CHAPTER II
HUMAN RESOURCES

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The health workforce includes clinical staff such as physicians and nurses and paramedical staff such as pharmacists, lab technicians, X-ray technicians, etc., and other management and support staff, such as ministerial staff, ambulance drivers, sanitary workers, cook, etc.

Sanctioned strength of medical and paramedical staff in secondary care institutions was inadequate with respect to the norm-based requirement. Vacancies of doctors and nurses at primary care institutions was high in comparison with the vacancies in secondary and tertiary care institutions, evidently due to the willingness for postings in urban centres.

2.1 Human resource availability against sanctioned strength

In Tamil Nadu, various Directorates, Boards and Corporations with varied responsibilities, function under the administrative control of the HFW Department. The manpower position across the different Directorates, as of March 2022, is shown in **Table 2.1**.

Table 2.1: Manpower position across different Directorates under HFW Department

Sl. No.	Name of the Directorate	Sanctioned Strength	Share in Total Work force	Working strength	Vacancy position	
					Number	Percentage
1	Directorate of Medical Education	30,767	29.71	25,112	5,655	*18*
2	Directorate of Medical and Rural Health Services	19,243	18.58	12,932	6,311	*33*
3	Directorate of Public Health and Preventive Medicine	45,071	43.52	30,850	14,221	*32*
4	Directorate of Family Welfare	586	0.57	390	196	*33*
5	Directorate of Indian Medicine and Homoeopathy	6,228	6.01	4,186	2,042	*33*
6	Drugs Control Department	488	0.47	334	154	*32*
7	Tamil Nadu Food Safety and Drugs Administration	481	0.46	277	204	*42*
8	Tamil Nadu Health Systems Project	31	0.03	29	2	*6*
9	Tamil Nadu State Health Transport Department	669	0.65	427	242	*36*
	Total	**1,03,564**	**100**	**74,537**	**29,027**	***28***

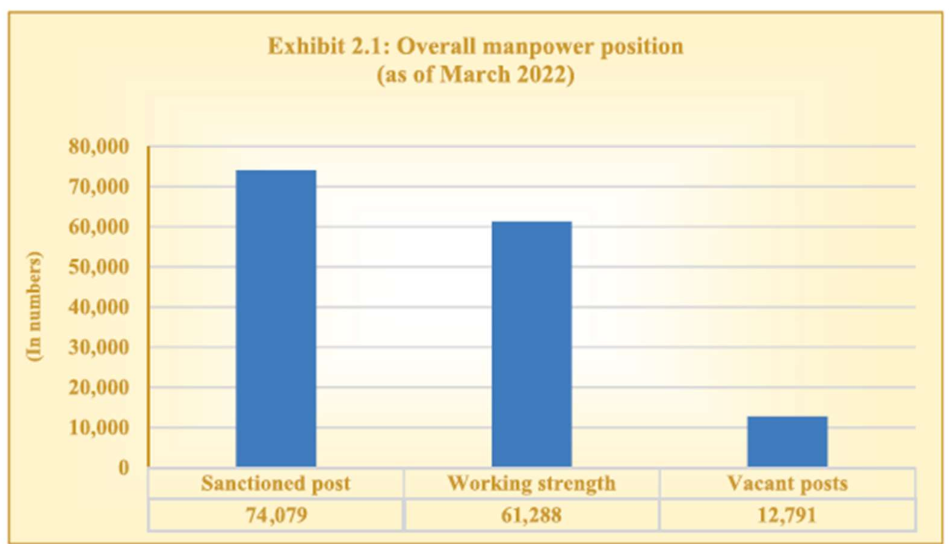
(Source: Details furnished by the respective Directorates/Departments)

As seen from **Table 2.1**, the overall percentage of vacancies across all Directorates/Departments under HFW Department is 28 *per cent*, the range varying from six *per cent* in TNHSP to 42 *per cent* in Tamil Nadu Food Safety and Drugs Administration.

