PUBLIC EXPENDITURE ON HEALTH ACROSS STATES IN INDIA: AN EVALUATION ON SELECTED ISSUES AND EVIDENCES

Kausik K Bhadra*

Jayeeta Bhadra**

ABSTRACT

This paper examines the factors that are affecting low public expenditure on health across states in India while the health related outcomes are far below than the MDGs target levels. In spite of massive economic growth, public spending on health for centre and states combined remains less than 1 per cent of gross domestic product. This paper observed that in majority of the states most of the existing own revenues are used up in meeting their committed liabilities which leaves very little room for the states to spend on health. This makes centre to step in and provide additional financial resources to enhance public expenditure on health. Towards complete equalization across the states, the effectiveness of finance commission grants is also discussed.

Keywords: *Public health expenditure, committed expenditure, finance commission transfers, millennium development goals on health.*

*Research Fellow, Ambedkar University, Delhi (AUD), New Delhi.

**Research Assistant, Integrated Research and Action for Development (IRADe).

I. INTRODUCTION

The economics of health and health care of a country is a product of several outcome indicators like, life expectancy, morbidity, mortality rates (infant mortality rate, under-five mortality rate, and maternal mortality ratio), nutrition, access to safe drinking water and sanitation etc. Health infrastructure, an output indicator, often plays a paramount role of delivering these outcomes. According to these measures, the health of India has achieved significant improvement over the past 60 years. Life expectancy has gone up from 56 years in the period of 1981-85 to 64 years during 2002-06[1]. The infant mortality rate[2] (IMR) has fallen from 115 in 1961 to 50 in the year 2009. Maternal Mortality Ratio (MMR) (per hundred thousand) has also improved from 437 in 1990 to 254 in the period of 2004-06. India's improvements in terms of these outcome indicators of health have been made possible due to the health infrastructure. Total number of government hospitals has increased from 7008 in 2005 to 12760 in 2009. During the same period, total number of beds has also increased substantially from 469672 to 576793[3].

In spite of these achievements, India seems to be lagging behind of Millennium Development Goals (MDGs) target values in terms of health attainments. According to the National Health Profile 2010 of Central Bureau of Health Intelligence, morbidity and associated mortality in terms of communicable and non-communicable diseases remains very high though the absolute number of cases and deaths seem to be declining. MMR also remains far above the ground. In such a situation, the role of public expenditure is imperative for India.

Public expenditure incurred on health is more akin to investment and the outcome, i.e. improved health, yields returns to the individual and society at a large in the future through higher productivity from a healthier workforce as well as through improvement on the human development front. The United Progressive Alliance (UPA-I) government, that assumed office in 2004, in their common minimum programme (CMP), had an articulated target to raise public expenditure on health[4] to 2-3 per cent of GDP by the end of the Eleventh Five Year Plan. But as the numbers bear-out, this proportion is far below than the desired levels in

[1] Compendium of India's Fertility and Mortality Indicators 1971 to 1997, based on Sample Registration System, RGI 1999.

[2] IMR is defined as the probability of death of a child before its first birthday, per 1,000 live births.

[3] These data are taken from National Health Profile of Central Bureau of Health Intelligence, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India.

[4] Total public expenditure on medical and public health in the extent exercise refers to sum of the revenue (major head 2210) and capital expenditure (major head 4210) as reflected in the budgets of state governments.

the CMP[5]. Expenditure by states on medical and public health experienced a prolonged period of decline in proportion out of total public expenditure[6]. This however, appears to be increasing since 2003-04. To some extent, this was also incentivised by the conditional grants of the Twelfth Finance Commission (TwFC) and Thirteenth Finance Commission (ThFC), as well as by the central government initiatives at expanding the National Rural Health Mission (NRHM). This centrally sponsored scheme uses labour in the form of doctors and nurses and other factors such as hospitals and buildings, to produce health services. States are mandated to not only share the cost of implementing the National Rural Health Mission (NRHM), but also to maintain this scheme upon completion. The committed liabilities arising out of this scheme should be included in their Non-Plan Revenue Expenditure (NPRE) to ensure that the gains of this scheme are not lost.

In the extent exercise, this paper put emphasis on some selected problems which cause the low public spending on health in India. However, Savedoff (2007) has tried to review the sensibility of this target and he has concluded that such quantified goals relating to expenditure are not backed by much concrete research analysis. While not linked to the deeper analysis behind setting this target, this paper put stress in finding the factors relating to low public spending on health. The paper is organized in four sections. Section 2 of the paper provides some quantitative and qualitative information of the present scenario in achieving the MDGs targeted goalposts on health related indicators. Section 3 describes selected issues relating to the public spending on health. The concluding remarks are presented is the last section.

