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Health Sector Financing by States: An Exploration

Introduction

SOCIALLY, perhaps the a high progress in India over the past decades has been achieved in availability and standards of health care services—largely because of massive investment and health care interventions by the Centre and state governments. These achievements are also corroborated by the time series of health statistics which characterise significant improvements in the physical attributes of the Indian population. Caldwell termed India in one of his studies as a 'superior health achiever' among the developing world (Caldwell, 1986). This term has been used by Caldwell on the basis of an estimated relationship between the successive decline in the IMR in India and the per capita growth of its real GDP. A Similar inference may as well be drawn by a continuous decline in the death rate of children between 0 to 4 age groups (Table 1).

While much of these inferences are statistically impeccable and based on sound reasoning, they are at best a macro phenomenon. Significant differences arise at the regional and the sub-regional levels, which undermine certain macro inferences. Table 2 highlights this phenomenon more explicitly—in particular it suggests:

(i) A high degree of inter-state variation in life expectancy at birth—e.g. 68.7 years incase ofKerala, whereas only 52 years in U.P., 55.4 years in Madhya Pradesh, 57 years in Bihar, 56 years in Orissa (Table 2). It may also be noted from Table 2 that the life expectancies in U.P., Rajasthan, Orissa, M.P., Gujarat and Assam are lower than the national average of 59.1 years.

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TABLE 1: SEX-WISE MORTALITY AMONG CHILDREN IN 0-4 AGE GROUP 1971-1988
(MAJOR STATES)

Slates	*Males*			*Females*		
	1971	*1981*	*1988*	*1971*	*1981*	*1988*
Andhra Pradesh	44.7	30.8	27.7	44.0	30.0	26.3
Bihar	—	40.2	34.5	—	44.9	41.7
Gujarat	61.4	39.4	29.1	68.7	51.8	32.9
Haryana	29.5	32.7	25.1	35.8	42.5	34.3
Himachal Pradesh	44.1	21.4	24.8	52.1	17.2	22.5
Karnataka	39.0	23.6	25.0	35.9	24.9	23.2
Kerala	24.5	13.3	7.8	24.4	11.0	7.5
Madhya Pradesh	48.6	58.2	49.1	51.2	63.1	53.1
Maharashtra	43.5	25.9	23.0	45.7	26.6	21.7
Orissa	50.7	42.2	38.3	54.2	42.1	36.0
Punjab	31.3	23.8	18.5	47.6	27.7	24,5
Rajasthan	—	46.8	47.5	—	54.1	56.6
Tamil Nadu	41.7	35.1	19.8	39.7	35.2	23.2
Uttar Pradesh	72.9	53.1	43.8	95.7	68.5	49.9
West Bengal	—	35.3	22.3	—	31.7	22.6

Source: Registrar General, SRS (Different Issues).

(ii) The relative cost of the health status—represented by 1986-90 life expectancy levels achieved by states—is higher for certain states if judged by their SDP share to health. Such instances include Assam (ranked 5th in terms of its SDP share to health care and 13th in terms of the life expectancy), Rajasthan (1st and 10th, respectively), Madhya Pradesh (4th and 14th), Orissa (6th and 12th), etc.

Admittedly, the inter-state comparison of health status or -its, cost is not as straightforward as it appears from Table 2. Many studies, for instance, have shown that the health status—such as infant and child mortality, life expectancy, morbidity and loss of healthy life, etc.—is the interactive outcome of several complex factors including life style, environment, income level, literacy, health care via health spending, etc., (Can-in, 1984;WolfeandBehrman, 1987; World Bank, 1993,1995). It therefore amounts to suggest that comparisons of health status by regions or states

should also account for these factors and their implications for the states being compared.

While these issues are indeed critical in cross-regional comparisons, Table 2 in our view may still be used to raise questions about the efficiency of resources in the health sector—particularly in states where the SDP share on health are higher relative to their health standards.

