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ROLE OF SUPPORTIVE AGENCIES TO NRHM - A CRITICAL STUDY WITH SPECIAL REFERENCE TO NORTH BIHAR

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ABSTRACT

India being signatory Alma Ata Declaration is committed to attaining Health for all through the primary health care approach. The ultimate objective of a healthcare delivery system is to ensure that the rich and poor are treated alike, poverty does not become disability and wealth is not an advantage towards accessibility of health care. In order provide accessible. affordable and accountable health care system to all, especially underprivileged vulnerable sections of the society, the NRHM emphasized towards improvement in health care infrastructure in demographically backward states and districts (NRHM 2005). Thus. apart from increased budget the involvement of people in the form of Village Health and Sanitation Committees,. District Health Societies, Rogi



Kalyan Samities, etc. the emphasis is on improvement of basic health infrastructure with adequate supply of human resource, material, drugs, equipments, transport system, etc. This paper is a modest attempt to study the role of supportive agency to NRHM in North Bihar.

Key Words: Health Infrastructure, NRHM, Public Private Partnership, Rogi Kalyan Samiti

INTRODUCTION

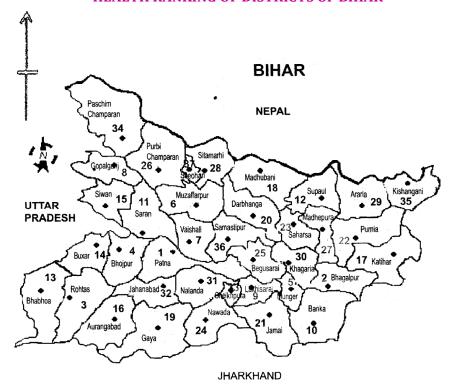
Physical Healthinfrastructure in terms of district and subdistrict hospitals (DHs and SDHs), Community Health Centre, Block and Additional primary

health centres and Sub PHCs. Centres (SCs) exists in all the 642 districts of India. We have 578 District Hospitals, which are supposed to have all health care facilities like specialists, doctors, nurses, operation theatres, diagnostic services. drugs, etc. However, only 517 out of 578 hospitals are functioning as First Referral Units (FRUs) and only 438 DHs have been taken up for upgradation under NRHM.

The state of Bihar has an area of 94,163 sq. km. and a population of 103.8 million. There are 9 divisions, 38 districts, 101 sub divisions 533 blocks

and 45,098 villages. The States has population density of 881 per sq. km. (as against the national average of 312). The decadal growth rate of the state in NA (against 21.54% for the country) and the population of the state continues to grow at a much faster rate than the national rate. The Total Fertility Rate of the State is 3.7. The Infant Mortality Rate is 44 and Maternal Mortality Ratio is 261 (SRS 2007-2009) which are higher than the National average. The Sex Ratio in the State is 916. Health ranking of districts of Bihar has been depicted below:

HEALTH RANKING OF DISTRICTS OF BIHAR



Source: Bihar: Road Map for Development of Health Sector - A Report of the Special Task Force on Bihar, p.36

HEALTH INFRASTRUCTURE IN BIHAR

The provision of good health care infrastructure is an essential component of the health strategy for overall human development. Several steps have been taken by the state government in recent years to improve the health infrastructure and enhance the accessibility and quality of health services in the state. The primary health care infrastructure provides the first level of contact between the population and health care providers. The primary health care infrastructure consists of Primary Health Centres (PHC), Sub-Centres and Additional PHCs (APHC). The secondary healthcare system consists of hospitals where patients from primary health care are referred to for treatment by specialists. The centres for secondary health care include district-level hospitals and Community Health Centres (CHC) at block level. The tertiary healthcare refers to a third level of health care system, in which specialized care is provided to patients, usually on referral from primary and secondary healthcare system. The specialised Intensive Care Units, advanced diagnostic support services and specialized medical personnel are the key features of tertiary healthcare systems.

Table 1 indicates the average number of patients visiting government hospitals in Bihar during 2011 to 2015. Due to several initiatives taken by the state government, the functioning of the public health institutions is improving steadily. The average number of patients visiting government hospitals per month was 9317 in 2011, which has increased to 10,476 in 2013, implying an increase of 12 percent. This increase is primarily due to better infrastructure facilities, larger manpower, and proper monitoring of the health institutions. During the next two years, 2014

and 2015, the number of patients has decreased, but this seems to be temporary phenomenon. In 2016, the number of patients has again increased to 10,232.

