

The Contribution of Health to Economic Development: An Overview

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Abstract

The policies for better health, poverty reduction, and less inequality, require thorough understanding of both the process and causal paths that underlie the intricate relationship between health and wealth (income). This is difficult, contingent, and only partially understood. Primarily, the saying 'health is wealth' is still, a perceptive proposition. However, a literature strand, reflects changes in the perceptions: improvements of health and longevity are no longer viewed as a mere end- or by-product of economic development; but argued as one of the key determinants of, and therefore means to achieve, economic development and poverty reduction. Hence, better health does not have to wait for an improved economy; rather, measures to reduce the burden of disease, to give children healthy childhoods, to increase life expectancy etc. will in themselves contribute to creating richer economies. Drawing on the traditional and emerging perspectives on the health-income relationship, this literature review presents to track and measure how health influences economic outcomes.

Key words: economic development, human development index, human capital, derived demand, substitution effect, income effect

1. Introduction

The development is the ultimate goal of each and every developing country all over the world. As Myanmar, one of the developing country in South East Asia with 55.4 millions of population with growth rate of 2.02 (CSO, 2004), also tries to catch the ultimate goal of development. It is known that health has an important bearing on development. A healthy population is one of the major end goals of development. Health care is also one of the most important starting points of the development process. All too often progress in development is measured purely in economic terms, but its ultimate goal is to improve the quality of life and provide the best possible satisfaction of human needs. Healthy people are an essential element of economic and social progress. Poor health causes unemployment or low productivity and lack of income brings on inadequate nutrition and a deteriorating environment, thus perpetuating poor health, creating a vicious cycle. Health problems should be sought in conjunction with efforts to overcome poverty, because there is no doubt that the health of a community generally improves if its poverty is reduced. Reduction of poverty, which is significantly related to health problems, is the soundest social strategies for solving them.

Though the saying 'health is wealth' is still, primarily, an intuitive proposition, the relationship between health and the economy is about a shift in one of the prevailing paradigms: health was no longer seen as a mere by-product of economic development, but as one of the key

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determinants of economic development and poverty reduction also. Hence, better health does not have to wait for an improved economy; rather, measures to reduce the burden of disease, to give children healthy childhoods, to increase life expectancy etc. will in themselves contribute to creating richer economies. Yet this relationship is complex. While it has long been recognized that increased national wealth is associated with improved health, it is only more recently that the contribution of better health to economic growth has been recognized. This has helped pave the way for health to be included in national development strategies and policy framework.

At present many economists and developers have already defined that development is not only in growth in GDP of country but also increasing social status of the resident people in this country, measured by Human Development Index (HDIs). Among the social status of the resident people, almost all of the developers have preferred the health and education as most important social status than the others as the ultimate goal is to improve the quality of life and provide the best possible satisfaction of human needs. There is a sound theoretical and empirical basis to the argument that human capital contributes to economic growth. Since human capital matters for economic outcomes and since health is an important component of human capital, health matters for economic outcomes. At the same time, economic outcomes also matter for health. The economic valuation of health improvements provides a powerful means of sustaining economic growth and mitigating poverty.

Generally apart from consideration on education, the health is crucial because the healthy people are more productive than the unhealthy one and the good health care services can produce good health status of the people. Finally, the conclusion is that the good health care service is crucial, vital and critical part of the development. The important health indicators such as life expectancy, maternal mortality rate (MMR), infant mortality rate (IMR), under five mortality rate (U5MR), crude birth rate, and crude death rate indicate the status of health care services directly. The good health care services will definitely improve and promote those indicators. The quality and quantity of health care depend largely on the availability of adequate numbers of the health sector's resource.

In particular, the common goals are set within the UN's eight Millennium Development Goals (MDGs) which of these goals concerns different aspects of health: to cut in half the proportion of people who suffer from hunger between 1990 and 2015; to reduce child mortality (the under-five mortality rate) by two thirds by 2015 from its 1990 level; to reduce by three quarters, between 1990 and 2015, the maternal mortality ratio; to halt by 2015 and begin to reverse the spread of HIV/AIDS, Malaria and other diseases; and to cut in half the proportion of people without sustainable access to safe drinking water by 2015.

