolated from the overall set of public policies pertaining to the distribution of the ‘social determinants of health’. Thus, health policy is not only about providing treatment for people with ailments but about dealing with the social and economic drivers of the obesity epidemic; it is not only about providing health treatment for children but about educating women who will become mothers; and it is not only about treating their stress-related illnesses medically but also about improving the conditions in which they live and work (Marmot, 2007).

**Capabilities and functionings**

Health capabilities would then include the set of vectors which our resource inputs and conversion factors would allow, and health functionings would refer to the particular capability we choose (i.e. the one we identify to be of value). There has been a dearth of discussion in the academic literature as to what constitutes health capabilities. Is it having access to a wide range of nutrition-rich foods that are socially and culturally acceptable; having a wide set of health-care options without financial, physical or cultural barriers; or a range of safe living and working environments free from harmful exposures or threats of injury? Despite discussions suggesting the contrary, the capability approach itself does not spell out a universal set of health capabilities. As with capabilities more broadly, health capabilities are determined by the population within which the capabilities are being assessed. These capabilities are necessary to impact the health-development linkages.

**Health at the heart of inter-locking deprivations**

Health is a fundamental capability that is instrumental in the achievement of other capabilities. The unfair distribution of health capabilities may therefore affect social justice in several ways (Sen, 2002). Based on evidence from South Asia, Osmani and Sen (2003) conclude that gender bias results in high maternal under-nutrition, which leads to intra-uterine growth retardation of the fetus. The lead to a very high
prevalence of low birth weights, which in turn contributes to a high prevalence of both child under-nutrition and adult ailments. Thus, women’s deprivation in terms of nutrition and health attainment has serious repercussions for society as a whole.

The occurrence of multiple deprivations is usually complex and interconnected; deprivation in one dimension often induces and reinforces deprivation in other aspects of life. Such a continuous inter-play between various capabilities produces (and reproduces) the vicious cycle of poverty. As we have argued earlier, health capabilities have both an intrinsic and instrumental role in enhancing human well-being. Deprivation in health can potentially cause deprivations in a number of other dimensions, such as education, employment, subjective well-being and participation in socio-economic spheres. When people are ill, malnourished, have mental disorders or life-debilitating disabilities, their overall capabilities are greatly reduced. Lack of health can therefore be at the heart of inter-locking deprivations.

The World Bank’s study Voices of the Poor (Narayan et al, 2000) suggests that death, injury or severe illness in the family is considered to be one of the major causes of poverty in developing countries. The 2005 WHO Report finds a very close link between chronic diseases and poverty. While acknowledging that poverty is a causal factor of chronic diseases, the report argues that the incidence of chronic diseases also causes poverty. Furthermore, there are huge costs involved in the medical care of individuals suffering from chronic diseases.

Chronic diseases have an indirect impact on people’s economic status and employment opportunities in the long term. Indirect costs include: reduction in income owing to lost productivity from illness or death; the cost of adult household members caring for those who are ill; reduction in future earnings by the selling of assets to cope with direct costs and unpredictable expenditures; and lost opportunities for young members of the household, who leave school in order to care for adults who are ill or to help the household economy (WHO, 2005, p67).
Why Health Matters?

Good health, as people know from their own experience, is a crucial part of well-being, but spending on health can also be justified on purely economic grounds. Improved health contributes to economic growth in four ways: it reduces production losses caused by worker illness; it permits the use of natural resources that had been totally or nearly inaccessible because of disease; it increases the enrollment of children in school and makes them better able to learn; and it frees for alternative uses resources that would otherwise have to be spent on treating illness. The economic gains are relatively greater for poor people, who are typically most handicapped by ill health and who stand to gain the most from the development of underutilized natural resources.

Gains in worker productivity

The most obvious sources of gain are fewer work days lost to illness, increased productivity, greater opportunities to obtain better-paying jobs, and longer working lives. To take a classic example, leprosy is a disease that affects people in the prime of life, with peak incidence rates among young adults. As many as 30 percent of those affected, may be seriously deformed, and their working lives will be shortened as well. A study of lepers in urban Tamil Nadu, India, estimates that the elimination of deformity would more than triple the expected annual earnings of those with jobs. The prevention of deformity in all of India's 645,000 lepers would have added an estimated $130 million to the country's 1985 GNP. This amount is the equivalent of almost 10 percent of all the official development assistance received by India in 1985. Yet leprosy accounted for only a small proportion of the country's disease burden, less than 1 per-cent in 1990.

