

Theoretical Basis of Role of Education on Health Status of Households

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Abstract: Education and health are the two interrelated factors deserve equal importance in economic development of a nation. This study tries to gather different theories and concepts related to role of education on health status of people and role of education and health on economic development. The definition of health given by WHO clearly states mere absence of disease or infirmity is not health, but health requires mental, physical, social, economic and spiritual well being. That is almost all factors supporting health of people may be equipped with education. Among the factors, which help to improve health of people- education, employment and income, environment and lifestyle, genetic and political situation are important. The Expanded Health Production Model of Grossman (1972) and Household Production of Health Model of Schultz (1974) also emphasized the role of socio-economic factors in health improvement while health insurance and related moral hazard may lead to fewer precautions to prevent illness.

Keywords: Economic Development, Education, Health, Health Insurance, Life Expectancy, Lifestyle Diseases

Introduction

Education and public health are the two most important characteristics of human capital. They help to improve the economic productivity of individuals and the general economy. Since education and health form two important components of human resources, their improvement will enhance not only economic growth but the general well-being of the nation as well.

Health is the soundness of body and mind. WHO says “*Health is the state of complete mental, physical, social, economic and spiritual well being and not merely the absence of disease or infirmity*”. The

constitution of World Health Organization says, “*Enjoyment of the high standard of health is one of the fundamental rights of every human being*”. In the Oxford English dictionary, health is defined as “*Soundness of body or mind; that condition in which its functions are duly and efficiently discharged*”. Meanwhile, the KSSP (Kerala Sastra Sahitya Parishad) has defined health in a functional form as Health = f (nutrition, environmental hygiene, safe drinking water, preventive medicine and employment). In short, health is considered as the wealth of a person. Therefore, good health is the essential requirement not only for education but also for the every resourceful activity of human being.

The present study in broader sense is an attempt to analyse the impact of education on health of people in the socially backward regions of Kerala. As education and health are inter-related, a brief discussion on the major theories and comments on both attributes is worked-out to serve as the theoretical basis of the present study.

Objectives of the Study:

The broad objective of the study is to examine the role of education and health on economic development. Since large number of factors is contributing to the better health achievements and further to economic development, it is better to identify which is the prime elements lead to better health of people. Therefore, following are the specific objectives of the study.

1. To examine the determinants of health of people
2. To observe the dimensions of education and health
3. To review the theoretical background of education effects on health

Methodology

This study is purely on secondary information collected from various books and journals. The presentation of the paper is descriptive in nature.

Role of Education and Health on Economic Development

Education is a key determinant of health status of people all over the world. Education and health are the two social variables and they have grabbed much attention as the literature of economic development of the world. Education, health and housing are the three pillars of any civilized society. Hicks,(1980) has observed a strong positive correlation between literacy levels and life expectancy and that literacy may have an important influence on health and hygiene. Educational progress becomes a channel for economic development. According to Schultze (1961), investment in education is three to five times more acceptable than investment in physical capital.

Griliche (1964) has established that a 10 percent advancement in farmer's education moves up agricultural yield by three to five percent as compared to only one to two per cent yield due to 10 percent raise in inland fertilizer and mechanisation in U.S. agriculture. Thus, we can say that educational advancement becomes a medium for economic development.

The study of economics in the field of health is relevant while economics studies how scarce resources are used to produce goods and services and then how these goods and services are distributed. Economics applies to all activities where scarcity and choice exist (Lee and Mills, 1983). Certainly, health care resources are scarce and there is no doubt that health care is either produced or distributed. Economics is the study of how people and society

end up choosing, with or without the use of money, to employ scarce productive resources that could have alternative uses to produce various commodities and distribute them for consumption now or in the future among various persons and groups in the society. It analyses the costs and benefits of improving patterns of allocation of resources (Samuelson, 1976).

Studies have shown that education is “one of the most effectual development investments of countries and their donor partners can make” (Basic Education Coalition 2004). “Adequate investments in education make possible the achievements of most other development goals and increase the probability that progress will be sustained” (USAID 2005). Each year of schooling “increases individual output by 4 to 7 percent, and countries that advance literacy rates by 20 to 30 percent have seen increases in Gross Domestic Product (GDP) of 8 to 16 percent” (Basic Education Coalition 2004). Education builds up the human capital that is needed for economic growth (USAID 2005). It also produces significant improvements in health, nutrition, and life expectancy, and countries with an educated citizen are more likely to be democratic and politically stable.

