Chapter II

Human Resources

Chapter II Human Resources

In Primary Healthcare, the shortages in ANM posts and Mid-Level Health Providers in Sub-Health Centres were observed. Further, vacancy in the staff nurse cadre was 2.21 per cent (August 2023). Due to shortage in Public Health Nurse (Non-Technical) posts, the service area of 472 PHCs was deprived of sensitisation on primary health concerns. In Secondary Healthcare, the vacancy in the doctors cadre including specialists was 16 per cent (August 2023). In Tertiary Healthcare, 149 posts out of 608 posts of Professor cadre and 156 posts out of 744 posts of Associate Professor cadre were vacant (September 2022) in 11 GMCs. The shortfall in the posts of Professor and Associate Professor would increase workload on existing Professors and Associate Professors and thus would affect quality teaching in the teaching hospitals. Shortage of human resources in Medical College & Hospitals may hamper medical education and research work and compromise the quality of tertiary healthcare services.

2.1 Introduction

Human Resource (HR) is the most crucial resource towards the delivery of health services. The aim of HR planning is to make available the right kind of personnel in the right number with appropriate skills. HR includes various types of health resources such as doctors, nurses, pharmacists, lab technicians, radiographers *etc*.

Standards of health system are dependent on availability, accessibility, and quality of healthcare work force.

2.2 Human resource availability against sanctioned strength

IPHS, 2012 specified norms for availability of Human Resources for Primary and Secondary level Health care. However, Government stated (August 2023) that State had its own HR norms for each type of healthcare. Government Orders for approved staffing pattern was provided.

Audit observed shortfall in the posts of doctors, nurses, and paramedics in Primary Healthcare, Secondary Healthcare and Tertiary Healthcare sectors. Human resource position against the sanction in three sectors in the State is given below:

2.2.1 **Primary Healthcare**

To ensure round-the-clock access to public health facilities, Primary Health Centres are expected to provide 24-hour services with basic Obstetric and Nursing facilities.

2.2.1.1 Availability of Human Resources at Sub Centres / Sub Health Centres

Indian Public Health Standards (IPHS), 2012 service delivery norms recommended One Auxiliary Nurse & Mid-wife (ANMs) and one Multipurpose Health Worker-Male (MPHW-M) for each Sub Centre (SC). However, as per Ayushman Bharat Operational Guidelines, 2018 for providing Comprehensive Primary Health Care, a key addition to the primary health team at the Sub-Health Centre (SHC), would be the Mid-level Health Provider (MLHP). Further, SHC should be equipped with two MPW (F) and one MPW(M).

As per information furnished by the Commissioner of Family Welfare, there were 18,212 ANMs out of 20,324 sanctioned posts. Staff requirement and availability in SCs is detailed in *Table 2.1*.

SI. No.	Name of the Cadre	As per AB Guidelines	Required as per availability	Sanctioned Strength	Person- in- position	Vacancy against required	Percentage of vacancy
1	Auxiliary Nurse and Midwifery (ANM)/ Multi Purpose Health Assistant (MPHA) (F)	2	20,064	20,324	18,212	1,852	9.23
2	Multi Purpose Health Asst. (MPHA) (M)	1	10,032	5,046	2,559	6,639	66.18
3	Mid Level Health Provider (MLHP)	1	10,032	10,032	8,251	1,781	17.75

Table 2.1: Statement showing Human Resource position in SCs/SHCs

Source: Information furnished by CFW for ANMs& MLHPs and reply from DH for MPHW

Thus, 1,852 ANMs were required to be placed in vacancies to offer the services effectively to meet the requirement of AB-HWC norms. We observed only one¹¹ ANM, instead of requirement of two ANMs per SC/SHC, was available in seven test checked SCs/SHCs. Government (August 2023) was silent regarding the vacancies of ANMs.

Further, we observed huge vacancies *i.e.* 66 *per cent* in MPHA (Male) cadre. On this being pointed out Government replied (August 2023) that due to change in policy by Government recruitment in the cadre of MPHA (M) was stopped and the available are being utilised to work under Family Physician concept to cover three SCs/SHCs.

Government, further stated that MLHPs, with a qualification of BSc (Nursing) were recruited and more qualified than MPHAs and providing basic health services. However, this cadre is also not completely filled and about 18 *per cent* posts in the cadre are vacant.

Thus, the shortages in these cadres would impact the implementation of public health programmes and maternal & child health care respectively. These are the grass root health functionaries for the control of communicable diseases including Malaria, TB, Leprosy, Water Borne Diseases, as well as Environmental Sanitation, detection of disease outbreaks and their control, health education etc. They would be given a smaller population to meet the community health needs by establishing health linkages with the local community.

¹¹ Gorantla, under Kondapuramu PHC of Anantapur district

2.2.1.2 Availability of Human Resources for PHC Clinical Services

Clinical Health Service is defined as a single, diagnostic, therapeutic, rehabilitative, preventative, or palliative procedure or a series of such procedures that may be separately identified for the purpose of service.

