

Health Expenditure and Access Disparities in India: Should not the TNMSC Model be Adopted Nationwide?

Merin Joy

Research Scholar in Economics, Government College Kottayam.

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ABSTRACT

This paper looks at different aspects of health expenditure in India with special focus on the issue of access to essential drugs. Even though we often say that health is wealth, health related issues are rarely discussed in a macroeconomic context in academic circles. The author is making an attempt to establish the necessity for placing Health Economics in the broad perspective of Macroeconomics with particular attention on the issue of access. Health is an important contributor to long run economic growth. Special focus on essential drugs is due to its importance in determining total health expenditure. The paper is organised as follows. Section 1 tries to give a brief overview of the interrelationship between health and economic development. Second section discusses the issue of access to health services in general and that of essential drugs in particular. The last section summarizes and concludes.

Keywords:

Introduction

This paper tries to give a brief overview of the issue of Investment in health along with different dimensions of health expenditure with special reference to India. Even though we often say that health is wealth, health related issues are rarely discussed in a macroeconomic context in academic circles. The author is making an attempt in that direction. The paper, particularly focuses on various dimensions of health expenditure like growing out-of-pocket expenditure, catastrophic nature of health expenditure, contribution of drug expenditure to total health expenditure and a possible way out. This seems very significant in the backdrop of the growing incidence of poverty trap due to increasing out-of-pocket expenditure on health. The remaining of the paper will be organized as follows.

Objectives

- To understand the issue of access to essential medicines in India with special emphasis on the procurement of the same

Methodology and Data Sources

The study is completely based on secondary data from various sources like Govt. records and available published literature. Simple percentage is used to interpret the collected data.

Data and Discussion

Section 1

Health and Economic Development

Health enhances economic security of individuals and families in the future and is the basis for productivity and learning capacity. Health is one among the pillars of human capital, considered as the basis of individual economic productivity. Health is a crucial input for poverty reduction and long-term economic development. WHO (2001) points out that even though these facts are acknowledged in literature, they are often not considered in investment allocations of governments, especially in case of developing economies. Investment allocation for health in different countries can be read from table1.

Table 1: Health spending as a share of GDP

| Country | Health spending as a % of GDP | | |
|----------------|-------------------------------|------------------|-------|
| | Public spending | Private spending | Total |
| United Kingdom | 7.8 | 1.5 | 9.3 |
| Germany | 8.6 | 2.7 | 11.3 |
| United States | 8 | 8.9 | 16.9 |
| France | 8.9 | 2.7 | 11.6 |
| Italy | 7 | 2.2 | 9.2 |
| India | 1.3 | 2.7 | 4 |

Source: OECD health statistics 2014

India's public spending on health is lower than the world average. This raises serious concern about the country's human capital formation. Economies with heavy disease burden face several obstacles to economic development. On the other hand, several "take offs" in economic history like industrial revolution were complemented by improvements in public health and nutritional intake. Menon (2017) demonstrates that health affects growth through several channels. First, health improvement increase worker productivity. Secondly, health affects economic growth is by increasing longevity and subsequent human capital accumulation. Thirdly, health promotes economic growth by reducing the burden of disease. Sick individuals are not able to function in their full capacity, thus reducing the extent to which what they can contribute effectively. Even though there are multiple channels for health - growth nexus, health alone cannot ensure growth due to several reasons; notable is the link between health, population growth and per capita income. Health improvement reduces mortality, thereby increasing population and reducing per capita income.

Section 2

Health Expenditure and Access Issues in India

India's health system has evolved through different phases. Initially it was State centric, welfare oriented one. Later it started encouraging private initiatives. In the last phase, role of State was redefined from a provider to financier paving way for unregulated growth of private sector, which seriously affected access to essential health services.

Consider the issue of access to essential medicines. As said earlier, this paper puts special focus on this aspect. One of the important pillars of the health system is financing for health expenditure. The equity and fairness of a health system are determined by the way it is financed. Like many other developing countries, in India also, access to health service is very much dependent upon one's ability to pay. The public expenditure on health in India is recorded lower than the international standard of spending. The health spending in the country is dominated by private out-of-pocket spending (Hooda 2013). National Health Account estimates that 64.2% of total health expenditure is met through out-of-pocket spending by households. A component wise analysis of health expenditure reveals that drugs are the single most vital component of household health expenditure.

