International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2020): 7.803

Spatial Organization and Availability of Health Care Facilities

Shruti Pandey

Govind Ballabh Pant Social Science Research Institute, Jhusi, Pryagraaj, India
Email: *shrutipandey88[at]gmail.com*

Abstract: ***The spatial organization of the HCFs denotes the way services are organized on a particular geographical unit. In the spatial organization the focus is not only on the points of study on a horizontal surface. It also encompasses the hierarchical level of provision of HCFs both in a geographical and administrative area. With this in the study of spatial organization the distance between the two points of the study was also covered. The spatial patterning of availability however studies the distribution of HCFs vis - à - vis spatial distribution of population. In this context the paper explains the structure of HCFs in the country in general and particularly the state of Uttar Pradesh from the point of hierarchy of provision of various level of health care facilities and their administrative structure It also attempts to indicate the possible implication of the existing patterns in terms of their availability, accessibility and utilization.***

Keywords: availability, accessibility, utilization, location, Organization

1. Introduction

The health care infrastructure in India is consisted at three hierarchical levels. The first one is primary health care, second one is secondary and third one is at tertiary level. At all the three hierarchical levels services are provided by both public as well as private health care system. Role of public health care system in providing health care facilities to rural areas become important due to its norm to provide both preventive as well as curative type of services. In private healthcare system no doubt curative services are better than public health care system but their role is minimized when we see their contribution in promotion of preventive cure. In India Role of state in provision of health care facilities is important because health is a state subject in our constitution. State has the prime responsibility in providing the health care services to its citizens as per the constitution of India. In this regard delivery of public health care services has been operating in India from national to the state and district level and even in the village level. Health administration is considered as an essential element of proper delivery of health care services. It is the administration that organizes, manages and regulates the health services which is curative, promotive and preventive to become reachable to the masses. Accordingly at national level the administration of health services are such that there is a department of health, a ministry of health and a technical wing to support the health department. There is Union Ministry of Health and Family Welfare consisting of three departments, viz. Health, Family Welfare, and Indian System of Medicine and Homeopathy, headed by two Secretaries, one for Health and Family Welfare and the other for Indian System of Medicine and Homeopathy. The Directorate General of Health Services headed by Director General of Health Services (DGHS) supports the department of health. Similarly in the state level there exist a State Department of Health and Family Welfare which is headed by Minister and a Secretariat. Like central level there is also State Directorate of Health Services which is acting as a technical wing to support the State Department of Health and Family Welfare. However, the organizational structure of health is not uniform in all the states throughout the country.

In Uttar Pradesh for the delivery of health care services to the people, public health care has been organized at three levels - central level, intermediate level and primary level. Regional hospitals, medical college hospitals and specialized hospitals mainly constitute the central level institutions for delivery of health care, and these are usually located in the urban areas. Here the health care consists not only highly specials care, but sustain primary health care as a part of comprehensive national health system. At the secondary level there exists sub divisional and district hospitals and provides support to the primary health care institutions. The third level that is the primary level is very much concerned with the rural areas. The delivery of health care in the rural areas constitutes the primary level. The primary level is the point of contact between individuals and the health system. The primary level of the health care system is also called as rural health care system.

1.1 Structure of Public Health Care Facilities in Rural Areas

The available rural health care delivery system of India comes in three major types. One is the public health system, and the others are the private health system, and the network of traditional healers. These three come together to form the rural health - care delivery system of the country. However the public health care system is the prime source of health delivery system in the country.

