

Utilisation of Health Services in India

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The pattern of utilisation in our country had some desirable outcomes, namely, growing popularity of indigenous non-allopathic systems and growth in private sector's involvement in expensive tertiary care. As against the National Health Policy guidelines the regional disparities in health service utilisation among different expenditure groups of states as well as rural-urban disparities tend to continue. Further, in spite of inadequacy of health services and prevalence of inequality in utilisation, there has been no serious governmental initiative to encourage appropriate utilisation by means of devising health insurance and other cost recovery mechanisms.

I Introduction

THE earliest attempt at emphasising adequate utilisation of health services was made in the report of Bhore Committee (1946). The committee prescribed norms pertaining to staff, availability of per capita beds, and other norms pertinent for dispensaries and hospitals having different bed sizes. Different committees over the years also pointed out the factors that affected utilisation of health services. Those included among the former were lack of co-ordination of hospital services, close proximity of out-patient department with the hospital proper, skewed distribution of trained personnel in favour of urban areas, and wastage of time of highly trained medical professionals in routine duties that could be done by lesser qualified personnel [Bhore Committee 1946; Srivastava Committee 1975]. In recent years the document on National Health Policy (1983) published in the wake of Alma Ata declaration, chalked out 17 specific goals to be achieved. The policy also suggested a number of guidelines for reforming and improving efficiency of existing health services in the country. Some of the guidelines are pertinent for the utilisation of health services. The relevance of these guidelines emerge prominently, however, through their emphasis on such aspects as: (a) dispersal of network of comprehensive primary health care services; (b) decentralisation of services through well worked-out referral system; (c) appropriate location of curative centres in terms of topography, density of population, distances and transport connections; (d) attainment of maximum utilisation of health facilities by means of avoiding duplication of facilities; and (e) devising different mechanisms in regard to repair, maintenance and proper upkeep of all bio-medical equipment. The policy thrust on these aspects aims at highlighting the significant role that the appropriate

and adequate utilisation of health services and facilities could play in achieving the policy objectives. The emphasis in policy, however, assumes concentration of curative facilities and consequent lower utilisation in certain areas as well as an existence of inadequacy of them in some other areas.

Attempts at exploring utilisation aspect of health services in India have been largely limited to micro level studies. While there have looked into various aspects, namely, distance of facility from patients, type of care, availability of facility, cost of treatment, quality of care, awareness about existing facilities, as well as other socio-economic aspects of patients in a particular regional set up, owing to the micro nature of such studies it is not possible to get an overall picture at either state, regional or national level [Yesudian 1980, 1988; Khan and Prasad 1988; Duggal and Amin 1988; Purohit et al 1992]. In this

regard recently two macro level surveys have provided a good information base pertaining to various aspects of health services in the country [NSSO 1992; NCAER 1992]. A detailed analysis of this newly-available data base could help us to explore the present status in health service utilisation.

The present study aims at analysing the available information bases to have closer look at utilisation aspect of health services in our country and derive their relevance for existing national health policy. The degree of utilisation is established in this study in terms of relative levels of health facility utilisation across the states.

The study is divided into nine sections. The next section looks at the all-India scenario. This is followed by comparison of Indian states by classifying them in terms of low, medium and high expenditure groups. Section IV deals with a comparative profile of public and private facilities across the

TABLE I(a): PERCENTAGE DISTRIBUTION OF TREATMENTS OVER SYSTEM OF MEDICINE (NSSO, 1986-87)

Allopathic	Homeopathic	Ayurvedic	Unani/Hakimi	Any Combination of These	Others	
Not as In-patients:						
95.91	1.78	1.53	0.27	0.07	0.44	Rural
96.31	2.09	1.03	0.27	0.05	0.25	Urban
Hospitalised Cases:						
98.50	0.30	0.51	0.22	0.11	0.36	Rural
98.52	0.25	0.42	0.28	0.10	0.43	Urban

TABLE I(b): PERCENTAGE DISTRIBUTION OF TREATMENTS OVER SOURCE OF TREATMENT (NSSO, 1986-87)

Public Hospital	Primary Health Centre	Public Dispensary	Private Hospital	Nursing Home	Charitable Institution	ESI Doctor or ANM	Private Doctor	Others	
Not as In-patients:									
17.67	4.94	2.59	15.12	0.75	0.35	0.38	53.01	5.18	Rural
22.60	1.19	1.75	16.18	1.15	0.81	1.61	51.83	2.88	Urban
Hospitalised Cases:									
50.40	4.34	-	31.84	4.86	1.71	-	-	1.70	Rural
59.51	0.75	-	29.55	7.04	1.91	-	-	1.24	Urban

Indian states. The reasons for untreated spells, education and caste factors have been discussed in Section V. Insurance status and cost of treatment comprise Section VI. The next section contains the estimates of states and households expenditure on health care. Inequality in utilisation forms the focus in Section VIII. The conclusions comprise the final section.

II All-India Scenario

As pointed out earlier, two major sources which providing the macro picture are the National Sample Survey Organisation (NSSO) and National Council of Applied Economic Research (NCAER). An exhaustive survey conducted by the former between July 1986 and June 1987 (NSSO, 43rd Round) provides information about various aspects of health service utilisation in India. Coverage of NSSO sample extends over 8,346 villages in rural areas and 4,568 blocks in urban areas [Sarvekshana 1992]. The latter's surveys conducted between May 1990 and July 1990 also covered similar aspects over the entire geographical area of the country. The sample encompassed 1,061 villages and 1,873 blocks in rural and urban areas respectively [NCAER 1992]. Though its sample coverage in comparison to NSSO survey is much less in terms of the number of villages and blocks, it provides a representative picture available for the later year, that is, 1990.

The NSSO survey distinguished its respondents between hospitalised cases and 'not as an in-patient' category. The survey revealed a dominant preference for allopathic system both in rural and urban areas. Around 96 per cent of treatment (not as an in-patient) undertaken was allopathic in rural as well as urban areas. Among hospitalised cases, the corresponding percentages remained around 98 per cent in both the areas. Indian systems of medicine were found to have been utilised at a very low level. Thus, among non-hospitalised cases, homeopathic system (around 2 per cent) generally remained the next important system. The same is true, however, with respect to ayurvedic system (around 0.50 per cent) pertaining to hospitalised cases (Table 1(a)).

Viewed in terms of types of hospitals, maximum number of in-patient respondents were observed to avail public hospital facilities. The former in rural and urban areas remained around 55 and 59 per cent respectively. In this regard, private hospitals as health care providers appear next in importance with their 32 per cent and 29 per cent of total hospitalised cases respectively from rural and urban areas. The situation with regard to treatment by source in non-hospitalised cases reveals higher utilisation of services of private doctors. It remained

around 53 per cent and 52 per cent in rural and urban areas. This is followed by treatment at public and private hospitals in both areas (Table 1(a)).

