

Impact of Health on Economic Productivity

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Abstract: This Research Paper will focus on the health is important determinant of economic development of the Delhi NCR, the study is about Health is a very essential component of human development, because healthy workers are more productive. Using the conventional growth accounting method the study estimates the aggregate growth for the economy. It examines the impact of health on growth for the economy. It has been observed that growth in India has been fluctuating in nature, the challenges about the labour force participation in economy, Therefore, the study suggests that government should invest more to deliver better health care facilities which would further help in enhancing the productivity of the economy.

Keywords: Health on Economic Productivity.

1. INTRODUCTION

Delhi, officially the National Capital Territory of Delhi (NCT), has witnessed explosive growth in population and economy during the past decade. The NCT and its urban region has been given the special status of National Capital Region (NCR) under the Indian constitution's 69th amendment act of 1991. There are nearly 22.2 million residents in the greater NCR urban area, which includes the neighbouring cities of Baghpat, Gurgaon, Sonapat, Faridabad, Ghaziabad, Noida and Greater Noida along with other smaller nearby towns.

Incidentally, the infrastructure and service segments have also grown in this region but not proportionate to the growing population, thus putting additional pressure on already stretched resources, with healthcare being one of them.

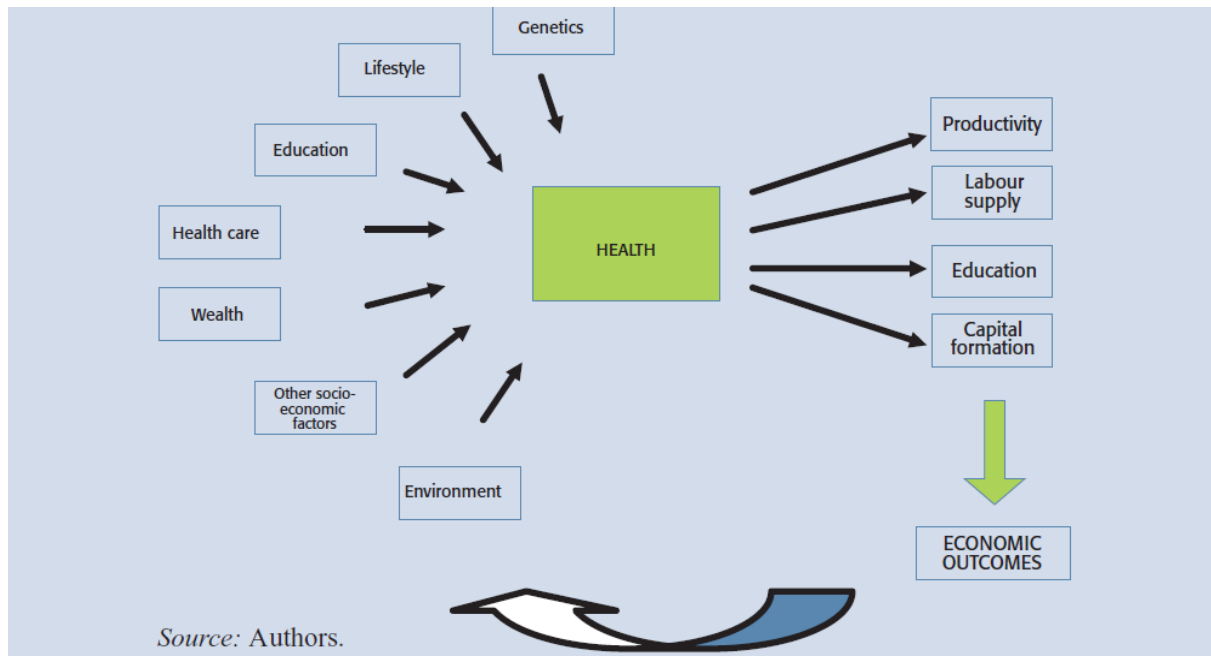
Health is a very essential component of human development. Unlike other goods and services the traditional market mechanism fails to attain equilibrium for health care facilities. This is mainly because; improvement and or deterioration of health condition of any individual generate both positive and negative external effects on the society as well as on the economy. Therefore, delivering health care facilities always calls for a special attention on the part of the policy makers. However, the motive of study is not to assess the health care delivery mechanism rather the study attempts to examine impact of health condition on aggregate productivity growth for economy in NCR

The relationship between health and the economy is one of the cornerstones of this agenda. 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 in Delhi.

Yet while this relationship is now well established in low income States, the evidence from high-income states, such as the Member States of then Delhi has been more fragmented, Heads of State or Government came together to agree the ambitious goal of making the Delhi State is the most competitive and dynamic knowledge based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion.

Accelerating the process of structural reform for competitiveness and innovation modernize the social model, by investing in people and combating social exclusion and sustain favorable growth prospects by means of an appropriate macroeconomic policy mix and high cost falling on economies as a result of illness, they assemble a wealth of evidence to demonstrate how good health promotes earnings and labour supply. of particular relevance to Delhi NCR, with its ageing

population, they show how poor health increases the likelihood of early retirement. Taken together, this evidence provides a powerful argument for Delhi governments to invest in the health of their populations, not only because better health is a desirable objective in its own right, but also because it is an important determinant of economic growth and competitiveness.