The government of India has established the public health system throughout the country to reach each and every poor and unprivileged class and the areas with the basic health facilities. The network of public health centres is found extensively spread over the rural areas in the form of three tier system of a) sub - centre (SC), b) primary health centre (PHC) and c) community health centre (CHC). These health centres are established with the aim of providing primary health care available to and accessible for the rural masses. The structure and the available facilities in SC, PHC and CHC are:

a) Sub - Centre

Sub - Centre lies at the bottom of the pyramid of health care system in the rural areas. It is the first contact point of the community for primary health care. The standard norms of sub - centres are for each 5000 population in the plain areas and in the hilly/tribal/difficult areas the population norms for each sub centre is 3000. The sub - centers have to perform the tasks relating to interpersonal communication in order to bring about behavioral change in the health practices. It provide services in to maternal and child health, family welfare, nutrition, immunization, diarrhea control and control of communicable diseases. The sub centres are provided with some basic infrastructure of man power or health attendants and some essential drugs for minor ailments and for the need of taking care of immediate health needs of men, women and children. In each sub - centre there is one auxiliary nurse midwife (ANM) and one multipurpose worker (MPW), one lady health visitor (LHV) is entrusted with the task of supervision of six Sub - Centers.

b) Primary Health Centre

The PHC is the first contact point between village community and the Medical Officer. These were envisaged to provide an integrated curative and preventive health care to the rural Population with emphasis on preventive and promotive aspects of health care. The population norm for each PHC in plain areas is 30, 000 and for the hilly, tribal or difficult area is 20, 000. The PHCs are established and maintained by the State Governments. At present, a PHC is manned by a Medical Officer supported by 14 paramedical and other staffs. It acts as a referral unit for 6 Sub Centres. It has 4 - 6 beds for patients. The activities of PHC involve curative, preventive, primitive and family welfare services. Many rural dispensaries have been upgraded to create these PHCs. There exists fifteen numbers of staffs in primary health centre who are one medical officer, one pharmacist, one nurse, one health worker (female) or auxiliary nurse midwife (ANM), one health educator, one health assistant (male), one health assistant (female) or lady health visitor (LHV), one upper division clerk, one lower division clerk, one laboratory technician, one driver (subject to availability of vehicle) and four class IV grade clerk.

c) Community Health Centre:

The CHCs are being established and maintained by the State Government under Minimum Needs Programme. The population norm for each community centre in plain areas is 1, 20, 000 and for the hilly, tribal or difficult area is 80, 000. It is manned by four medical specialists i. e. surgeon, physician, gynecologist and pediatrician supported by 21 paramedical and other staff. It has 30 in - door beds with one operation theatre, xray, labour room and laboratory facilities. It serves as a referral for 4 PHCs and also provides facilities for obstetric care and specialist consultations. Though these public health centers are to provide health facilities to the rural masses but it is found that these health centres are suffering from weak infrastructure, scanty fund, under staffed etc. All these make delivery of health services poor and thereby reduce the demand for public health facilities.

d) Traditional Healthcare:

Existence of traditional healers and their health services is another significant health care practices prevailing in rural areas of India. In the system of rural health care delivery traditional practices have a great importance. There are different types of traditional health practices. Homeopathy, Ayurvedic care, Unani, Siddha, and Bopha are just a few 77 types of these traditional medicine practices and are very much alive in many parts of our country. These traditional healers however, are the most preferable source of medical relief in the rural areas. The rural populations have a great belief in this traditional practice and thus still these practices are prevailing amongst them. Some of the traditional practices have become a culture of rural Indian society. Ayurveda commonly defined as the 'knowledge of life' is the most traditional medical system of India and has been practiced widely throughout the country from time immemorial. Such of these practices have become an inseparable part of life. The traditional medicine has focused on maintaining health through healthy living. It is to be mentioned that by working with these healers, and teaching them how to diagnose and treat the more common illnesses in rural India, some doctors and NGO's are successful in creating new pathways to treatment. However, as India continues to globalize, rural populations are having to battle with unsafe drinking water, polluted air, lack of nutritious food, leading to the breakdown of traditional communities.