II. MILLENNIUM DEVELOPMENT GOALS (MDGS) ON HEALTH RELATED INDICATORS: A STATUS MAPPING

States of India Report 2010 on Millennium Development Goals published by Ministry of Statistics and Programme Implementation, Government of India has shown the progress of Indian states towards achieving the target level of MDGs indicators. In this paper, we are paying attention on selected indicators relating to health. The report has estimated likely achievements in 2015 on the basis of the data available so that researchers can map the present status with the MDGs targets for the year 2015. However, in this paper, we have

[5] As a proportion of gross state domestic product, public expenditure on medical and public health for all states combined declined from 0.81 percent in 1987-88 to 0.62 percent in 2009-10.

[6] Total public expenditure refers to the sum of total revenue and capital expenditure in the budgets of state governments.

taken IMR and MMR into consideration as the mortality as an important indicator of economic success and failure[7].

As it is apparent from table 1 India is very slow in achieving IMR and MMR of the desired level. In 2009 on an average 50 infants died for every 1000 live births down from 80 in 1991. At this rate we are likely to reach IMR of 46 per 1000 live births by 2015, falling short of the target by 19 points wherein only two states namely, Arunachal Pradesh and Manipur are likely to reach the goal while the majority of the states show considerable gaps from their expected levels of 2015. Towards the goal of maternal health India's current status is much deteriorated than IMR. In the period of 2004-06 254 women (per hundred thousand) died due to giving birth to a child while the number was 327 in the year 1990. However, it has experienced a declining but in a very small pace as it is falling short of the goal by 26 points. Only 3 states (Bihar, Kerala and West Bengal) tend to reach their respective targets while rest of the states show wide variations. For Haryana the likely achievement by the year 2015 shows 272 while the target for the state is 27. More or less similar story can be seen for the states of Assam, Karnataka, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh.

Table 1: Millennium Development Goals: Selected Indicators on Health across States in India

State	IMR (per 1000 live births)			MMR (per hundred thousand)		
	2009	MDG Target 2015	Likely Ach'nt 2015	2004-06	MDG Target 2015	Likely Ach'nt 2015
Andhra Pradesh	49	23	48	154	74	110
Arunachal Pradesh	32	25	25			
Assam	61	25	54	480	136	412
Bihar	52	25	51	312	184	148
Goa	11	7	17			
Gujarat	48	24	45	160	77	100
Haryana	51	23	49	186	27	272
Himachal Pradesh	45	23	39			
Karnataka	41	23	38	213	79	167
Kerala	12	5	11	95	70	46
Madhya Pradesh	67	37	59	335	151	227
Maharashtra	31	19	27	130	59	90
Manipur	16	10	7			
Meghalaya	59	18	56			
Orissa	65	41	56	303	121	245
Punjab	38	20	37	192	83	111
Rajasthan	59	28	58	388	181	261
Sikkim	34	17	27			

[7] Amartya Sen (1998).

Tamil Nadu	28	20	26	111	49	84
Tripura	31	15	28			
Uttar Pradesh	63	33	59	440	214	286
West Bengal	33	21	28	141	167	49
India	**50**	**27**	**46**	**254**	**109**	**135**

Source: 1) "Report of the Sample Registration System" of respective years, Office of the Registrar General of India, Ministry of Home Affairs, Government of India.

2) Millennium Development Goals: States of India Report 2010 (Special Edition), Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India.

However, there are only 2 states among all the states, which tend to attain their IMR targets well ahead of 2015 and 3 states to attain MMR goals. Remaining states are falling significantly short in achieving those targets. In such a situation, public expenditure on health plays a crucial role for improving health related outcomes. But, sadly, in spite of massive economic growth, the centre and states combined public spending on health remains less than 1 per cent of gross domestic product (GDP) while the CMP target is 2-3 per cent of GDP. Thus, the next section explores the issues that are affecting adversely on public expenditure on health across states in India.