Improved utilization of natural resources

Some health investments raise the productivity of land. In Sri Lanka, the near-eradication of malaria during 1947–77 is estimated to have raised national income by 9 percent in 1977. The cumulative cost was $52 million, compared with a cumulative gain in national income over the thirty-one years of $7.6 billion, implying a
spectacular benefit-cost ratio of more than 140. Areas previously blighted by mosquitoes became attractive for settlement; migrants moved in, and output increased. In Uganda massive migration to fertile but underexploited land followed the partial control of river blindness (on-chocerciasis) in the 1950s. The on-chocerciasis Control Programme, conducted in eleven countries of the Sahel, is a more recent example of the same benefits.

**Benefits in the next generation through education**

There is no question that schooling pays off in higher incomes. Four years of primary education boosts farmers' annual productivity by 9 percent on average, and workers who do better at school earn more. Studies in Ghana, Kenya, Pakistan, and Tanzania indicate that workers who scored 10 percent above the sample mean on various cognitive tests have a wage advantage ranging from 13 to 22 percent; in Nepal farmers with better mathematical skills are more likely to adopt profitable new crops.

**Reduced costs of medical care**

Spending that reduces the incidence of disease can produce big savings in treatment costs. For some diseases the expenditure pays for itself even when all the indirect benefits—such as higher labor productivity and reduced pain and suffering are ignored. Polio is one example. Calculations for the Americas made prior to the eradication of polio in the region showed that investing $220 million over fifteen years to eliminate the disease would prevent 220,000 cases and save between $320 million and $1.3 billion (depending on the number of people treated) in annual treatment costs. The program's net return, after discounting at even as much as 12 percent a year, was calculated to be between $18 million and $480 million.

**Putting the effects together**

The detrimental effects of poor health on individuals and households and on the use of resources suggest that better health should lead to better economic performance at the national level. A number of analyses have found a positive relationship between growth of income per capita and the initial national educational stock. The relation of
growth in income per capita between 1960 and 1990 in about seventy countries to the initial level of national income, the initial educational level, and an indicator of initial health status. The health status indicator is found to be a highly significant predictor of economic performance. For the average country in the sample, the annual growth rate of income per capita is 1.40 percent and the child mortality rate is 116 per 1,000. An otherwise average country with a child mortality rate of 106 would have a growth rate of income per capita of 1.55 percent, whereas one with a child mortality rate of 126 would have a growth rate of 1.26 percent.

The record of success

Mortality started to decline in Europe, North America, and Australasia about two centuries ago, but slowly at first. A century ago life expectancy in the United States, then the world's richest country, was only forty-nine years, and child mortality was about 180 per 1,000. The rate of improvement accelerated in the first half of this century; by 1950 life expectancy in the United States had increased to sixty-six years, and child mortality had fallen to 34 per 1,000. Progress was also being made in developing countries: in Chile, for example, life expectancy increased from thirty-seven years in 1930 to forty-nine in 1950, and child mortality fell from 350 to 209 per 1,000 in same year.

Mortality transitions since 1950

Health conditions around the world have improved more in the past forty years than in all previous human history. Life expectancy at birth in developing countries increased from forty to sixty three years, and child mortality fell from 280 to 106 per 1,000. In a high-income country life expectancy is more than seventy-five years; in a low-mortality developing country it is seventy years or more; and in Sub-Saharan Africa, the region where least progress has been made, it is about fifty years. The statistics for adult mortality in the developing world are much less satisfactory than those for child mortality. Approximate estimates for all developing countries suggest that the adult mortality rate (defined as the probability of dying between ages 15 and 60 per 1,000 persons reaching age 15) fell from about 450 in 1950 to about 230 in
1990. In Chile, a country with excellent statistics, the rate dropped from 466 in 1930 to 152 in 1990.

**Regional patterns**

The extent of success has varied significantly between regions. Between 1950 and 1990 all eight demographic regions used increases in life expectancy at birth, but China and the Middle Eastern crescent did particularly well. Sub-Saharan Africa showed the slowest improvement, with life expectancy increasing only from thirty-nine to fifty-two years although even this compares well with European experience in the nineteenth century. (It took England and Wales more than half a century to raise life expectancy by a similar amount.) The formerly socialist economies of Europe showed a rapid improvement in the 1950s and 1960s, but the rise was much slower in the 1970s and 1980s.