As the time passed these practices are losing their importance and are confined to only few both in terms of demand for and supply of these health care. These traditional healers being an important part of the medical system in India cannot be treated as backdated as the country moves forward, and thus, the government of India has given priority in development of these practices in its different plans. In the First Five Year Plan the need of development of the indigenous systems of medicine was felt and importance was given on research into all its aspects. Urgency was felt to clear the existence of great uncertainty prevailing about the position and the future course of development of indigenous systems, homeopathy and nature care. From Seventh plan onwards a significant emphasis was given on popularization and development of Indian System of medicine. During the period of Eight Five Year Plan, the Department of Indian Medicine and Homeopathy was created which on 2003 renamed as the Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH). The department was established with the main objectives of up gradation of AYUSH educational standards, quality control and standardization of drugs, improving the availability of medicinal plant material, research and development and awareness generation about the efficacy of the systems domestically and internationally. In the mid of Tenth Five Year Plan, under NRHM, mainstreaming AYUSH with public health care system is remarkable. The mission took the steps to revitalize local health traditions, developed AYUSH infrastructure, manpower, make AYUSH medications available in the village level public health centres, etc. All these led to the development of the indigenous traditional health practices and also strengthened the delivery of public health care services.

The healthcare system in rural India runs as a three - tier system based on the following population norms: in plain areas, every sub - centre covers a population of 5000 and in

hilly or tribal areas it covers only a population of 3000. Likewise, the primary health centers and community health centers also covered a definite proportion of the population. A primary health center covers 30, 000 populations in plain areas against the 20, 000 of the population in hilly or tribal areas. According to the area, community health centers (CHC's) also have a different population norm. In plain areas, a CHC covers a population of 1, 20, 000 while in hilly areas this proportion of the population is limited only to 80, 000.

Table 1: Population norms for Health Infrastructure in Rural India (Public Sector)

Centre	Population Norms	
	Plain areas	Hilly /Tribal Areas
Sub centre (SC)	5000	3000
Primary Health Centre (PHC)	30000	20000
Community Health Centre (CHC)	1, 20000	80000

Source: Health and Family Welfare Statistics in India, 2013.

Apart from the above discussed hierarchy in the provision of rural HCFs, there also exist rural hospitals and dispensaries. The rural dispensaries are of two types: (i) of indigenous system of medicine, and (ii) of modern allopathic medicine. Many of these have been upgraded as PHCs after the implementation of National Health Policy, 1983. The rural dispensaries are manned by one doctor and one or two multi - purpose workers. Sometimes there was only medicine distributor who acts as a subordinate of doctor and gives medicine to the villagers.

Table 2: Numbers of SCs, PHCs, and CHCs Functioning in India from 2001 to 2015

Year	SCs	PHCs	CHCs
2001	137311	22842	3043
2004	142655	23109	3222
2005	146026	23236	3346
2007	145272	23370	4045
2010	147069	23673	4535
2011	148124	23887	4809
2012	148366	24049	4833
2013	151684	24448	5187
2014	152326	25020	5363
2015	153655	25308	5396

Source: National Health Profiles, Ministry of Health and Family Welfare, Government of India.

Table.2 presented the Healthcare infrastructure over the years from 2001 to 2015. Over the period there were a sustained increment in the number of SCs, PHCs and CHCs.

3.2 Health Manpower in Primary Healthcare in India

Health manpower is defined as the people who are specialized in promoting health, in preventing and curing diseases. Therefore, the primary objective of health workforce is to provide specialized health personnel in the desired number with all the suitable skills at the right time or right place. The performance of healthcare system of any country depends on the availability of the health care infrastructure and health manpower. Though India has shown progress in the healthcare sector, still there are many areas in the country where there is hardly any physician, Midwife/ ANM available in case of any emergency. It is one of the most crucial aspects of the healthcare system. The situation in the availability of specialist health manpower in India's health sector is even more alarming. Although the number of specialists in broad terms specialists of internal medicine, general surgery etc. being inadequate, is within manageable proportion, but the availability of specialists in emerging internal diseases is much less. In the country, there is an imbalance in the rural - urban availability of specialized doctors, with more advanced and specialist physicians and doctors being available in the urban areas of the country. The reason, why in rural or remote areas the mortality rates are high comparatively to the urban and plain areas, is that people have to go a long distance for seeking healthcare.