It is pertinent to note that nearly 54 per cent respondents in rural areas and 57 per cent respondents in urban areas availed OPD care without any payment. Respondents who paid for services availed health care more in the private sector. As such, nearly 34 per cent of respondents in rural areas and 32 per cent of respondents in urban areas paid for health care in the private sector (Table 1(b)). Even in hospitalised cases, nearly 29 and 32 per cent of respondents in rural and urban areas respectively availed health services without payment. However, the wardwise break-up shows that utilisation of free wards was more (61 per cent) among rural respondents (Table 1(c)). Further, among the sick respondents who could not be treated a larger percentage (18.46 per cent) in rural areas cited the cause (for no treatment) as either non-availability of medical facilities, financial reasons or a long waiting period (Table 1(d)). The corresponding percentage of respondents with either of these reasons remained around 11 per cent in urban areas (Table 1(d)). Considering the average amount of payment made to a hospital, it is generally observed that health facilities in rural areas were cheaper. In fact, respondents availing health care in government hospitals in rural areas paid less (Rs 320) than their counterparts in urban areas (Rs 385). However, care in private hospitals remained more expen-

sive than government hospitals both in rural and urban areas although private hospitals in rural areas were less expensive than their urban counterparts. In comparison to payment in government hospitals the rural respondents paid two and half times more in private hospitals. In contrast, respondents in urban areas paid correspondingly almost four times more in private hospitals (Table 1(e)). Further, taking into consideration factors like average duration of sickness treated and average number of days stayed in the hospital, a comparison of corresponding total expenditures depict the rural areas as generally cheaper than their urban counterparts (Table 1(f) and 1(g)).

Some of the trends in utilisation of health care seem to have undergone change be-

TABLE 1(e): AVERAGE PAYMENT MADE TO HOSPITAL BY TYPE OF HOSPITAL—RURAL AND URBAN SECTORS (NSSO, 1990)

Government	Private	All	
320.34	733.38	597.06	Rural
385.02	1206.01	933.33	Urban

TABLE 1(f): AVERAGE STAY IN HOSPITAL AND AVERAGE TOTAL EXPENDITURE, FOR TREATMENT PER PERSON HOSPITALISED, RURAL AND URBAN

Average Number of Days Stayed in the Hospital	Average Total Expenditure (Rs) for Hospital Treatment	
15.5	853.23	Rural
15.2	1182.95	Urban

TABLE 1(c): PERCENTAGE DISTRIBUTION OF TREATMENTS OVER PAYMENT CATEGORY, (NSSO, 1986-87)

No Payment	Under Employers Medical Welfare Scheme	Reporting Payment to			
		Government	Private	All	
Not as an In-patient:					
49.14	5.21	12.42	33.23	45.65	Rural
42.26	13.74	12.65	31.35	44.00	Urban
No Payment	Under Employers Medical Welfare Scheme	Reporting Payment to Institution			
Hospitalised Cases:					
23.16	6.18		70.66		Rural
19.61	12.95		67.44		Urban
Free	Paying General	Paying Special			
Hospitalised Cases:					
60.71	32.46		6.83		Rural
55.22	31.79		12.99		Urban

TABLE 1(d): PERCENTAGE DISTRIBUTION OF UNTREATED SPELLS OF SICKNESS OVER REASON FOR TAKING NO TREATMENT (NSSO, 1986-87)

No Medical Facility	Lack of Faith in the System of Medicine	Long Waiting	Financial Reasons	Ailment Not Considered Serious	Other Reasons	
2.86	1.93	0.33	15.27	74.61	5.00	Rural
0.13	1.81	1.05	9.57	81.13	6.31	Urban

tween 1986 and 1990. As a result, some of the above observations get partially modified in the light of the later survey [NCAER 1990]. One notable feature, for instance, revealed through the NCAER survey is a slightly increased preference for the homeopathy system. Treatment through the latter per illness episode (unlike the NSSO survey) has gone up to around 13 and 11 per cent in rural and urban areas respectively (Table 2(a)). Likewise an increase in preference for ayurvedic system is also noticeable from the later survey. The growing popularity in these two systems has thus brought down the use of allopathic system to around 75 and 80 per cent in rural and urban areas respectively (Table 2(a)).

Further, over the years, there has been noticeable increase in use of facilities at private hospitals as well as medical shops. The percentage of those availing facilities at public hospitals has fallen with commensurate increase in the percentage use of private hospitals per illness episode up to 43 and 44 per cent in rural and urban areas respectively (Table 2(b)). Similarly, the use of medical shops as a source of treatment has been observed at higher levels and remains as around 11 and 14 per cent in rural and urban areas respectively. Keeping partly in line with this trend, there has been an increase, though proportionately lesser in magnitude, in availing treatment from private doctors. The latter has risen by 2 and 3 per cent respectively in rural and urban areas (Table 2(b)).

Another interesting aspect comparable between the two survey periods relates to average cost of treatment per illness episode. The latter as depicted by NCAER survey is very low and remained around one-fourth of comparable figure from NSSO survey. Thus, NCAER's corresponding figures for rural and urban areas are around Rs 152 and Rs 143 respectively. These figures, in fact, depict very low rural-urban differential and in this regard remain in sharp contrast with the earlier survey.

III State Level Differentials in Utilisation

The all-India averages, as discussed above, tend not to reflect variations across states. Thus, in order to look into state level differentials we presumed that the state level expenditure on health care will be a prominent factor in determining the availability of these facilities. The level of utilisation, in turn, is likely to differ significantly across states depending upon the availability of facilities and services. Bearing this fact in mind we classified Indian states according to their per capita state expenditure on health. The latest available estimates, namely, for the year 1990-91, in this regard suggest an

TABLE 1(g): AVERAGE DURATION OF TREATED SICKNESS AND AVERAGE TOTAL EXPENDITURE PER TREATMENT BY SOURCE OF TREATMENT, RURAL AND URBAN

Average Number (Days) of Sickness		Average Total Expenditure (Rs)		
Government	Private	Government	Private	
13.2	12.2	114.75	84.93	Rural
13.3	11.5	103.39	91.30	Urban

TABLE 2(a): SYSTEM OF MEDICAL TREATMENT AND AVERAGE EXPENDITURE PER ILLNESS EPISODE (NCAER, 1990)

	Allopathic	Homeopathic	Ayurvedic	Rituals	Self Medication	Total	
Row per cent	75.36	12.91	8.08	1.18	2.47	100	Rural
Average (Rs)	167.04	125.03	91.10	165.94	18.98	151.81	
Row per cent	80.35	10.88	3.88	0.21	4.68	100	Urban
Average (Rs)	150.87	136.26	104.16	118.09	48.22	142.60	

TABLE 2(b): AVERAGE COST OF TREATMENT PER ILLNESS EPISODE BY TYPE OF MEDICAL TREATMENT (NCAER, 1990)

	Government Doctor	Private Doctor	Para-medical	Religious Persons	Self Medication	Total	
	168.99	146.70	127.15	165.94	18.98	151.81	Rural
	126.32	164.44	51.30	118.09	48.22	142.60	Urban

TABLE 2(c): SOURCE OF MEDICAL CARE AND AVERAGE COST OF TREATMENT PER EPISODE (NCAER, 1990)

	Government Hospital	ESI Hospital	Private Hospital	PHC	Charitable Dispensary	Medical Shops	Others	Total	
Row per cent	28.03	1.69	43.43	8.18	0.96	10.82	6.89	100.00	Rural
Average (Rs)	187.32	161.11	154.31	119.38	81.82	130.43	71.13	151.81	
Row per cent	31.16	2.10	43.95	5.80	0.88	13.59	2.52	100.00	Urban
Average (Rs)	123.79	94.88	175.21	120.82	204.99	97.99	115.17	142.60	