Are these goals the end-point of the development objectives, or pave the way for enhanced growth performance by setting the countries on permanent growth through a virtuous cycle? The policies for better health, poverty reduction, and less inequality, throughout the world, require thorough understanding of both the processes and causal paths that underlie the intricate relationship between health and wealth (income). This is deemed difficult, contingent, and only partially understood. Drawing on the health-income relationship, this literature review presents to track and measure how health influences economic outcomes.

2. The Contribution of Human Capital to Economic Growth

As mentioned in the introduction, there has been wide acceptance of the idea that human capital is an important driver of economic outcomes on both the individual and the aggregate level. However, this view has been severely limited by its almost exclusive focus on education as the alleged key component of human capital. Only recently has the significance of health as an additional important component of human capital started to be recognised.

There is a sound theoretical and empirical basis to the argument that human capital matters for economic growth, but for the most part human capital has so far been rather narrowly defined as education.

Economic growth measured by the increase in gross domestic product (GDP) in real terms refers to the steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income (Todaro 2000). According to neo-classical economic theory, economic growth depends on three factors: the stock of capital, the stock of labour, and productivity, the latter depending in turn on technological progress and, in neo-classical theory, was considered to be an exogenously given factor. More recently, researchers have tried to replace the assumption of exogenous technological progress by an explanation of just what is driving productivity. Technological progress thus came to be seen as an 'endogenous' process that could be driven in particular by investments in human capital, largely understood as skilled labour.

This was rooted by Becker (1964) in a theory of human capital formation. The ideas were motivated by the evidence that the growth in physical capital and labour, improve the growth of income in most countries and the importance of education for economic development was emphasized. According to Becker's human capital theory, investments in human capital raise an individual's productivity (both in market and non-market activities). Thus, individuals have an incentive to invest in themselves through education, training and health in order to increase their future earnings. But these investments also have costs associated with the direct outlays on market goods and the opportunity costs of the time that must be diverted from competing uses.

The importance of human capital narrowly defined as educational attainment as a determinant of economic growth was confirmed by investigating the sources of growth in some countries for certain periods, and it was concluded that the increase in schooling of the average worker rose about one quarter of the rise in per capita income. By this evidence, most of development strategies have a greater emphasis on investments in human capital. But, this does not mean that additions to the stocks of natural and physical capital should be ignored, but does mean a major change in priorities. The justification for this change is: 'first, that the returns on investing in people are in general as high as if not higher than the returns to other forms of investment, second, that investment in human capital in some cases economizes on the use of physical capital and the exploitation of natural resources and, third, the benefits of investing in people are in general more evenly spread than the benefits from other forms of investment. A greater emphasis on human capital formation should therefore result in as fast and perhaps a faster pace of development, more sustainable development and a more equitable distribution of the benefits of development'.

2.1 The Role of Health as a Component of Human Capital

The major contribution of health as an integral part of human capital was provided by Grossman (1972), who firstly constructed a model of the demand for health by applying human capital theory.

Grossman (1972) distinguishes between health as consumption good and health as a capital good. As a consumption good, health enters directly into the utility function of the individual, as people enjoy being healthy. As a capital good, health reduces the number of days spent ill, and therefore increases the number of days available for both market and non-market activities. Thus, the production of health affects an individual's utility not only because of the pleasure of feeling in good health, but also because it increases the number of healthy days available for work (and therefore income) and leisure.

