

## **The Trend and Pattern of Health Expenditure in India and Its Impact on the Health Sector**

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Health and Education are the two main components of human capital which contribute to the economic development of a country. Until the second half of the 90s human capital was mainly linked to education. But authors like Mankiw, Romer and Weil cite the importance of health and nutrition together with education as the component of human capital. During the later part of nineties, authors like Fogel, Barro and Sala pointed out the relationship between health and economic growth. Barro and Sala (1995) and Barro (1996) established the relationship between wealth and health. In a long-term study carried by Nobel Laureate Robert Fogel (1994) revealed the importance of health in economic growth. Investing in health for economic development, the Mexican Commission on Macro economics and Health (2004) found that health affects economic growth directly through labour productivity and the economic burden of illnesses. A DSAED report (2010) found that although there are variations in some studies yet the balance of macroeconomic data combined with the quantity of evidences from the studies in the household and individual level are sufficient to prove that improvements in health do contributes to economic development. Dr. A. K. Sen, in his capability approach also stated that health and education are the prime requirements for attaining capabilities of people. Some other

studies also proved that good health raises human capital levels which in turn raise productivity and thereby the rate of growth of the economy increases.

In India, the health spending consists of public health spending and private health spending. Public health spending is categorized as Central government spending and State government spending. Expenditure incurred by the Ministry of health and family welfare and other Central Ministries are included in Central Government Expenditure whereas expenditure of State departments of health and family welfare and other departments are included in State Government Spending. Again both the Central and State government Expenditure are categorized as Capital and Revenue Expenditure and Plan and Non-Plan Expenditure. Total health Expenditure includes medical, public health, family welfare, water supply, sanitation and nutrition. Most of these expenditures are current expenditure. Capital expenditures are the sole determinant of creating physical infrastructure.

### **OBJECTIVES OF THE STUDY:**

This study aims at:

1. Finding out the trend and pattern of health spending in India
2. Finding out the implications of health spending on the development of health sector

### **METHODOLOGY:**

This study is mainly analytical in nature. It considers only the government health spending in India. It is primarily based on secondary data collected from official publications of Planning Commission, Public Finance Statistics- Government of India, Economic Survey of India and RBI. This study examines health expenditure trends of the central government during the period

of 1980-1991(Pre-liberalization period) and 1992-2013-14 (Post-liberalization period). To examine the impact of health spending on the health sector outcome data of Maternal Mortality Rate, Infant Mortality Rate, Life Expectancy etc are collected from the official websites of NRHM and CSO. Simple percentages, bars and lines are used to reveal the trends of health spending.

### **DATA ANALYSIS AND FINDINGS:**

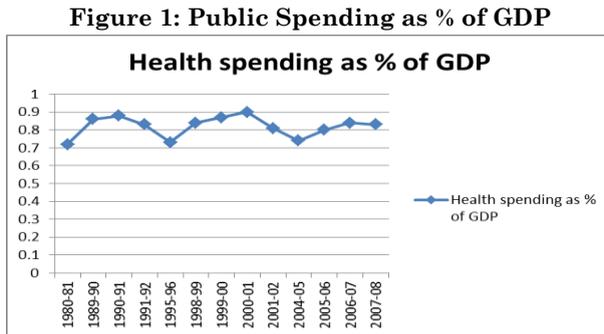
Although in different five year plans much emphasis was given on health sector yet the overall scenario is not satisfactory. Government of India formulates its first National Health Policy (NHP) only in 1983 i.e. during sixth five year plan and after three and a half decade of its independence. This NHP aimed at health for all by the year 2000 AD by introducing certain number of CHCs, PHCs and SCs in the country which could not be achieved. The existing numbers of CHCs, PHCs and SCs in 2000-01 were 3043, 22842 and 137311 respectively against the required number of 7415, 24717 and 148303 respectively. From the careful analysis of data it is revealed that although emphasis has been given on better health services, yet the public expenditure on health during the pre-reform period was very low. Selected socio-economic indicators prepared by CSO shows that the volume of health expenditure in 1980-81 was Rs 943 crore which was just 0.72 per cent of GDP. In 1989-90, the amount of health expenditure increased to 3767 crore and the percentage to GDP rose to 0.86. During 1990-91, the amount of expenditure further increased to 4508 crore which is 0.88 percent of GDP. However during the initial years of post-reform period, a mixed trend of health expenditure is observed. In 1991-92 health expenditure as percent of GDP was 0.83, somewhat less than the previous two years. It rose to 0.84 in 1998-99, 0.87 in 1999-2000 and further rose to 0.90 during

2000-01. This was shown in the following table (Table 1) and figure (Figure 1)

**Table 1: Health Expenditure in India (In crores)**

| Year    | Health Expenditure | GDP(at current Prices) | Health Expenditure As % of GDP |
|---------|--------------------|------------------------|--------------------------------|
| 1980-81 | 943                | 130178                 | 0.72                           |
| 1989-90 | 3767               | 438020                 | 0.86                           |
| 1990-91 | 4508               | 510954                 | 0.88                           |
| 1991-92 | 4888               | 589086                 | 0.83                           |
| 1995-96 | 7880               | 1073271                | 0.73                           |
| 1998-99 | 13496              | 1598127                | 0.84                           |
| 1999-00 | 15604              | 1786525                | 0.87                           |
| 2000-01 | 17374              | 1925416                | 0.90                           |
| 2001-02 | 17004              | 2097726                | 0.81                           |
| 2004-05 | 21168              | 2855933                | 0.74                           |
| 2005-06 | 26263              | 3282385                | 0.80                           |
| 2006-07 | 31832              | 3779385                | 0.84                           |
| 2007-08 | 38257              | 4582086                | 0.83                           |

Source: Selected Socio-economic Statistics, India 2011, Department of Statistics, Ministry of Finance, Government of India.