India is lagging far behind in all the three indicators of health system. According to the MCI (Medical Council of India), the total number of registered doctors is 9, 36, 488 in 2014. As per the norms of World Health Organization (WHO), there must be 25 health workers per 10, 000 populations, while India has only 19 health worker (doctors, nurses, and midwives) per 10, 000 populations. The number of Auxiliary Nurse Midwives (ANM) are 7, 56, 937 in 2013 in the country. However, when we compared India with the number of the Indian population of more than 1.21 billion, it shows a doctor - population ratio of 1: 1700 people against the WHO minimum norm of one doctor for every thousands of population, which is below to that of developed countries and some developing countries. The table shows the availability of health workforce in an international perspective. Table.2; itself narrate the whole story of India's health manpower availability status. Against the developed and some developing countries, India has just 17.1 Nursing and Midwifery health personnel per 10, 000 population against the 51.1 nurses and Midwifery personnel for South Africa in 2015. India has only 7.0 physicians per 10.000 population in 2015 which is much fewer than the developed countries such as Canada which has (20.7), France (31.9), Switzerland (40.5), United Kingdom (28.1), and United State of America (24.5). Among the developing countries, Brazil has the highest number of physicians per 10, 000 populations. Brazil has 18.9 physicians in 2015 against 14.9 physicians in China and 8.3 physicians in Pakistan respectively.

Table 3: Densities of Health Care personnel in international Perspective**:**

Country	Physicians per 1000	Nurse and Midwife per 1000	Hospital Beds per 100, 000
Bangladesh	3.6	2.2	6
Brazil	18.9	76	23
China	14.9	16.6	38
Pakistan	8.3	5.7	6
Indonesia	2	13.8	9
Sri Lanka	6.8	16.4	36
South Africa	7.8	51.1	0
India	**7**	**17.1**	**7**
Canada	20.7	92.9	27
France	31.9	93	64

Source: World Health Statistics, 2015, WHO.

Manpower unavailability is one of the important drawbacks of Indian healthcare system. According to the rural health care statistics 2015, the shortfall in health manpower in the

post of female health worker (HW) / Auxiliary Nurse Midwife (ANM) is 5.21 percent of the total sanctioned post as per the minimum norms of one HW (F) /ANM per Sub - Centre and Primary health Centre. The reason for the overall shortfall is the inter - state variation in the availability of female health worker. The states of Gujarat, Karnataka, Rajasthan, Tamil Nadu and Uttar Pradesh have the largest shortfall. Similarly, in the post of male health workers, the shortfall is 63.8 percent of the total post Out of the sanctioned posts, a large percentage of posts are vacant at the national and state levels in the country. For example, 10.5 per cent of the sanctioned posts of Female Health Worker HW (Female) /ANM are vacant against the 40.7 percent of the sanctioned posts of Male Health Worker HW (Male) as recorded in 2015. At the level of primary health care, there are 41.9% of Female Health Assistance/ LHV, 46.9% of Male Health Assistance and 27.0% of doctors sanctioned posts are vacant in the country as on 31st march 2015. The efficiency of functioning of the sub - centers can be seen by the level of the existing manpower.5.3 per cent of the sub - centers are functioning without a HW (female) / ANM and 46.5 percent are functioning without the HW (Male).3.3 percents are those sub - centers which are functioning without HW (female) /ANM as well as without a HW (male) as on 31st march 2015.