TABLE 2: LIFE EXPECTANCY AT BIRTH AND SHARE OF HEALTH EXPENDITURE IN REAL SDP MAJOR STATES

States	*Life Expectancy 1986-90**	*Share of Health Expenditure in SDP J989-90** (%)
Andhra Pradesh	60.66 (07)	1.84 (07)
Assam	55,48 (13)	1.93 (05)
Bihar	57.06 (11)	1.77 (08)
Gujarat	59.91 (Q8)	1.43 (11)
Haryana	62.69 (04)	1.15 (14)
Karnaiaka	62.75 (03)	1.25 (13)
Kerala	68.67 (01)	3.02 (02)
Madhya Pradesh	55.47 (14)	2.07* (04)
Maharashtra	62.40 (05)	1.10 (15)
Orissa	56.14 (12)	1.92 (06)
Punjab	65.45 (02)	1.33 (12)
Rajasthan	58.24 (10)	3.27 (01)
Tamil Nadu	60.82 (06)	2.08 (03)
Uttar Pradesh	51.89 (15)	1.62 (09)
West Bengal	59.79 (09)	1.55 (10)
India	59.10	0.90

Source; India's Population Demographic Scenario (1990), Ministry of Health & F.W.,Govt. of India.
Notes: Following Reddy and Selvaraju (1995), health expenditure is adjusted for the rise in prices by using expenditure specific price deflators.
* Values in brackets are ranks.

Considering the inter-state variations in health standard, this paper argues for an in-depth analysis of the budgets and their allocations to major heads of health care services, their real (price adjusted) growth, and temporal changes. Another issue for examination, as already mentioned, is the health expenditure outcomes,

generally characterised by increased longevity, reduction in mortality among infants and children, decline in burden of diseases, etc. If the two—i.e. health expenditure and its outcome—are mutually opposite, it would likely to mean that:

(i) the health expenditure alone is not sufficient to determine the health status of a population or its level, and/or (ii) the health expenditure needs to be examined for its allocative efficiency.

Going by these premisations, three issues are briefly investigated here. These are: (i) health expenditure of 16 major states over two points of time—1985-86 and 1989-90, (ii) their distribution by major heads of health services, rural and urban, preventive and curative, salary and non-salary components, etc., and (iii) an assessment of these allocations against the health status attainments by states—measured on the basis of a composite index of health development (HDI). Following the UNDP (Human Development Report, 1990), the HDI is constructed by using two sets of data—one is based on certain mortality indicators of the states under consideration (labelled HDI-1). The other index uses per capita real SDP, and the life expectancy at birth (labelled HDI-2). These indices are described more specifically in Section 4 of this note. This analysis might help in understanding about certain issues in the ongoing debate on public financing of health services in India.

Health Financing in India: Certain Issues

Opinion often differ among the health financing analysts about coverage of the health care and its constituents (Reddy and Selvaraju, 1995). Given the enormity of factors which influence the health level of a population, the question arises: whether the health should be confined to its traditional components (medical, public health, family welfare, water supply and sanitation), or should it be extended to its other correlates like nutrition, child welfare, welfare of handicapped children, certain food subsidies, etc.? Not much attempt has so far been made in India to resolve this important issue—partly for serious data limitations. Given the data constraints, we decided to confine ourselves in this analysis to only the conventional definition of the health care.

Based on the conventional definition, the overall expenditure on health care activities by the centre, states and union territories are presented in Table 3. A known but interesting point to note from this table is the states' own share in the overall health expenditure. Table 3 suggests that more than 90 percent of the health care finances are provided by the states and the UTs themselves. This, *inter alia*, brings

out the need to go into details of the health care financing by states, its distribution by types of activities/programmes, inter-state variations and so forth to evolve corrective measures and minimise the risks of allocative inefficiencies. Two observations may be made here—one is of course the need for compilation and detailed analyses of health expenditure data at the micro level. The second observation is in regard to the evaluation of these expenditure against the criteria of allocative efficiency and cost-effectiveness.' This paper is mainly in response to the former observation and, therefore, only confined to the analysis of the states' health budget.

TABLE 3: HEALTH CARE EXPENDITURE BY GOVERNMENT: 1990-91 (REVENUE & CAPITAL ACCOUNTS)

*Levels of Government**	*Health Care Expenditure*	
	% of Total	*% of GDP*
1. Central	9.12	0.09
2. States	88.08	0.91
3. UTs	2.80	0.03
Total	100.00	1.03

Source: Reddy and Selvaraju (1993).