TABLE 3: AVERAGE DISTRIBUTION OF HOSPITALISED CASES BY TYPE OF HOSPITAL AND TYPE OF WARD FOR RURAL-URBAN SECTOR OF DIFFERENT STATE GROUPS

Category/State Group	Rural				Urban			
	Free Ward	Paying General Ward	Paying Special Ward	All	Free Ward	Paying General Ward	Paying Special Ward	All
Low Expenditure Group:								
Public hospital	98.00	7.11	2.89	100.00	87.34	9.23	3.43	100.00
Private hospital	12.44	73.02	14.54	100.00	11.36	61.76	26.88	100.00
Primary health centre	90.74	7.15	2.11	100.00	64.34	16.98	18.68	100.00
Charitable institution	43.23	46.59	10.18	100.00	29.36	60.30	10.34	100.00
Nursing home	6.46	65.45	28.09	100.00	7.95	49.88	42.17	100.00
Others	34.56	51.60	13.84	100.00	50.75	36.16	3.09	100.00
All	60.48	31.44	8.08	100.00	61.44	26.32	12.24	100.00
Medium Expenditure Group:								
Public hospital	96.67	2.66	0.67	100.00	87.24	8.36	4.40	100.00
Private hospital	21.98	22.93	55.09	100.00	5.75	69.72	24.53	100.00
Primary health centre	76.65	26.35	-	100.00	41.01	39.09	19.90	100.00
Charitable institution	47.14	36.96	15.90	100.00	53.92	46.08	-	100.00
Nursing home	11.76	70.71	17.53	100.00	4.98	77.40	17.62	100.00
Others	57.01	42.99	-	100.00	51.46	48.54	-	100.00
All	73.72	12.78	13.50	100.00	52.41	35.31	12.28	100.00
High Expenditure Group:								
Public hospital	95.61	4.17	0.22	100.00	92.68	4.26	3.06	100.00
Private hospital	58.21	34.19	7.60	100.00	22.70	52.03	25.27	100.00
Primary health centre	100.00	-	-	100.00	82.61	17.39	-	100.00
Charitable institution	100.00	-	-	100.00	-	-	-	-
Nursing home	54.80	45.20	-	100.00	-	-	-	-
Others	43.71	56.29	-	100.00	-	-	-	-
All	91.25	7.80	0.95	100.00	85.81	9.15	5.04	100.00

all-India average per capita expenditure on health as Rs 116.52 [Reddy 1992]. We, therefore, adopted this expenditure estimate as our basis for classifying states into three groups.

All those states with a per capita health expenditure less than all-India average (i.e., Rs 116.52) were considered among low expenditure group. The states with a per capita health expenditure equal to or more than the all-India average but less than Rs 200 per capita were considered to be in the medium expenditure group. The high expenditure states, each with health expenditure more than Rs 200 per capita, comprised the third group. Following this classification, there were as many as 12 states in low expenditure category. This included Andhra Pradesh, Assam, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal. The other groups, namely, medium expenditure states and high expenditure states comprised of respectively three and two states. Haryana, Kerala and Tamil Nadu fell in the medium expenditure category and Himachal Pradesh and Jammu and Kashmir remained among the high expenditure group.

OPD AND IN-PATIENT UTILISATION

The information available across three groups of states, namely, low, medium and high expenditure groups suggests that percentage of population which utilised any of the health facilities at OPD remained the highest (92.23 per cent) in rural areas for the high expenditure group of states. In case of urban areas, the medium expenditure group of states was observed to be having the highest OPD percentages (89.82 per cent).

In a similar way, the medium expenditure group of states, both in rural and urban areas, depicted the highest number of hospitalised cases.

An interesting observation emerging from the information across three groups of states is that the highest percentage of OPD utilisation were observed utilising the services of private doctors. This holds true for rural as well as urban areas. For instance, as many as 47 per cent of respondents in rural areas among the low expenditure states availed services of private doctors, which is higher than the comparable rates in either medium expenditure (46 per cent) or high expenditure states (42 per cent).¹ Public hospitals, in this regard, occupy second place. A glance at the OPD rates suggests that in rural areas these rates in public hospitals are considerably higher for high expenditure states. In fact, percentage OPD availing public hospitals in rural areas is much higher in the latter (34 per cent) than the low expenditure group of states (19 per cent). A similar situation also prevailed in

regard to the urban areas. Further, with exception of high expenditure states, OPD attendance in public hospitals remained higher in urban areas than their rural counterparts.

The third prominent place in terms of OPD utilisation is occupied by private hospitals. The highest rates (around 19 per cent) both in rural as well as urban areas, in this regard, are observed among the medium expenditure states. The percentage of OPD coverage through all other sources including primary health centres (PHCs), public dispensaries, nursing homes, charitable institutions, ESI doctors, and others remained in rural areas between 11 per cent (for medium expenditure states) and 20 per cent (for low expenditure states). Likewise, OPD coverage through all these above mentioned

sources in urban areas, though much lower than their rural counterparts, remained between 8 per cent (low expenditure group) and 14 per cent (high expenditure group).

A comparative view of the states pertaining to hospitalised cases distinguished by type of hospitals suggests some noteworthy patterns of utilisation. It is, for instance, observed that the highest utilisation of public hospitals is made in the states belonging to high expenditure group. In rural and urban areas, rates for these states remained as 81.38 per cent and 87.36 per cent respectively. Further, with the exception of medium expenditure states, utilisation of public hospitals in terms of in-patients percentage was higher generally in urban areas.

Corresponding inversely to the state government's low average per capita ex-

TABLE 4: OPD ACROSS TYPES OF FACILITIES USED
(Ratios of Public and Private Facilities)