We observed (October 2022) that shortfall of Human Resources for Clinical Services in test checked PHCs was as below.:

- Only one Medical Officer was available at two selected PHCs, Thummalapenta and Karajada PHCs against IPHS service delivery norms and AB-HWC norms of two Medical Officer/Civil Assistant Surgeon (CAS) posts to be available per PHC.
- Under NHM, PHCs are being operationalised for providing 24X7 services in various phases by placing at least three Staff Nurses in these HCFs. However, only three PHCs (Kondapuram, Kudair and Karajada) were provided with three staff nurses and the remaining five PHCs were functioning with two nurses only. Though all the PHCs were designated as 24X7 PHCs, due to non-availability of third staff nurse, no night services were available in five test checked PHCs¹². Medical Officers of two PHCs¹³, confirmed that they could not provide night services due to non-availability of third staff nurse, and
- Lab Technician post was vacant in Kondapuram PHC since February 2022, due to which only basic lab investigations for antenatal mothers were being offered by ANMs and Mid-Level Health Providers (MLHPs) as stated (August 2022) by the Medical Officer. Thus, due to non-availability of lab services, the patients were bound to visit other labs or to travel to other distant public labs and immediate treatment was denied.

Government accepted (August 2023) the audit observation and replied that presently the shortfall was reduced¹⁴ across all PHCs in the State. The status of PHC Human Resources as on August 2023 in the State is given in *Table 2.2*.

C1	Name of the	As per	As per G	O Ms No 32	Person-		Percentage
Sl. No.	Cadre	IPHS 2012	Staffing Pattern	Sanctioned Strength	in- position	Vacancy	of vacancy
1	Civil Assistant Surgeon*	1	2	2,290	2,596	Nil	Nil
2	Staff Nurse	3	3	3,435	3,359	76	2.21
3	Lab-Technician Gr-II	1	1	1,145	1,129	16	1.40
4	Pharmacist Gr-II	1	1	1,145	1,127	18	1.57
5	Community Health Officer (CHO)/ Multi Purpose Health Officer (MPHEO)	1	1	1,145	1,572	Nil	Nil
6	Health Educator / Public Health Nurse (Non-	-	1	1,145	508	637	55.63

 Table 2.2: Human Resource status in PHCs

¹² Urlam, Inamadugu, Thummalapenta, Chennur and Kudair

¹³ Kondapuramu and Inamadugu

¹⁴ GO Ms No. 32 of GoAP, HM&FW Dept. dated 24 Feb 2023

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~	Name of the	As per	As per G	O Ms No 32	Person-		Percentage
Sl. No.	Cadre	IPHS 2012	Staffing Pattern	Sanctioned Strength	in- position	Vacancy	of vacancy
	Technical) – PHN(NT)						
7	Multi Purpose Health Supervisor (Female) – MPHS (F)	1	1	1,145	1,540	Nil	Nil
8	Multi Purpose Health Supervisor (Male) – MPHS(M)	1	1	1,145	1,050	95	8.30
9	L.D computer/ Junior Assistant/Senior Assistant	1	1	1,145	1,145	Nil	0.00
10	Female Nursing Orderly (FNO)	3	1	1,145	1,145	Nil	0.00
11	Sanitary Attender cum Watchman		1	1,145	1,145	Nil	0.00
	Total	13	14	16,030	16,316	842	

Source: Information furnished by Director, Public Health and Family Welfare

* As per AYUSHMAN BHARAT Operational Guidelines, 2018 for Comprehensive Primary Health Care through Health and Wellness Centres Two Medical Officers are required for a PHC

There was provision for either PHN-NT (Public Health Nurse -Nontechnical) or Health Educator to be filled in the PHC in the revised structure of PHCs. Against 673 posts of PHN-NT sanctioned, 508 posts were only available.

Since the post of PHN-NT is crucial in canvassing about child spacing methods, adolescent health, sanitation, oral health *etc.*, the service area of 472 PHCs¹⁵ would be deprived of sensitisation on primary health concerns. Further, the details of sanctioned strength and availability in Health Educators cadre was not furnished by the Government.

Seventy six posts of Staff Nurses were vacant as of August 2023 in the State; however, night Services (24X7) were stated by the Government to be available in all the PHCs.

Since third post of staff nurse is required to provide Night Services, there is no scope in 76 PHCs to provide health services in the night.

All the PHCs were provided with equipment and conducted 40 plus lab tests in their premises. There was no hub sample collection facility in Andhra Pradesh.

Since 16 posts of Lab technician were vacant, contention of Government to have conducted lab tests in all PHCs is not acceptable.