* Based on 25 states and 6 UTs.

A serious criticism of health expenditure often results from the growing share of health budget on recurring expenses including salaries and other payments to maintain a large workforce in the health sector. As the health personnel enjoy higher opportunity wages, the growing share of wages and salaries in recurring expenses is not completely inexplicable. However, to what extent the growing salary bill in our case could be attributed to the higher opportunity wages of medical professionals is not clear from this analysis. Moreover, this may not be the only factor responsible for escalation in salary account expenditure. Further scrutiny may reveal some other factors as well which affect productivity of the health personnel and their cost. Quite a few of them result owing to the poor manpower deployment and skill management by the health administrators. Besides, there are evidence to show the underutilization

' The efficiency of resources mainly depends on three important factors: (i) resource allocation using certain optimization principles to finance primary and preventive health care on the one hand, and curative services on the other; (ii) diffusion of right technology among hospitals and practitioners to minimize cost push inflation in the health sector; and (iii) administrative efficiency by orienting health functionaries about economic aspects of health services.

of the primary (and the community) health care services. Together these factors tend to raise the cost of health services in the public sector. A detailed examination of these and other similar factors are perhaps imperative.

Shifts in recurring expenses on salary and non-salary components during 1974-75 and 1990-91 are shown in Table 4. This table clearly demonstrate the inevitability of the salary account expenses. This is true both at the All India level as well as for the states (Table 4). Office expenses and machinery/equipment are almost pegged around five to seven per cent of the total expenditure all through. Others which comprise materials and supplies, travel expenses, accessories, medicine, rents and taxes, scholarship, cost of text book, etc., account for the rest.

Clearly, the growing share of wages and salaries in the total health expenditure leaves all other expenses—especially expenses on supply of drugs and medicine— with major cash flow problems. Due to the constrained public finances, this aspect has now become an important issue with an overriding question about the sustainability of public health care provisions in coming years. Allied to this is the need for modifications in the manpower norms to take explicitly into consideration (i) the epidemiological changes in the country and its regional variations which would likely to result in an altogether different skill composition required in health care institutions of the government, and (ii) the emerging consensus that government should restrict its involvement to only those health care procedures where social benefits are large. These considerations may require a different staffing pattern in the public hospitals. Some changes in the vertical system of health care delivery may also be considered to optimise the utilisation of human resources.

Health Expenditure by States

The analysis reported below relates to 1985-86 and 1989-90 for a total of 16 major states. The entire health financing data used for this analysis are obtained from the National Institute of Public Finance and Policy (NIPFP) which compiles a time series of these statistics from the annual budgets of the centre and state governments. A brief description of the data used in this analysis is briefly presented.

Description of the Data

As noted, a major handicap in the analysis of health sector financing and its outcome has been the paucity of information on health expenditure by different (public and private) sources. This problem was specifically noticed by the ICSSR/ ICMR Committee (1978-81) on *Health for all—an alternative strategy,* and later

TABLE 4: TEMPORAL SHIFTS IN ITEMS OF HEALTH CARE EXPENDITURE BY MAJOR STATES: 1974-75 TO 1990-91

(Percentage)

	Salary	*Office Expenses*	*Machinery and Equipment*	*Others***	*Total*
1974-75					
Major States***	39.15	3.70	2.33	54.83	100.00
All States	39.64	3.70	2.37	54.29	100.00
All India	39.93	4.37	2.85	52.86	100.00
1977-78					
Major States	39.13	3.32	2.58	54.97	100.00
All States	40.14	3.41	2.61	53.85	100.00
All India	40.11	3.61	3.20	53.09	100.00
1982-83					
Major States	51.53	4.60	2.14	41.73	100.00
All States All	51.80	4.56	2.21	41.43	100.00
India	51.14	4.58	2.91	41.37	100.00
1986-87					
Major States	52.99	3.14	2.46	41.42	100.00
All States	53.40	3.16	2.49	40.95	100.00
All India	52.41	3.55	3.34	40.70	100.00
1990-91					
Major States	61.16	2.12	1.87	34.84	100.00
All States	61.52	2.15	2.01	34.31	100.00
All India	58.97	2.58	2.97	35.47	100.00

Source: Reddy and Selvaraju (1995).