Item/State	Rural					Urban				
	Free	Partly Free	On Payment	Not Taken	All	Free	Partly Free	On Payment	Not Taken	All
All India Level:										
Medicines	1:0.21	1:0.35	1:9.73	1:2.15	1:5.23	1:0.28	1:0.37	1:9.66	1:2.60	1:2.90
X-Ray/ECG	1:0.20	1:0.37	1:3.76	1:2.96	1:2.91	1:0.28	1:0.92	1:4.43	1:2.76	1:2.7
Any other D test	1:0.21	1:0.56	1:6.71	1:3.01	1:2.91	1:0.30	1:1.30	1:7.36	1:2.75	1:2.67
Any other treatment	1:0.20	1:0.60	1:6.7	1:3	1:2.84	1:0.28	1:1.32	1:7.34	1:2.70	1:2.70
Surgical treatment	1:0.51	1:2.4	1:4.3	1:2.92	1:2.92	1:0.40	1:3.01	1:22.42	1:2.7	1:2.70
Medicine—States Groupwise:										
Low expenditure states	1:0.32	1:0.50	1:7.20	1:2.62	1:3.08	1:0.71	1:0.24	1:7.36	1:3.17	1:3.48
Medium expenditure states	1:0.16	1:0.53	1:17.80	1:1.99	1:2.14	1:0.14	1:0.81	1:12.53	1:3.51	1:2.10
High expenditure states	1:0.12	1:0.11	1:1.7	1:0.55	1:0.73	1:0.49	1:0.22	1:2.75	1:0.27	1:1.03
X-Ray/ECG—States Groupwise:										
Low expenditure states	1:0.37	1:0.31	1:3.36	1:2.98	1:2.94	1:0.83	1:0.35	1:7.23	1:3.39	1:3.37
Medium expenditure states	1:0.20	—	1:4.63	1:2.10	1:2.07	1:0.14	1:2.91	1:4.14	1:2.04	1:1.97
High expenditure states	1:0.13	1:0	1:1.92	1:0.67	1:0.66	—	1:0.77	1:1.05	1:1.13	1:1.08
Any Other Diagnostic Facilities—States Groupwise:										
Low expenditure states	1:0.34	1:0.35	1:5.65	1:3	1:3	1:0.97	1:0.75	1:9.63	1:3.40	1:3.40
Medium expenditure states	1:0.16	1:2.59	1:12.73	1:2.11	1:2.1	1:0.18	1:1.51	1:7.11	1:2.10	1:1.97
High expenditure states	1:0.18	—	1:0.89	1:0.69	1:0.66	1:0.10	1:0.52	1:4.70	1:1.12	1:1.10
Any Other Treatment—States Groupwise:										
Low expenditure states	1:0.34	1:0.35	1:5.67	1:3	1:3	1:0.72	1:1.22	1:10.11	1:3.76	1:3.35
Medium expenditure states	1:0.14	1:1.04	1:8.10	1:2.12	1:2.12	1:0.54	1:0.82	1:7.34	1:2.12	1:1.94
High expenditure states	1:0.18	—	1:0.89	1:0.69	1:0.07	1:0.07	1:0.52	1:1.04	1:1.78	1:1.08
Surgical Operation—States Groupwise:										
Low expenditure states	1:1.10	1:2.42	1:2.70	1:2.97	1:3	1:0.17	1:0.26	1:21.22	1:3.40	1:3.38
Medium expenditure states	1:0	0:1	0:1	1:2.1	1:2.10	1:0.14	1:2.90	0:1	1:1.99	1:1.92
High expenditure states	1:0	—	1:0.38	1:0.67	1:0.67	—	—	—	1:1.11	1:1.11

penditure levels, the private rural hospitals were used more by respondents (27.10 per cent) among the low expenditure group of states. In urban areas a similar correspondence is not clearly observed, even though the highest expenditure group of states depicts the lowest use of private hospitals' in-patient facilities (9.32 per cent).

Further, the utilisation of PHCs (both in rural and urban areas) is observed to be the highest among the high expenditure group of states. In contrast charitable institutions played a relatively more prominent role among low expenditure states. The in-patients who availed of such institutions in these states in rural and urban areas were estimated as 1.98 and 2.10 per cent respectively. The same is true in urban areas in regard to nursing homes. The percentage of in-patients among the low expenditure states in urban areas thus remained as 6.90 per cent. In a manner akin to private hospitals even the use of nursing homes and other types of hospitals with in-patient facilities is observed more prominent in the group of states with low governmental expenditures.

Disaggregation in terms of free vs paid wards suggests that in-patient services were being utilised free of payment comparatively more among the high expenditure group of states (Table 3). As many as 91.25 per cent and 85.81 per cent of respondents, in rural and urban areas respectively, availed of health care in free wards in this group of states. The lowest percentage in rural areas (60.48 per cent) were observed corresponding to the low expenditure states. In urban areas, however, the lowest number of respondents (52.41 per cent) hailed from the medium expenditure states, who availed in-patient care in free wards.

Further disaggregation in terms of public, private, and other types of hospitals, reveals that more in-patients at public hospitals, rural as well urban, had availed of free ward facilities. In this regard, there is observed a correspondence with government expenditure levels. Thus, urban respondents in high expenditure states (92.68 per cent) exceeded the comparable percentage in other groups of states. Similar correspondence between high government expenditure levels and higher utilisation of free wards, even in private hospitals, PHCs, charitable institutions and nursing homes is also observed (Table 3). Except the rural public hospitals, this pattern holds true both for rural and urban areas. Pertaining to free wards, with few exceptions, generally larger percentage of rural and urban respondents in lower expenditure states, availed of paying general wards in these categories of health institutions (Table 3). With regard to paying special wards, however, no such pattern is discernible (Table 3).

IV Government vs Private Facilities

It is pertinent to observe the pattern emerging through a break-up of OPD as well as in-patients across five types of facilities, namely, medicines, X-Ray/ECG/EEG, 'any

other diagnostic treatment', surgical treatment and 'any other treatment' (Tables 4 and 5). With medicines being an exception, all-India ratios of government to private facilities in rural areas through all payment categories remained around 1:3. The corresponding ratios in urban areas were simi-

TABLE 5: IN-PATIENTS ACROSS TYPES OF FACILITIES USED
(Ratios of Public and Private Facilities)

Item/State	Rural					Urban				
	Free	Partly Free	On Payment	Not Taken	All	Free	Partly Free	On Payment	Not Taken	All
All India Level:										
Medicines	1:0.09	1:0.08	1:2.78	1:0.90	1:0.72	1:0.12	1:0.10	1:2.80	1:0.95	1:0.71
X-Ray/ECG	1:0.05	1:0.13	1:2.0	1:0.75	1:0.70	1:0.10	1:0.11	1:2.45	1:0.67	1:0.67
Any other treatment	1:0.06	1:0.30	1:3.6	1:0.60	1:0.7	1:0.09	1:0.25	1:3.28	1:0.60	1:0.66
Any other D test	1:0.06	1:0.32	1:3.6	1:0.60	1:0.67	1:0.09	1:0.30	1:3.32	1:0.60	1:0.66
Surgical treatment	1:0.15	1:0.50	1:3.9	1:0.64	1:0.68	1:0.14	1:0.23	1:3.78	1:0.61	1:0.66
Medicine—States Groupwise:										
Low expenditure state	1:0.10	1:0.7	1:2.12	1:1	1:0.69	1:0.14	1:0.14	1:2.84	1:1.2	1:0.83
Medium expenditure state	1:0.09	1:0.14	1:15.44	1:0.86	1:1.20	1:0.08	1:0.40	1:5.8	1:0.80	1:0.86
High expenditure state	1:0.06	1:0.02	1:0.27	1:0.04	1:0.08	1:neg	1:neg	1:neg	1:neg	1:neg
X-Ray/ECG/EEG—States Groupwise:										
Low expenditure state	1:0.12	1:0.17	1:1.70	1:0.63	1:0.65	1:0.14	1:0.25	1:2.93	1:0.79	1:0.82
Medium expenditure state	1:0.05	1:0.34	1:5.6	1:1.14	1:1.10	1:0.08	1:0	1:3.45	1:0.75	1:0.76
High expenditure state	1:0.02	1:0.34	1:0.40	1:0.10	1:0.08	1:0	1:neg	1:neg	1:0	1:neg
Any Other Treatment—States Groupwise:										
Low expenditure state	1:0.06	1:0.34	1:2.70	1:0.60	1:0.65	1:0.13	1:0.34	1:4	1:0.65	1:0.80
Medium expenditure state	1:0.07	1:1.5	1:15.67	1:0.88	1:1.06	1:0.08	1:0	1:5.4	1:0.75	1:0.77
High expenditure state	1:0.02	1:0	1:0.67	1:0.11	1:0.07	1:0	1:0	0:0	1:0.17	1:0.08
Surgical Operation—States Groupwise:										
Low expenditure state	1:0.15	1:0.40	1:3.34	1:0.60	1:0.63	1:0.17	1:0.50	1:4.17	1:0.73	1:0.81
Medium expenditure state	1:0.20	0:1.25	1:12.26	1:1.10	1:1.06	1:0.12	1:0.50	1:6.5	1:0.75	1:0.74
High expenditure state	1:0.05	1:0.50	1:1	1:0.05	1:0.06	1:0	-	-	0:0.12	1:0.09
Any Other Diagnostic Tests—States Groupwise:										
Low expenditure state	1:0.06	1:0.34	1:2.74	1:0.60	1:0.65	1:0.13	1:0.34	1:4.10	1:0.66	1:0.82
Medium expenditure state	1:0.07	1:1.5	1:15.67	1:0.87	1:1.06	1:0.08	1:0	1:5.25	1:0.73	1:0.75
High expenditure state	1:0.01	1:0	1:1	1:0.11	1:0.08	1:0	-	-	1:0.17	1:0.08