In various five year plans, the central government allocated around 3-4 per cent of total investment in the health sector. During the 11<sup>th</sup> plan, the plan outlay for health increases to 6.5 percent of total outlay (Table 2).

**Table 2: Trend of health expenditure in different five year plans (in Crores)**

| Plan          | Total plan investment outlay (All heads of Development) | Health sector outlay | % of total outlay |
|---------------|---|----------------------|-------------------|
| First plan    | 1960.00 (Actuals)                                       | 65.3                 | 3.4               |
| Second plan   | 4672.00 (Actuals)                                       | 145.8                | 3.1               |
| Third Plan    | 8576.60 (Actuals)                                       | 250.8                | 2.9               |
| Fourth plan   | 15778.80 (Actuals)                                      | 613.5                | 3.9               |
| Fifth plan    | 39426.20 (Actuals)                                      | 1252.6               | 3.1               |
| Sixth plan    | 109291.70 (Actuals)                                     | 3412.2               | 3.1               |
| Seventh plan  | 218729.50 (Actuals)                                     | 6809.40              | 3.1               |
| Eight plan    | 434100.00 (Outlays)                                     | 14102.20             | 3.2               |
| Ninth plan    | 859200.00 (Outlays)                                     | 35204.95             | 4.09              |
| Tenth plan    | 1484131.30 (Outlays)                                    | 58920.30             | 3.97              |
| Eleventh plan | 2156571.00 (Outlays)                                    | 140135.00            | 6.50              |
| Twelve plan   | 8050123.00 (Outlays)                                    | 300018.00            | 3.73              |

Source: Planning Commission, GoI

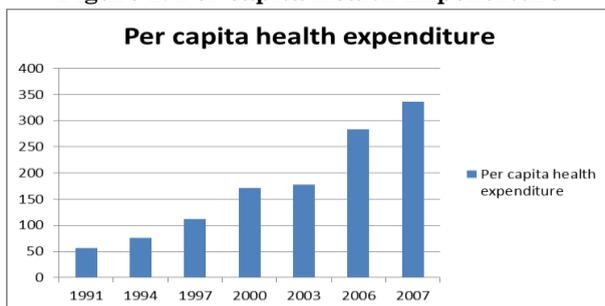
Although the health expenditure as a per cent of GDP increased marginally, yet it is seen that the per capita health expenditure on health registered a five-fold increase from 1991 to 2007-08. The increasing trend of per capita health expenditure is revealed in the following table and figure.

**Table 3: Per capita Health Expenditure (Rs)**

| Year | Per capita health expenditure |
|------|-------------------------------|
| 1991 | 57                            |
| 1994 | 76                            |
| 1997 | 112                           |
| 2000 | 171                           |
| 2003 | 178                           |
| 2006 | 284                           |
| 2007 | 336                           |

Source: Selected Socio-economic Statistics, India 2011, Department of Statistics, Ministry of Finance, Government of India.

Figure 2: Per capita Health Expenditure



However the international comparison of health spending reveals that India is far behind the countries like China, UK and USA not only as a per cent of GDP but also in terms of per capita health spending. World Development Indicator, 2013 shows that in 2011, health expenditure as a percent of GDP was 3.9% out of which 1.2% is public spending. This accounts 31% of total health spending. In UK, USA and China total health expenditure were 9.3, 7.9 and 5.1 respectively out of which public spending were 7.7, 8.2 and 2.8 which are higher than that of India.

The shortfalls of health spending are reflected in the health indicators in India. India is far behind other countries in terms of the health indicators like life expectancy, Infant Mortality, Maternal mortality as well as Total Fertility. The IMR, MMR and TFR are still high in India whereas China, Sri Lanka and other countries (except Pakistan) became successful to reduce them. India is also lagging behind in terms of life expectancy. Although after 63 years of planning India is able to make progress in improving health standards in terms of increasing life expectancy, reduces rate of IMR and MMR, yet this progress is not satisfactory. The major goals of 11<sup>th</sup> five year plan were to reduce IMR to 100 per 1,00,000 live births, to reduce IMR to 28 per 1000 live births, to reduce TFR to 2.1, to provide clean drinking water to all by 2009, to reduce malnutrition among children of age group 0-3 to half of its present level, to reduce anemia among women and girls by 50%