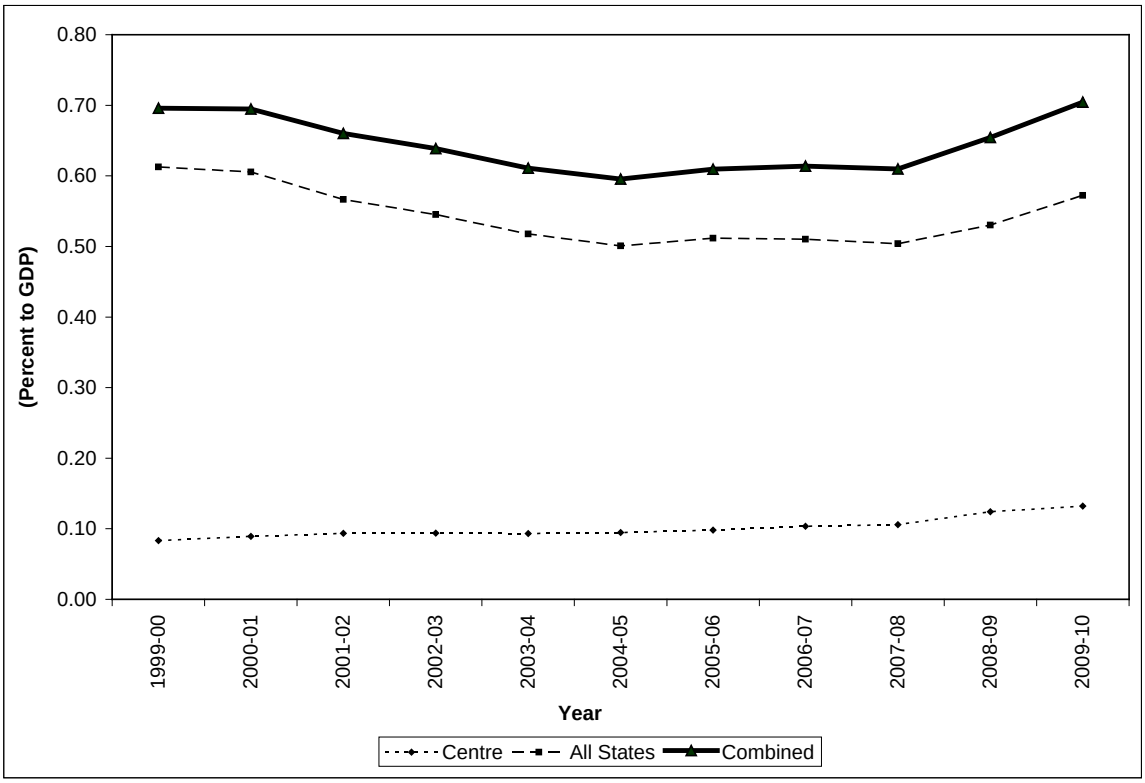
III. FACTORS AFFECTING PUBLIC SPENDING ON HEALTH

In nominal terms, during the period 2000-2010, combined (both, centre and states) public spending on health has risen at a annual compound rate of 12.06 per cent from Rs. 13969.35 crore in 1999-2000 to 43891.93 crore in 2009-10. A rising trend has also been observed in terms of per capita public expenditure on health (combined). It has gradually increased from Rs. 136.24 in 1999-2000 to Rs. 373.00 in 2009-10. However, India is among the lowest in the world in terms of the level of government expenditure on health.

As a proportion of GDP, public spending on health for centre has marginally increased from 0.08 per cent in 1999-2000 to 0.09 per cent in 2004-05. After 2004-05, it has gone up steadily to 0.13 per cent in 2009-10. In contrast, for all states combined, it has gradually declined from 0.61 per cent in 1999-2000 to 0.57 per cent in 2009-10 (Figure 1). As a proportion of gross domestic product, public expenditure on medical and public health for centre and all states combined has remained almost stagnant from 0.696 percent in 1999-2000 to 0.704 percent in 2009-10 wherein only 2 states (Mizoram and Sikkim) have reached the desired level of 2-3 per cent (Table 2). However, for all states combined, figure 2 reveals that the health expenditure has increased at a trend growth rate of 11.20 per cent per annum in 1990-91 to 18.53 per cent per annum in 2007-08 while per capita health spending has increased in a

comparatively much lower rate than health expenditure. It has increased from 9.28 per cent to 16.89 per cent in the same period of time[8] and this picture is reflected in the column 5 and 6 of table 2 for each of the states. This occurs only because of the higher rate of growth of population than the growth of public expenditure on health. Thus, while the states are far behind in achieving the desired target of CMP, the lower growth of per capita health expenditure than the growth of health expenditure is gaining ground of a serious concern as well.

Figure 1: Government Expenditure on Medical and Public Health (Per cent to GDP)



Source: 1) Finance Accounts, various issues.

2) Handbook of Statistics on the Indian Economy 2009-10, Reserve Bank of India.