TABLE 6: PERCENTAGE DISTRIBUTION OF HOSPITALISED CASES OVER PAYMENT CATEGORIES FOR
RURAL AND URBAN SECTOR

State Groups	Rural				Urban			
	Payment Category			All	Payment Category			All
	No Payment	Employers	Reporting		No Payment	Employer's	Reporting	
		Medical Welfare Scheme	Payment to Institution			Medical Welfare Scheme	Payment to Institution	
Low expenditure group	23.35	6.17	70.48	100.00	19.58	13.83	66.59	100.00
Medium expenditure group	24.98	3.27	71.75	100.00	21.03	8.30	70.67	100.00
High expenditure group	32.75	8.33	58.92	100.00	26.82	12.76	60.42	100.00

larly observed around 1:2.7. The comparable ratios for in-patient care both in rural and urban areas were estimated to be in vicinity of 1:0.7. The pattern is thus suggestive of overall wider spread of private sector in providing OPD care.

However, ratio of government to private services does not remain invariant across states. In fact, variations in these ratios denote more involvement of government associated with rising levels of per capita state expenditure. In rural areas, for instance, ratio of government to private facilities pertaining to different types of OPD facilities were estimated for low expenditure states as around 1:3 (Table 4). Whereas the estimates for other groups of states were respectively around 1:2 (medium expenditure group) and 1:0.70 high expenditure group) (Table 4).

Analogous estimates for urban areas connote decline in health care provision from private sector in groups with higher per capita state health expenditure (Table 4).

Higher levels of government expenditure further seems to be associated with more of free public facilities being utilised both in rural and urban areas. As a result it is consistently observed that lower quantum of free private health facilities have been utilised among higher expenditure states (Table 4). With certain exceptions, like other diagnostic facilities and any other treatments (both in rural areas) and medicines (in urban areas), this pattern holds true for all of above mentioned five categories of facilities (Table 4).

Utilisation of private sector's health facilities has been, however, at higher levels in categories where payments are being made by patients either partly or fully (Table 4). Pattern of utilisation in regard to these two categories also suggests that possibly beyond certain level of governmental expenditure, there is diminishing (or crowding out) of private sector's role. This is brought out, in general, as we move from medium expenditure states and beyond it, through declining proportionate shares of private facilities in aforesaid two payment categories (Table 4). It is also pertinent to note that from low to high expenditure states there has been consistent decline in private sector's share in the category of treatment not taken (Table 4). Presumably it reflects that increasing levels of government expenditure and in turn increased health facilities as well as increased awareness about them has led to a decline in avoidance (in use) of health facilities.

Utilisation of private sector's facilities has been relatively less in availing in-patient care (Table 5). By and large, pattern of utilisation remains almost similar to that in OPD care (Table 5). However, stronger tendency of private sector towards profit earning or cost recovery is obvious in in-

patient care. As such, proportions of private sector in either of above-mentioned five types of facilities is many times more in 'on payment category'. The share in the similar facilities from private sector remained, in contrast, negligible under either of free or partly free categories (Table 5).

V

Untreated Spells of Sickness: Education and Caste Factors

The causes of not getting treatment as classified by NSSO are four-fold. These include (i) no medical facility, (ii) long waiting, (iii) financial reasons, (iv) ailment not considered serious, (v) lack of faith in the system of medicine, and (vi) other reasons. We have reclassified the untreated spells of sickness into two broad categories. One of these included the reasons (i) to (iii) and the other included the remaining three. The former was called as 'non-availability and financial reasons' and the latter was termed as 'other reasons'.

Percentage distribution of population which could not avail of health care in spite of being sick depicts an appreciable differential across education levels and caste

groups. It is, for instance, interesting to note that within the same state or same sector or across sectors, level of awareness about health facilities presumably associated with the level of education tended to influence perception of respondents about availability (or otherwise) of the health facilities.

In general, the distribution of respondents across education levels depicted in that range within rural sector of untreated spells (of sickness) due to non-availability of facilities or financial reasons was much higher for illiterates relative to their counterparts in other educational levels. Thus, the lowest to highest percentage (of untreated spells) for illiterate class across all-India aggregate in rural areas due to the above-mentioned reasons was between 10 and 18 per cent. The comparable percentage for respondents with different education levels, namely, 'below primary', 'below secondary', 'secondary and above' remained respectively 1.5-2.4 per cent, 9-17.4 per cent and 1-2 per cent.

Likewise in the urban sector, the all-India range of untreated spells due to reasons of non-availability across above-mentioned categories of education levels were observed to be respectively 4-9 per

TABLE 7: AVERAGE DURATION OF TREATED SICKNESS AND AVERAGE TOTAL EXPENDITURE (RS) PER TREATMENT BY SOURCE OF TREATMENT FOR RURAL AND URBAN SECTORS

State/State Groups	Rural				Urban			
	Average Duration (Days)		Average Total Expenditure		Average Duration (Days)		Average Total Expenditure	
	Government	Private	Government	Private	Government	Private	Government	Private
Low expenditure	12.74	11.95	119.42	100.51	12.54	11.44	104.60	99.79
Medium expenditure	13.47	11.77	35.46	70.22	13.40	11.47	50.68	69.18
High expenditure	15.6	14.95	142.38	101.76	14.6	12.6	117.04	108.52
All India average	13.2	12.2	114.75	84.93	13.3	11.5	103.39	91.30

TABLE 8: AVERAGE NUMBER OF DAYS STAYED IN THE HOSPITAL AND AVERAGE TOTAL EXPENDITURE (RS) FOR HOSPITAL TREATMENT PER PERSON HOSPITALISED FOR RURAL AND URBAN SECTORS

State Groups	Rural		Urban	
	Average Number of Days Stayed in the Hospital	Average Total Expenditure (Rs) for Hospital Treatment	Average Number of Days Stayed in the Hospital	Average Total Expenditure (Rs) for Hospital Treatment
Low expenditure group	15.97	891.06	14.27	1157.43
Medium expenditure group	13.53	828.11	12.17	1158.38
High expenditure group	18.20	800.28	14.20	834.99

TABLE 9(a): AVERAGE PAYMENT (RS) MADE TO HOSPITAL BY TYPE OF HOSPITAL, RURAL AND URBAN SECTORS (HOSPITALISED CASES)

Category	Rural			Urban		
	Government	Private	All	Government	Private	All
Low expenditure group	232.88	778.60	543.97	336.22	1133.67	800.92
Medium expenditure group	338.91	722.06	632.74	350.98	849.88	682.65
High expenditure group	513.37	856.44	599.07	366.09	1082.83	413.81
All India average	320.34	733.38	597.06	385.02	1206.01	933.33

cent, around 1 per cent, 1-1 per cent and 10-22 per cent. Observing that declining range is usually associated with higher levels of education, high range in the last category (namely, secondary and above) in urban areas possibly denotes more of lack of facilities. Rather than lack of awareness about them, it may also mean specific health needs emerging on account of better awareness.

