



OPEN LETTER

# Changing perspectives of public health in India: the growing role of health economics [version 1; peer review: 1 approved with reservations, 1 not approved]

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## Abstract

Health economics is a sub-discipline of economics that has significant relevance to public health. The academic discipline of health economics has not evolved in India till now. Since India became independent country, the public health practice in India has revolved largely around public health systems; the private health system has functioned in parallel with negligible regulatory control by the government. The recent launch of a large health insurance program by the Indian government has opened the door of public resources for the private sector in health. It is envisaged that a substantial portion of public money will be diverted to the private sector with little regulation. This situation will potentially change the landscape of public health care delivery in the country. With this change, the role of health economists is bound to increase, given the increased demand for economic evaluation. Ironically, there is a complete dearth of educational institutions offering specialised training in health economics in India. To fulfil this demand-supply gap, there is an urgent need to introduce the discipline of health economics at master's level within existing university economics departments and schools of public health. Building on this foundation, academic research degrees in health economics can be evolved to fulfil future research gaps.

## Keywords

Health Economics, India, Public Health, Economics, Reform

## Open Peer Review

Approval Status

	1	2
<b>version 1</b> 03 Feb 2020	 view	 view

1. **William Joe** , Institute of Economic Growth, New Delhi, India2. **Alan M. Zaslavsky**, Harvard Medical School, Boston, USA

Any reports and responses or comments on the article can be found at the end of the article.

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## Background

Public health is “the science and art of preventing disease, prolonging life, and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities, and individuals”<sup>1</sup>. The ambit of public health is not limited to the physical status of the individual or population alone, rather it encompasses the entire ecosystems responsible for health and health care including the social determinants of health. Health systems or the health care delivery system is one of the immediate drivers of healthcare, especially when the health of an individual or population is compromised and requires care. Resource constraints are the most important issue in public health and the pursuit of equitable allocation of this scarce good, forms the basic foundation of the economic theory. Health economics, thus, is “the application of economic theory, models and empirical techniques to the analysis of decision-making by individuals, health care providers and governments with respect to health and health care”<sup>2</sup>.

Traditionally, the field of public health in India was largely restricted to actions of the public health systems, such as governance, financing, distribution of public resources, etc. The role of government in the private health system was largely limited to regulatory activities; however, little could be achieved as the enforcement of regulations were weak<sup>3</sup>.

India spent 3.8% of its GDP on health in the year 2015–16, but only 1.18% of this was on public health<sup>4</sup>. This implies that of the total health expenditure, public health accounted for merely 30.6%, while the remaining was out-of-pocket expenditure (OOPE) or private expenditure<sup>4</sup>. According to the latest estimates, the proportion of ailments treated by the public sector health facilities was 30%, contrasting with the private sector value of 70%; the proportion of hospitalisations in the private and public sector were 58% and 42%, respectively<sup>5</sup>. Due to the abovementioned facts, over the period, the public health practice as well as research was intrigued mainly with the affairs of public health systems.

## Recent changes in the public health landscape in India

In the year 2018, Government of India launched a health scheme known as, ‘Ayushman Bharat’ (Long live India), wherein one of the components is publicly financed health insurance, termed as Pradhan Mantri Jan Arogya Yojana (PMJAY). The scheme proposes to cover nearly 100 million poor and vulnerable households by providing health insurance coverage up to INR 5 lakh (approximately US\$7,000) per family per annum<sup>6</sup>. This scheme intends to cover secondary and tertiary treatment from a list of empanelled public and private hospitals. With the launch of this scheme, the landscape of public health in India will widen as one of the stated objectives of the scheme is to harness the private health system for overall public health goals. With this the fundamental role of government also changed from being a provider to a purchaser as well, implying a substantial share of government revenue will be directed to the private sector. Available evidence documents the limited success of a similar publicly financed health insurance scheme in India.

This scheme failed in reducing out of pocket expenditure and providing financial risk protection<sup>7</sup>. More importantly the major reason for failure of such scheme was lack of sufficient institutional and regulatory mechanism<sup>8</sup>. Based on these experiences, efficient management of resources and regulating the cost is also going to be a major concern during implementation of PMJAY. Therefore, proper regulation for cost and quality and ongoing economic evaluation of the scheme could be an effective mechanism to achieve the desired objective.

## Developing capacity in health economics in India

At this juncture, the role of the health economist becomes essential. The discipline offers a framework for measuring, valuing, and comparing the costs and benefits of different health interventions. By means of evaluation techniques, such as cost-benefit and cost-effectiveness analysis and actuarial valuation, regular and timely studies could be conducted to assess the financial and physical progress of various interventions introduced. Two concepts which are widely discussed in the area of health economics are efficiency and effectiveness; the former measures how well resources are allocated in order to achieve a desired outcome while the latter is used to compare drugs or programmes which have a common health outcome<sup>9</sup>.

Presently, India may not be able to cater to the sudden demand for health economists, as the discipline they practice has found little prominence compared to mainstream economics. Most of the universities or institutions restrict their degree programs in economics to specialise in microeconomics, macroeconomics, economics of development, public finance, etc. The availability of health economics as a separate degree or research program is negligible except for selective private institutes. Notably, health economics does find a place within the curriculum of public health education in many institutions<sup>10</sup>. Globally, health economics has acquired greater acceptance across universities and institutes and is offered as separate degree and research programs<sup>11</sup>. The scarcity of professionals trained specifically in health economics has resulted in the filling of vacancies for health economists by professionals from medical backgrounds with public health training, doctorates in economics or demography or population health, researchers with basic or technical understanding of health economics or professionals with degrees in health economics from institutes outside India. Professionals trained in health economics from outside India end up having an edge and added advantage<sup>11</sup>.