and to raise sex-ratio for age group 0-6 to 950. But in reality, most of the goals are not satisfied. The present MMR in India is 167 (SRS, 2011-13), IMR is 44(SRS, 11), TFR is 2.5 (SRS, 2010) and sex-ratio is 914 (Census, 2011). Despite various birth attendance and midwifery facilities, Maternal Mortality Ratio is still high in India. Again increasing number of immunization, declining rate of polio and diarrhea and various child health care facilities also could not fully contribute to the reduction of IMR in India. Again health care facilities in India are always biased to the urban sector which resulted disparity in the health indicators. SRS, 2012 shows that the estimated death rate in India in the year 2011 was 7.1. In rural area it was 7.6 and in urban area it was 5.7. IMR in rural India was 48 while in urban India it was 29. Rate of birth was declining to 17.6 in urban areas whereas in rural area it was still 23.3. In case of prevalence of anemia among children of 6-35 months, records of the Ministry of health and family welfare shows that in 2004, it was 72.7 in urban area and 82.1 in rural area. For the same year, prevalence of anemia among pregnant women was 54.6 in urban area and 59.0 in rural area.

Despite these shortcomings in some cases coverage of health services are quite better. Coverage of children under immunization increased to a good extent during 1991-91 to 2009-10. Selected Socio-economic statistics, 2011 shows that during 1991-91, 21.21, 13.75, 21.3 and 21.67 million children were immunized for DPT, DT, Polio and BCG respectively. In 2009-10 the numbers of children immunized in these categories are 24.78, 18.17, 24.61 and 25.61 million respectively. Due to the various HIV/AIDS control measures, the prevalence of HIV among adult population (15-49) reduced from 0.45 per cent in 2002 to 0.31 per cent in 2009.

However India is not able to provide clean drinking water and sanitation facilities to all till today due to which the risk of water-borne diseases and malnutrition increases. According to World Development Indicators, 2008 (World Bank)

improved water source was available only to 86% of the population in 2004. World Development Indicators 2011 shows that the percentage of population able to access improved source of water increased to 92%. The percentages of urban and rural population that are able to access this facility are 96% and 89% respectively. The same report shows that in 2011, about 35% of the population was able to access improved sanitation facilities. 60% of urban population and only 24% of rural population were able to access the improved sanitation facilities during that period. Recently the central government has introduced Swachh Bharat Abhiyaan (Clean India Mission) with an objective to attain total sanitation across the country.

So far infrastructural facilities are concerned; India is making a notable progress in this field. National health profile 2013 shows that medical education infrastructures in the country registered a rapid growth. In 1991-92 there was 146 Medical Colleges in India which rose to 381 during 2013-14. The number of Dental Colleges increased from 94 in 1995-96 to 301 in 2013-14. These 381 Medical Colleges and 301 Dental Colleges have admitted 43,576 and 25,320 students during this period. As on March 2013, the number of institutions for General Nurse Midwives and Colleges for Pharmacy are 2670 and 686 with admission capacity of 109224 and 40898 respectively. In case of service infrastructure, the number of government hospitals (including CHCs) are 19,817 with 6, 28,708 beds. Among these, 15,398 are in rural areas with bed capacity of 1, 96,182 and 4419 are in urban areas with bed capacity of 432,526. The number of SCs, PHCs and CHCs also increased over the last 20 years. Till March 2013, the number of SCs, PHCs and CHCs are 151684, 24,448 and 5187 respectively. Medical care facilities under AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy) by management status, i.e., dispensaries and hospitals are 26107 and 3167 as on first April, 2013. The number of licensed blood bank and eye banks till December 2013 are 2545 and 249

respectively. However the infrastructural facilities are yet less than the desired level particularly in the rural areas. The number of human resources is also less than the desired level. The following table shows the Numbers of doctors (Allopathic) registered with the Medical Council of India and Nurses registered with the Nursing Council of India who is available for service per one lakh of population. These figures are quite low from the desired level.

**Table 4: Doctors and Nursing Personal in India**

| Year | No. of Doctors<br>(Per one lakh population) | No. of Nurse<br>(Per one lakh population) |
|------|---|---|
| 1991 | 47  | 40  |
| 1995 | 51  | 61  |
| 2000 | 55  | 78  |
| 2005 | 60  | 83  |
| 2008 | 64  | 144                                       |
| 2010 | 69  | NA  |

Source: Selected Socio-Economic Statistics, 2011, CSO, GOI

The number of AYUSH doctors (total registered practitioners) in India is 761,575 and the number of AYUSH doctors per one lakh population is 66 as on 1.1.2009 (Dept. of AYUSH, MoHFW).

Thus it is seen that the health sector in India is progressing slowly. In case of some indicators, its improvement is quite well although not satisfactory. Government of India has adopted various policy initiatives to improve the health status of people. Despite of these efforts, public sector health services are become insufficient to fulfill the health needs of the people. Therefore the private sector health services are expanding day by day. Since the poor and vulnerable section of the society could not afford the private health care services therefore utmost care must be taken to cover more and more people under the government health schemes. Better utilization of money and proper implementation of concerned schemes are necessary to build a healthy India.

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