Table 2: Component wise analysis of average medical expenditure in public hospital inpatient care during 2004-05 in India in Rs.(per cent of total expenditure)

| | Dr. fee | Diag. test | Other services | Medicines | Blood etc. | Food | Total |
|--------------|-----------|------------|----------------|------------|------------|-----------|-------|
| Rural | 61(4.16%) | 17.5(1.19) | 64(4.36) | 976(66.5) | 55(3.75) | 137(9.34) | 1467 |
| Urban | 66(4.64) | 21.5(1.5) | 83(5.84) | 886(62.31) | 65(4.57) | 107(7.53) | 1422 |

Source: Indranil et al(2017) calculated using NSSO 60th and 71st round unit records

But the case is different in pattern of public expenditure. The component of drugs in the health budgets of Central and State Governments is only a minor share, whereas salaries account for the bulk of health sector expenditure in India (Sakthivel 2005). This often results in partial or no purchase of drugs with serious ill health effects as well as an economic crisis. So drugs create a significant burden on households in India. Interestingly, India is one among the largest producers of pharmaceutical products, but yet a large portion of population is deprived to essential drugs. This inadequate access creates a major barrier to the goal of delivering essential health care (Singh et al., 2012). Along with this, the high out-of-pocket expenditure, which is mainly driven by spending on drugs, pushes many people into poverty.

Table 3: Percentage of people impoverished due to Out-of-Pocket Expenditure on medicines in India

| Year | Rural | Urban | Total |
|----------------|-------|-------|-------|
| 1993-94 | 4 | 2.6 | 3.6 |
| 2004-05 | 3.1 | 2.1 | 2.9 |
| 2011-12 | 3.68 | 1.64 | 3.1 |

Source: Indranil et al (2017) calculated using NSSO 60th and 71st round unit records

So any meaningful investment in health should include efforts to make medicines accessible to the common people from a health and economic perspective. In this context, the paper attempts to give an overview of drug availability situation in India's healthcare system and to identify the problems and issues associated with it.

Sakthivel (2005) elaborates on the issue of access to essential medicines in India. Medicines form the major portion of out-of-pocket spending on health among households in India. But on the contrary, it has only a minor share in government expenditure on health sector. Salaries account for the bulk of the health sector expenditure in India, provided there exist inter state variations. Government interventions in this sector include drug price control and public procurement of essential drugs.

In India, drug prices generally rise; but shown enormous upswings during recent decades despite the existence of mechanisms for price control. However, it needs to be noted that prices are fixed with enormous margins. Trade margins are among the highest is in the pharmaceutical industry.

Public Procurement of Essential Drugs

The Central and State Governments spend approximately Rs 2000 crores per year for procuring drugs. This is grossly quite inadequate. Scaling up funds to enhance spending on drugs is very important. Equally important is the optimum utilization of available resources. Efficient procurement policies have a significant role in ensuring the availability of right medicines in the right quantities at lowest prices to secure the maximum therapeutic value to the largest number of beneficiaries with the available resources.

In India, Central and State Government institutions follow one or more of these arrangements for public procurement: (i) Central Rate Contract System, (ii) Pooled Procurement either by the government or through an autonomous corporation, (iii) decentralized procurement, and (iv) local purchase. The Tamil Nadu Medical Service Corporation (TNMSC) set up in 1994, is a pioneer in drug procurement and distribution system in India. The success of the TNMSC lies in its centralized drug procurement and distribution system supported by a computerized system of drug management. TNMSC has set up warehouses in all district headquarters from drugs are supplied to hospitals. A passbook system where the allotment of each facility is given in money terms so different combinations can be purchased using the given budget. They can obtain drugs from the approved list if funds are available in the passbook. The TNMSC has also a unique Drug Distribution Management System (DDMS) which monitor procurement and distribution of drugs. District warehouses are linked to the central computer. Receipt and issues of drugs are digitalized real time, resulting in instantaneous stock adjustments. This is the basis of movement of drugs based on needs, thus avoiding shortages. Two envelope system of TNMSC ensures speedy and transparent procurement. Contracts are given to only those manufacturing units, which have a Good Manufacturing Practices (GMP) certificate of the WHO and should ideally have a minimum annual turnover. The superiority of TNMSC model is evidenced by the lower prices (mainly due to competitive bidding and bargaining power). This is clear from Table below.