Notes:

* Health care expenditure in this table includes expenses on medical relief, hospitals and dispensaries and family welfare only as data for other items are not available.

** Others include materials and supplies, travel expenses, motor vehicles (purchase maintenance, cost of fuel), hospital accessories, medicines, rents and taxes, festival advance, petroleum, oil lubricants, stores and equipment, scholarships and stipends, cost of text books to the children of low paid government servants, etc. They vary from state to state.

*** Major States Include—(i) Andhra Pradesh, (2) Assam, (3) Bihar, (4) Gujarat, (5) Haryana, (6) Karnataka, (7) Kerala, (8) Madhya Pradesh, (9) Maharashtra, (10) Orissa, (11) Punjab, (12) Rajasthan, (13) Tamil Nadu, (14) Uttar Pradesh, and (15) West Bengal.

All India includes UTs also.

by Professor Sukhomoy Chakraborty as chairman of the ICSSR. Some attempts have since been made to compile data from different sources on health financing in the country. More recently, for example, the National Sample Survey provided comprehensive details about the utilisation and expenditure on health care services by the households. Similarly, the Foundation for Research in Community Health (FRCH), Bombay has brought out a data base on 'State Sector health Expenditures' for all India and states in March 1992. The time span covered by the FRCH data base is though considerably large—from 1951 to 1985—it has now become somewhat dated.

The Ministry of Health and F.W., Government of India has therefore assigned the National Institute of Public Finance and Policy (NIPFP) to maintain a record of health expenditure by the centre and state governments since 1985-86. This analysis is mostly relied on the data compiled by the NIPFP based on the *Detailed Demand for Grant (DDG)* reported in the budget documents of the centre and states[2].

The data pertain to four major heads—medical, public health, family welfare and water supply and sanitation—which were further classified into different minor heads to represent individual components of a specific activity.

Following the usual budgetary norms, details of expenditure have been provided into the standard format of the capital and revenue accounts with their further breakup into plan and non-plan expenditures. This was done to draw certain inferences about the health care policies of the centre and state governments. The state level data on expenditure often suffers from erratic variations over time without assigning any reason. If therefore, makes to draw any specific conclusion somewhat difficult.

Size and Growth Pattern of Health Expenditure

Size of health expenditure: The analyses to follow is mostly conducted for the real health expenditure barring one or two places where data adjustments were difficult for lack of suitable deflators (e.g. Tables 10 and 11). The adjusted expenditure are obtained by using the price deflators given by Reddy and Selvaraju (1995).

Health financing of states represent two distinct features. These are clearly notable from Table 5a. One is related to the non-plan expenditure. Expenditure on this account, for example, is mostly gone to the medical services. To be specific, 86 per cent of the non-plan budget in Kerala is allocated to the medical services in 1985-86. It has however marginally declined to 80 per cent in 1989-90 (Table

[2] For further details about the data and its limitations, see Reddy and Selvaraju (1995, pp. 3-6).

5b). The lowest medical expenditure was 50%'by Rajasthan in 1985-86. In contrast, the plan expenditure is largely shared by the water supply and sanitation (WS & S), followed by the family welfare services. This pattern is applied to both the years, and for all the states under review. Compared to them, public health received lesser amount from the plan budget. This lesser amount from the plan budget. This figures also suggest U.P., Maharashtra, Punjab, M.P. with higher allocations on public health from the plan budget.

Three specific points may be made to summarize the pattern of health spending by the states under reference: one, more than 50 percent of the non-plan budget is tied down with the medical expenditure in almost every major state. Water supply and sanitation (WS&S), public health and family welfare follow in the same order. Two, plan allocation is invariably directed to WS&S and family welfare. Public health draws 10 to 12 percent of the plan budget. This is observed from the plan allocations of all the 16 states under review. And finally, plan allocation to medical services has increased over time—significantly in Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Punjab and Uttar Pradesh. Some increase in financial allocations to the public health programmes may also be noted from the two Figures. These are however not very significant.