When we compared the female health worker availability in 2015 with that in 2005, it is observed that there is an increase in the number of ANMs at SCs and PHCs at the national level. The number of In Position ANMs increased from 133194 in 2005 to 212185 in 2015; an increase almost by 59.3%. Looking at the picture of state level, it has been observed that only some states have shown increased number of ANMs at their SCs and PHCs in 2005 to 2015. The percentage of increase in the number of ANMs in the states of Assam is (0.61), Gujarat (0.07), Haryana (0.75), Karnataka (0.05), Kerala (0.43), Madhya Pradesh (0.33), Maharashtra 0.58), Odisha 0.22), Punjab 0.67), Uttar Pradesh (0.31), and West Bengal (1.06). Table 3.4; show a reduction in the number of ANMs in 2015 when compared with the figure in the year 2005. The reduction is observed in the states of Rajasthan, Tamil Nadu, and Andhra Pradesh.

Table 4: Health Worker [Female] / ANM at Sub Centers & PHCs

State	2005					2015				
	Health Worker [Female]/ANM					Health Worker [Female]/ANM				
	Required	Sanction	In Position	Vacant	Shortfall	Required	Sanction	In Position	Vacant	Shortfall
AP	14092	14077	13740	337	352	8728	14111	11701	2410	*
ASM	5719	5719	5719	0	0	5635	5962	9220	*	*
BR	11985	NA	NA	NA	NA	11612	NA	19499	NA	*
GU	8344	7274	6508	766	1836	9310	7274	6938	336	2372
HAR	2841	2841	2818	23	23	3030	4810	4922	*	*
KAR	9824	8756	8544	212	1280	11617	9264	8977	287	2640
KER	6005	5675	5565	110	440	5402	7929	7950	*	*
MP	10066	10027	9345	682	721	10363	10473	12412	*	*
MAH	12233	11032	10699	333	1534	12391	18636	16922	1714	*
ORS	7209	7121	6768	353	441	7993	NA	8245	NA	*
PUN	3342	2704	2602	102	740	3378	4675	4347	328	*
RAJ	12225	11425	11425	0	800	16490	21704	15999	5705	491
TN	10062	10366	10112	254	*	10078	9993	8477	1516	1601
UP	**24181**	**18577**	**18146**	**431**	**6035**	**24018**	**27334**	**23731**	**3603**	**287**
WB	11529	10356	9070	1286	2459	11266	20500	18723	1777	*
IND	**169262**	**139798**	**133194**	**6640**	**19311**	**178963**	**195672**	**212185**	**20492**	**9326**

Source: Rural Health Statistics, Ministry of Health and Family Welfare, Govt of India.

Community Health Centres (CHCs) provide highly specialized health care accommodated with highly qualified doctors and medical professionals such as surgeons, obstetricians and gynecologists, physicians and pediatricians. The current position of total specialist's health care personnel at CHCs in 2015 is shown in table.5. Table shows that there is continuous decline in the number of total health specialist from the 2005 - 2015. In U. P the number of specialists available in the year of 2012 is very satisfactory. But after this there are massive decline in the numbers and it is only 448 in the 2015. The low number of available health care personnels negatively affects the availability of facilities for the utilization of the people. In this scenario the cost to avail health services increases as the availability of health services is lesser in the quantity of its demands.

Table 5: Total Health Specialists at CHCs in India and States

States	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AP	224	224	166	235	480	48 0	408	346	275	275	159
ASM	200	NA	NA	365	142	209	216	122	119	121	NA
BR	NA	NA	104	104	104	104	151	151	98	69	63
GUJ	122	92	82	81	76	79	76	76	74	74	74
AR	45	49	39	45	79	70	45	29	26	29	30
KAR	694	691	691	691	691	726	584	495	495	495	502
KER	114	82	115	115	794	774	774	774	33	39	39
MP	NA	49	503	220	245	245	227	267	263	263	263
MAH	1099	1099	448	352	438	954	600	514	489	462	356
ORS	NA	NA	NA	NA	371	469	438	317	305	346	356

PUJ	315	226	117	210	254	300	300	279	255	202	173
RAJ	586	581	600	651	598	492	569	148	148	651	526
TN	48	48	725	NA	0	0	0	0	0	0	0
UP	**NA**	**NA**	**413**	**618**	**618**	**618**	**1256**	**1894**	**1740**	**484**	**448**
WB	133	133	624	186	175	175	175	175	1062	115	114
INDIA	**3953**	**3550**	**5117**	**4279**	**5789**	**6781**	**6935**	**5858**	**5805**	**4091**	**4078**

Source: Rural Health Statistics, 2005, 2012, 2015, Government of India.