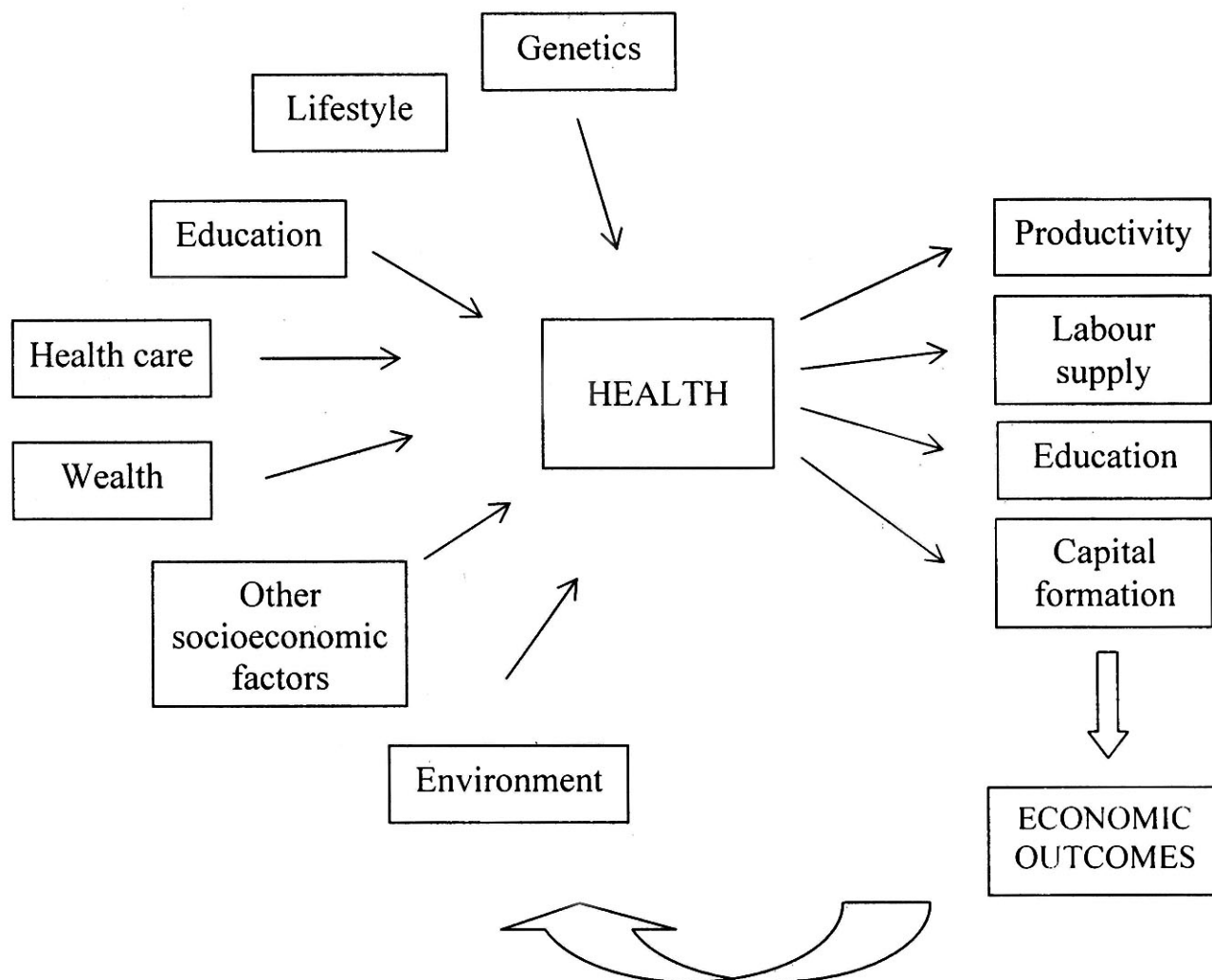
Health is not only demanded, but also produced by the individual. Individuals inherit an initial stock of health that depreciates with time, but they can invest to maintain and increase this stock. Many inputs contribute to the production of health and healthcare is one of among these factors. The demand for healthcare is therefore a derived demand for health. The production of health also requires the use of time by the individual away from market and non-market activities.