[8] See the notes of table 2 for the method of the computation of trend growth rate.

Table 2: Public Spending on Health across States: An Overview

State	Per cent in 2008-09			Trend Growth Rate (Per cent), 1987-88 to 2008-09	
	Committed Expenditure / Total Expenditure	Health Expenditure / Total Expenditure	Health Expenditure / GSDP	Health Expenditure	Per Capita Health Expenditure
Andhra Pradesh	39.58	3.21	0.58	12.26	10.85
Bihar	63.67	3.17	0.77	9.27	6.97
Chhattisgarh	33.99	3.28	0.59	20.63	18.79
Gujarat	32.71	2.83	0.38	11.05	9.06
Haryana	40.94	2.73	0.38	12.59	10.15
Jharkhand	45.98	3.67	0.77	26.43	24.47
Karnataka	40.21	3.62	0.60	11.78	10.18
Kerala	64.69	4.87	0.69	12.02	11.03
Madhya Pradesh	47.31	3.35	0.65	9.53	7.38
Maharashtra	52.40	3.27	0.40	11.09	9.11
Orissa	50.28	3.29	0.57	11.19	9.73
Rajasthan	52.45	4.21	0.76	11.73	9.32
Tamil Nadu	48.25	3.28	0.50	10.77	9.67
Uttar Pradesh	35.66	4.29	0.94	11.77	9.47
West Bengal	54.39	3.45	0.56	10.85	9.28
Assam	57.39	4.98	0.99	10.53	8.80
Himachal Pradesh	55.87	4.32	1.30	12.79	11.20
Mizoram	42.54	5.83	3.47	12.46	10.28
Nagaland	48.88	3.60	1.83	10.22	6.71
Sikkim	26.60	2.81	2.79	12.50	10.11
Uttarkhand	47.50	4.34	0.84	28.14	26.11
All States	39.93	3.60	0.59	11.70	9.78

Source: 1) Finance Accounts, various issues.

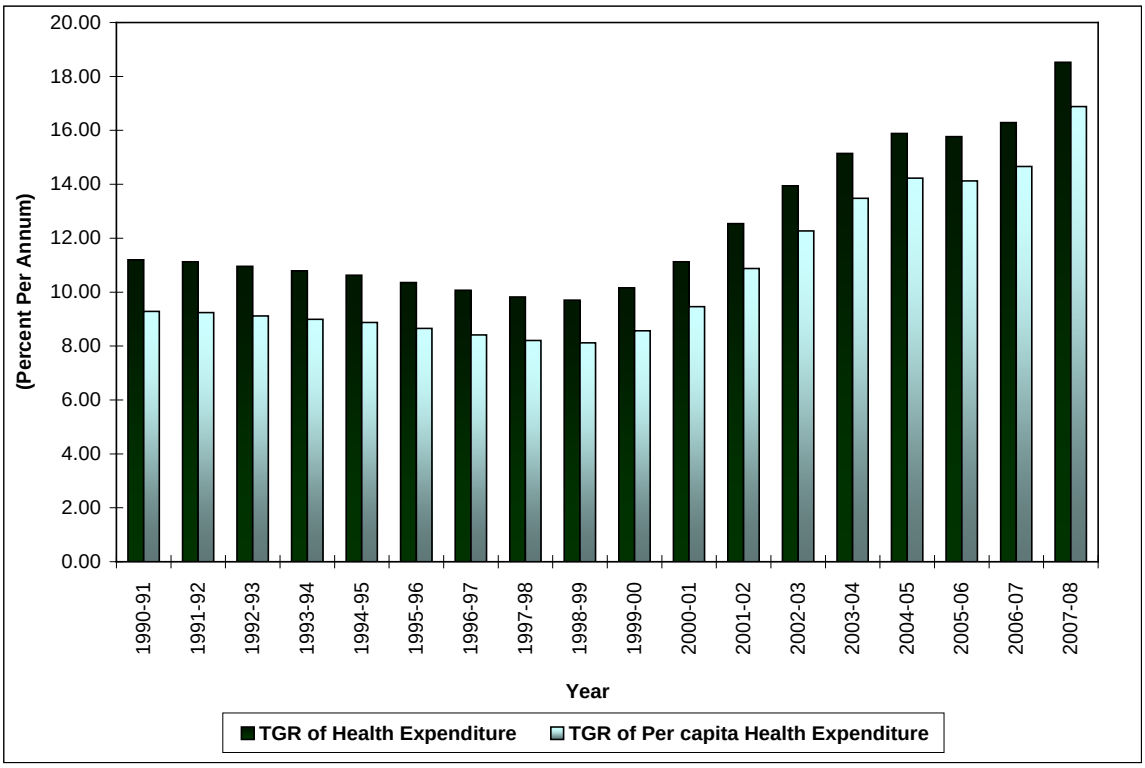
2) "State Finances: A Study of Budgets of 2010-11", Reserve Bank of India.