Source: articles.economicstimes.indiatimes.com/.../labour-productivity

Fig. 1

As the High-Level Group on the Lisbon Strategy for Growth and Employment noted, Delhi needs to increase its investment in human capital as the productivity and competitiveness of Delhi economy are directly dependent on a well-educated, skilled and adaptable workforce that is able to bring change.

It went on to emphasise that health and healthcare play a key role ‘in generating social cohesion, a productive workforce, employment and hence economic growth.

2. RESEARCH FRAMEWORK

Given the importance of labor in endogenous growth theory and the fact that health determines the quality of labor supply; the causal relationship between labor force participation and health have crucial role to play in determining the productivity of labor force for the long term requirements of economic growth. The poor health and low participation rate may have adverse effect on the performance of an economy. The reasons could be in two folds: unhealthy potential work force may impose a cost in terms of production loss by restraining its population at large from participating in the labor force or through reduced labor productivity. Secondly, there could be loss of revenue in terms of cost incurred in providing health care services to maintain good health without any incentive (Pandey, 2009).

Numerous models have been developed to incorporate impact of human capital in economic growth. Romer (1990) and Barro (1991) have emphasized that health is the most important factor in determining the labor force participation. As the focus of study is to analyze the effects of human capital on labor force participation, therefore, the human capital is separated into two parts i.e., health human capital (H) and other forms of human capital i.e. education human capital (E). Labor force participation (Y) is assumed as a function of the stocks of physical capital (K), health human capital (H), education human capital (E) and a vector of other variables (Z) that include technology and other environmental variables.

$$Y = f(K, H, E, Z)$$

1

Where Y is labor force participation, H is health human capital, E is Education human capital and Z represents all other explanatory variables. H in time t is the sum of the stock of health human capital in the previous period and accumulation

to the stock in the current period. It is assumed that accumulation in the health human capital stock (H) depends on the amount of resources devoted to health care and the efficiency by which this expenditure is converted into health stock. It is further assumed that quantity of resources devoted to health investment is a product of the proportion of income devoted to health care (YH) and the level of income. The stock of health human capital evolves in the following way.

$$H_t = H_{t-1} + \Delta H, \text{ and } \Delta H = \lambda Y_h Y$$

2

Where λ is the productivity parameter of health expenditure and all other variables. The ability to transform health expenditure into health stock is assumed to be dependent on the stock of health human capital. The health technology equation can be written as: $\lambda = \lambda(H)$. Substituting λ into the ΔH equation and that in turn into the production function, the income growth equation become.

$$Y^* = Y^*(\Delta H + \Delta K + \Delta E + H_{t-1} + Z)$$

3

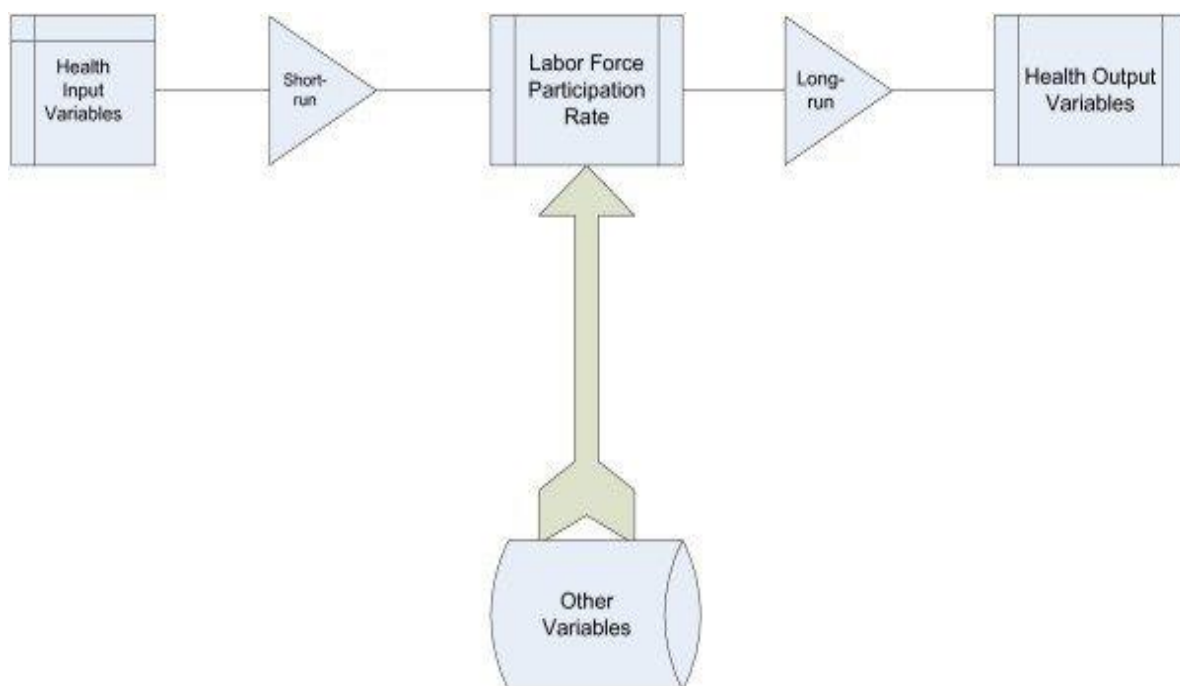


Fig. 2

3. BRIEF REVIEW OF LITERATURE

There are extensive studies (Malik, 2005; Weil, 2006; Bloom and Canning, 2008) which have investigated the relationship between health and economic growth. It is argued that, due attention has not been paid in the past to the impact of Poor health, particularly in less developed countries, on growth and productivity (Cole and Neumayer, 2006; Kumar and Kober, 2012) have directly examined the impact of health on productivity.