2.2 Channels of Determinants between Health and the Economy

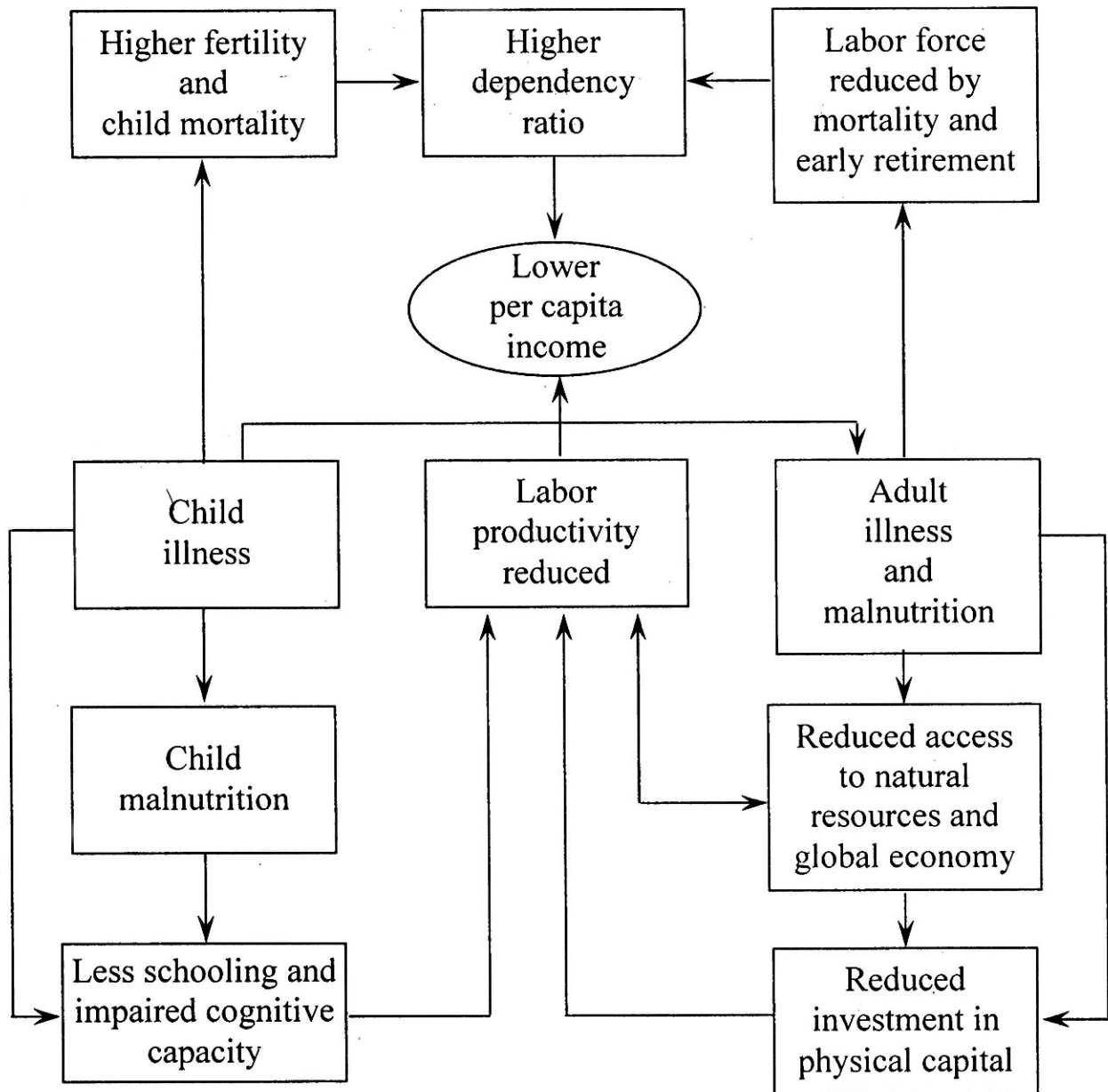
Since human capital matters for economic outcomes, health also matters for economic outcomes and at the same time, economic outcomes matter for health. Health is determined by genetic, economic, social, cultural and environmental factors. But the health of a population may also, in return, influence the economic context.