3) Registrar General of India, Census 2001, Population Projections for India and States 2001-2026 (Revised December 2006).

4) Central Statistical Estimates of GSDP, www.mospi.nic.in

Notes: The data on committed expenditure for Bihar stands for the year 2004-05 and for Gujarat, Jharkhand, Assam, Mizoram and Sikkim stand for 2006-07 due to the lack of the availability of data on the expenditure relating to salaries and wages.

Figure 2: Long Term Trend in Public Expenditure on Medical and Public Health: All States Combined



Source: 1) Finance Accounts, various issues.

2) Registrar General of India, Census 2001, Population Projections for India and States 2001-2026 (Revised December 2006).

Notes: TGR plots represents trend growth rate. The point against the year 1990-91 refers to period between 1990-91 and 2008-09, against the year 1991-92 to the period between 1991-92 and 2008-09, and so on. In other words, the points on the plots represent a trend growth rate of a gradually shrinking period starting with 1990-91, advancing one year at a time, but fixed by the terminal year of 2008-09.

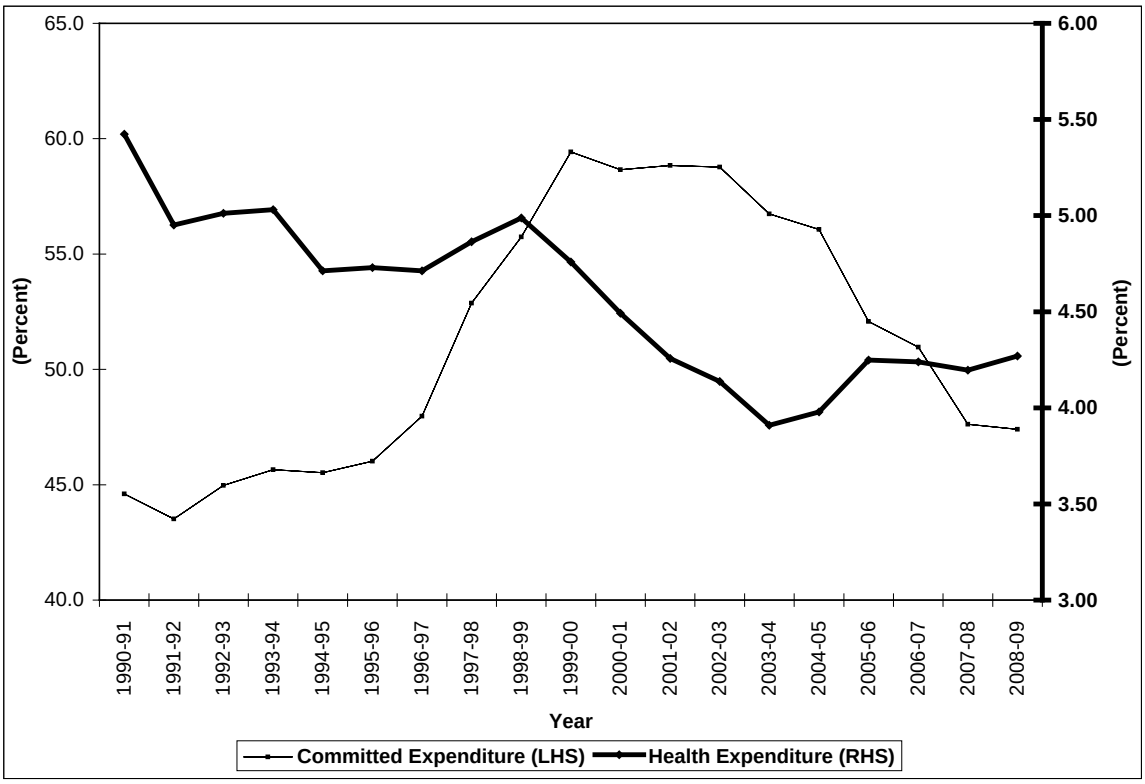
Per capita income and per capita health expenditure for all states combined are Rs. 48968 and Rs. 303.04 respectively. Among all the states, 7 states namely, Bihar, Uttar Pradesh, Madhya Pradesh, Jharkhand, Rajasthan, Orissa and Chhattisgarh stand below than all states' per capita health expenditure position, and rest of the states are above than it. Bihar holds the lowest position in both per capita terms. Only 3 states namely, Mizoram, Sikkim and Arunachal Pradesh have reached 4 digit[9] of per capita health spending. These 3 states with high per capita health spending have reached the target level of 2-3 per cent. However, there are 3

