Original Article

A RETROSPECTION ON THE HEALTH INFRASTRUCTURE IN KARNATAKA

Nanjunda DC

Corresponding Author:
UGC-CSSEIP Research Centre, Mysore University, Mysore
Email: anthroedit@ymail.com

ABSTRACT

Public health and hospitals fall in the State list, others such as population control and family welfare, medical education, and quality control of drugs are included in the Concurrent list. The Union Ministry of Health and Family Welfare (UMHFW) is the central authority responsible for implementation of various programmes and schemes in areas of family welfare, prevention, and control of major diseases. In the case of health the term infrastructure takes on a wider role than mere physical infrastructure. Healthcare centres, dispensaries, or hospitals need to be manned by well trained staff with a service perspective. In this chapter we include medical staff health infrastructure is an important indicator for under standing the health care policy and welfare mechanism in a country. It signifies the investment priority with regards to the creation of health care facilities. India has one of the largest populations in the world; coupled with this wide spread poverty becomes a serious problem in India

Key words: Health, Infrastructure, Development , Hospital

Introduction

The health infrastructures have been neglected since a long time. Various Governments also are giving low priorities for the health issues. Even after introducing NRHM and NUHM (National Urban Health Mission) programme situation has not completely improved. Reduction of funding for rural development in India in the budget also can be seen. Also rural and urban areas are facing the shortage of doctors and other paramedical staff. In some part of the rural areas none of the PHCs are having any good facility.

A striking feature of India's healthcare system is the significant and growing role of the private sector in healthcare delivery and total healthcare expenditures. Public health expenditure accounts for less than 1 percent of GDP compared to 3 percent of GDP for developing countries and 5 percent for high income countries. The private healthcare sector in India accounts for over 75 percent of total healthcare expenditure in the country and is one of the largest in the world. An estimated 60 percent of hospitals, 75 percent of dispensaries, and 80 percent of all qualified doctors are in the private sector. However, private healthcare delivery is highly fragmented with over 90 percent of private healthcare being serviced by the unorganized sector, according to a recent consulting firm report.[1] Some 2 to 3 percent of hospitals are 200-bed plus, some 6-7 percent are 100-200 bed size hospitals, and the bulk 80 percent of private sector hospitals are very small, less than 30 beds.

Studies by the Central Bureau of Health Intelligence[2] have shown that a majority of Indians trust private healthcare despite a higher average cost of US$ 4.3 compared to US$ 2.7 in government-owned healthcare agencies. Only 23.5 percent of urban residents and 30.6 percent of rural residents choose government facilities, reflecting the widespread lack of confidence

in the public healthcare system. The private sector's role is expected to grow in the future. It is estimated that out of the 1 million beds to be added by 2012, the private sector will contribute 896,000 beds. Government spending on healthcare infrastructure (excluding land) is projected to rise only marginally, by 0.12 percent of GDP and is expected to meet only 12 percent of the huge investment required in the healthcare sector, with the private sector providing some 88 percent of investment requirements.[3] Hence, the private sector will be a key player in driving the future growth of India's healthcare sector, including in segments such as hospitals, wing demand and to compare favorably with international standards.

Table-1: Bird view of Rural Health Care Service in Karnataka

Sl. No.	**Availability of Man power Resources in Rural Health Centers**	**%**
1	Sub Centers	24.6
2	PHCs	66.8
3	Resident ANM	54.2
4	Male Health Workers	6.9
5	Female Health Workers	62.5
6	Availability of Additional ANM's	37.5
7	Deficit of ANM's	53.9
8	24×7 Delivery Services	37.5
9	Trained ANM	95.9
10	Estimated Expenditure on Primary Health Center	83.3
11	Availability of Total Specialists	8.9
12	AYSUH Facility	10.0
13	Total Number of Primary Health Centers	250
14	Availability of Surgeons	10.0
15	Availability of General Specialists	25.0
16	Gyenics	4.0
17	Pediatrics	25.0
18	Doctors in Sub-Centers	25.0
19	Anesthesia	1.0
20	General facility	8. 0

Source: ***NRHM Report, 2009***

Table- 2: Division wise Selected Health Infrastructure Facilities in Karnataka, 2010