In this changing landscape of public health, the government’s role is shifting towards being both a buyer and provider of health services. Hence, the government is required to be especially cautious while dealing with the multiple providers<sup>12</sup>. This situation will certainly increase the demand for health economists who can guide the policymakers and the consumers of health to avail the most efficient, cost-effective and equitable course for achieving the desired objective. Thus, building and strengthening the capacity in health economics is the need of the hour. A good start would be the introduction of masters’ degrees in health economics through the creation of centres of health economics within the economics departments of public universities and other institutions of

eminence. Similarly, schools of public health within medical or non-medical institutions should start departments/centres of health economics. Such courses should be open to graduates of medicine, economics, public health and similar disciplines. Based on this foundation, research degree programs in health economics should be strengthened to produce the next

generation of academics and researchers. Thus, the introduction of health economics as a discipline in India is presently vital and should be a policy priority.

### Data availability

No data are associated with this article.

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## Open Peer Review

Current Peer Review Status:  

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### Version 1

Reviewer Report 11 May 2020

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#### Alan M. Zaslavsky

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The article reports that government policy in India has shifted away from reliance on public health programs and toward greater reliance on private health care providers reimbursed through a government-sponsored insurance program. The main argument is that this shift will lead to an increased demand for health economists, whose training prepares them uniquely to conduct the evaluations required to guide the program and to make the market work. Therefore, institutions of higher education in India should open masters-level programs to train health economists, who will be better prepared than other professionals to evaluate and guide this new regime of privately provided health care.

The argument has some face validity. With private insurance, incentives are delivered at least partly if not largely through the market. It will be important for government to be able to anticipate responses of private health plans to regulations and incentives.

I differ from the authors, however, on whether "economic evaluations" are the paradigmatic type of study for which economics is most essential and likely to be of growing importance. Economic evaluations typically involve consideration of the costs and benefits of a particular treatment or intervention, leading to a "decision analysis" on whether and for which patients the treatment is justified. While economic concepts are involved, multidisciplinary expertise is essential to their correct application, including clinical and statistical training. The leader of such an analysis might be an economist, a clinician with quantitative training (MD + MPH), or from another relevant discipline. Furthermore, the usefulness of such evaluations, and hence the demand for economists that they engender, is not necessarily different for a privately run system versus a public one, if the types of treatments that they evaluate remain the same.

Of course the results of the evaluations might differ depending on whether they are oriented by a societal or corporate perspective. More generally, relying on private actors for provision and administration of health care makes it more important to analyze and predict the responses of these actors to reimbursement schemes and to construct incentives that align their behavior with social objectives. This is an area in which microeconomics should play an important role, although

at a more advanced level than suggested by the call for Master's level programs.

A careful analysis of educational and research requirements is needed to determine the proper balance of disciplinary expertise and level of training for the allied fields of health economics, health services research, and evaluation.

**Is the rationale for the Open Letter provided in sufficient detail?**

No

**Does the article adequately reference differing views and opinions?**

No

**Are all factual statements correct, and are statements and arguments made adequately supported by citations?**

Partly

**Is the Open Letter written in accessible language?**

Yes

**Where applicable, are recommendations and next steps explained clearly for others to follow?**

Partly

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Expertise in statistics and health services research.

**I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.**

Reviewer Report 27 February 2020

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**William Joe** 

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- Abstract: The statement that the Government of India has opened the door of public resources for the private sector in health lacks critical appraisal on policy choices from an economic perspective. This may be reconsidered or reviewed with an economic lens to provide an assessment of the merits/demerits of this flagship insurance coverage program.

- Background: The interpretation of 1.18% of GDP spending on public health may be verified. It is on health and not necessarily public health. It is basically the share of public spending in total expenditure.
- The authors should critically review the studies on impact of health insurance programs on out of pocket expenditure. It is important that the opinions stated are aware of the potential limitations of these studies and ensure methodological appropriateness of the conclusions.
- The role of Health Economics should not be restricted to evaluation of insurance programs. It is much broader in scope (may cite Handbook of Health Economics) and the authors can probably list some more potential issues for India from an Health Economics perspective.
- The basic concern that Health Economics should be introduced as a standalone discipline is appreciable. However, the authors should broaden the contours of the argument to list out other potential areas for professional engagement both in public and private sectors. Drawing on the need for Health Economics perspectives on other policies and programs is also necessary. The role in private sector should be highlighted as this would imply a clear demand for Health Economists.

**Is the rationale for the Open Letter provided in sufficient detail?**

Partly

**Does the article adequately reference differing views and opinions?**

No

**Are all factual statements correct, and are statements and arguments made adequately supported by citations?**

Partly

**Is the Open Letter written in accessible language?**

Yes

**Where applicable, are recommendations and next steps explained clearly for others to follow?**

Partly

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Health Economics, Population Health and Nutrition

**I confirm that I have read this submission and believe that I have an appropriate level of expertise to state that I do not consider it to be of an acceptable scientific standard, for reasons outlined above.**