[9] Per capita health expenditure of Mizoram, Sikkim and Arunachal Pradesh are Rs. 2366, Rs. 1847 and Rs. 1672 respectively.

more states namely, Jammu & Kashmir, Manipur and Nagaland have also reached the given target level. Out of these 6 states, Mizoram report higher (4.17 per cent) percentage of GSDP. However, in spite of massive economic growth, public spending on health for rest of all the states remains less than 1 per cent of GSDP. In this section, we analyse the reasons intended for the low public spending on health and draw general lessons for the states.

During the period 1991-2009, the committed expenditure comprising salaries and wages, interest payments and pension and other retirement benefits of all states combined has increased at an annual compound growth rate of 13.91 per cent from Rs. 32535 crore in 1990-91 to 328228 crore in 2008-09. Against this rising trend of committed expenditure, total expenditure and expenditure on health have risen at a comparatively slower rate of 12.78 per cent and 11.20 per cent per annum respectively during the same period of time. In a worrisome trend, the state finances have been heavily burdened with committed expenditure which constituted 44.60 per cent of the total expenditure during 1991 and has further gone up to 47.41 per cent in 2008-09 with a peak recorded in 1999-2000 (59.43 per cent) while health spending as a proportion of total expenditure appears to be declining. It has declined from 5.42 per cent in 1990-91 to 4.49 per cent in 2000-01 and further turned down to 4.27 per cent in 2008-09 (Figure 3). However, state-wise representation of committed expenditure as a proportion out of total expenditure, as could be seen from table 2, Kerala and Bihar are placed on the top with more than 60 per cent. Six states namely, Maharashtra, Orissa, Rajasthan, West Bengal, Assam and Himachal Pradesh stand within the range of 50 to 59 per cent while all states combined represents 39.93 per cent to the total expenditure. Only 3 states reside below the all states' average, which are Andhra Pradesh (39.58 per cent), Chhattisgarh (33.99 per cent) and Gujarat (32.71 per cent). However, the rapid increase in states' committed expenditure could be attributable to a number of factors which include a) increase in salaries and wages due to the implementation of Sixth Pay Commission award in many states and b) expenditure on pensions has continued to spiral. Improvement in death rates (that is, decline) put up an increase in expectation of life against unchanging age of superannuation have resulted the steady increase in expenditure relating to the pension and other retirement benefits (Anand and Choudhury, 2007, 2008).

Figure 3: Proportion of Committed Expenditure and Public Health Expenditure in Total Expenditure: All States Combined



Source: 1) Finance Accounts, various issues.

2) "State Finances: A Study of Budgets of 2010-11", Reserve Bank of India.