The shortfall of total specialists is comparatively high in most of the states. In 2015, the highest shortfall of total specialists is recorded in the states of Kerala, out of the total 888 required total specialists only 39 are in position and state experiences a shortfall of 849 total specialist's posts at CHCs. The percentage shortfall of total specialists in Kerala is 95.6, followed by Gujarat with a shortfall of 94.2 percent in the required total specialists at the CHCs, other states like Haryana has a shortfall of 93.1 percent, West Bengal has 91.8 percent. The lowest shortfall is recorded in the states of Karnataka with 39.1 percent and Maharashtra with 59.9 percent of the shortfall in the required total specialist's posts at CHCs in 2015 (**Table 3.5).**

On comparing with the manpower in position in 2015 with that in 2005, as presented in the table 3.5, it was seen that in 2015, the total specialists in position has increased as against that in 2005. Out of the sanctioned posts, a large percentage of posts are vacant at the national and state levels in the country. For example, 10.5 per cent of the sanctioned posts of Female Health Worker HW (Female) / ANM are vacant against the 40.7 percent of the sanctioned posts of Male Health Worker HW (Male) as recorded in 2015. At the level of primary health care, there are 41.9% of Female Health Assistance/ LHV, 46.9% of Male Health Assistance and 27.0% of doctors sanctioned posts are vacant in the country as on 31st march 2015. The efficiency of functioning of the sub - centers can be seen by the level of the existing manpower.5.3 per cent of the sub - centers are functioning without a HW (female) / ANM and 46.5 percent are functioning without the HW (Male).3.3 percents are those sub - centers which are functioning without HW (female) / ANM as well as without a HW (male) as on 31st march 2015.

In the table.6 the number of surgeons required as well as sanctioned and in position has been showed for the year 2015. In this table we can see that in the state of Uttar Pradesh, total 773 surgeons were required for the provision of quality health service. Out of them only 529 post of surgeons were sanctioned by the government. Among the sanctioned positions only 112 surgeons were started working in the rural areas of the state. It means there is a total shortfall of 661 surgeons in a year from the required number. Total 47 posts were still vacant. This table shows that the less quantity of required surgeons forces inhabitants of rural areas to make their way toward the private hospital for the caesarian purpose. The primary survey of study area shows that the allotted surgeons came only one day in a week to the CHCs and rest of days of the weeks surgeries were performed by other unskilled staff of the hospitals.

Table 6: Number of Surgeons Required, Sanctioned and in Position in Year 2015

SURGEONS at CHCs					
(As on 31st March, 2015)					
State	Required	Sanctioned	In Position	Vacant	Shortfall
	R	S	P	S - P	R - P
AP	179	96	19	77	160
ASM	151	NA	24	NA	127
BR	70	NA	21	NA	49
GUJ	320	278	32	246	288
HAR	109	40	6	34	103
KAR	206	206	128	78	78
KER	222	0	0	0	222
MP	334	239	51	188	283
MAH	360	202	90	112	270
ORS	377	133	81	52	296
PUN	150	145	43	102	107
RAJ	568	505	163	342	405
TN	385	0	0	0	385
UP	**773**	**529**	**112**	**417**	**661**
WB	347	549	3	546	344
IND	**5396**	**3320**	**896**	**2477**	**4500**

Source: Rural Health Statistics, Ministry of Health and Family Welfare, Govt. of India.