Table 1: Monthly Average Number of Patients Visiting Government Hospitals

Year	2011	2012	2013	2014	2015	2016 (Upto Sept.)
No. of patients visiting government hospitals per month	9317	9863 (5.9)	10476 (6.2)	9871 (-5.8)	9778 (-0.9)	10232 (4.6)

Note: Figures in the parenthesis represent annual increase Source: Website of State Health Society, Government of Bihar

Towards strengthening of the health services, the approach of the state government has been a pragmatic one, with the thrust on improving the functioning of the existing facilities, rather than extension of the facilities. Currently, there are 36 district hospitals, 55 sub-divisional hospitals, 70 referral hospitals, 533 PHCs, 9729 Sub-centres and 1350 APHCs; the last three types add up to 11,612 health centres. Thus, per lakh of population, there are about 11 health centres in the state (Table 2). In 2015, out of 533 block level PHCs, 130 has been upgraded to 30 bedded Community Health Centres (CHC) to strengthen healthcare facilities.

Table 2: Overall Status of Health Infrastructure

(Figures in Number)

			Sub			Health		
Year	Referral Hospital	Divisional Hospital	РНС	Sub Centre	АРНС	Total	centres per ten lakh of population	
2011	36	70	55	533	9696	1330	11559	11
2012	36	70	55	533	9696	1330	11559	11
2013	36	70	55	533	9696	1330	11559	11
2014	36	70	55	533	9729	1350	11612	11
2015	36	70	55	533	9729	1350	11612	11
2016	36	7 0	55*	533**	9729	1350	11612	11

Note: * At 9 places, existing hospitals will be upgraded to SDH

** 130 PHC has been upgraded to 30 bedded CHC

Source: Website of State Health Society, Government of Bihar

From the data on the number of health institutions in different districts, as presented in Table 3, it is apparent that there is considerable variation across the districts in terms of the availability of health infrastructure. The average size of population served by a health institution (either a hospital or a health centre) varies from 5.5 thousand in Jamui to as high as 14.6 thousand in Sheohar. The best three districts in terms of availability of health infrastructure are - Jamui (5501), Sheikhpura (5785) and Nawada (5886). The three most disadvantaged districts are - Sheohar (14,583), Sitamarhi (12,727) and East Champaran (12,347).

The availability of quality health services in Bihar varies across the districts, as indicated by two indicators — average number of outpatients visiting hospitals per day and the in-patient bed occupancy rate. According to the data given for last three years, three districts with the highest number of outpatients visiting hospitals per day in 2015-16 were - Purnea (523), Muzaffarpur (502), and Aurangabad (501). In contrast, three districts with the lowest number of outpatients visiting hospitals per day were -Sheohar (159), Nawada (167), and Jamui (199).

Table 3: Number of Health Institutions in Bihar (As on September, 2016)

Districts	District	Referra	SD	PHC	Health	APH	PHC+HSC+APH	Population/Healt
	Hospita	l	H		Sub- Centre	C	C	h Institution
	1	Hospita l						
Patna	0	4	4	23	387	67	470	12038
raula	U	4	4	(1)	307	07	470	12030
Nalanda	1	3	2	20	374	43	437	6496
Naianua	1	3	_	(2)	374	43	137	0470
Bhojpur	1	3	2	14	302	27	343	7818
Dirojpur	_		-	(4)	502	_,		7010
Buxar	1	0	1	11	161	28	200	8447
				(3)				
Rohtas	1	2	2	19	186	32	237	12231
				(4)				
Kaimur	1	2	1	11	197	19	227	7041
				(3)				
Gaya	1	2	2	24	440	47	511	8511
				(8)				
Jehanabad	1	2	0	7 (1)	92	30	129	8525
Arwal	1	0	0	5 (1)	64	28	97	7151
Nawada	1	2	1	14 (4)	325	34	373	5886
Aurangaba	1	3	1	11	216	60	287	8699
d				(5)				
Saran	1	3	2	20	413	43	476	8182
				(8)				
Siwan	1	3	1	19	367	48	434	7586
				(7)				
Gopalganj	1	3	1	14	186	22	222	11286
		_		(5)				
W.	1	2	2	18	368	31	417	9325
Champaran	1	1	_	(6)	225		400	40045
E.	1	1	3	27	327	54	408	12347
Champaran	1	2	0	(13)	480	83	579	0240
Muzaffarpu r	1		0	16 (9)	400	03	3/7	8240
Sitamarhi	1	1	2	17	212	36	265	12727
Jitamai III	•	1		(5)	212	30	203	12/2/
Sheohar	1	0	0	5(1)	29	10	44	14583
Vaishali	1	2	2	16	336	29	381	9078
· uisiiuii	1	_	-	(1)				70.0
Darbhanga	0	2	1	18 (259	50	327	11931
	-	_	-	6)				

