

## Chapter 8

# Anatomy and Significance of Public Healthcare Expenditure and Economic Growth Nexus in India: Its Implications for Public Health Infrastructure Thereof

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### ABSTRACT

*The objective of this chapter is to take a closer look at the liaison between the two focus variables viz. growth and public healthcare expenditure, and the associated implications for public health infrastructure development. Initially, a theoretical model has been proposed which brings out the link between the focus variables. Panel cointegration and causality are the techniques applied in a Vector Error Correction Mechanism (VECM) set-up using panel data from 1980-2015. Next, a health infrastructure index has been constructed using the Euclidean distance function approach for India for two time points i.e. 2005-06 and 2014-15, to evaluate the interstate performance in public healthcare infrastructure. The findings validate the existence of a cointegrated relationship between health expenditure and economic growth coupled with a bidirectional causality linking the focus variables in this model. It comes to a close by highlighting the policy implications and the future research possibilities in this regard.*

### INTRODUCTION

*It is health that is real wealth and not pieces of gold and silver. — Mahatma Gandhi*

In the quest for achieving economic development, development of infrastructure in terms of both quantity and quality is a must. It is suggested that infrastructure supports the processes of growth on which much

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of poverty reduction depends and also assists the poor to have an access to the basic services which can improve their lives and the standard of living. There are several studies that establish the constructive impact of infrastructure on economic growth and productivity. For a systematic understanding of the healthcare policy and the associated welfare mechanisms, it becomes crucial to scrutinize the health infrastructure condition of an economy.

Now, coming to the notion of health infrastructure, it has been expressed as the basic support for the provision of public health services. It is one of the critical indicators for understanding the investment priorities with regards to the creation of health care facilities and welfare mechanisms in a country. By and large, the five components of health infrastructure can be categorized as – the percentage of competent workforce; an integrated electronic information system; number of public health organizations, material resources and ongoing research in the health arena (Novick & Mays, 2005). In the context of health infrastructure, the focus should not only be on the end results of healthcare policy but also on capacity building in the domain of public health delivery mechanisms. In India, the healthcare services are alienated into State List and Concurrent List. Some items like public hospitals come under the jurisdiction of the State List, while population control and family welfare, medical education, and quality control of drugs are included in the Concurrent List. The Union Ministry of Health and Family Welfare (UMHFW) function as the pivotal force for the implementation of various schemes in the field of family welfare, curative prevention, and control of major diseases.

Healthcare in India has been developed as a three-tier structure. The Sub-Centres form the lower tier of the structure followed by Primary Health Centres and Community Health Centres forming the middlemost and uppermost tiers respectively. Talking about the recent health infrastructure position in India, there exist 1 Sub-Centre per 5,000 populations in the general areas and 1 Sub-Centre per 3,000 populations in the tribal and hilly areas. For Primary Health Centres, the figure stands at 1 per 30,000 populations and 1 per 20,000 populations in the general and tribal areas respectively. One can locate 1 Community Health Centre per 1,20,000 populations in the general areas and 1 per 80,000 populations in the tribal and hilly areas. Coming to the overall position, there are 1,53,655 Sub-Centres (SCs), 25,308 Primary Health Centres (PHCs), 5,396 Community Health Centres (CHCs), 1022 Sub-divisional Hospitals (SDHs) and 763 District Hospitals (DH) in the country. There is an acute shortfall of 33145 SCs (20 per cent), 6556 PHCs (22 per cent) and 2316 CHCs (32 per cent) across the country as per the Rural Health Statistics of 2015. There needs to be a lot of improvement in this arena given the fact that India's total health expenditure is 4 per cent of GDP whereas public health expenditure stands at an all time low of 1 per cent of GDP. In this backdrop, this paper explores the impact of health expenditure on growth and also the position of the states with regards to the health infrastructure situation.

Although, studies about of the interaction between health and per-capita economic growth have been flourishing but panel data studies for any of the developing countries is a rare phenomenon. So, a modest attempt has been made in this regard. The rest of the paper has been organized as follows. To start with, a brief evaluation of the select literature on the liaison between healthcare expenditure and economic growth has been carried out in Section 2. In Section 3, a theoretical construct has been developed to draw out the relationship between the focus variables. Section 4 illustrates the methodology employed and puts forward the empirical results and the discussions thereof. Section 5 looks at the health infrastructure in India, in the light of healthcare expenditure. It comes to a close by highlighting the policy implications and the future research possibilities in this regard.

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