Educating girls gets even greater results. When girls go to school, they tend to delay their marriage, have fewer but healthier children, and contribute more to family income and national productivity. In fact, “educating girls quite possibly yields a higher rate of return than any other investment available in the developing world” (Summers 1992). Despite this fact, only 59 (about one-third) of 181 countries in which, data were available had achieved gender parity in their gross enrolment rates for both primary and secondary education (UNESCO 2007).

Determinants of Health

Health of people is determined by numerous inter-related factors. Education, employment and income, environment and lifestyle, genetic and political situation are important among them.

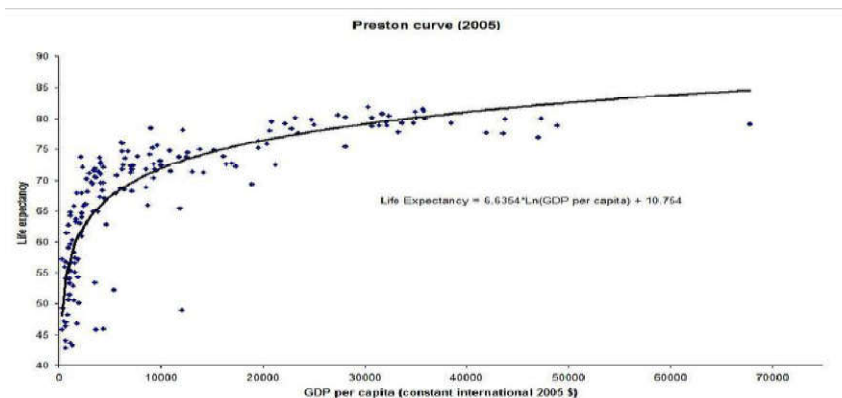
Employment and Income

Regular employment and better income situation of a nation ensure adequate supply of and demand for health care. A person with regular employment and regular income can avail the desired health care without sacrificing his non-medical goods like food, clothing, housing etc. Pappas et. al, (1993) have observed the mortality rate for Americans at different income levels based on 1986 data. Their research showed that the death rates for Americans with income less than \$9000 were considerably higher than those Americans whose income is more than \$25000. Thus, their study concluded that socio-economic status is a strong indicator of health status. Improved income levels of people of a nation directly support better public health measures including sanitary water and sewage systems and immunization programmes that reduce the spread of diseases.

Grossman, (1972) has developed a model saying that illness averts work so that the cost of ill health is the lost labour time. Human capital theory of Grossman states, "Individuals invest in themselves through education, training and health to boost earnings." He also pointed out that there is a high health and economic growth in selected low-income countries of African south of the Sahara: Cross Country Evidence, where wage yields higher optimal level of health stock. The return of being healthy is greater for higher wage employees, so increased wage will strengthen health capital (Folland, Goodman, & Stano, 2010).

Preston, (1975) has established a relationship between life expectancy and real per capita income through a cross-section analysis and exhibited the relation known as “Preston Curve”. The following depicted Preston curve is developed by utilising Cross-country data of 2005. The curve clearly shows that the relationship between GDP per capita and life expectancy is positive.

Figure 1: Preston Curve for Per capita GDP and Life Expectancy. Health Versus Economic Growth of the Selected Low-income Countries of Africa: Cross Country Evidence



Source: Wikipedia

Education

Education has many roles in providing good health status. Research conducted by Grossman (1972) and others assumes that people with more education are more efficient producers of better health. Education promotes the ability to understand the importance of avoiding unhealthy behaviour, the ability to proper communication with health practitioners and to understand and follow the instructions. In long term, education increases the return of investment on health improvement.

The universal literacy in general and female literacy in particular enriches the health status of a nation. In Kerala, high female literacy rate is the decisive factor that elevated health status. One of the most important factors that influence good health and life span is education (Guralnik et.al. 1993).