Madhubani **(2)** Samastipur (8) Begusarai **(3)** Munger 9 (2) Sheikhpura 6 (0) Lakhisarai 6(1) Jamui **(3)** Khagaria 7 (1) Bhagalpur **(1)** Banka **(2)** Saharsa **(2)** Supaul **(1)** Madhepura **(1) Purnea (2)** Kishanganj 7 (0) Araria 9 (0) Katihar 16(3 Bihar (130

Note: Figure in paranthesis represent upgradation of PHC to CHC (30 beded)

Source: Website of Bihar State Health Society, Government of Bihar

Table 4: District wise Average Number of Outpatients Visiting per Day

Districts	Average r per day	10. of Outpa	atients visits	In-Patients Bed Occupacy Rate			
	2014-15	2015-16	2016-17	2014-15	2015-16	2016-17	
Patna	323	235	269	53	73	74	
Nalanda	335	391	448	131	119	121	
Bhojpur	299	275	254	32	33	41	
Buxar	258	213	219	82	62	50	
Rohtas	297	290	259	71	70	66	
Kaimur	256	301	297	88	82	54	
Gaya	359	348	355	83	87	23	
Jehanabad	441	377	354	80	72	44	
Arwal	247	321	263	85	86	24	
Nawada	188	167	180	72	77	85	
Aurangabad	590	501	524	84	74	48	
Saran	379	420	462	101	89	88	

	<u> </u>	T	T	T	1	1
Siwan	328	292	326	85	99	73
Gopalganj	240	318	382	77	76	67
W.	457	255	275	59	52	41
Champaran						
E.	169	357	398	92	84	74
Champaran						
Muzaffarpur	518	502	514	78	60	18
Sitamarhi	294	240	217	104	94	81
Sheohar	220	159	148	78	78	48
Vaishali	323	402	432	101	101	93
Darbhanga	316	355	343	107	89	38
Madhubani	341	301	344	70	58	52
Samastipur	353	420	363	118	124	118
Begusarai	251	250	267	62	62	69
Munger	303	306	340	105	104	81
Sheikhpura	269	200	160	62	60	66
Lakhisarai	249	266	247	68	70	70
Jamui	214	199	217	49	46	36
Khagaria	489	401	555	128	130	108
Bhagalpur	286	310	318	154	130	126
Banka	385	350	440	94	76	65
Saharsa	297	229	207	78	71	87
Supaul	405	379	375	118	106	80
Madhepura	357	328	392	148	143	126
Purnea	549	523	467	125	122	90
Kishanganj	378	290	295	103	94	94
Araria	347	450	480	98	99	147
Katihar	295	306	364	74	78	81
Bihar	329	323	339	88	84	64

Note: Upto September 2016

Source: Website of Bihar State Health Society, Government of Bihar

The bed occupancy rate indicates the actual utilization of the inpatient health facility for a given time period. Table 4 presents the in-patient bed occupancy rate for the last three years for the entire state as well as in all 38 districts. In 2015-16, among the districts, the occupancy rate varied from 33.0 percent (Bhojpur) to 143.0 percent (Madhepura). The demand for health services is so high that in 9 districts, the bed occupancy rates exceed 100 percent. For Bihar as a whole, the bed occupancy rate is 84 percent in 2015-16.