In the table.7 the number of obstetrician and gynecologist has been described. It can be seen from the table that in the state of Uttar Pradesh the required number of Obstetrician and Gynecologist was 773 out of which only 524 posts were sanctioned by the government. Among this only 115 were presently working in the rural areas of the state. The total shortfall of 658 doctors was recognized. In this 409 post were still vacant. This picture shows that there are wide gap between the available doctors and patients' ratio. These negative ratios of doctor patients adversely affect the provision of quality health care and making a more viable path for the emergence of private sector in the health industry. This further affects the patients as more out of pocket expenditure has been done in order to avail better health care facility.

Table 3.7: Number of Obstetricians and Gynecologists at the CHCs

(As on 31st March, 2015)					
State	Required	Sanctioned	In Position	Vacant	Shortfall
	R	S	P	S - P	R - P
AP	179	96	55	41	124
ASM	151	NA	69	NA	82
BR	70	NA	16	NA	54
GUJ	320	33	31	2	289
HAR	109	31	6	25	103
KAR	206	206	173	33	33
KER	222	14	20	NA	202
MP	334	297	55	242	279
MAH	360	244	217	27	143
ORS	377	380	145	235	232
PU	150	145	70	75	80

RAJ	568	271	99	172	469
TN	385	0	0	0	385
UP	**773**	**524**	**115**	**409**	**658**
WB	347	787	41	746	306
IND	**5396**	**3429**	**1296**	**2242**	**4115**

Source: Rural Health Statistics, Ministry of Health and Family Welfare, Govt. of India.

In the table.8 the required, sanctioned and in position number of general physicians has been depicted. In the state of Uttar Pradesh total 773 physicians were required at the CHCs state.

Table 3.8: Number of Physicians at the CHCs

Physicians at CHCs (As on 31st March, 2015)					
State	Required	Sanctioned	In Position	Vacant	Shortfall
	R	S	P	S - P	R - P
AP	179	96	38	58	114
ASM	151	NA	9	NA	142
BR	70	NA	13	NA	57
GUJ	320	NA	9	NA	311
HAR	109	48	11	37	98
KAR	206	206	102	104	104
KER	222	2	2	0	220
MP	334	196	72	124	262
MAH	360	153	88	65	323
ORS	377	133	54	79	323
PU	150	130	28	102	122
RAJ	568	561	175	386	393
TN	385	0	0	0	385
UP	**773**	**523**	**103**	**420**	**670**
WB	347	277	51	226	296
IND	**5396**	**2772**	**918**	**1889**	**4479**

Source: Rural Health Statistics, Ministry of Health and Family Welfare, Govt. of India.

Among them only 523 posts were sanctioned. Out of which only 103 physicians were appointedat the CHCs. Total 420 posts were still vacant and 670 physicians shortfall has been noticed. When we compare this data with the overall physicians appointed in the all states the demand were of 5396 while only 2772 were sanctioned out of which only 918 physicians were appointed. Total 4479 physicians' shortfall has been calculated from the required number.

In the table 3.9 the number of Pharmacist at the PHCs and CHCs has been calculated. In UP the total number of pharmacist at the health centres have been calculated as 4270 required. Out of the total required numbers only 2952 have been sanctioned. In which 2883were recruited in the rural areas. Total 1387pharmacists shortfall has been seen. The unavailability of recruited pharmacist at the PHCs and CHCs are another problem which are kept unquestioned.

The low numbers of health care personnals in the rural areas create havoc to the provision of qualitative health care by the government. Both in the country in comparison to other SAARC countries and at the level of state UP were the most underperforming state in the health sector. This condition also prevails when we compare these data with the data of district level. The district of Allahabad has been chosen as the study area. Here population per bed at a CHC has been computed. With this per doctor population, spatial coverage of per CHCs has been calculate to know the condition of health care facility in the Allahabad.