**Challenges for the future**

New health challenges will emerge over the next few decades. Some are certain: these involve the significant increase in non-communicable diseases arising from the continuing demographic transition. Others are less certain: the spread of HIV and the increase in AIDS deaths; the increasing number of drug-resistant disease strains; and the continued use of health-damaging substances such as tobacco. Although nobody can forecast the impact of these challenges with any precision, reasonable projections are possible. For example, outside the established market economies the number of deaths attributable to smoking is expected to increase from 1.7 million in 1990 (40 percent of which were in the formerly socialist economies of Europe) to more than 3 million by 2005 and to about 4.5 million by 2015. Other challenges are potentially important but not forecastable possible examples are the emergence of new microbes as devastating as HIV and the inadvertent spread of biological agents developed for use in war.
Aging populations

The mortality decline that has occurred almost everywhere has usually been accompanied by steep falls in fertility. The overall transition from high mortality and high fertility to low mortality and low fertility is essentially complete in the high-income countries and has almost been completed in China and Latin America. Even in Sub-Saharan Africa fertility seems to be starting to decline. The systematic relationship between gains in life expectancy and reductions in fertility is expected to continue into the next century.

1.3 ROLE OF STATE IN HEALTH

Three rationales for a major government role in the health sector should guide the reform of health systems.

1. Many health-related services such as information and control of contagious disease are public goods. One person's use of health information does not leave less available for others to consume; one person cannot benefit from control of malaria-carrying mosquitoes while another person in the same area is excluded. Because private markets alone provide too little of the public goods crucial for health, government involvement is necessary to increase the supply of these goods. Other health services have large externalities: consumption by one individual affects others. Immunizing a child slows transmission of measles and other diseases, conferring a positive externality. Polluters and drunk drivers create negative health externalities. Governments need to encourage behaviors that carry positive externalities and to discourage those with negative externalities.

2. Provision of cost-effective health services to the poor is an effective and socially acceptable approach to poverty reduction. Most countries view access to basic health care as a human right. This perspective is embodied in the goal, “Health for All by the Year 2000,” of the conference held by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) at
Alma-Ata in 1978, which launched today’s primary health care movement. Private markets will not give the poor adequate access to essential clinical services or the insurance often needed to pay for such services.

3. Government action may be needed to compensate for problems generated by uncertainty and insurance market failure. The great uncertainties surrounding the probability of illness and the efficacy of care give rise both to strong demand for insurance and to shortcomings in the operation of private markets. One reason why markets may work poorly is that variations in health risk create incentives for insurance companies to refuse to insure the very people who most need health insurance—those who are already sick or are likely to become ill. A second has to do with “moral hazard”: insurance reduces the incentives for individuals to avoid risk and expense by prudent behavior and can create both incentives and opportunities for doctors and hospitals to give patients more care than they need. A third has to do with the asymmetry in information between provider and patient concerning the outcomes of intervention; providers advise patients on choice of treatment, and when the providers’ income is linked to this advice, excessive treatment can result. As a consequence of these last two considerations, in unregulated private markets cost escalates without appreciable gains to the patient. Governments have an important role to play in regulating privately provided health insurance or in mandating alternatives such as social insurance, in order to ensure widespread coverage and hold down costs. If governments do intervene, they must do so intelligently, or they risk exacerbating the very problems they are trying to solve. When governments become directly involved in the health sector by providing public health, programs or financing essential clinical services for the poor policymakers face difficult decisions concerning the allocation of public resources.