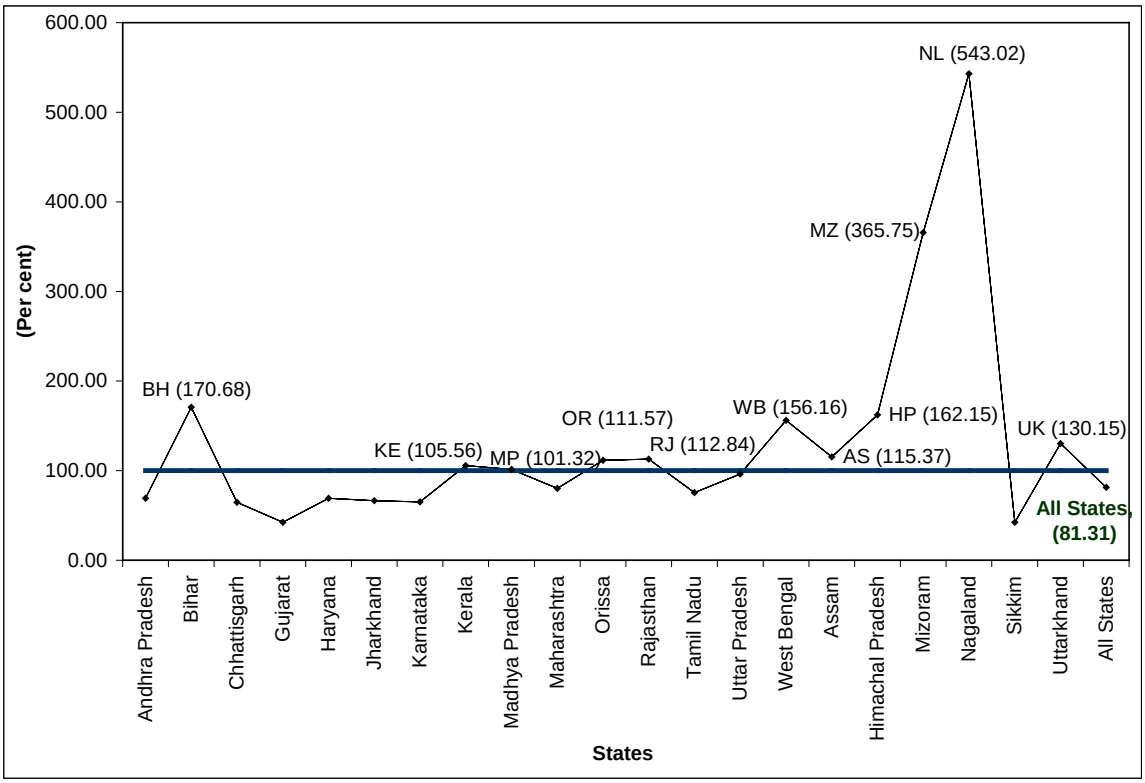
Notes: LHS refers to Left Hand Scale and RHS refers to Right Hand Scale. LHS plot represents share of committed expenditure in total expenditure and RHS represents the share of medical and public health expenditure in total expenditure.

Figure 4 shows the actual threatening picture across states. It is of course that public expenditure is financed either through revenues or through borrowings and therefore, in this study, states' committed expenditure as a proportion out of states' own revenues[10] has been taken into consideration. The tendency of the committed expenditure to states' own revenue percentage seems to be spiraling out-of-control. Most of the own revenue of the states are spent to meet their committed liabilities. Surprisingly, Bihar, Kerala, Madhya Pradesh, Orissa, Rajasthan, West Bengal, Assam, Himachal Pradesh, Mizoram, Nagaland and Uttarakhand have already been surpassed 100 per cent in the year 2008-09. More than 96 per cent of the own revenues in Uttar Pradesh and 80 per cent of the own revenues in Maharashtra are used up for meeting their committed expenditure. For all states combined,

[10] States' own revenues are the sum total of the states' own tax and own non-tax revenue, where finance commission transfers in terms of tax devolution and grants-in-aid are not included.

the corresponding proportion is 81.31 per cent. Consequently, this leaves very small space (negative space for the states that have exceeded 100 per cent) for the states to spend on the development segment particularly on the health sector. In addition, the majority of the states have approved the Fiscal Responsibility and Budget Management (FRBM) Act which proposed to attain revenue surplus and maintain it thereafter and also to bring down their fiscal deficit at 3 per cent of their GSDP on the basis of their revenue and fiscal deficit situation in 2007-08. However, the states have more expenditure responsibilities vis-à-vis centre in the provision of various entitlement programmes of public services while they do not have alternative sources of finance like monetization of deficit, external sources of borrowing or unlimited internal borrowing power like centre. Therefore, due to the commitment towards FRBM Act, the limited capacity to generate additional revenue and high share of committed expenditure out of own revenue, the states are not in a position to spend the required extra amount in health sector in meeting the given target level of health expenditure.

Figure 4: Share of Committed Expenditure in States' Own Revenue: 2008-09



Source: Same as Figure 4.

Therefore, this has made it essential for the centre to step in and provide additional grants transfers to the states to boost up their expenditure on medical and public health. The amount of vertical transfers through grants required for complete equalization across states in health

sector, TwFC has taken a positive step in this direction. Towards complete equalization, the TwFC has provided grants on health[11] to those states whose per capita expenditure on health was below than the all states average. The commission has provided 30 per cent of the gap between the states' per capita health spending and all states' per capita health spending and there were 7 states accounted under this classification (Table 3). With the low per capita spending, these 7 states also represent the poorest health outcomes and therefore, it drags down the level of outcomes for the states as a whole. The TwFC grants, however, remained inadequate in meeting the additional requirement of health spending in these states while a much bigger amount was required to improve their health outcomes.