Growth of health expenditure: Growth in real and nominal health expenditures do not mutually conform as revealed by Table 6. Ten out of the 16 states (Andhra Pradesh, Assam, Bihar, Kerala, Orissa, Punjab, Rajasthan, Tamil Nadu, U.P. and West Bengal) have registered a faster growth in their nominal health expenditure between 1985-86 and 1989-90 than their domestic product (Table 6). The remaining six states—namely, Haryana, Kamataka, Madhya Pradesh, Maharashtra, Gujarat and Himachal Pradesh—did not follow this pattern.

Contrary to this, the growth in real expenditure on health demonstrates a different pattern. Table 6. which shows the real health expenditure too, for instance, suggest that the four states (Haryana, Kamataka, Maharashtra, Gujarat) had negative growth in their health budget. Interestingly, all of them are turned out to be the developed states with higher per capita real SDP and longer expected longevity at birth. This brings out the need to examine the factors responsible for deceleration in the growth of their health expenditure. Two questions may arise: (a) does it reflect the availability of private health/medical care services in these states at affordable prices? Or, does it purely an economic phenomenon—implying demand for state run health services income elastic? If the latter is true, it would likely to suggest that the economically developed states may reduce their direct expenditure on health services. They may also consider to compensate for this by helping private providers of health care

TABLE 5a: EXPENDITURE ON HEALTH AND ALLIED ACTIVITIES BY STATES: 1985-86 (ADJUSTED)

(in percent)

States	Non-Plan				Plan				Plan + Non-Plan			
	Medical	Public Health	Family Welfare	WS&S	Medical	Public Health	Family Welfare	WS&S	Medical	Public Health	Family Welfare	WS&S
Andhra Pradesh	70.4	19.3	2.8	7.5	2.9	9.1	32.1	55.9	36.5	14.2	17.5	31.8
Assam	69.8	12.6	1.2	16.5	17.0	14.4	22.3	46.2	39.8	13.6	13.2	33.4
Bihar	61.1	9.4	0.2	29.2	9.4	5.0	38.2	47.5	38.0	7.4	17.2	37.4
Gujarat	50.9	15.5	23.5	10.1	10.2	11.2	38.9	39.7	36.3	14.0	29.0	20.7
Himachal Pradesh	63.7	10.7	1.9	23.7	9.9	3.8	12.9	73.4	28.5	6.2	9.1	56.2
Haryana	66.7	14.5	0.0	18.8	11.5	13.5	19.7	55.4	30.5	13.8	12.9	42.8
Karnataka	81.9	8.7	1.4	8.1	10.8	9.3	333.5	46.4	44.4	9.0	18.3	28.3
Kerala	86.1	5.7	0.0	8.2	16.9	8.7	46.7	27.7	60.7	6.8	17.1	15.4
Madhya Pradesh	61.4	7.2	0.0	31.4	8.2	7.7	23.5	60.6	32.1	7.5	12.9	47.5
Maharashtra	57.8	26.4	0.2	15.6	3.3	17.9	17.1	61.6	26.4	21.5	10.0	42.2
Orissa	58.6	13.2	0.0	28.0	20.3	12.2	26.2	41.3	38.5	12.7	13.8	35.0
Punjab	75.2	9.0	1.2	14.6	13.0	15.9	34.6	36.5	53.2	11.4	13.0	22.4
Rajasthan	50.2	2.9	2.8	44.0	7.7	9.0	16.4	66.9	28.9	6.0	9.6	55.5
Tamil Nadu	89.4	9.1	0.0	1.4	10.7	4.0	21.8	63.5	52.5	6.7	10.2	30.5
Uttar Pradesh	77.2	21.9	0.0	0.3	20.4	26.0	53.4	0.2	49.6	23.9	26.2	0.2
West Bengal	79.7	8.3	0.9	11.1	16.7	10.8	40.0	32.6	63.0	9.0	11.3	16.8
All States	68.8	13.0	2.8	15.5	10.3	12.0	28.7	49.0	11.7	12.5	15.3	31.7
S.D.	2433	860	550	1020	385	816	1134	2648	2620	1626	1282	3309
C.V.	0.49	0.92	2.78	0.92	0.56	1.01	0.59	0.80	0.46	0.93	0.60	0.75