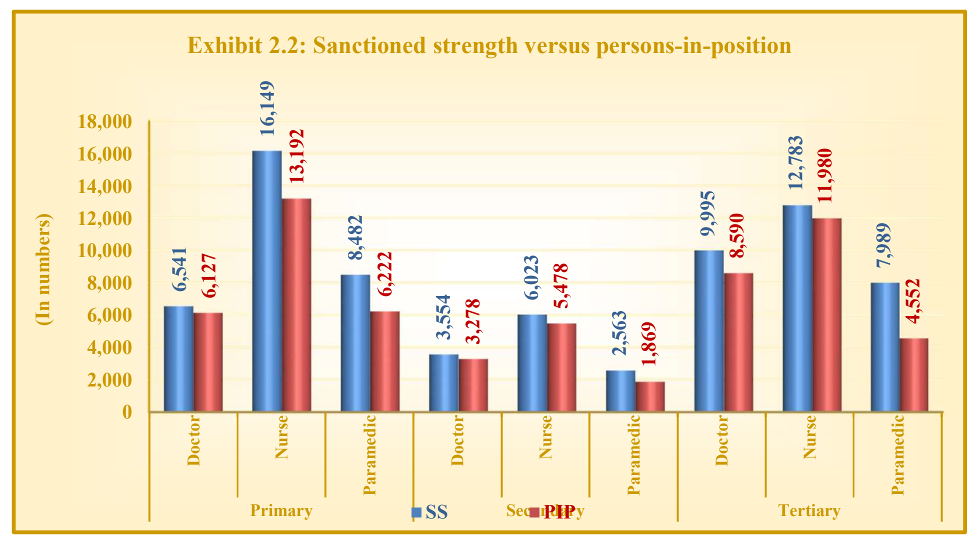
2.2 Shortage of manpower

IPHS prescribes the norms for manpower requirement in primary and secondary healthcare institutions. GoTN, however, did not adopt the IPHS norms for sanction of posts for these institutions. Government followed the Medical Council of India (MCI) norms for tertiary care institutions.

The overall manpower position in Government HCFs in the State, as of March 2022, is given in **Exhibit 2.1** and the details of sanctioned strength and person-in-position (PIP) of doctors, nurses and paramedics in primary, secondary and tertiary care Healthcare Facilities (HCFs) are given in **Exhibit 2.2**.



(Source: Details furnished by the respective Directorates)



(Source: Details furnished by the respective Directorates)

As of March 2022, the percentage of sanctioned posts of Doctors[1], Nurses and Paramedical staff, lying vacant in primary, secondary and tertiary HCFs, is given in **Table 2.2.**

Table 2.2: Vacancy position during 2017-22 (in percentage of sanctioned strength)

HCF	Category	Vacancy position (In percentage of sanctioned strength)					
		2017	2018	2019	2020	2021	2022
Primary care	Doctors	*15*	*17*	*25*	*17*	*19*	*6*
	Nurses	*23*	*25*	*14*	*24*	*23*	*18*
	Paramedics	*41*	*43*	*43*	*46*	*45*	*27*
Secondary care	Doctors	*21*	*26*	*19*	*20*	*6*	*8*
	Nurses	*7*	*7*	*8*	*8*	*6*	*9*
	Paramedics	*29*	*29*	*23*	*26*	*27*	*27*
Tertiary care	Doctors	*18*	*17*	*14*	*20*	*13*	*14*
	Nurses	*5*	*7*	*5*	*6*	*5*	*6*
	Paramedics	*51*	*48*	*45*	*44*	*41*	*43*

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Details furnished by DPH, DMRHS and DME's Performance Reports)

- As of March 2022, the vacancy percentage of Doctors, Nurses and Paramedical Staff in all GMCHs of the State was 22, 6 and 44 *per cent* respectively, the details of which is given in **Appendix 2.1**.
- The vacancy percentage of specialist doctors in all the DHQHs in the state was only four *per cent*. The sanctioned strength and persons-in-position of specialist doctors, in all the DHQHs in the State, is given in **Appendix 2.2**.
- In the sampled Block PHCs, there was an overall shortage of 53 *per cent* in the sanctioned strength with reference to IPHS norms. Against the sanctioned strength, the vacancy percentage of Doctors, Nurses and Paramedical Staff was 8, 12 and 17 *per cent* respectively, the details of which is given in **Appendix 2.3**.
- In the sampled PHCs, there was an overall shortage of 45 *per cent* in the sanctioned strength with reference to IPHS norms. Against the sanctioned strength, the vacancy percentage of Doctors, Nurses and Paramedical Staff was 13, 14 and 13 p*er cent* respectively, the details of which is given in **Appendix 2.4**.