4. Until recently, little has been done to apply cost-effectiveness analysis to health. This is, in part, because it is difficult. Cost and effectiveness data on health interventions are often weak. Costs vary between countries and can rise or fall sharply as a service is expanded. Some groups of interventions are provided jointly, and their costs are shared. Nonetheless, cost-effectiveness
analysis is already demonstrating its usefulness as a tool for choosing among possible health interventions in individual countries and for addressing specific health problems such as the spread of AIDS. Just because a particular intervention is cost effective does not mean that public funds should be spent on it. Households can buy health care with their own money and, when well informed may do this better than governments can do for them. But households also seek value for money and governments, by making information about cost-effectiveness available, can often help improve the decisions of private consumers, providers and insurers (WDR, 1993, pp.3-6)

**Investing in Health**

The link between the health status and health care investment has attracted a considerable interest on the considerable interest on the part of economic researchers both in the theoretical and empirical levels. The health of the human capital generates both higher income and individual well being. Improved health generates economic growth and poverty reduction in the long run. As mentioned in earlier sections of this chapter, the role of health in influencing the outcomes has been acknowledged by various writers. (Strauss and Thomas. 1998. Shultz T.P 1999). Improved health can occur either through privately or through public sources. The importance of health as a public good, necessitates the growth in the quantum of investment in health. Why investment in health is necessary ? The researcher has drawn heavily from the World development Report 1993. The report has suggested a three pronged strategy for improvement in health. Some of the issues that were put forth, for the enhanced role of the state for investing in health can be as follows.

1. **Foster an environment that enables households to improve health**

Household decisions shape health, but these decisions are constrained by the income and education of household members. In addition to promoting overall economic growth, governments can help to improve those decisions if they: Pursue economic growth policies that will benefit the poor (including, where necessary, adjustment policies that preserve cost-effective health expenditures). Expand investment in schooling, particularly for girls and promoting the rights and status of women through
political and economic empowerment and legal protection against abuse.

2. **Improve government spending on health**

The challenge for most governments is to concentrate resources on compensating for market failures and efficiently financing services that will particularly benefit the poor. Several directions for policy respond to this challenge. These are (a) Reducing government expenditures on tertiary facilities, specialist training, and interventions that provide little health gain for the money spent (b) Finance and implement a package of public health interventions to deal with the substantial externalities surrounding infectious disease control, prevention of AIDS, environmental pollution, and behaviors (such as drunk driving) that put others at risk (c) Finance and ensure delivery of a package of essential clinical services. The Comprehensiveness and composition of such a package can only be defined by each country taking into account epidemiological conditions, local preferences and income. In most countries public finance, or publicly mandated finance, of the essential clinical package would provide a politically acceptable mechanism for distributing both welfare improvements and a productive asset.

3. **Promote diversity and competition**

Government finance of public health and of a nationally defined package of essential clinical services would leave the remaining clinical services to be financed privately or by social insurance within the context of a policy framework established by the government. Governments can promote diversity and competition in provision of health services and insurance by adopting policies that: Encourage social or private insurance for clinical services outside the essential package. Encourage suppliers (both public and private) to compete both to deliver clinical services and to provide inputs, such as drugs, to publicly and privately financed health services. The role of the state in providing subsidies for social insurance and sometimes full financing of the aspects like social and health insurance in particular supports the case for larger investments.

Investment is needed to Generate and disseminate information on provider
performance, on essential equipment and drugs, on the costs and effectiveness of interventions, and on the accreditation status of institutions and providers. Increased scientific knowledge has accounted for much of the dramatic improvement in health that has occurred in this century by providing information that forms the basis of household and government action and by underpinning the development of preventive, curative, and diagnostic technologies. Investment in continued scientific advance will amplify the effectiveness of each element of the three-pronged approach proposed in this Report. Because the fruits of science benefit all countries, internationally collaborative efforts, of which there are several excellent examples, will often be the right way to proceed.

The importance of health as a determinant of human development is well accepted. Health is high on the agenda of the government and the people, both of whom are willing to invest for improving health status. Spiraling costs and rising demand are putting a severe strain on the health system, whether government-funded or private. Health care can absorb a very large quantity of investments from the government and individuals and yet leave millions of people, especially the poor who suffer from a high disease burden, inadequately covered in Chart-1.0 it is also being increasingly realized that merely investing more in health is unlikely to improve the health status of the population. It is essential that policies and strategies are developed to promote equitable access to preventive and curative services so that there is an improvement in health indices. Chart-1.1 Poor health reduces GDP per capita by reducing both labor productivity and the relative size of the labor force.
Unproductive investment in Health: A vicious Cycle

- Inadequate health status
  - Cost escalation
- Inequitable, inefficient and poor quality health services
- Less economic development
- Inequality of opportunity
- Sub-optimal development of human capital
- More poverty
- Lower productivity and Competivity