This study suggests that health could contribute to economic outcomes at both the individual and the country level mainly through four channels: higher productivity, higher labour supply, higher skills as a result of greater education and training, and more savings available for investment in physical and intellectual capital which shows in the right-hand side of Figure 1. As illustrated in the left-hand side, the health of an individual depends on many factors: genetic endowments, lifestyle, living and working conditions (access and use of healthcare, education, wealth, housing, occupation) and the more general socioeconomic, cultural and environmental conditions. Several of these determinants of health can be influenced by public policies.

Figure (1) Health Inputs and Health Outputs



Source: Suhrcke, Marc and et al. Investing in Health and the contribution to Development in The European Union, World Health Organization (WHO), 2005.

Figure 2 Channels through Which Illness Reduces Income

Source: Bloom, D., Canning, D. and Sevilla, J., *The Effect of Health on Economic Growth: Theory, and Evidence*, Cambridge: National Bureau of Economic Research), 2001.

In assessing the contribution that health can make to growth, it is important to keep in mind the positive feedback from income to health. There are **two ways** in which income can influence health: through a direct effect on the material conditions that have a positive impact on biological survival and health, and through an effect on social participation, the opportunity to control life circumstances, and the feeling of security. Above a certain threshold of material deprivation, income may be more important because of its link with these social and psychological factors, particularly in societies where social participation depends heavily on individual income (Marmot 2002). Also, Human capital theory predicts that more educated

individuals are more productive and obtain higher earnings. Good health in childhood enhances cognitive functions and reduces school absenteeism and early dropouts. Hence, children with better health can be expected to reach higher educational attainments and be therefore more productive in the future. Moreover, healthier individuals, with a longer lifespan in front of them, would have greater incentives to invest in education and training as they can harvest the associated benefits for a longer period. The main interest of the present study is to review the evidence on the positive effect of good health on the economy.

Labour Productivity

Healthier individuals could reasonably be expected to produce more per hour worked. On the other hand, more physically and mentally active individuals could also make a better and more efficient use of technology, machinery or equipment. A healthier labour force could also be expected to be more flexible and adaptable to changes.

Labour Supply

The impact of health on labour supply is theoretically ambiguous. Good health reduces the number of days an individual spends sick, which consequently results in an increase in the number of healthy days available for either work or leisure. But health also influences the decision to supply labour through its impact on wages, preferences and expected life horizon. The effect of health on labour supply through each of these intermediate factors is not always obvious. On the one hand, if wages are linked to productivity, and healthier workers are more productive, health improvements are expected to increase wages and thus the incentives to increase labour supply (substitution effect). On the other hand, being healthy might allow higher lifetime earnings and therefore an earlier withdrawal from the labour force (income effect).

The way in which health affects individual preferences also affects whether and how health determines economic outcomes. One could imagine that, as health improves, working becomes less cumbersome, and therefore the individual might be ready to take up more work in exchange of leisure time. Finally, if good health changes neither preferences nor wages, but raises life expectancy, the individual's needs for lifetime consumption would increase, leading to a higher labour supply.

Education

According to human capital theory, more educated individuals are more productive (and obtain higher earnings). Since children with better health and nutrition tend to achieve higher educational attainment and suffer less from school absenteeism and early drop-out, improved health in early ages indirectly contributes to future productivity.

Moreover, if good health is also linked to higher life expectancy, healthier individuals would have higher incentives to invest in education and training, as the depreciation rate of the skills acquired would be lower.

Savings and Investment

The state of health of an individual or a population is likely to impact not only upon the level of income but also the distribution of this income between savings and consumption and the willingness to undertake investment.

Individuals in good health are likely to have a wider time horizon and their savings ratio may consequently be higher than the savings ratio of individuals in poor health. Other things being equal, a population whose life expectancy increases may therefore also be expected to have higher savings. This should also result in a higher propensity to invest in physical or intellectual capital.

In sum, there are a number of channels that may causally link health and economic outcomes on the individual and on the aggregate (macro) level. The most common denominator of all of these channels is that health can be seen as an integral part of human capital.

3. Public Policies for the Public's health

Public policies in the health sector, together with those in other sectors, have a huge potential to secure the health of communities. They represent an important range of challenges associated with the ageing, urbanization and the social determinant of health, there is a need for a greater capacity to seize this potential.