Item		Belgaum	Gulbarga	Bangalore	Mysore	North	South	Karnataka
Facilities								
Per 10 Lakh Population	District and other Hospitals	0.9 (4)	1 (3)	1.2 (2)	1.4 (1)	1	1.3	1.1
	Community Health Centres	5.5 (3)	6.5 (2)	3.4 (4)	7.4 (1)	5.9	4.8	5.3
	PHCs and Sub Centres	154 (2)	142 (3)	135 (4)	271 (1)	149	184	169
	Total Beds	**764 (3)**	**789 (2)**	**737 (4)**	**1196 (1)**	**775**	**901**	**847**
Per 10 thousand sq KMs area	District and other Hospitals	2.6 (3)	2.5 (4)	5.4 (1)	3.9 (2)	2.5	4.7	3.6
	Community Health Centres	14.9 (4)	16.6 (2)	15.5 (3)	21.4 (1)	15.6	18.2	16.9
	PHCs and Sub Centres	418 (3)	365 (4)	614 (2)	783 (1)	394	693	539
	Total Beds	**2070 (3)**	**2019 (4)**	**3337 (2)**	**3455 (1)**	**2047**	**3392**	**2701**
Status								
Infant mortality rate		47.6 (1)	47.3 (2)	38.4 (4)	42.7 (3)	47.5	40.4	43.3
Life expectancy at birth		65.6 (4)	66.6 (3)	68.6 (1)	67.4 (2)	66.0	68.1	67.2

Note: Figures in the Parenthesis are Ranks

Source: ***Computed from the data available from Karnataka at a Glance, 2011***

Table - 3: District wise Health number of different health Infrastructure Facilities, Population and area Sq. KMs, 2010

District	District and other Hospitals	C.H.C.*	PHCs and Sub Centres	Total Beds	Population	Area (Sq. Kms.)
Bagalkot	1	12	271	1108	1890826	6594
Belgaum	1	24	686	2876	4778439	13415
Bellary	6	13	343	2696	2532383	8419
Bidar	1	10	285	1230	1700018	5448
Bijapur	2	12	349	1474	2175102	10475
Dharwad	4	3	211	1902	1846993	4230
Gadag	3	6	209	858	1065235	4657
Gulbarga	1	30	505	2860	3737877	16224
Haveri	1	11	358	1131	1580506	4851
Koppal	2	11	229	896	1391292	8458
Raichur	1	9	249	1226	1924773	5559
Uttara Kannada	2	13	199	1940	1436847	10291
Bangalore	12	6	258	4968	9588910	2190
Bangalore Rural	1	3	238	613	987257	936
Chamarajanagar	1	6	303	1040	1020962	5685
Chikkaballapura	1	7	240	948	1254377	1324
Chikmagalur	2	10	423	1478	1137753	7201
Chitradurga	1	15	359	1562	1660378	8388
Dakshina Kannada	3	10	498	2009	2083625	4843
Davanagere	3	9	394	2096	1946905	6018
Hassan	1	21	545	2792	1776221	6814
Kodagu	2	8	220	1207	554762	4102
Kolar	5	6	262	1712	1540231	8223
Mandya	2	11	483	1930	1808680	4961
Mysore	4	17	569	3553	2994744	6269
Ramanagara	1	7	294	799	1082739	3555
Shimoga	2	11	396	1807	1755512	8465
Tumkur	1	13	612	2082	2681449	10598
Udupi	2	10	365	1014	1177908	3598
North	25	154	3894	20197	26060291	98621
South	44	170	6459	31610	35052413	93170
Karnataka	69	324	10353	51807	61130704	191791

Note : * CHC = Community Health Centre

Source: ***Karnataka at a Glance, 2011***

Table- 4: District wise Normalized Indicators on Health Infrastructure Facilities in Karnataka, 2010