Less economic development leads to Inadequate health status, which in turn leads to Cost escalation. Inequitable, inefficient and poor quality health services contribute to Inadequate health status. Less economic development can also lead to Inequality of opportunity, which is sub-optimal development of human capital. More poverty leads to lower productivity and competitiveness, which can exacerbate the cycle.
Chart 1.1

Productive investment in Health: A virtuous cycle

Equitable, efficient and high quality health services

Better health status

Better human capital

Greater equality of opportunity

Less poverty

Greater productivity and competitiveness

Improve economic development
How health affects GDP per capita

How does health influence GDP per capita? To begin with, healthy workers are more productive than workers who are otherwise comparable but for their health. One strand of supporting evidence comes from studies on individuals that link investments in health and nutrition of the young to adult wages. Better health also raises per capita income through a number of other channels (see Chart-1.0). One way is by altering decisions about expenditures and savings over the life cycle. The idea of planning for retirement occurs only when mortality rates become low enough for retirement to be a realistic prospect. Rising longevity in developing countries has opened a new incentive for the current generation to save an incentive that can have dramatic effects on national saving rates. While this saving boom lasts for only one generation and is offset by the needs of the elderly once population aging occurs, it can substantially boost investment and economic growth rates while it lasts. Another channel is by encouraging foreign direct investment: investors shun environments where the labor force suffers a heavy disease burden. Endemic diseases can also deny humans access to land or other natural resources, as economies adjust gradually to their steady-state output level over time. In this case, we expect countries that have high levels of health but low levels of income to experience relatively faster economic growth as their income adjusts. How big an overall contribution does better health make to economic growth? Evidence from cross-country growth regressions suggests the contribution is large. Indeed, the initial health of a population has been identified as one of the most robust and potent drivers of economic growth among such well-established influences as the initial level of income per capita (once countries reach their steady-state level of income, growth slows), geographic location, institutional environment, economic policy, initial level of education, and investments in education. For example, Bloom, Canning, and Sevilla (Harvard University) found that one extra year of life expectancy raises steady state GDP per capita by about 4 percent. But not all countries benefit equally from this link. Alok Bhargava (University of Houston) and colleagues found that better health matters more for wages in low-income countries than in high-income ones. Studies also show that better health matters more for countries with good economic policies, such as openness to trade and good governance. Work undertaken by Bloom, Canning, and Malaney (Harvard University) concluded that the East Asian growth miracle was actually no miracle at all: rather, it
represents compelling evidence for a process in which health improvements played a leading role in the context of generally favorable economic policies.

**Chart-1.2**

Health’s Links to GDP

Poor health reduces GDP per capita by reducing both labor productivity and the relative size of the labor force:

- **Higher fertility and child mortality**
  - Child illness
    - Child malnutrition
      - Reduced schooling and impaired cognitive capacity
  - Adult illness and malnutrition
    - Reduced access to natural resources and global economy
      - Reduced investment in physical capital
    - Reduced labor productivity
    - Labor force reduced by mortality and early retirement
  - Higher dependency ratio
    - Lower GDP per capita

The issue of how much the government sector, private individuals and the country as a whole is spending on health care and which segments of the population are benefiting has been debated widely during the last decade. The WHO has estimated that India, at present is spending 4.5 per cent of Gross Domestic product (GDP) on health, of which 0.9 per cent is public expenditure. India ranks thirteenth from the bottom in terms of public spending on health (World Health Report, 2000).

There is an urgent need to evolve, implement and evaluate an appropriate scheme for health financing for different income groups. Health finance options may include health insurance for individuals, institutions, industries and social insurance of BPL families.

## 1.4 LINKAGES OF HEALTH AND DEVELOPMENT

Health is a priority goal in its own right, as well as a central input into economic development and poverty reduction. The importance of investing in health has been greatly underestimated, not only by analysts but also by developing-country government and the international donor community. Increased investments in health as outlined in this Report would translate into hundreds of billions of dollars per year of increased income in the low-income countries. There are large social benefits to ensuring high levels of health coverage of the poor, including spillovers to wealthier members of the society.