Health workers play a central role in ensuring the appropriate management of all aspects of the health system. The health personnel include — doctors, nurses, Auxiliaiy Nurse-cum-Midwife (ANM), and Accredited Social Health Activist (ASHA). In 2016-17, against the sanctioned posts of 6261 doctors, 3154 were working indicating a vacancy ratio of about 50 percent. Similarly, for the contractual post of doctors, the vacancy ratio is 63 percent - 852 doctors working in place of 2314 sanctioned posts. There are as many as 8 districts (Bhojpur, Lakhisarai, Patna, Sheohar, Munger, Nalanda, Jehanabad and Sheikhpura), in each of which a government doctor has to serve more than 5 lakh people. As regards regular nurses, there were 3612 sanctioned posts, but the number of working nurses was lower at 1979, indicating a vacancy ratio of 45 percent. Similarly, in case of

contractual nurses, against the sanctioned strength of 1719, only 412 were working, implying a high vacancy ratio of 76 percent. In contrast to the situation of doctors and nurses, the strength of health personnel is much higher for ANMs and ASHAs. In 2016-17, the strength of regular ANM was 12,326, against the sanctioned posts of 20,809, indicating a vacancy ratio of 41 percent. Similarly, the strength of ANMs on contractual posts is 6867, against 12,587 sanctioned posts, indicating a vacancy ratio of 45 percent. In case of ASHA workers, it is found that there are in all 86 thousand of them working in the entire state, against a sanctioned strength of 94 thousand, implying a vacancy ratio of only 9 percent. When one compares the districtwise positions, the variation is found to be moderate for ANM and ASHA workers, but in terms of doctors and nurses, there is substantial interdistrict variation.

Table 5: Number of Health Personnel

Name of the Post		Reg	ular		Contractual					
	Sanctioned		Working				Working			
	Posts	2014-15	2015-16	2016-17	Posts	2014-15	2015-16	2016-17		
Doctors	6261	2255	2052	3154	2314	1580	1488	852		
Grade A Nurse	3612	356	1706	1979	1719	1621	412	412		
ANM	20809	8999	8895	12326	12587	9933	9670	6867		
ASHA	-	-	_		93687	85045	85502	85708		

Note: For 2016-17, the figures refer to September, 2016

Source: Website of Bihar State Health Society, Government of Bihar

Table 6: District-wise Employment of Regular and Contractual Doctors

Districts	No. of Post Cur	Sanctioned rently	Numbe	r of Doctor	No. of Grade A Nurses/lakh		
	Regular	Contractual	Regular	r	Contractu	ıal	Population
			2015-	2016-	2015-16	2016-	
			16	17		17	
Patna	422	92	262	343	73	25	6
Nalanda	158	95	58	128	65	93	8
Bhojpur	194	65	82	138	61	17	6
Buxar	115	54	67	66	33	2	4
Rohtas	248	89	44	81	45	25	4
Kaimur	114	48	44	74	27	10	5
Gaya	272	106	70	106	69	20	3
Jehanabad	150	46	43	85	38	11	9
Arwal	80	20	15	28	16	7	5
Nawada	198	45	43	76	18	4	4
Aurangabad	97	47	37	52	28	19	3
Saran	165	94	74	102	74	52	4
Siwan	162	10	48	74	0	106	5
Gopalganj	101	69	31	0	45	0	0
W.	132	83	46	71	52	25	2
Champaran							

E.	190	128	60	91	90	61	3
Champaran							
Muzaffarpur	274	64	77	108	49	15	3
Sitamarhi	170	68	35	43	23	46	3
Sheohar	75	19	29	39	14	4	7
Vaishali	145	69	106	175	46	12	5
Darbhanga	190	72	53	92	48	19	3
Madhubani	235	85	51	101	65	34	3
Samastipur	192	95	100	103	48	18	3
Begusarai	122	94	51	73	51	18	3
Munger	110	44	46	88	31	6	7
Sheikhpura	93	24	30	38	21	40	12
Lakhisarai	114	30	25	56	14	4	6
Jamui	103	38	34	60	28	6	4
Khagaria	101	44	27	49	32	12	4
Bhagalpur	206	64	44	41	46	42	3
Banka	118	47	39	88	28	8	5
Saharsa	163	45	41	70	22	3	4
Supaul	182	48	47	97	33	12	5
Madhepura	190	67	20	49	31	25	4
Purnea	226	64	56	53	51	29	3
Kishanganj	83	28	21	34	9	5	2
Araria	179	36	39	86	19	5	3
Katihar	192	78	57	96	45	12	4
Bihar	6261	2314	2052	3154	1488	852	4

Note: denotes data from April to September, 2016

Source: Website of Bihar State Health Society, Government of Bihar

ROLE OF SUPPORTIVE AGENCIES

ASHA had been introduced under NRHM interventions to serve as the first port of call for any health related demands of deprived sections of the population, especially women and children, who found difficulty to access health services, and possibly has become the main hub for accessing to aiy of the obstetric care, children's immunization, and family planning services (MoHFW, 2005). Under role and responsibilities for ASHA we find that creating awareness about determinants of health viz, nutrition, basic sanitation and hygienic practices, health services; counselling women on all aspects of obstetric care, mobilize community, helping VHSCs, escort/accompany pregnant women and children requiring treatment, primary medical caie for minor ailments, provide information about births, deaths and pregnancies, etc. She is supposed to help in almost all aspect of basic health care for the village community.