At individual state level, influence of educational status comes out more prominently across the three groups. In fact, the pattern of untreated spells owing to non-availability across individual states suggests that beyond per capita health expenditure status, higher education levels tend to be uniformly associated with reduced range of respondents having received no treatment due to non-availability. Similar observation holds true for rural as well as urban areas. These observations indeed corroborate our earlier findings emerging from non-parametric analysis of published as well as primary data.²

In an analogous manner to education status significant differentials across scheduled castes (SC)/ scheduled tribes (ST) versus other castes are also observed. Both in rural and urban areas, untreated spells owing to non-availability factor remained very low in the categories of SC/ST respondents. The all-India range for the latter in rural areas, for instance, prevailed between 3-6 per cent (SC category) and 1-3 per cent (ST category), in contrast to general categories which was around 37 per cent.

Corresponding urban differentials (owing to caste) in untreated spells (due to non-availability) could also be considered as high observing the relative ranges relating to SC, ST and other castes which remained respectively as 0.31-4 per cent, 0.005-0.72 per cent and 53-62 per cent. Even state level variations across three expenditure groups depict uniformity in

pattern of influence emerging from caste factor.³

VI Insurance Status and Cost of Treatment

Paymentwise status of respondents also depicts that higher per capita government expenditure favoured more free in-patient facilities. In fact, as many as 33 per cent of rural and 27 per cent of urban respondents in high expenditure group of states availed free health care. Conversely, lowest percentage of free utilisation of health facilities in either rural (23.35 per cent) or urban areas (9.58 per cent) was observed for low expenditure states. Further, the pattern connotes that free utilisation was relatively more in rural areas relative to their counterparts (Table 6).

The coverage under employer's welfare scheme remained low. In rural areas it varied between 3.27 per cent (medium expenditure group) and 8.33 per cent (high expenditure group). In urban areas, similar coverage remained higher and ranged between 8.30 per cent (medium expenditure group) and 13.83 per cent (low expenditure states). Inclusive of both the non-payment categories, namely, 'no payment' and 'employers' medical welfare scheme', thus, approximately 40 per cent of respondents in either of urban or rural areas in high expenditure states utilised free health care. In low and medium expenditure states such free utilisation, however, ranged around 30 per cent.

It emerges, therefore, that nearly 60-70 per cent respondents availed health care at their own cost. This would imply that large amounts have been spent by household sector and the same in relation to governmental health care expenditure would provide better picture with regard to total per capita expenditure and households' spending pro-

pensity towards health care. Prior to such estimation, it is pertinent to look into some relevant aspects like average duration of stay, average expenditure per illness and per person hospitalised, payments made to hospital and the like.

In rural as well as urban areas, average duration of treated sickness in private sector is less than that of the average duration in government sector (Table 7). With exception of medium expenditure group, probably shorter duration is one of the factors which underlies lower treatment expenditure in private sector (Table 7). Simultaneously, longer duration of treated sickness in public hospitals could be considered indicative of over-use of government facilities. In this regard, however, there does not emerge any systematic pattern across the state groups (Table 7).

In terms of average duration of stay it is observed that rural respondents had longer stay in hospital (Table 8). This may be due to nature or quality of the treatment in rural areas. On the contrary, urban respondents following hospitalisation paid more than their rural counterparts (Table 8). In general, duration of stay varies between 13-18 days (in rural areas) and 12-14 days (in urban areas). Corresponding to it, hospitalisation expenditure ranged between Rs 800-891 (rural areas) and Rs 834-1158 (urban areas). Any pattern denoting systematic variation across the three expenditure groups was found non-existent (Table 8).

There prevailed, however, discernible systematic pattern across state groups, in regard to amount of payment made to government hospitals (Table 9(a)). These payments had a range of Rs 233-513 (rural areas) and Rs 336-66 (urban areas) and seemed to be rising as one moves from low to high expenditure states (Table 9). Comparable range in payments to private hospitals could be observed as Rs 722-856 and Rs

TABLE 9(b): ESTIMATES OF STATE GOVERNMENT AND HOUSEHOLD EXPENDITURE IN INDIA (ALL INDIA AND STATE GROUPS, 1986-87 AND 1990)

State Groups	1986-87 ¹					1990 ²					Difference (1986-90)				
	Per Capita State Government Expenditure	Per Capita House- hold Expenditure	Per Capita Total Expenditure	Govern- ment House- hold Expenditure (Per Cent)	HHE/ PCI (Per Cent)	Per Capita State Government Expenditure	Per Capita House- hold Expenditure	Per Capita Total Expenditure	Govern- ment House- hold Expenditure (Per Cent)	HHE/ PCI (Per Cent)	Per Capita State Government Expenditure	Per Capita House- hold Expenditure	Per Capita Total Expenditure	Govern- ment House- hold Expenditure (Per Cent)	HHE/ PCI (Per Cent)
Low expenditure group (38.07)	56.35 (61.93)	91.67 (61.93)	148.02	61.47	3.27	87.14 (36.02)	154.76 (63.97)	241.9	56.31 ^c	3.23	54.64	68.82	63.42	(-) 5.16	(-) 0.04
Med expenditure group (43.38)	61.48 (56.61)	80.23 (56.61)	141.71	76.63	2.59	132.62 (49.45)	135.54 (50.54)	268.16	97.85	3.02	115.71	68.93	189.23	21.22	0.43
High expenditure group (58.17)	169.67 (41.82)	122.00 (41.82)	291.67	139.07	4.08	276.40 (70.33)	116.62 (29.67)	393.02	237.01	1.12	62.90	(-) 4.40	34.75	97.94	(-) 2.96
All India average	62.18 (38.73)	98.36 (61.26)	160.54	63.22	2.95	116.52 (43.20)	153.19 (56.79)	269.71	76.06	3.12	87.39	55.74	68.00	12.84	0.17

Notes: HHE = Household expenditure (per capita), PCI = Per capita income.

Sources: 1 For state government expenditure, Health Information in India (1990).

2 For state government expenditure; Reddy K N (1990) and for household expenditure, NCAER (1990).

850-1134 (Table 9). It had no movement, however, in line with state expenditure groups (Table 9).

VII Cost of Health Care

An idea about cost of health care borne by government and households is provided in Table 9(b).⁴ In 1986-87, the states and households in India had spent together per capita an amount of Rs 160.54. Nearly 39 per cent of which came from state governments and the rest around 61 per cent came from households. Groupwise across states, the per capita expenditure was highest in the high expenditure group (Table 9(b)). An interesting feature to observe is that in low and medium expenditure groups, where state's health outlay is lower than high expenditure group, households contributed larger proportion to total per capita health expenditure. Thus in contrast to 42 per cent contribution in high expenditure group, households among low and medium expenditure groups had contributed respectively around 62 and 57 per cent (Table 9(b)).