The policies that must be reviewed are:

- systems policies - the arrangements that are needed across health system's building blocks to support universal coverage and effective service delivery;
- public health policies - the specific actions needed to address priority health problems through cross-cutting prevention and health promotion; and
- policies in other sectors - contributions to health that can be made through intersectoral collaboration.

It explains how these different public policies can be strengthened and aligned with the goals pursued by National Health Committee (NHC).

3.1 Health Development in Myanmar

The Myanmar government formed a highest level policymaking body for health matters as National Health Committee (NHC), and this committee formulated a new National Health Policy in 1993 envisaging adoption of the HFA (Health For All) goal with primary health care as the main approach and provision for sufficient as well as efficient human resources for development of a national health care system, exploring and developing alternative health care financing systems, inter-sectoral coordination and collaboration, intensification and expansion of environmental health activities, promotion of physical medicine and health system research. Further, the policy envisaged enhancement of border areas and rural health development for all-round development. The role of NGOs and private sectors was also upgraded under the new policy.

In regard to the poverty reduction strategy, the Government initiated many development plans, especially for the hard-to-reach areas, relevant to health and health systems such as the eradication of extreme poverty and hunger by 2015, which is the UN Millennium Development Goal (Goal 1).

Since 1988 as many as 164 new bridges were constructed in the country. These bridges can expedite timely referral of ill cases as well as easy access to formal education from primary level up to university level. Transportation of goods across bridges will improve economic conditions of the community, especially the low-income groups. Education and income are directly or indirectly related to health and health system development. Therefore, the 164 new bridges can surely enhance health development in Myanmar.

The population of Myanmar is currently estimated at 55.4 millions and is expected to reach 60 millions by 2010. As a result there will be an increasing need to meet the increased demand for food. Additional food requirements will have to be met through crop extensions and land development. This will eradicate extreme poverty and hunger. During 1990-2004, 150 dams have been built to irrigate 20, 93,219 acres of agricultural land. Using 265 river water pumping stations, 2, 82,108 acres of new-sown areas of cropland have also been developed between 1995 and 2002. These dams and river water pumping systems can increase production of food, which will lead to poverty eradication, change in behaviour and lifestyle as also changes in climatic conditions.²

Considering the rapid changes in demographic, epidemiological and economic trends both nationally and globally, a long-term (30 years) health development plan has been drawn up to meet any future health challenges and Health is assigned priority in the national agenda.

In Myanmar, as in other countries, the role of indigenous medicine is now put on the forefront. The indigenous medicine plays an essential role in health care delivery system by offering the communities access to alternative choices.

To be in line with international health systems, the reproductive health project has now been established and the adolescent reproductive health has been given greater focus to alert them and give them a sense of ownership and involvement in the entire project.

Expected Benefits

The expected benefits for Myanmar's residents in future and all these benefits can have positive externalities for community and improve some of health indicators. The expected improvement indicators are as follow:

Improvement in the Health Indicators as expected benefits (2001 to 2031)

Indicators	Existing 2001	2011	2021	2031
Life expectancy at birth	60-64			75-80
Infant Mortality Rate, 1000/LB	59.7	40	30	22
Under Five Mortality Rate, 1000/LB	77.77	52	39	29
Maternal Mortality Rate, 1000/LB	22.55	1.7	1.3	0.9

Source: Myanmar Health 2005, Ministry of Health

4. Conclusion

Development is about much more than the rise or fall of national incomes. It is about creating in which people can develop their full potential and lead productive, creative lives in accord with their need and interests said by Mahbub ul Haq, the founder of human development report. Thus, people are the real wealth of nations, and people must be healthy and educated (full of knowledge) for nation building.

² Myanmar facts and figure, Ministry of Information, Union of Myanmar, 2002.