Name	District & other Hospt's	CHC*	PHCs & Sub Centres	Total Beds	District & other Hospt'	CHC*	PHCs & Sub-Centres	Total Beds	Index	Index Rank
Bagalkot	0.47	1.20	0.85	0.69	0.42	1.08	0.76	0.62	**0.76**	25
Belgaum	0.19	0.95	0.85	0.71	0.21	1.06	0.95	0.79	**0.71**	29
Bellary	2.10	0.97	0.80	1.26	1.98	0.91	0.75	1.19	**1.24**	11
Bidar	0.52	1.11	0.99	0.85	0.51	1.09	0.97	0.84	**0.86**	22
Bijapur	0.81	1.04	0.95	0.80	0.53	0.68	0.62	0.52	**0.74**	27
Dharwad	1.92	0.31	0.67	1.22	2.63	0.42	0.92	1.66	**1.22**	12
Gadag	2.50	1.06	1.16	0.95	1.79	0.76	0.83	0.68	**1.22**	13
Gulbarga	0.24	1.51	0.80	0.90	0.17	1.09	0.58	0.65	**0.74**	28
Haveri	0.56	1.31	1.34	0.84	0.57	1.34	1.37	0.86	**1.03**	17
Koppal	1.27	1.49	0.97	0.76	0.66	0.77	0.50	0.39	**0.85**	23
Raichur	0.46	0.88	0.76	0.75	0.50	0.96	0.83	0.82	**0.75**	26
Uttara Kannada	1.23	1.71	0.82	1.59	0.54	0.75	0.36	0.70	**0.96**	20
Bangalore	1.11	0.12	0.16	0.61	15.23	1.62	2.18	8.40	**3.68**	1
Bangalore Rural	0.90	0.57	1.42	0.73	2.97	1.90	4.71	2.42	**1.95**	2
Chamaraja Nagar	0.87	1.11	1.75	1.20	0.49	0.62	0.99	0.68	**0.96**	19
Chikkaballa-Pura	0.71	1.05	1.13	0.89	2.10	3.13	3.36	2.65	**1.88**	4
Chikmagalur	1.56	1.66	2.20	1.53	0.77	0.82	1.09	0.76	**1.30**	10
Chitradurga	0.53	1.70	1.28	1.11	0.33	1.06	0.79	0.69	**0.94**	21
Dakshina Kannada	1.28	0.91	1.41	1.14	1.72	1.22	1.90	1.54	**1.39**	8
Davanagere	1.37	0.87	1.19	1.27	1.39	0.89	1.21	1.29	**1.18**	14
Hassan	0.50	2.23	1.81	1.85	0.41	1.82	1.48	1.52	**1.45**	7
Kodagu	3.19	2.72	2.34	2.57	1.36	1.15	0.99	1.09	**1.93**	3
Kolar	2.88	0.73	1.00	1.31	1.69	0.43	0.59	0.77	**1.18**	15
Mandya	0.98	1.15	1.58	1.26	1.12	1.31	1.80	1.44	**1.33**	9
Mysore	1.18	1.07	1.12	1.40	1.77	1.61	1.68	2.10	**1.49**	6
Ramanagara	0.82	1.22	1.60	0.87	0.78	1.17	1.53	0.83	**1.10**	16
Shimoga	1.01	1.18	1.33	1.21	0.66	0.77	0.87	0.79	**0.98**	18
Tumkur	0.33	0.91	1.35	0.92	0.26	0.73	1.07	0.73	**0.79**	24
Udupi	1.50	1.60	1.83	1.02	1.55	1.65	1.88	1.04	**1.51**	5
Karnataka	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	**1.00**	---
North	0.85	1.11	0.88	0.91	0.70	0.92	0.73	0.76	**0.86**	---
South	1.11	0.92	1.09	1.06	1.31	1.08	1.28	1.26	**1.14**	---

Note : * CHC = Community Health Centre

Source: ***Karnataka at a Glance, 2011***

DECENTRALIZATION OF HEALTH GOVERNANCE

Primary Health Centers: The primary health centre should have a building with water, electricity, and toilet facilities. In addition, it must also have a labour room, telephone connection, one vehicle, and at least one bed. As compared to the sub-centres more than 70 percent PHCs have own buildings in the states except for Uttar Pradesh where only about 60 per cent of the PHCs have own building. From Table 8 it is observed that the infrastructure is poor with respect to availability of water, labour room, and to a certain extent vehicle also. Comparing the facilities of infrastructure in PHCs in all states, all four southern states, Gujarat and Maharashtra are well equipped with all the necessary facilities. The percentage of PHCs with labour room, telephone, and vehicle facility is very low in the low income and high poverty states namely Bihar, Chattisgarh, Jharkhand, M.P, Orissa, Rajasthan, and U.P. PHCs with at least one bed account for more than 70 per cent of total in all states except Assam, Bihar, Chattisgarh, M.P., and West Bengal.