More than 8.94 lakh community health volunteers called Accredited Social Health Activists (ASHAs) have been engaged under the mission to work as a link between the community and the public heath system. ASHA is the first port of call for any health related demands of deprived sections of the population, especially women and children, who find it difficult to access health services in rural areas. ASHA Programme is expanding across States and has particularly been successful in bringing people back to Public Health System and increase in the utilization of their outpatient services, diagnostic facilities, institutional deliveries and in-patient care. The number of ASHA worker in Bihar grew from 83702 in 2013-14 to 85,708 in 2016-17.

Rogi Kalyan Samiti (Patient Welfare Committee)/Hospital Management Society is a simple yet effective management structure. This committee is a registered society whose members act as trustees to manage the affairs of the hospital and are responsible for upkeep of the facilities and ensure provision of better facilities to the patients in the hospital. Financial assistance is provided to these Committees through untied fund to undertake activities for patient welfare. 31,109 Rogi Kalyan Samitis (RKS) have been set up involving the community members in almost all District Hospitals (DHs), Sub-District Hospitals (SDHs), Community Health Centres (CHCs) and Primary Health Centres (PHCs) till date.

Facility-upgradation work at Community Health. Centre (CHC) level has almost been completed in five states viz. Jharkhand, Odisha, Assam, Jammu and Kashmir and Tamil Nadu. In Uttar Pradesh (169/515) and Madhya Pradesh (96/270) we find even the facility survey for upgradation had not been completed till August 2009. Further, we find that selection of CHCs for upgradation out of the surveyed CHCs was limited in Uttar Pradesh (100/169). Completion of upgradation work at CHC level seems to be good in TamilNadu (131/131) and Assam (84/103). In other states the civil work was being carried on and possibility of upgradation work being taken up on priority basis in the near future was reported by all state headquarters.

Upgradation to IPHS level of DHs and CHCs is FRUs seems to have marked improvement in Uttar Pradesh, Madhya Pradesh, Jharkhand, Odisha, Jammu Kashmir. One can find that availability of DHs as FRUs was almost nil in four states viz. Madhya Pradesh, Jharkhand, Odisha and J&K and now almost all these states have more than 50 percent of existing DHs functioning as FRUs. However, in Tamil Nadu all the 27 DHs were functioning as FRUs since NRHM got initiated in 2005. In Assam only 2 out of 22 DHs were not functioning as FRUs before and have been upgraded to the category of FRU after start of NRHM.

PHC functioning on 24x7 basis seems to be proportionately quite low in almost all the seven states. Nevertheless, upgradation of PHCs into 24x7 facilities seems to have improved greatly in almost all the seven states since the start of NRHM. The upgradation of PHCs into 24x7 basis health facility need to be taken up on priority basis to enhance the outreach of public health care services in the rural areas.

Public Private Partnership agenda under decentralisation under NRHM in terms of constitution of Rogi Kalyan Samities at District Hospitals, Community Health Centres, and Block and Additional PHCs was also a priority agenda under NRHM. Interestingly, we fmd that registered Rogi Kalyan Samities have been reported to be functioning in almost all the DHs and CHCs in all the seven states. Interestingly the formation and constitution of registered RKSs has been reported to be worI1Lin majority of the PHCs too viz. UP (3192/3690), MP (887/1142), Jharkhand (235/330), Odisha (218/1279), Assam (857/844), J&K (375/375) and Tamil Nadu (1399/1215). Only in Odisha we find that constitution of RKSs at PHC level needs to be picked up.

Village Health and Sanitation Committees (VHSCs) have been constituted and functioning in most of the villages in India. However, in Uttar Pradesh and Madhya Pradesh we find that in around 50 percent of the villages the committees are functioning whereas in other five states the constitution of VHSCs have almost been completed in all the villages.