2.3 Inadequate sanction of posts

2.3.1 Shortfall of manpower in sampled secondary care hospitals

IPHS guidelines prescribe the minimum essential manpower required for a functional DHQH/TKH/NTKH of different bed strengths. Further, efforts shall be made by the States to provide all desirable services including super-specialty

[1] The SS/PIP of Doctors include both Medical Officers and Specialists.

services as listed, as and when the required manpower is available in the concerned District/State.

The details of the sanctioned strength in the sampled secondary care hospitals as of March 2022, with reference to the prescribed essential manpower requirement of doctors/nurses/paramedical staff as per IPHS norms, is given in **Appendix 2.5**. Further, the details of vacancy position in these HCFs when compared to the sanctioned strength are also given in **Appendix 2.5**.

- In the sampled 16 secondary care hospitals, the overall shortage of sanctioned strength of doctors, nurses and paramedical staff, with reference to IPHS norms, was 18, 53 and 21 *per cent* respectively.
- In the five sampled DHQHs, only two[2] DHQHs had shortage of sanctioned strength of doctors. The overall shortage in sanctioned strength of nurses was 45 *per cent*, the shortage ranging from 10 *per cent* (Cheyyar) to 64 *per cent* (Kumbakonam).
- In the six sampled TKHs, the overall shortage of sanctioned strength of doctors, nurses and paramedical staff was 66, 80 and 81 *per cent* respectively.
- In the five sampled NTKHs, the overall shortage of sanctioned strength of doctors, nurses and paramedical staff was 58, 58 and 57 *per cent* respectively.
- The overall vacancy percentage in the 16 sampled secondary care hospitals, as compared to the sanctioned strength, was 11, 5 and 53 *per cent* respectively.

Audit observed that the large number of vacancies resulted in referral of patients to other hospitals, but details of referral of patients were not maintained by the hospitals either by using Health Management Information System (HMIS) or through manual records.

2.3.2 Shortage of nurses in ICU

As per the norms of the Indian Nursing Council, one nurse is required for each bed in ICU. The shortage of nurses in sampled DHQHs is shown in **Table 2.3**.

Table 2.3: Availability of nurses in ICU at the sampled DHQHs

Name of the DHQH	Number of beds available in ICU	Staff nurses		Shortfall	
		Required as per IPHS	Available	No.	Percent-age
Cheyyar	8	8	1	7	***88***
Erode	15	15	6	9	***60***
Kumbakonam	50	50	6	44	***88***

High (> 25 *per cent*) Moderate (10 to 25 *per cent*) Fair (<10 *per cent*)

(Source: Details furnished by the respective sampled DHQH)

[2] Kumbakonam (34 *per cent*) and Periyakulam (20 *per cent*).

Audit observed that in three DHQHs, the above norms were not met as the shortfall in nurses for ICU ranges from 60 *per cent* to 88 *per cent*. This resulted inpatients not getting proper attention in times of emergency and the HCFs were constrained to refer the cases to tertiary care hospitals.

2.4 Manpower shortages in tertiary care hospitals

In the sampled tertiary care hospitals *viz.*, Medical College Hospitals (MCHs) the shortfall of doctors, nurses and paramedics with reference to sanctioned strength are given in **Table 2.4**.

Table 2.4: Shortfall of manpower against sanctioned strength in sampled MCHs

Name of the hospital	Shortfall as per sanctioned strength (In *per cent*)		
	Doctors	Nurses	Paramedics
MCH, Erode	*13*	*0*	*62*
MCH, Karur	*33*	*25*	*62*
MCH, Thanjavur	*29*	*4*	*44*
MCH, Theni	*42*	*4*	*55*
MCH, Tiruvannamalai	*43*	*9*	*54*

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Details furnished by the sampled MCHs)

It was seen that the overall vacancy of doctors at tertiary care level in the State was only 14 *per cent.* It was, however, seen that the vacancies of doctors in the sampled hospitals were as high as 43 *per cent*, which showed posting of doctors at smaller towns like Theni and Tiruvannamalai were not enforced.