A few health conditions are responsible for a high proportion of the health deficit: HIV/AIDS, malaria, TB, childhood infectious diseases (many of which are event able by vaccination), maternal and perinatal conditions, tobacco-related illnesses, and micronutrient deficiencies. Effective interventions exist to prevent and treat these conditions. Around 8 million deaths per year from these conditions could be averted by the end of the decade in a well-focused program.

Investments in reproductive health, including family planning and access to contraceptives are crucial accompaniments of investments in disease control. The combination of disease control and reproductive health is likely to translate into
reduced fertility, greater investments in the health and education of each child, and reduced population growth.

The level of health spending in the low-income countries is insufficient to address the health challenges they face. We estimate that minimum financing needs to be around $30 to $40 per person per year to cover essential interventions, including those needed to fight the AIDS pandemic, with much of that sum requiring budgetary rather than private-sector financing. Actual health spending is on a considerably lower. The east developed countries average approximately $13 per person per year in total health expenditures, of which budgetary outlays are just $7. The other low-income countries average approximately $24 per capita per year, of which budgetary outlays are $13.

Increased health coverage of the poor would require greater financial investments in specific health sector interventions, as well as a properly structured health delivery system that can reach the poor. The highest priority is to create a service delivery system at the local (“close-to-client”) level, complemented by nationwide programs for some major diseases. Successful implementation of such a Program requires political and administrative commitment, strengthening of country technical and administrative expertise, substantial strengthening of public management systems, and creation of systems of community accountability. It also requires new approaches to donor/recipient relations.

This is especially true in poor countries where the burden of disease is very high. But investments in health work best as part of a sound overall development strategy. Economic growth requires not only healthy individuals but also education, and other complementary investments, an appropriate division of labor between the public and private sectors, well-functioning markets, good governance, and institutional arrangements that foster technological advance. Private sector–led growth in the business sector must be complemented by an active role of government in several areas: ensuring core investments in health and education, guaranteeing the rule of law, protecting the physical environment, and working in cooperation with the private sector to foster scientific and technological advance. We are not claiming that investments in health can solve development problems, but rather that investments in
health should be a central part of an overall development and poverty reduction strategy.

We illustrate the position of health among the many contributors to economic development in Economic output is shown to be a function of policies and institutions (economic policies, governance, and supply of public goods) on the one hand, and factor inputs (human capital, technology, and enterprise capital) on the other. Good policies and institutions are critically important: they help to determine both economic performance for any given levels of capital and technology, and the pace at which capital and technology accumulate. Health has its most important economic effects on human capital and on enterprise capital as we discuss in the Report, through a variety of pathways—some obvious and others more subtle. Health itself is affected by the prevailing policies and institutions, the level of human capital (since education, for example, promotes health), the level of technology in the society, especially in the health sector itself, and on the very growth in income and poverty reduction that better health engenders.

Economic development is therefore a multi-sectoral process, and the strategy for economic development must build on a broad range of social investments as well as strategies to encourage private-sector business investment. For low-income countries, the emerging PRSP process provides a promising mechanism for incorporating the fight against disease into a more comprehensive development strategy. The PRSP process impels governments and civil society to look across a range of policies in health, education, water and sanitation, environmental management, gender relations, and other areas. We applaud this comprehensive approach, since even on the narrow question of health it is clear that good health and the protection against disease cannot be produced by the health sector alone. One of the most powerful contributors to reduced child mortality,

Global commitments to improved health are featured in the Millennium Development Goals (MDGs) agreed by the world’s heads of government at the Millennium Summit in 2000. The MDGs focus on poverty reduction in general and on several health goals in particular, thereby rightly underscoring the linkages between overall poverty
The MDG health targets include: (1) a reduction in child mortality by two-thirds of the 1990 level by 2015; (2) a reduction in maternal mortality ratios by three-fourths of the 1990 level by 2015; and (3) the end of rising HIV/AIDS and other major disease prevalence no later than 2015. Other recent international initiatives, such as the Roll Back Malaria and Stop TB programs, have added additional and more tightly specified targets for disease control in specific areas.