TABLE 5b: EXPENDITURE ON HEALTH AND ALLIED ACTIVITIES BY STATES: 1989-90 (ADJUSTED)

(in percent)

States	Non-Plan				Plan				Plan + Non-Plan			
	Medical	Public Health	Family Welfare	WS&S	Medical	Public Health	Family Welfare	WS&S	Medical	Public Health	Family Welfare	WS&S
Andhra Pradesh	73.7	18.5	0.5	7.3	13.7	8.9	30.6	46.7	43.8	13.7	15.5	27.0
Assam	55.1	7.7	1.1	36.1	10.7	13.5	24.0	51.8	32.3	10.7	12.8	44.2
Bihar	64.9	10.4	0.2	24.4	13.8	10.5	44.2	26.5	48.5	10.4	15.9	25.2
Gujarat	49.7	12.8	23.1	14.4	19.5	8.2	0.9	71.4	41.8	11.6	17.3	29.4
Himachal Pradesh	57.9	9.0	1.3	31.8	19.4	6.5	19.1	55.0	40.2	7.9	9.4	42.5
Haryana	69.4	14.8	0.0	15.8	19.0	9.9	23.9	47.1	40.9	12.0	13.6	33.5
Karnataka	79.5	10.5	2.6	7.4	13.2	8.3	39.5	34.0	43.8	9.2	24.1	22.9
Kerala	79.7	5.4	0.5	14.4	11.2	4.9	54.8	29.1	51.8	5.2	22.6	20.4
Madhya Pradesh	60.2	5.8	0.0	34.0	8.2	11.4	29.9	50.5	32.8	8.7	15.7	42.7
Maharashtra	62.1	30.1	1.9	5.9	8.2	22.3	16.1	53.5	31.4	25.6	10.0	33.0
Orissa	62.1	15.4	0.0	22.6	18.5	8.8	42.1	30.6	38.8	11.8	22.4	26.9
Punjab	72.5	7.8	2.4	17.3	22.7	15.5	23.0	38.8	57.2	10.2	8.7	23.9
Rajasthan	47.7	2.8	1.7	47.8	14.0	8.3	21.3	56.4	31.7	5.4	11.0	51.9
Tamil Nadu	80.8	13.4	1.5	4.3	14.0	4.0	20.5	61.5	44.2	8.2	11.9	35.7
Uttar Pradesh	71.2	22.5	0.0	6.3	23.9	8.1	30.9	37.1	49.1	15.8	14.5	20.7
West Bengal	79.5	11.6	0.4	8.5	12.6	5.2	48.3	33.9	58.6	9.6	15.4	16.5
All States	67.1	13.5	2.7	16.7	15.1	10.1	28.7	46.1	14.3	11.9	14.8	30.3
S.D.	2994	1096	607	1260	775	740	1209	2256	3592	1690	1082	2785
C.V.	0.53	0.95	2.66	0.89	0.7	1.00	0.57	0.67	0.53	0.9	0.46	0.58

Source: Calculations using the NIPFP Database on Health Expenditure.

TABLE 6: GROWTH RATE OF EXPENDITURE ON HEALTH AND ALLIED ACTIVITIES BY STATES: 1985-86 TO 1989-90
(PLAN + NON-PLAN)

(Percent)