Table 4: Drug Price Difference between retail market and TNMSC

| Disease conditions | Therapeutic drug | Formulation | Strength and No. | Retail Price (Rs.) | TNMSC price (Rs.) | Price difference (%) |
|------------------------------|--------------------------------|-------------------|------------------|--------------------|-------------------|----------------------|
| Cancer | Cyclophosphamide | Endoxan-N | 50mg;10 | 36.35 | 13.218 | 275 |
| Cancer | Fluorouracil | Fluracil | 5ml | 11.67 | 1.001 | 1166 |
| Child and infectious disease | Chloramphenicol | Chloromycetin | 250mg;10 | 30.76 | 4.4 | 699 |
| Child health | Phenytoin Sodium | Dilantin | 100mg;10 | 131.55 | 9.75 | 1349 |
| COPD and Asthma | Betamethasone | Walacort | 0.5mg; 10 | 3.55 | 1.043 | 340 |
| COPD and asthma | Salbutamol | Asthalin | 4mg;10 | 5.21 | 0.522 | 998 |
| CVD | Verapamil | Veramil | 40mg;10 | 5.02 | 4.392 | 114 |
| CVD | Atenolol | Aten | 50mg;14 | 25.75 | 1.2 | 2146 |
| Diabetics | Insulin NPH | Actrapid | 10ml | 129.28 | 86.85 | 149 |
| Diabetics | Glibendamide | Daonil | 5mg;10 | 6.60 | 0.454 | 1454 |
| Injuries | Bupivacaine HCl | Sensorcaine | 0.5%;20ml | 34.34 | 15.5 | 222 |
| Injuries | Ketamine | Ketalar | 50mg;10ml vial | 89.50 | 15.15 | 591 |
| Japanese encephalitis | Ceftriaxone | Lyceft | 1g;vial | 90.00 | 16.11 | 559 |
| Lymphatic Filariasis | Diethylcarbamazine | Banocide | 50mg;10 | 3.88 | 0.707 | 549 |
| Malaria | Chloroquine | Melubrin | 250mg;10 | 4.36 | 2.233 | 195 |
| Maternal health | Carboprost | Prostodin | 1amp | 80.13 | 68.5 | 117 |
| Maternal health | Ferros Sulphate | Ferrocetate-Z | 150mg;10 | 19.94 | 0.495 | 4028 |
| Mental health | Chlorpromazine | Chlorpromazine-NP | 25mg;10 | 5.95 | 1.81 | 329 |
| Mental health | Alprazolam | Alprocontin | 0.5mg;10 | 22.55 | 0.442 | 5102 |
| Tuberculosis | Rifampicin | Rifacilin | 150mg;100 | 99.68 | 66.6 | 150 |
| Tuberculosis | Pyrazinamide | PZA-Ciba | 500mg;10 | 42.46 | 5.188 | 818 |
| Others | Rantidine | Consec | 150mg;10 | 7.51 | 2.205 | 341 |
| Others | Dopamine | Dopinga | 5ml | 25.00 | 6.05 | 413 |
| Others | Ciprofloxacin | Ciplox | 200mg;100ml | 27.00 | 6.41 | 421 |
| Others | Paracetamol | Calpol | 500mg;10 | 8.78 | 1.24 | 708 |
| Others | Diclofenac Sodium | Diconac | 50mg;10 | 11.03 | 0.686 | 1608 |
| Others | Diazepam | Calmpose | 5mg;10 | 13.70 | 0.4 | 3425 |
| Others | Dexamethosone Sodium Phosphate | Decdan | 2ml | 10.36 | 0.222 | 4667 |
| Others | Cetirizine | Alerid | 10mg;10 | 31.50 | 0.561 | 5615 |

Source: For Retail Price—Monthly Index of Medical Specialities, India, August, 2004
For TNMSC Price—Tamil Nadu Medical Services Corporation (TNMSC). Available from URL: <http://www.tnmsc.com/system.html>

Source: Sakhivel (2005)

However, these developments and the success achieved by TNMSC did not induced policy ramifications at Central Government, which continues to have multiple agencies for procurement and distribution of drugs for its various health schemes.

Summary and Conclusion

The paper had a primary look into different dimensions of health expenditure with special focus on access to essential drugs. Scaling up of health expenditure is very important for the social development of any economy, but the author is doubtful about the extent to which this can be implemented mainly due to the shrinking fiscal spaces of national government. As said earlier the issue of access to medicines could be resolved to a great extent by adopting sound procurement policy rather than to resort on price control. The TNMSC model has proven its merit in ensuring low priced supply of essential drugs, but is unfortunately not replicated by many of the stakeholders in India's health system. The author wishes to conclude by opining that existing systems and interventions aiming at ensuring low prices of medicines/drugs may be evaluated using this benchmark. The macro character of the nexus between economic development and health underlines the increasing necessity of a nationwide health policy and expenditure systems.

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