Village Health and Nutrition Days (VHNDs) are being organized by all the VHSCs. All India average of monthly VHND turns out to be around 11 per year per VHSC or per village. However, in Tamil Nadu we find the average number of VHNDs per VHSC or even per village per year turns out to be quite high say around 30.

Human resource shortage in public health institutions seem to quite acute. We find shortfalls of even Specialists/post-graduate doctors, Gynaecologists, Staff Nurses and Anaesthetists in almost all the seven states. However, Staff Nurses in position before the start of NRHM in 2005 was goof only in Tamil Nadu. However, contractual appointments of specialists in CHCs seem to

have partially strengthened the human resource in all the states but still have not been able to fill the gap between requirement and in-position specialists. Nevertheless, we find that contractual appointments of staff nurses at CHC and PHC level have more or less fulfilled the gap between required and in-position staff nurses in all the seven states.

ANM positioning in SCs in all the states seems to be satisfactory. For India we find almost 94 percent of the SCs ANM in position and around 6 percent of SCs are functioning without an ANM. In Odisha, Jharkhand and Assam we find all the SCs are having an ANM. In UP and MP we find still around 10 percent of SCs are functioning without an ANM like (1929/20521) in UP and (574/8834) in MP. However, target of provision of 2^{nd} ANM under NRHM to all the SCs seems to be lagging behind in most of the states. Only in Jharkhand we find that all the 3958 SCs have second ANM in position. In Assam we find around 55 percent of the SCs (2540/4592) have 2 ANM in position. In all the other five states we find proportionate SCs with 2^{nd} ANM are less than 5 percent.

ASHAs recruited, trained and in position were more than the number of villages reported in India in August 2009. We find around 7.7 lakhs ASHAs were in position for around 6.8 lakhs villages in August 2009. Possibly, recruitment of ASHAs as well as their training seems to have gone satisfactorily in all the seven states of India. It may be of interest to mention that in Tamil Nadu we had been reported that in all the 16 thousand villages still recruitment of ASHAs had not been undertaken but all the villages in Tamil Nadu had been functioning with grass root healthcare provider, especially obstetric care, known as village health nurse (VHN). Possibly, conversion of VHNs into ASHAs, of course with proper recruitment criterions, could be an alternate solution to recruit the grass-root health activist called ASHA.

We find that role of supportive agencies in implementing NRHM programmes is crucial. Responsibilities are being discharged through

- District Health Societies,
- District Health Missions,
- Community Health Centres,
- Primary Health Centres,
- Sub Centres,
- Accredited Social Health Activists (ASHAs),
- Village Health and Sanitation Committees etc.

CONCLUSION

Majority of the District Health Societies makes discussion on PHC health committee reports, monthly monitoring of infrastructure, participation in development of District Health Plans. Overall availability of basic infrastructural facilities like ICU, Blood Storage facility, proper sanitation conditions, doctor's duty room, Pharmacy, telephone, fax machine, etc. seems to be available in most of the DHs and we find some of the DHs needs lot more emphasis to upgrade the health care services in District Hospitals for improving the quality health services.

In order to provide optimal level of quality health care, Primary Health Centre is universally recognized the most effective intervention to achieve significant improvements in health status of population in the locality. In the Indian health scenario, Sub-Centre (SC) is a bridge between rural community and public primary health care system. A sub centre is responsible for providing all primary health care and makes the services more responsive and sensitive for the rural community. Under NRHM introduction of ASHA as a link between the community and the rural health system was to motivate and help vulnerable sections like poor, women and children, to improve their accessibility to the basic health services at the time of their need.

The NRHM visualize the provision of decentralized health care at grass root level and for this involvement of Panchayati Raj Institutions was considered to be important. An institutional

arrangement of constituting Village Health and Sanitation Committees (VHSCs) under the headship of Gram Panchayat (GP) was considered important by involving elected GP members in VHSCs for monitoring and implementation of health services at the village level and try to improve the health facility with the slogan "people health in their hands."

Quality of Services is being seriously affected by shortage of staff nurses at all levels of facilities. Women delivering new born babies also don't stay for minimum 48 hours after delivery because of lacking basic facilities like cleanliness, electricity, potable water, etc. Bio waste management is also very poor in most of the health facilities. In most of the DHs and CHCs these services are outsourced because of which collection and segregation processes are observed. In other lower facilities like PHCs and SCs even pits are not being properly constructed and maintained.

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