Environmental and Lifestyle Factors

Environment has a key role in physical, mental and social well-being of a society. Healthy environment provides full utilisation of physical and mental potentials (Park 2011). Hazardous chemicals, air pollution, improper waste management, contaminated drinking water and poor sanitation facilities cause severe diseases and epidemics. According to American Cancer society, 65 per cent of all cancer cases reported in the United States can be due to lifestyle and environmental issues, including the food they eat and the air they breathe. Kerala is under the octopus hold of both communicable and chronic diseases (Gangadharan, 2007)

Health status depends largely on personal behaviour. The lifestyle factors including one's eating practices, exercise, cigarette smoking, sexual behaviour and substance abuse are important determinants of health status. In Russia, high consumption of Vodka was a detrimental factor in reducing the average life expectancy in the country (HDR, 2005).

People of Kerala are distressing from the higher rate of coronary heart diseases, stroke, hypertension, diabetes and over-nutrition. Every year in Kerala between 45000 and 50000 people die of heart attack while stroke kills over 20000 (Soman, 2007).

Genetic Factors

In determining the health of an individual, two factors play critical role. The risk of exposure to a particular disease and the capacity of the individual to resist the disease once exposed. The former is within the purview of public health system; the latter is determined largely by genetics. The health problems like allergies, hypertension, obesity, cystic fibrosis, sickle cell anemia, certain type of diabetes, mental retardation etc. is suspected due to hereditary factors.

Political Factors

The political authority of a county has the role to determine the resource allocation, health policy and distribution of health care services. Adequate immunization programmes, provision of public health and sanitation, control of communicable diseases, health research and specialized medical services are under the purview of prevailing governments. Therefore, the health related policy of the respective governments would decide the health standards of its population.

Dimensions of Education and Health

Education and health are important enabling factors that make use of economic opportunities. The role of these 'social variables' in promoting economic progress has recently been received wide attention in the literature of economic development. Education and health can be seen to be valuable to the liberty of a person in at least five different ways (Jean Dreze and Amartyasen 2002)

6.1. Intrinsic Importance: Being educated with good health is the valuable achievement of a person. The act of learning may have

intrinsic value in terms of satisfying ambitions for enlightenment, self-improvement and social interaction.

Instrumental Personal Roles: An educated as well as healthiest person can do many things from reading newspapers to participating in local politics to the national politics.

Instrumental Social Roles: Greater literacy and basic education can facilitate the discussions on health care and social security measures. These, in turn, can expand the facilities that public enjoys and contribute to the utilisation of the available services. Wide spread education is indeed essential to the practice of democracy.

Instrumental Process Roles: An educated and healthiest person can do many things for the betterment of the process related to production, distribution and exchange.

Empowerment and Distributive Role: Education with wellbeing will be helpful for the empowerment of the society and for the efficient distribution of goods and services.

Household Production of Health

Intra-household health behaviour like infant and child feeding practices such as breast feeding, types of food given, amount, frequency etc, home hygiene and preventive health service are economic perspectives of household production of health. The household production of health such as better sanitation situation, nutritious meals for the household, better education to children and more efficient consumption behaviour are the net result of the education of household members in general and education of mothers in particular (Selowsky 1982). Schultz 1974 and Michael

1982 have mainly documented the beneficial effect of education on household health behaviour in advanced countries.

Expanded Health Production Model (Grossman 1972)

Health is regarded as a stock of human capital. At the point in time, an individual's health stock depends on decisions relating to health such as food intake, use of medical care, nature of work, inherited genetic health endowments and health environment in which individual is located. The change in health status of a person over a period is determined through a health production function (P. Duraiswamy 2001).

$$H_t = H(H_{t-1}, X_t, M_t, E_t, e_t)$$

Where H_t = Health at time t

X_t = a vector of health related inputs such as consumption, preventive care

M_t = Curative care

E_t = a vector of individual, family and community characteristics

e_t = unobserved initial endowment

Health and Health Insurance

Increase the probability of illness when an individual is insured than when he or she is not- the law Moral hazard. With insurance, the economic loss due to illness can be shifted from the individual to the insurance company. Therefore, health risky individuals will purchase more health insurance and take fewer precautions to avoid the illness.

Summing Up

From the analyses of the above comments and theories of education and health, we may conclude that the health of people up to an extent is a produced one in which the major raw material is education. More than that, education and health are regarded as the indicators of economic development of the nation.

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