Community Health Centres (CHC): Community health centers are located at the Block or Tehsil level head quarters. The infrastructural facility at each CHC is larger as compared to PHC. This includes electricity generation, operation theatre, specialized OPD, and linkage with blood bank. By and large, we observe that the CHC are equipped with basic facilities such as water, electricity, telephone, and vehicle. They however, lack the other specialized facilities such as operation theatre, specialized OPD, and linkage with blood bank. This is true across all the states irrespective of their levels of development

India at presently undergoing for two developed paradigms having the potential to considerably get better the health of its people. The first is the mounting identification of drawbacks' in public delivery of health services is in catastrophe. And the second is India's massive hard work to reinforce rural health care through the decentralization to local Governments Panchayat Raj Institutions (PRI). It is argued that that these two presumably separate trends can converge to generate real reform in the health sector in India through the potential for increased accountability that local government scan provide.[4] The real concept is that decentralization brings governments closer to people thus allowing them to act in response additional efficiently to local health needs and preferences. Studies on rural decentralization even argued that decentralization is a misnomer in Karnataka. In the health sector, decentralization has been clearly played a vital role in the chain of service delivery under the National Rural Health Mission (NRHM). Thus efforts at rural decentralization (73rd Amendment) have been undertaken within the context of strengthening accountability in governance structures. "Moreover, proximity encourages better monitoring and enforcement. In the specific context of the health sector, a decentralized institutional structure that emphasizes a bottom up, participatory approach can indeed help to redress some of the key failings in the sector such as absenteeism and corruption by strengthening accountability through NRHM programme".[4] Experts felt there is a need of having more research study to find out capacities of Panchayatraj Institutions to manage the grass root health system in Karnataka state and to find out does the degree of decentralization under the NRHM correlate strongly with perceived decision space of Health officials and PRI members at the District level and below .

The PRIs are seen critical to the planning, implementation, and monitoring of the NRHM. The success of NRHM significantly depends on the well

functioning Gram, Block and District level Panchayats. A village health committee is an integral part of every Panchayat. The PRIs through village health committees to create a link between the Gram Panchayat and the community. The village health committee is expected to prepare a village health plan and maintain village level data supervised by the Gram Panchayat. Engaging the Gram Panchayat and other smaller groups in the planning and monitoring of the Village Health Plan enforces transparency and accountability within the programme.

Indian health care delivery system has a long history which can be traced back to British era. It looks very sound on paper in terms of policy formulations and health programme planning. But a careful evaluation of impact of these policies and programmes show that the results are far from satisfactory. Indian health system is ranked 118 among 191 WHO member countries on overall health performance. The key issues are availability, access, affordability, quality, equity and efficiency. Health is a priority goal in its own right, as well as a central input into economic development and poverty reduction. India's health system is at crossroads today. The third wave of healthcare is upon us. The first wave was the government run healthcare delivery model. The influx of private players defined the second. Now a discerning and interconnected nation demands a new incarnation, that will transform the very ground rules of healthcare and that will catalyze its participants to engage with a billion plus people across the length and breadth of our diverse nation.

Conclusion:

Key factors that adversely affect the functioning of the public health system are poor management of resources and centralized decision-making, low budgets, irregular supplies, large-scale absenteeism, corruption, absence of performance-based monitoring and conflicting job roles making accountability problematic. There is a real need for HRD policies related to recruitment, promotion, transfer and training. The demoralization and deionization that exists among the workforce must be countered by enhancing professional competencies and career opportunities. The neglect in developing the required skill mix and in particular public health expertise is hindering us from achieving national health goals

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