States	*Nominal*						*Adjusted*					
	Medical	*Public Health*	*Family Welfare*	*WS&S*	*Total*	*SDP*	*Medical*	*Public Health*	*Family Welfare*	*WS&S**	*Total*	*SDP*
Andhra Pradesh	16.97	10.80	7.25	6.08	11.30	10.22	7.59	1.91	-0.33	-1.42	2.76	3.57
Assam	5.81	4.95	9.61	18.34	10.77	10.75	-2.68	-3.47	1.86	9.97	2.54	5.04
Bihar	18.19	21.01	8.02	-0.30	10.86	10.38	8.71	11.31	0.38	-7.34	2.29	1.52
Gujarat	12.16	3.46	-5.83	17.06	7.86	17.17	3.17	-4.84	-12.49	8.79	-0.35	8.29
Himachal Pradesh	14.83	12.05	5.17	-2.75	4.93	12.95	5.62	3.07	-2.27	-9.63	3.07	6.07
Haryana	13.84	2.17	6.02	-1.48	5.36	14.47	4.71	-6.02	-1.47	-8.44	-2.69	5.85
Karnataka	4.53	5.55	11.18	-1.58	4.38	14.42	-3.85	-2.92	3.32	-8.54	-3.53	7.14
Kerala	14.42	11.51	26.37	26.44	18.47	4.32	5.24	2.56	17.43	17.50	9.52	3.29
Madhya Pradesh	11.10	14.76	14.90	6.52	9.86	12.76	2.19	5.55	6.78	-1.01	1.64	4.95
Maharashtra	9.32	9.36	3.48	-2.67	4.23	14.63	0.55	0.59	-3.84	-9.55	-3.78	6.60
Orissa	14.89	12.66	28.22	6.21	14.08	12.23	5.68	3.62	19.15	-1.30	5.45	4.68
Punjab	18.33	12.82	4.12	16.97	15.85	14.54	8.84	3.77	-3.24	8.70	6.89	5.93
Rajasthan	16.74	11.20	16.79	11.06	13.39	12.43	7.37	2.28	8.54	3.21	4.95	6.97
Tamil Nadu	9.55	20.19	17.54	17.71	13.77	12.07	0.76	10.55	9.23	9.39	5.19	2.38
Uttar Pradesh	23.12	11.27	5.35	273.35	22.98	13.21	13.25	2.34	-2.09	246.96	13.58	5.03
West Bengal	11.53	15.52	21.62	11.95	13.21	8.63	2.58	6.25	13.02	4.04	4.49	4.54
All States	13.89	10.88	4.95	1.82	11.73	12.47	4.76	3.42	-2.47	-5.38	3.16	5.80

Source: Calculations based on the NIPFP data base on health expenditure.

*WS&S refers to Water Supply & Sanitation.

through soft leasing and lending mechanism, better infrastructure, fiscal concessions, research and development facilities, additional subsidies on procurement of medicines and equipment's used for disease prevention and primary health care. Another reason for the decline in growth of health expenditure may be found by analysing states' finances during the period under review. Duggal *et al.* (1995) in a study on the public health budget have found a declining trend in spending on the health care by government during eighties. Whether this decline has also affected the health budget of the developed states is however not clear from this study.

The highest growth in the health budget during this period (Table 6) relates to Uttar Pradesh—often characterised as the lowest health status state in the country. Such a dichotomy (i.e., highest real growth in the health budget associated with low level of health *status),inter alia,* requires investigation about the epidemiology and loss of healthy life on the one hand, and the pattern of intra-sectoral resource flows on the other.

Per Capita Health Expenditure

As generally expected, the non-plan real per capita expenditure was highest for the medical services (i.e., Rs. 11 in 1985-86 after combining all the states), and lowest for the family welfare—i.e. Rs. 0.44 (Table 7a). Individual states with maximum per capita non-plan expenditure on medical services include Himachal Pradesh (Rs. 39), Punjab (Rs. 31.6), Kerala (Rs. 30.6), etc. Against this, Bihar is turned out to be the lowest in expenditure on this head (Rs. 9.22). This is also true after combining plan and non-plan expenditures.

The significance accorded to the curative health care is reconfirmed by Table 7b which provides per capita expenditure on major heads of health care services for the year 1989-90. This table further suggests a marginal increase in real per capita expenditure on medical services at the aggregate level. Moreover, this is noted both for the plan and the non-plan expenditures. Four states, largely responsible for this increase are Punjab, Himachal Pradesh, Kerala and Uttar Pradesh. An opposite may however be noted for Assam, Kamataka, Maharashtra and Tamil Nadu (Table 7b).