In the duration between 1986 and 1990, per capita expenditure had risen almost by 68 per cent. On an average, in 1990, per capita health expenditure in India is estimated to be Rs 269.71. Of this, nearly 43 per cent came from state governments and around 57 per cent was from households. Across groups per capita outlay remained highest (Rs 393) for high expenditure states. Conversely the lowest (Rs 242) was observed for low expenditure states. Like the pattern in 1986, it was observed again that more household contribution to per capita outlay came forth in states with lower government spending (Table 9(a)).

Between 1986 and 1990, there has been general increase in both government and household components of health care expenditure (Table 9(a)). All-India average and group averages, however, depict that relative to households, state's contribution has gone up (Table 9(b)). The relative growth of state component (above the households counterpart) at all-India level remained around 13 per cent. Exceptional case of low expenditure states suggests, however, decline in state's contribution by around 5 per cent (Table 9(b)).

Another pertinent feature further emerging from above estimates in unchanging proportion of per capita income being spent by households. In both years, namely, 1986 and 1990, an average Indian household thus spent around 3 per cent of its per capita income (Table 9(a)). Except for high expenditure states, the change in this proportion between 1986 and 1990 has been marginal (Table 9(b)). Presumably this invariant pro-

pensity to spend on health care shows that Indian households treat health care as an essential commodity.

VIII Levels of Inequality in Utilisation of Health Care

The discussion in Section V highlights that besides government expenditure other factors, namely, education and caste status of respondents also have significant bearing upon awareness and thereby affect access and pattern in utilisation of health care facilities.⁵ However, as mentioned in Section VI in most instances, households have

been contributing more towards per capita health expenditure than the government. It is likely, therefore, that the ability to spend might have determined utilisation patterns of health care services. One way of looking into spending ability of households would be to categorise them into different expenditure fractile groups. With the presence of felt need for health care, willingness to spend matched with ability would determine access and utilisation in health care in favour of higher expenditure fractile groups. Existence of inequality caused on this count would be denoted by looking into ratio of uppermost to lowest expenditure fractiles. The value of this ratio exceeding unity would

TABLE 10(a)-PERCENTAGE DISTRIBUTION OF STATES WITH RATIO OF UPPER TO LOWER FRACTILES EXCEEDING UNITY, 1986-87

Particulars	Rural			Urban		
	LES	MES	HES	LES	MES	HES
Ratio of type of hospitals						
(a) Allopathy	58.34	33.34	-	8.33	-	-
(b) Homeopathy	16.67	33.34	-	8.33	-	-
(c) Ayurvedic	16.67	-	-	16.67	-	-
(d) Unani/Hakimi	8.33	-	-	8.33	-	-
(e) Any combination	8.33	-	-	16.67	-	-
(f) Others	8.33	-	-	16.67	-	-
(g) All	58.33	33.34	-	8.34	-	-
Percentage distribution of treatment (not as in-patient) for system of medicines						
(a) Allopathy	16.67	-	-	25	33.34	-
(b) Homeopathy	41.67	-	100	33.34	33.34	-
(c) Ayurvedic	66.67	33.34	50	75	66.67	50
(d) Unani/Hakimi	16.67	66.67	100	33.34	33.34	50
(e) Any combination	-	-	-	-	33.34	-
(f) Others	50	66.67	50	58.34	33.34	50
(g) All	16.67	-	-	16.67	-	-
OPD by source of treatment						
(a) Public hospital	33.34	-	-	16.67	33.34	-
(b) Private hospital	41.67	66.67	-	58.34	66.67	50
(c) Nursing home	33.34	33.34	-	50	66.67	-
(d) Charitable institution	50	33.34	-	50	-	50
(e) PHC	33.34	33.34	50	83.34	33.34	100
(f) Public dispensary	58.34	33.34	100	58.34	33.34	-
(g) Private doctor	41.67	33.34	-	16.66	33.34	50
(h) ESI doctor	33.34	66.67	100	41.66	33.34	50
(i) Others	33.34	33.34	-	75	100	50
(j) All	25	-	-	16.67	-	-
Percentage distribution of treatment (not as in-patient) by payment category and average amount of payment						
(a) No payment	33.34	-	-	9.09	-	-
(b) Under employer's welfare scheme	77.78	33.34	50	60.00	-	50
(c) Reporting payment to institutions	-	-	-	-	-	-
i) Government	50	33.34	-	20	-	50
ii) Private	33.34	66.67	50	45.50	33.34	50
iii) All	41.67	66.67	-	25	33.34	50
Estimated number of hospitalised persons by sex						
i) Male	81.82	66.67	-	9.09	-	-
ii) Female	63.64	-	50.00	18.08	-	-

Note: LES, MES, and HES denote respectively low, medium and high expenditure states.

denote an existence of inequality and bias in favour of higher expenditure group of respondents within any state. These results for each group of states pertaining to different aspects are presented in Table 10.

These ratios reveal notable prevalence of inequality among all groups of states in regard to pattern of utilisation and expenditure on health care facilities. The main features depicted through analysis of these ratios include the following: (a) In rural areas, as many as 58 and 33 per cent of states respectively among low and medium expenditure groups depicted higher utilisation of allopathy system of hospital by upper fractile groups. In this regard, urban areas, however, have lower degree of inequality (Table 10(a)). (b) Distribution of OPD by system of medicines suggests higher utilisation among low expenditure states by upper fractile urban respondents in four systems, namely, allopathy, ayurvedic, unani/hakimi and others. The same was true in medium expenditure states relating to ayurvedic system only. Among rural respondents evidence suggests systems like homeopathy (among low expenditure states) and unani/hakimi (among medium expenditure states) to have been utilised more by upper fractiles. Generally, upper fractile groups in high expenditure states and particularly rural OPD respondents seemed to have derived more access in homeopathy and unani/hakimi systems (Table 10(a)). (c) Viewed across different sources of treatment (namely, public, private, etc), pattern of utilisation favouring upper fractile groups is found more dominant in low expenditure groups (Table 10(a), item 3). In most of the state groups rural respondents in upper fractile groups seemed to be visiting more public hospitals, dispensaries, private and ESI doctors. Urban upper fractile respondents utilised relatively more of facilities at private hospitals and nursing homes (Table 10(a)). (d) Distribution of rural OPD respondents by payment categories in both low and medium expenditure groups of states depicts that respondents in upper fractiles utilised more facilities in any of the payment or non-payment categories (Table 10(a), item 4). However, in high expenditure states disparity is observed only among urban respondents who paid for health services in private institutions. (e) It is observed that males in rural upper fractiles among low and medium expenditure states had utilised more of in-patient facilities. In contrast, females from rural upper fractiles of high expenditure states and urban upper fractiles among low expenditure states had availed of more in-patient facilities (Table 10(a), item 5). (f) Ability to pay for services had considerable influence in availing health services both in public and private sectors. A cursory glance at comparative figures for average payments made to

government and private institutions reveals that, except rural OPD in medium and high expenditure group, upper fractiles paid more than twice their counterparts (Table 10(b), item 1). Further it is observed that though there was marginal difference between stay days of upper and lower fractiles in either of wards in government or private hospitals, the upper fractiles generally spent around twice or more during their hospital stay (Table 10(b), items 2 and 3).