Table 3: Twelfth Finance Commission Grants for Health Sector (Rupees in crore)

States	TwFC Grants (2005-10)	In Case of Complete Equalization (2005-10)
Assam	966.02	3220.1
Bihar	1819.69	6065.6
Jharkhand	360.98	1203.3
Madhya Pradesh	181.64	605.5
Orissa	196.37	654.6
Uttar Pradesh	2312.38	7707.9
Uttarakhand	50.00	166.7
Total States	**5887.08**	**19623.6**

Source: Twelfth Finance Commission Report.

The state governments have sought support from centre to strengthen health infrastructure development including additional Primary Health Centers (PHCs), Community Health Centers (CHCs), sub-division and district hospitals, Ayush Dispensaries to fill gaps not covered under other ongoing programmes. In order to strengthen health infrastructure, they have projected their requirements and on the basis of their requirement, ThFC has recommended state specific grants to address the gaps in critical infrastructure for health, including care for children is presented in the table 4. Andhra Pradesh, Arunachal Pradesh, Chhattisgarh, Haryana, Mizoram and West Bengal have indicated vast gaps and requested grants for improving physical infrastructure relating to PHCs and CHCs in rural areas, and sub-divisional and district hospitals and ThFC recommended grants as per their demand or requirements. For Madhya Pradesh, the commission recommended total Rs. 250 crore, out of which, Rs. 20 crore for the construction of 5 Pediatric Intensive Care Units for District Hospitals, Rs. 15 crore for Nutritional Rehabilitation Centers (NRCs) for block level institutions, including cost of construction for a 20-bed Children's Ward, Rs. 125 crore to set

[11] The commission has provided grants for the medical and public health and including family welfare (major heads are 2210 and 2211 respectively).

up Casualty wings including trauma unit for district hospitals, Rs. 15 crore and Rs. 75 crore for the establishment of Microbiology Laboratories and Maternity wings in district hospitals respectively. The Government of Orissa has reported that over 24,000 Anganwadi centers in the state do not have their own buildings. The commission has recommended Rs. 400 crore for construction of the Anganwadi centers, with priority to the tribal areas. As per the Orissa government's appeal, the commission has also recommended grants of Rs. 275 crore and Rs. 75 crore for upgradation of health infrastructure and establishment of additional buildings in the three existing medical colleges respectively.

Table 4: Thirteenth Finance Commission Recommended Grants for Health Infrastructure (Rupees in crore)

States	ThFC Recommended Grants
Andhra Pradesh	200
Arunachal Pradesh	50
Chhattisgarh	66
Gujarat	237
Haryana	200
Kerala	198
Madhya Pradesh	250
Mizoram	30
Orissa	750
Rajasthan	150
Tamil Nadu	200
West Bengal	300

Source: Thirteenth Finance Commission Report.

However, in sum, the finance commission transfers are not adequate for meeting their targets on health segment but surely this is a constructive step to put the states on track towards achieving 2-3 per cent of their GSDP. Especially for some states like, Madhya Pradesh, Orissa the requirements of central transfers in terms of grants are very high. Therefore, since 2004-05 these transfers have also been supplementing by the Centrally Sponsored Schemes like, NRHM which in turn, increases public spending on health of centre while a gradually declined trend has been observed in the states' spending.

IV. CONCLUDING REMARKS

Health outcomes in Indian states remains very poor as far as the MDGs targets are concerned. Majority of the states are off-track on the indicators of IMR and MMR. Public spending on health often plays an imminent role to have improved health related outcomes. In order to achieve the CMP target on health to 2-3 per cent of GDP by 2012, India (centre and states combined) stands below the 1 per cent of GDP in the year 2009-10. Thus, this paper analysed

the issues relating to the low public expenditure on medical and public health for all states combined while for centre, it appears to be rising.

The analysis revealed that the rapid spiraling of committed expenditure is the major cause of low public spending for the states as the states have limited revenue in their handle. Besides, as a result of the commitment to FRBM and limited capacity to generate additional revenue the states are not in position to spend on their health area. It is observed in few states that committed expenditure as a proportion out of their own revenue even surpassed 100 per cent while in some states, most of the existing own resources (more than 80 per cent) are used up in meeting their committed liabilities. This condition leaves insufficient space for the states for spending on the development area especially on health and this has made centre to intervene and provide grants on the area of health. However, it is observed that the vertical transfers by finance commission are not adequate enough as the requirements of the states are very high though it was a significant step to put the states on a track towards achieving MDGs target values. Therefore, this study concludes by saying that, unless some parametric reforms are continuously staggered into some areas of public expenditure especially, committed expenditure (of which, pension expenditure); the methodical move towards the target on health spending (2-3 per cent of GDP) followed by the health outcomes may continue to ring hollow.

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