As a result, large number of vacancies in tertiary care hospitals, located in third tier cities and towns were noticed and several services were not being provided. For example, 23 MCHs had less than 12 specialty surgical departments and 11 had less than eight specialty surgical departments when compared to 18 specialty surgical departments available at Rajiv Gandhi Government Hospital, Chennai. The details of OPD services provided by the sampled GMCHs, DHQHs, TKHs/NTKHs, Block PHCs and PHCs are given in **Paragraphs 3.1.2 to 3.1.6**.

Thus, many of the tertiary care hospitals did not provide a variety of services to patients, despite being at the top of the healthcare pyramid.

2.5 Vacancies of paramedical staff

Paramedical staffs also provide critical services, and they ensure smooth functioning of the hospitals. As could be seen from **Tables 2.1** to **2.3**, the highest numbers of vacancies were noticed among paramedics.

It was seen that the Head of Departments (HoDs) did not initiate expeditious action for recruitment of paramedics through Medical Recruitment Board (MRB). A list of major paramedical posts, sanctioned strength, PIP, vacancies, and number of recruitments during 2016-22 is given in **Table 2.5**.

Table 2.5: Vacancy position of major paramedical staff posts

Sl. No.	Paramedical post	Sanctioned strength	PIP	Vacancy	Percentage of vacancy against sanctioned strength	MRB recruitment (2016-22) in numbers
		(As on March 2022)				
1	Dark Room Assistant	364	109	255	***70***	227
2	Dental Technician, Mechanic, Hygienist	216	72	144	***67***	1
3	Dietician	9	6	3	***69***	33
4	ECG/EEG/EMG Technician	213	94	119	***56***	8
5	Lab Technician	4,303	3,403	900	***21***	2,745
6	Pharmacist	3,640	2,524	1,116	***31***	323
7	Radiographer	1,109	785	324	***29***	93
8	Theatre Assistant	733	128	605	***83***	0
9	X-ray Technician/Attendant	172	17	155	***90***	0
Total		**10,759**	**7,138**	**3,621**	***34***	**3,397**

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Data furnished by HoDs and MRB)

As could be seen from **Table 2.5**, except for the posts of Lab Technicians, Pharmacists and Dark Room Assistant, the number of new recruitments during 2016-22 was insignificant with reference to the vacancies. Recruitments were not made during 2016-22 for X-ray Technicians and Theatre Assistants even though the vacancies were 90 and 83 *per cent* respectively, as of March 2022.

As commented in **Paragraph 4.8.1,** X-ray equipment were kept unutilised due to non-filling of vacancies of X-ray technicians.

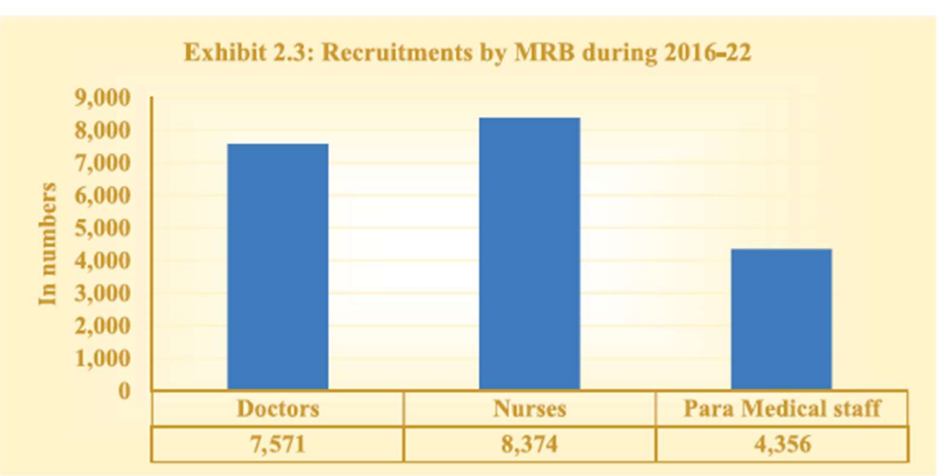
Thus, the large number of vacancies of paramedics impacted service delivery to the needy patients which resulted in underutilisation/misuse of hospital equipment.