IX

Conclusions and Policy Implications

The utilisation of health services has been discussed in this study from various angles. The degree of utilisation is seen through a comparative picture across three state categories, viz, low, medium and high expenditure groups. The possible reasons for different degrees of utilisation have been also discussed. The main findings of the study and their implications in regard to the National Health Policy are summarised as follows:

(i) In accordance with the guidelines of the National Health Policy, the planned efforts in the country have also led to the development and increased utilisation of Indian and other non-allopathic systems of medicines. This is revealed through, for instance, by increased percentage of respondents utilising these systems. The percent-

age utilisation of homeopathy, for instance, has gone up by around 10 per cent in rural as well as urban areas. In a similar way the percentage utilisation of ayurvedic system has risen by 7 and 2 per cent in rural and urban areas respectively. This suggests that the thrust in the National Health Policy to encourage indigenous systems has indeed helped in the development of these systems.

(ii) The level of governmental expenditure had direct influence on the availability as well as utilisation of various health facilities in the country. As such, the level of utilisation has been higher in states which have relatively higher per capita expenditure on health care. On the contrary, the states with lower per capita governmental expenditures have depicted lower levels of utilisation.

(iii) It has been observed that majority of out-patients had utilised the services of private doctors. This is followed by utilisation of public and private hospitals. The inpatient care, however, has been availed more at the public hospitals. The pattern thus indicates that the government institutions have been utilised more for getting inpatient care. This suggests that unlike the policy guidelines the role of lower level government institutions, like PHCs, has not increased. The reasons for this include lack of adequate facilities in such institutions and the presence of proportionately high numbers of private practitioners working in

TABLE 10(b): RATIO OF ACTUAL MAGNITUDES FOR UPPER TO LOWER FRACTILES, 1986-87

Particulars	Rural			Urban		
	LES	MES	HES	LES	MES	HES
Average payment (Rs 0.00) to source of treatment (OPD)						
i) Government institutions	1.10	5.52	2.00	2.53	1.03	0.34
ii) Private institutions	2.10	1.00	0.30	2.23	2.94	-
iii) All	1.30	1.67	1.88	2.10	2.82	0.44
Average number of days in the hospital and average total expenditure						
Government hospital (days stayed)						
i) Free ward	1.24	1.72	0.44	0.79	1.16	0.75
ii) Paying general ward	1.32	0.00	1.39	1.21	1.17	0.00
iii) Paying special ward	2.18	0.00	0.00	0.24	0.65	0.00
Private hospital (days stayed)						
i) Free ward	1.72	0.88	1.80	1.48	0.78	0.00
ii) Paying general ward	1.03	1.13	1.36	1.02	1.14	0.00
iii) Paying special ward	0.90	2.34	0.00	1.12	0.80	1.20
Average total expenditure (Rs) per hospitalised case						
Government hospital						
i) Free ward	1.53	0.85	0.63	1.30	2.49	1.40
ii) Paying general ward	0.83	0.00	0.26	3.21	1.76	0.00
iii) Paying special ward	1.59	0.00	0.00	2.09	1.04	0.00
Private hospital						
i) Free ward	1.12	0.39	0.00	1.86	68.35	0.00
ii) Paying general ward	1.43	0.80	0.89	2.96	0.91	12.45
iii) Paying special ward	1.62	1.83	0.00	0.84	1.96	1.55

Note: LES, MES and HES denote low, medium and high expenditure states respectively.

rural as urban parts of the country. Even the information available from the latter survey of NCAER also suggests that between the years 1987-90 there has been no substantial change in this pattern of utilisation.

(iv) The distribution of in-patients across three types of wards, namely, free, general and special, also suggests that the free wards of public health institutions, namely, public hospitals and PHCs, have been utilised more in each of the state groups. Unlike this the other types of wards, namely, paying general as well as paying special, have been utilised more at the non-governmental institutions. This outcome in terms of ward utilisation has been in line with the policy guidelines which suggest that expensive tertiary care should be encouraged more in private sector.

(v) It is observed that the utilisation levels in OPD as well as in-patient services have been higher in rural areas relative to their urban counterparts. The pattern in rural areas also bears an inverse correspondence with the level of government expenditure on health. In the high expenditure group of states, for instance, both OPD and in-patient utilisation has been lower than their counterparts in other expenditure groups. It, therefore, emerges that more of the per capita expenditure on health in high expenditure states is going towards expensive care in urban sector.

(vi) The breakup of health facilities, in terms of five items, namely, medicines, X-ray/ECG/EEG, any other diagnostic treatment, surgical treatment, and any other treatment, depicts wider spread of private sector in OPD care and the latter has come forth more in rural areas.

It is also observed that whenever government expenditure is higher, for instance, in high expenditure group of states, the private sector has shown a decline in its *pro rata* contribution to health facilities. The analysis across three expenditure group of states denotes that crowding out of private health sector is evident with levels of government expenditure growing beyond a certain point.

(vii) The analysis of reasons for untreated spells of sickness suggests that non-availability and financial reasons remained more prominent in rural areas due to factors like low education and preferential treatment for SC/ST.

(viii) It is interesting to observe that the households in India have tended to consider the health care as one of the necessary commodity. This observation emerges from the fact that in both the years, namely, 1986-87 and 1990, the proportion of households income being spent on health has remained almost invariant around 3 per cent. The states where the government expenditure levels have been lower, the households have tended to spend more. This suggests that there seems to be some 'minimum' expen-

diture level which has been maintained through households invariant spending propensity. This situation, coupled with the fact that the coverage of health insurance across different groups of states has remained only around 3-8 per cent, suggests an urgent need for initiating appropriate insurance schemes which has also been highlighted in the health policy document.

(ix) It is generally observed that duration and cost of hospital treatment in government sector has been higher than the private sector hospitals. In this regard, the latter survey of NCAER indicates that cost of hospital treatment in urban areas has gone up relative to the rural counterparts. Consequently the rural-urban disparity in terms of treatment cost in private sector has indeed widened. This may be attributed to the capital-intensive nature of specialities in private urban hospitals. Though the overall resource implication of such outcomes are debatable, yet it falls in line with the National Health Policy's objective to encourage private sector's participation in expensive type of care, that may avoid diversion of government funds from cheaper and essential primary health care.

To sum up, our analysis of macro-level information suggests that the pattern of utilisation in our country had some of the desirable outcomes in terms of: (a) growing popularity of indigenous non-allopathic systems and (b) growth in private sector's involvement in expensive tertiary care. Nonetheless, as against the National Health Policy guidelines it is distressing to note that, the regional disparities in health service utilisation among different expenditure groups of states as well as rural-urban disparities tend to continue. Further, in spite of inadequacy of health services and prevalence of inequality in utilisation, there has been no serious governmental initiative to encourage appropriate utilisation by means of devising health insurance and other cost recovery mechanisms. There lies, therefore, an urgent need to look carefully into some of these aspects such that the policy guidelines could be really implemented in a satisfactory manner.

Notes

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- 1 In urban areas, however, almost similar attendance rates relating to private doctors (52 per cent) is noticeable both for low expenditure as well as high expenditure states.
- 2 See, for instance, Purohit and Siddiqui (1993).
- 3 The influence of caste factor in availing health care using primary data is also highlighted in other studies. See, for instance, Purohit et al (1992) and Purohit and Siddiqui (1993).
- 4 For an earlier estimate of health expenditure in the year 1984-85, see, for instance, Giridhar et al (1987).

- 5 Further "So long as poverty remains, the issue of equity in health care is kept alive" (see, for instance, Mueller 1986, p 131).

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