(Bloom *et al.*, 2003) have estimated the effect of health on worker productivity directly using cross-country macroeconomic data. They have found health affects productivity positively and significantly.

(Alemu *et al.*, 2005) has constructed a panel of data on general macroeconomic indicators and HIV prevalence rates for over 100 countries and estimate the impact of HIV on TFP growth rates for each country. They find that HIV can have a large negative impact on factor productivity growth in Southern African countries

Cole and Neumayer (2006) investigate the impact of poor health on TFP for 52 developed and developing countries. They have used three different health indicators, proportion of undernourished within a country, the incidence of malaria and

other waterborne diseases, and life expectancy. Findings reveal that poor health as captured by three different indicators health affects TFP negatively.

(Kumar and Kober, 2012) in their study have empirically examined the impact of health, education, and urbanization on the total factor productivity of a large number of countries. They observed that both the level of urbanization and health capital proxied by life expectancy, Infant mortality rate and the risk of malaria significantly affect TFP. Similarly, there are limited empirical evidences (Chadda et al, 2007) about the linkage of health and productivity for Indian economy. Therefore, the main objectives of the study; firstly, is to estimate the aggregate TFP for the Indian economy using the conventional growth accounting method and secondly, to examine the impact of health on factor growth for Indian economy. It is hypothesized that health affects economic growth positively.

4. METHODOLOGY

There are large numbers of method through which productivity can be estimated. However, the literature is inconclusive about the best method to estimate

In order to examine the impact of health on productivity growth simple regression analysis has been used. Health condition can be captured by different indicators like proportion of undernourished within a State, incidence of malaria and waterborne diseases, life expectancy at birth, health expenditure as a percentage of GDP, Infant mortality rate and so on. Depending upon the purpose and data availability different scholars has used different indicators. In the present study, life expectancy at birth has been taken as a proxy for health condition for Indian economy.

5. CONCLUSION

The empirical evidence on the economic impact of health as it applies to Delhi. Which has made a powerful economic case for investing in health in Delhi State, The health scenario in Delhi shows a mixed performance, with commendable achievements, but burdened by some pressing concerns and challenges. Life expectancy has improved over the last three decades, along with the state of public health facilities. The life expectancy at birth of 72 years for Delhi is higher than the national average of 68 years, with near-similar levels across gender. Public spending on health in absolute terms has also shown a significant increase during the period 2006-07 to 2012-13, with Delhi probably being the first state in the country to spend almost 10 per cent of its total budget on health. Primary healthcare facilities in Delhi have expanded tremendously, which has found an echo in the Perceptions Survey, 2013, according to which 75 per cent of the state's population indicated its 'habitual preference' for public health facilities. In low-income groups, this indicated preference was almost universal. Also, the lower costs of services or affordability, effectiveness and technical competence are the domains wherein public health services are rated highly by the populations, Concerns, however, persist on quite a few fronts.

- Firstly, despite a steady reduction in recent years, the incidence of early childhood mortality continues to be high in Delhi. A significant proportion of the burden of deaths during infancy occurs during the neo-natal period, partly resulting from poor hygiene and care practices, as well as less than universal coverage of institutional childbirths. In the case of both maternal and child health risks, the available evidence also suggests the existence of socio-economic inequalities in terms of access to and use of healthcare services.

- Secondly, Delhi faces the twin challenges of both infectious as well as chronic diseases. While periodic health risks from common infections such as dengue, viral fevers and diarrhea, persist, recent trends indicate a growing predominance of chronic diseases such as cardiovascular ailments, diabetes, cancers and respiratory diseases. With the growing prevalence of chronic diseases, it is the poor who face a higher risk of both exposures to the risk factor and occurrence of the disease.

- Thirdly, the health service system continues to face a few challenges with regard to the delivery of equitable, quality health services. A shortfall in the numbers of the required health workforce, in the face of a growing demand for services often leads to overcrowding and poor service quality. Health facilities are less than optimally distributed in spite of a steady expansion in absolute numbers. Lastly, notwithstanding a number of government-sponsored schemes and programmes, financial protection against health shocks remains inadequate. Poor awareness of the schemes often leaves low-income, vulnerable families inequitably exposed to the risks of financial catastrophe and illness-induced impoverishment.

The participation of women in economic activities is quite low. The participation of women needs to be enhanced through various measures, on both the demand and supply side. Women's access to the Labour market.

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