GoTN replied (August 2022) that action was being taken to recruit Pharmacists, Nurses, Dieticians and Theatre Assistants. Audit found that regular recruitment was not being done even as the vacancies were increasing. No recruitment was made for X-ray technicians and Theatre Assistant posts during the last five years.

2.6 Recruitment of manpower

GoTN constituted (January 2012) the Medical Services Recruitment Board (MRB) with the objective of making appointments to various categories of staff in the HFW Department by way of direct recruitment. During 2016-22, MRB recruited 20,301 candidates for various posts[3]. The total candidates recruited, as Doctors, Nurses and Paramedical staff is given in **Exhibit 2.3.**

[3] Besides permanent staff, a total of 17,651 candidates were appointed temporarily for COVID during 2019-21.



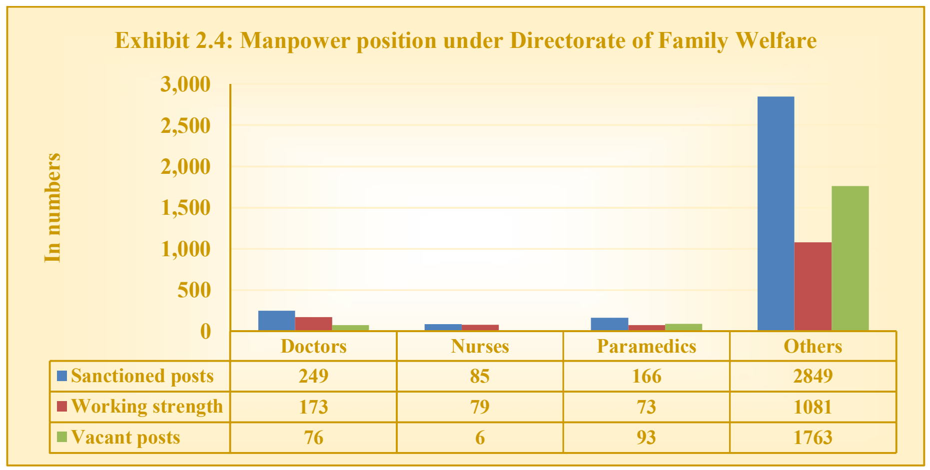
(Source: Details furnished by MRB and Policy Note 2022-23)

Considering the vacancies of 2,095 doctors, 4,305 nurses and 6,391 paramedical staff as of March 2022, the average annual recruitment during 2016-22 was less than the prevailing vacancies of doctors and only 32 *per cent* and 11 *per cent* of the total recruitment of 8,374 and 4,356 nurses and paramedical staff respectively were recruited.

Thus, Audit observed that the recruitment of medical manpower lagged despite constituting a separate Board for recruitment of medical manpower.

2.7 Human resource under the Directorate of Family Welfare

The National Family Planning Programme is being implemented in the State since 1956 with GoI's assistance. The objective of the programme is to maintain the Total Fertility Rate (TFR) to the extent necessary to stabilise the population at a consistent level. The Directorate of Family Welfare - implements family planning related initiatives. The manpower position under the Directorate is given in **Exhibit 2.4** and the details of shortage of manpower in certain specific posts is given in **Table 2.6**.



Note: Posts under 'Others' category consists of administrative and ministerial posts.

(Source: Data furnished by Directorate of Family Welfare)

Table 2.6: Shortage of Manpower in certain specific posts under the Directorate of Family Welfare

Sl. No.	Post Name	Sanctioned Posts	Working Strength	Vacant Posts	Vacant posts (In *per cent*)
1	Auxiliary Nurse Midwife	184	127	57	***31***
2	Block Extension Educator	382	3	379	***99***
3	Block Health Statistician	403	206	197	***49***
4	Cinema Operator	37	2	35	***95***
5	Family Welfare Assistant	163	0	163	***100***
6	Family Welfare Extension Educator	28	0	28	***100***
7	Lady Health Visitor	104	26	78	***75***
8	Lecturer in Health Education	7	0	7	***100***
9	Lecturer in Statistics and Demography	8	0	8	***100***
10	Mass Education and Information Officer	22	4	18	***82***
11	Maternity Child Health Officer	15	0	15	***100***
12	Storekeeper	374	10	364	***97***

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Data furnished by Directorate of Family Welfare)

It is pertinent to mention that although the TFR of the State has fallen below the population replacement level of 2.1 children per women, considering the number of tubectomy, IUD insertions carried out by Government HCFs, the need for maintaining an optimum strength of personnel for the family planning programme is essential for effective implementation of various Family Welfare programmes.