More interesting results however relate to the per capita plan expenditure on family welfare services. Computations presented in Tables 7a and 7b show that the per capita plan expenditure remained highest on the family welfare services after the water supply and sanitation (WS&S). This is noted for both the years, namely 1985-86 and 1989-90. Higher per capita plan expenditure on family welfare services however looses some of its relevance on two considerations: (a) this increase is not

TABLE 7a: PER CAPITA EXPENDITURE ON HEALTH AND ALLIED ACTIVITIES BY STATES: 1985-86 (ADJUSTED)

(in Rupees)

States	Non-Plan					Plan					Plan + Non-Plan					
	Medical	Public Health	Family Welfare	WS&S	Total	Medical	Public Health	Family Welfare	WS&S	Total	Medical	Public Health	Family Welfare	WS&S	Total	SDP/Pop.
Andhra Pradesh	10.31	2.83	0.41	1.10	14.66	0.43	1.36	4.75	8.28	14.82	10.75	4.18	5.16	9.38	29.48	1554.01
Assam	10.71	1.93	0.18	2.53	15.35	3.45	2.93	4.52	9.37	20.26	14.16	4.86	4.70	11.90	35.61	1671.47
Bihar	5.91	0.91	0.02	2.83	9.67	0.73	0.39	2.98	3.71	7.82	6.64	1.30	3.00	6.54	17.48	1019.69
Gujarat	13.58	4.15	6.27	2.71	26.71	1.52	1.66	5.78	5.89	14.84	15.10	5.81	12.05	8.59	41.55	2085.05
Himachal Pradesh	24.93	4.19	0.76	9.27	39.15	7.30	2.78	9.52	54.18	73.79	32.24	6.97	10.28	63.45	112.93	1799.63
Haryana	10.60	2.31	0.00	2.99	15.90	3.47	4.07	5.95	16.75	30.23	14.07	6.37	5.95	19.74	46.14	2871.11
Karnataka	13.02	1.38	0.21	1.29	15.91	1.92	1.64	5.95	8.25	17.76	14.95	3.02	6.16	9.54	33.67	1767.57
Kerala	19.62	1.29	0.00	1.88	22.80	2.24	1.15	6.16	3.66	13.21	21.86	2.44	6.17	5.54	36.01	1506.57
Madhya Pradesh	8.04	0.95	0.00	4.12	13.11	1.31	1.23	3.76	9.69	15.98	9.35	2.18	3.76	13.81	29.09	609.40
Maharashtra	11.02	5.03	0.04	2.98	19.06	0.87	4.65	4.46	16.05	26.03	11.89	9.68	4.50	19.03	45.10	2727.29
Orissa	7.30	1.66	0.00	3.49	12.45	2.80	1.68	3.61	5.70	13.80	10.10	3.34	3.61	9.19	26.24	1405.83
Punjab	20.22	2.42	0.32	3.93	26.88	1.92	2.35	5.10	5.38	14.75	22.13	4.77	5.42	9.31	41.63	3248.16
Rajasthan	12.15	0.71	0.67	10.65	24.19	1.87	2.18	3.99	16.24	24.27	14.02	2.89	4.66	26.89	48.46	1371.26
Tamil Nadu	16.32	1.67	0.00	0.26	18.25	1.71	0.64	3.51	10.20	16.06	18.03	2.31	3.51	10.46	34.30	1834.90
Uttar Pradesh	6.63	1.87	0.00	0.02	8.52	1.67	2.13	4.39	0.01	8.20	8.30	4.00	4.39	0.04	16.72	1410.88
West Bengal	15.90	1.66	0.19	2.21	19.96	1.19	0.77	2.86	2.33	7.16	17.09	2.43	3.05	4.54	27.11	1745.22
All States	11.00	2.08	0.44	2.47	15.99	1.54	1.59	4.29	7.34	14.76	12.54	3.67	4.73	9.81	30.76	1601.49
S.D.	5.18	1.23	1.49	2.79	7.48	1.57	1.14	1.58	12.14	15.22	6.17	2.12	2.41	14.17	21.18	655.23
C.V.	0.40	0.56	2.63	0.85	0.40	0.73	0.58	0.33	1.11	0.76	0.41	0.51	0.45	0.99	0.55	0.37