Table 9: Number of Pharmacists at the PHCs and CHCs

PHARMACISTS at PHCs & CHCs (As on 31st March, 2015)					
State	Required	Sanctioned	In Position	Vacant	Shortfall
	R	S	P	S - P	R - P
AP	1248	1279	951	328	297
ASM	1165	1284	1347	*	*
BR	1953	989	250	739	1703
GUJ	1567	1550	879	671	688
HAR	570	568	508	60	62
KAR	2559	2668	2521	147	38
KER	1049	1036	1102	*	*
MP	1505	1443	1023	420	482
MAH	2171	2355	2100	255	71
ORS	1682	1819	1499	320	183
PU	577	841	806	35	*
RAJ	2651	1282	667	615	1984
TN	1757	1799	1526	273	231
UP	**4270**	**2952**	**2883**	**69**	**1387**
WB	1256	1229	966	263	290
IND	**30704**	**28268**	**23131**	**5456**	**8321**

Source: Rural Health Statistics, Ministry of Health and Family Welfare, Govt. of India.

In the table 3.9 the number of Pharmacist at the PHCs and CHCs has been calculated. In UP the total number of pharmacist at the health centres have been calculated as 4270 required. Out of the total required numbers only 2952 have been sanctioned. In which 2883were recruited in the rural areas. Total 1387pharmacists shortfall has been seen. The unavailability of recruited pharmacist at the PHCs and CHCs are another problem which are kept unquestioned.

The low numbers of health care personals in the rural areas create havoc to the provision of qualitative health care by the government. Both in the country in comparison to other SAARC countries and at the level of state UP were the most underperforming state in the health sector. This condition also prevails when we compare these data with the data of district level. Here population per bed at a CHC, per doctor population, spatial coverage of per CHCs has been an important indicator to know the condition of health care facility at the district level. The above mentioned factors and data shows regular fall in the number as well as in the quality of the health care facilities.

References

[1] Abel - Smith, B. and A. Leiserson (1978), "Poverty, Development and Health Policy", Public Health Papers, (69), World Health Organisation, Geneva.
[2] Abel - Smith, B. (1980), "Economics and Health Policy An Overview", in A. Griffths and Bankowski (ed). Economics and Health Policy, Published by Council for International Organisations of Medical Sciences and The Sandoz Institute of Health and Socio - Economic Studies, Geneva.
[3] Akhtar, R. (1978), "Spatial Distribution and Growth of Health Facil - ities in Rajasthan", Geographical Review of India, Vol.40, No.3.

[4] Bailey, W. and D. R. Phillips (1990), "Spatial Patterns of Use of Health Services in The Kingston Metropolitan Area, Jamica", Social Science and Medicine, Vol.30, No.1, pp.1 - 12.
[5] Banerji, D. (1971), Family Planning In India: A Critiaue and a Perspective, People's Publishing
[6] Ghosh, B. N. and A. B. Mukherjee (1989), "An Analysis of Health Services Coverage of a Primary Health Centre of a Primary Health Centre in West Bengal", Indian_Journal of Public Health, Vol. XXXIII, No.1.
[7] Giggs, J. A. (1979), "Human Health Problems in Urban Areas", in David T. Herbert and D. M. Smith (ed.), Social P~oblems and the City Geographical Perspective, Oxford University Press, New York, pp.84 - 106.
[8] Joyce, J. (1961), Health in New India India's War Against Disease Foundation, Delhi. The Storv of (1947 - 1961), The Free Ford
[9] Jeffery, R. (1976), "Health Care Delivery System", Economic and Political Weekly, Vol. XI, No.28, pp.1046 - 47.
[10] Jehlik, P. J. and Distance Personnel Illness", R. L. McNarrnara (1952), "The Relation of to Differential use of Certain Health and Facilities and the Extent of Bed Rural Sociology, Vol.17, pp.261 - 265.