Recommendation 1:

Government should ensure that adequate manpower is available for continued effective implementation of Family Welfare programmes.

2.8 Human resource under AYUSH

The Directorate of Indian Medicine and Homoeopathy is responsible for providing AYUSH[4] medical education and its services. As of March 2023, against a sanctioned strength of 2,088 doctors in the State, there was a vacancy of 331 (16 *per cent*). The overall vacancy position of all cadres under the Directorate of Indian Medicine and Homoeopathy was 32 *per cent*, the details of which are given in **Table 2.7**.

[4] Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy.

Table 2.7: Staff details[5] of Directorate of Indian Medicine and Homoeopathy as of March 2023

Sl. No.	Post	Sanctioned	In position	Vacancy	
				No.	Percent-age
1	Director (IAS)	1	1	0	*0*
2	Medical personnel	2,136	1,771	365	*17*
3	Nursing personnel	117	110	7	*6*
4	Pharmacist/Pharmacy Supervisor/Dispenser	1,334	1,108	226	*17*
5	Therapeutic Assistant	139	4	135	*97*
6	Nursing Assistant/Hospital Worker	1,135	476	659	*58*
7	Multipurpose Worker	475	230	245	*52*
8	Attender	36	22	14	*39*
9	Driver (Mobile Tribal Unit)	2	0	2	*100*
10	Ministerial Staff	279	191	88	*32*
11	Others	574	318	256	*45*
	Total	**6,228**	**4,231**	**1,997**	***32***

High (> 25 *per cent*) **Moderate (10 to 25 *per cent*)** **Fair (<10 *per cent*)**

(Source: Directorate of Indian Medicine and Homoeopathy)

Audit observed that the large number of vacancies in the HCFs under the Directorate of Indian Medicine and Homoeopathy would not augur well for popularising alternative medicines, which is a policy of Government.

Recommendation 2:

Government should ensure that the Directorates periodically compile the manpower requirement at different levels and pursue with the Medical Recruitment Board to recruit staff as per Annual Recruitment Calendar.

2.9 Manpower for Ambulance Services

In 2008, a free Emergency Ambulance Service - '108 Emergency Services' - was launched. As of March 2022, 1,353 ambulances were deployed in all 38 districts across the State. Each ambulance has a Pilot (Driver) and one fully trained Emergency Medical Technician (EMT) who provides the pre-hospital care to victim. A total of 2,975 Pilots and 2,858 EMTs are deployed in all the districts for smooth operation of these ambulances which provide Basic and

[5] Including Regular staff, Consolidated/Part time/Outsourced staff; National Rural Health Mission; AYUSH Wellness Clinics under National AYUSH Mission; and Mobile Tribal Units (Siddha).

Advanced Life Support. The district-wise distribution of ambulances, EMTs and Pilots are given in **Appendix 2.6**.

The audit findings on the '108 Emergency Services' are discussed in **Paragraph 3.3.5**.

2.10 Availability of Accredited Social Health Activists (ASHAs)

One of the key components of the National Rural Health Mission (NRHM) is to provide every village in the country with a trained female community health activist, i.e., an 'Accredited Social Health Activist' (ASHA). Selected from the village itself and accountable to it, the ASHA will be trained to work as an interface between the community and the public health system.

The general norm for selection of ASHA is One ASHA per 1,000 rural population[6]. According to 2011 census, the rural population in Tamil Nadu was 3.72 crore for which 37,200 ASHA workers are required. However, in Tamil Nadu the sanctioned post itself was only 2,650 which is highly inadequate to cater the rural population. As of March 2022, a total of 2,615 ASHAs are placed in 30 districts in the State against a sanctioned strength of 2,650 ASHAs, the district-wise details of which are given in **Appendix 2.7**.

Audit observed that out of 38 districts in the State, only 30 districts are having sanctioned strength of ASHAs.

[6] In tribal, hilly, desert areas the norm could be relaxed to one ASHA per habitation, dependant on workload etc.