**Chart-1.3** HUMAN AS AN INPUT INTO ECONOMIC DEVELOPMENT

**Source:** WHO. 2001, Macroeconomics and Health Report of the commission on Macroeconomics and Health.
1.5 ASPECTS OF HEALTH SYSTEMS

In this last section of this chapter we shall discuss the aspects of health system in general and certain details of the health system in India. What is health system? what does it comprise of ? in this complex world it can be very difficult to say exactly what a health system is, what it comprises of, and further, where it begins and ends. WHR 2000 defines a health system to include all the activities whose primary purpose is to promote, restore or maintain health. The formal health services, including the professional delivery of personal medical attention, are clearly within these boundaries. So are the actions by traditional healers, and all use of medication, whether prescribed by a provider or not. So is the home care of the sick. Traditional public health activities as health promotion and disease prevention, and other health enhancing interventions like road and environmental safety improvement are also part of health systems. Beyond the boundaries of this definition are those activities whose primary purpose is something other than health – education, for example – even if these activities have a secondary health enhancing benefits. Hence, the general education system is outside the boundaries, but specifically health-related education is included.

Apart from the above, health systems also include the information about the provision of investments in various aspects of health sector which includes preventive, curative and palliative interventions

According to (WHR 2000, p..8) Health systems have thus three fundamental objectives. These are

(a) Improving the health of the populations they serve
(b) Responding to peoples’ expectations
(c) Providing financial protection against the costs of health.

Because these objectives are not always met, public dissatisfaction with the way health services are run it is necessary the study the health system in detail.
India’s health system:

India’s health system is characterized by a pattern of mixed ownership with different systems of medicine - Allopathy, Ayurvedic, Unani, Siddha and Homeopathy. Three major groups in health care in the country, the public health sector, the private health sector and the households who utilize health services. The public health sector consists of the central government, state government, municipal and local level bodies. Health is a state responsibility, however the central government does contribute in a substantial manner through grants and centrally sponsored health programmes/schemes. There are other ministries and departments of the government such as defense, railways, police etc who have their own health services institutions for their personnel. For organized sector employees, the provision of health sector is through Employees’ State Insurance Scheme

The private health of the sector consists of the ‘not-for-profit’ and the ‘for the profit’ health sectors. The not-for profit health sector includes various health services provided by the Non Government Organisations (NGO’s), charitable institutions. Missions, trusts, etc. Health care in the for-profit health sector consists of various types of practitioners and institutions. The licensed practitioners range from general practitioners (GPs) to the super specialists and various types of consultants, nurses and paramedics, licentiates and rural medical practitioners (RMPs). The health care practitioners with no formal qualifications constitute the ‘informal’ sector which consists of faith healers, local medicine men/women, traditional birth attendants priests and a variety of unqualified persons (quacks). The private health subsectors institutions are heterogeneous in the services they provide, their size and quality.

The government directly or indirectly supports the growth of the private health sector at the cost of public resources through the provision of financial assistance for setting up private practice, hospitals and diagnostic centers, pharmaceutical manufacture is benefiting from soft loans, subsidies, tax and customs duty waivers. The support is evident from the fact out of every hundred doctors passing out of the medical colleges, over seventy percent enter the private medical sector out of which 40 percent migrate out of the country. 75 percent of the medical graduates are from public
medical schools and they receive almost free education; only 15 percent join the public medical service.

Added to this it is worth noting that private health facilities tend to perform unnecessary investigations, tests, consultations and surgeries as well as overcharge and overprescribe. Due to the fact that surgeries are profitable; many are conducted without no regard for the patients’ well being.

A new feature in the private health care delivery system is the participation of corporate hospitals. During the last one and half decades the growth of corporate hospitals has been notably fast. These hospitals cater to only rich and the cost of treatment in them is far beyond the reach of the common people. In India, the private health sector functions practically unregulated and unaccountable to the people or any authority. There are no standards of medical practice prescribed for private hospitals and in terms of qualifications of staff employed, equipment needed, administration and treatment offered.

The Indian Health system is also abounding with inequalities. As for example, the poorest 20 percent of the population hare only 10.1 percent of the public health resources whereas the richest 20 percent share 33.1 percent of resources.

Health planners and policy makers among others have failed to take a holistic assessment of the private health services in the country. There are very few studies conducted on the role, functioning, size and quality. Data presented by official agencies are has been found to be grossly underestimates (Nandraj, 1994)

WHR 2000 mentions health system as a system that consists of all the people actions whose primary purpose is to improve health. The report defines the health system to include all the activities whose primary purpose is to promote, restore or maintain health. They may be integrated and centrally directed, but often they are not.