All of the development economists prefer that the education and health sector of the each country are very crucial in development process. Healthy with knowledgeable people in respective fields can develop the nation with full potential and lead productive, creative, lives in accorded with their need and interests. That issue high lights the important of the healthy people in development. Like all investments, health investment yield substantial positive returns but associated with uncertainty. It is, however, an area where the potential for return on investments, and the uncertainty associated with a return, has been less well understood than in other sectors, and where fewer efforts have been undertaken to explicitly measure the returns to public health investment in monetary terms so that they can be more directly compared with alternative investment projects. The absence of a precise cost-benefit scenario may by itself have prohibited the inclusion of health investment into national economic development plans. Also, improving health of a population can be beneficial for economic outcomes at the micro and the macro level. If health were to become recognised as an investment that brings an economic return, then this would be expected to strengthen the position of health ministry to play an important role.

Myanmar, it is one of the developing counties, trying to become developed country, needs healthy people for nation building. For such important issue, SPDC (State Peace and Development Council) decided to form Myanmar Health Committee and adopted National Health Care Policy, which is adaptable with nation's needs. The National Health Care Policy consists of various essential health care plans for effective health care services. Such health care services include preventive and curative measures for people of Myanmar, which are conformed to our geo-political situation. By year of 2004, there were remarkable changes of health indexes. Such changes indicated that the health status of the people of Myanmar are better than before due to the providing of proper, appropriated and effective works of Myanmar Health Care system. Regarding the health expenses, government of Myanmar used more health expenditure for people of Myanmar year by year and in 2007 government used up to 48,017 million Kyats. The various level of civil society contributed 3,273.38 million Kyats, and covered the states and divisions as Medi-Fund.³

Because of healthy citizen, who are more productive, the national income has been increased gradually during that period between 1998 and 2006. Due to increased in national income, the GDP has been raised and economy also has been boomed, the result of economic growth can be seen.

As Myanmar policy makers and government bodies realized that good healths (or) healthy citizen are the result of effective, proper and appropriated health care services. Not only formulating the suitable policy but also using more health budget, trained skill medical professionals, to narrowing the health facility between rural and urban area are the key components of the effective and efficient health services in Myanmar in those days. National Health Committee also promotes the traditional medicine as alternative medicine in part of preventive and curative measure in Myanmar.

Various and effective Health Care Service promotions remarkably change the Health index which are part of the HDI (Human Development Index). The life expectancy at birth is increased, decreasing in crude death rate, maternal mortality rate, infant mortality rate, under five years mortality rate and increasing ratio of medical professional by population ratio are the

³ National Health Plan, Ministry of Health, Department of Planning and Statistics, 1996-2001.

reference indexes of health care development in Myanmar. Health Care services provided by Ministry of Health collaboration with International organizations, INGOs, local NGOs and all level of civil society is effective, efficient and enhanced the human development in Myanmar. Thus, the Health Care service of Myanmar is not only the crucial and essential pillar for development of Myanmar, but also positively and absolutely impacts on Myanmar economy and social development. For the future sustaining human development in Myanmar, policy maker should formulate the health policy which can correct the pit holds of previous health policy. The community such as civil societies and local NGOs continue their participation with enthusiastic attitude in implementation of health policy toward the modern developed & peaceful country.

More broadly, it should strengthen the position of health and might make other economic policy-makers seek to consider health as one, of several, options by which to achieve their primarily economic objectives.

In sum, it finds that there is much evidence documenting the positive contribution that health can make to the economy and at the same time it has shown that health can also be good and promotes for the economy.

Thus the conclusion can be summarised as follows.

1. There is a sound theoretical and empirical basis to the argument that human capital matters for economic growth, but for the most part human capital has traditionally been rather narrowly defined as education.
2. The idea of health representing — in addition to education — an important component of human capital was introduced most prominently by Grossman in 1972 already, but has only recently been acknowledged more widely.
3. Since human capital matters for economic outcomes and since health is an important component of human capital, health does matter for economic outcomes, too. At the same time, economic outcomes matter for health.

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Acknowledgements

First and foremost, my deepest gratitude goes to my Rector, Professor Dr. Kan Zaw and my Professor Daw Htay Htay Lwin-Head of Department of Applied Economics for giving me a permission for doing this research. And I would also like to thank all those who support me in one way or another for conducting this paper.