- As seen from the above table, all the posts under the cadre of LD Computer/ Junior Assistant / Senior Assistant are filled. However, during physical verification (September 2023) of selected PHCs, audit observed that the post was lying vacant in PHC, Mutukuru in Guntur district.
- As seen from above table, all the posts sanctioned across the State were occupied. However, during physical verification (September 2023), audit observed that the

¹⁵ out of 1145 PHCs only 673 posts were sanctioned

post of Female Nursing Orderly was vacant in two PHCs at Dhulipudi and Munnangi in Guntur district and the post of Attender-cum-watchman/ Sweeper was vacant in Dhulipudi PHC.

To overcome the time delays in lengthy recruitment process for filling up of posts at Health facility level, Government permitted¹⁶ the respective HoDs to fill the vacancies on real time basis without referring to Government, by following the rules in vogue.

However, the department had not maintained centralised database of sanctioned strength, actual person in position and unit wise deployment of staff. Shortfalls were noticed in filling the posts in all the cadres at Sub Centre level and administrative cadres at PHC level. This would affect the service delivery in providing Primary Healthcare services.

2.2.2 Secondary Healthcare

2.2.2.1 Doctors and specialists in secondary HCFs

The availability of Specialist doctors in APVVP hospitals (secondary healthcare) as of November 2022 in the State is shown in *Table 2.3* and availability of Doctors in the State is shown in *Table 2.4* below:

Doctors	Sanctioned	Filled	Vacant	Shortfall in Percentage
General Medicine	308	193	115	37
Chest Disease	2	0	2	100
General Surgeon	307	243	64	21
Gynaecologist	444	387	57	13
Dermatology	64	59	5	8
Paediatrics	324	287	37	11
Anesthesia	316	273	43	14
ENT	125	110	15	12
Ophthalmic	130	117	13	10
Orthopedic	125	119	6	5
Radiologist	68	27	41	60
Pathology	74	59	15	20
Psychiatry	15	15	0	0
Microbiology	13	12	1	8
Forensic Science	12	9	3	25
Total	2,327	1,910	417	17.92

Table 2.3: Availability of Specialist Doctors in the State

Source: Information furnished by Commissioner, APVVP

 $^{^{16}}$ $\,$ GO Ms No. 188 HM&FW Dept., dated 15 July 2022 $\,$

Doctors	Sanctioned	Filled	Vacant	Shortfall in Percentage
RMO	64	14	50	78
General doctors	676	511	165	24
Dental doctors	249	138	111	45
Total	989	663	326	32.96

Table 2.4: Availability of Doctors in the State

Source: Information furnished by Commissioner, APVVP

- The shortfall in availability of doctors was 22 per cent in the State. However, the percentage of shortfall in the categories of Radiologist, RMO and general Medicine was 60, 78 and 37 respectively.
- Two Chest disease specialist posts were sanctioned for Chest Disease Hospital located at Anantapur. However, no chest disease specialist was deployed in the hospital since its inception *i.e.*, 2008.

The Government replied (August 2023) that recruitment drives were conducted in 10 spells from 10 June 2020 to 29 June 2023 and maximum efforts were made to fill all the vacancies. Further, it was stated that the vacancy position in specialist doctors as of July 2023 came down to 18 *per cent*.

It was further stated that all the sanctioned posts in Orthopedic, Psychiatry and Dental doctors were filled. Thus, Government accepted the observation and promised future compliance.

2.2.2.2 Availability of Doctors across the districts

The availability of specialists and medical officers in the State is shown in *Table 2.5*:

Sl	N	Nome of the District			
No	Name of the District	Sanctioned	Filled	Vacancy	Percentage
					shortfall
1	Srikakulam	246	194	52	21
2	Vizianagaram	187	147	40	21
3	Visakhapatnam	272	201	71	26
4	East Godavari	335	236	99	30
5	West Godavari	256	199	57	22
6	Krishna	177	152	25	14
7	Guntur	279	247	32	11
8	Prakasam	264	199	65	25
9	SPSR Nellore	204	160	44	22
10	Chittoor	313	243	70	22
11	Anantapur	317	215	102	32
12	Kurnool	249	201	48	19
13	YSR	217	179	38	18
	Total	3316	2573	743	22

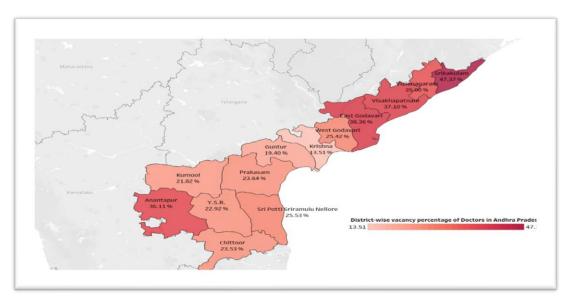
Table 2.5: District-wise availability of Specialists and Medical officers

Source: APVVP records

The specialty-wise availability of doctors in the districts is given in Appendix 2.1.

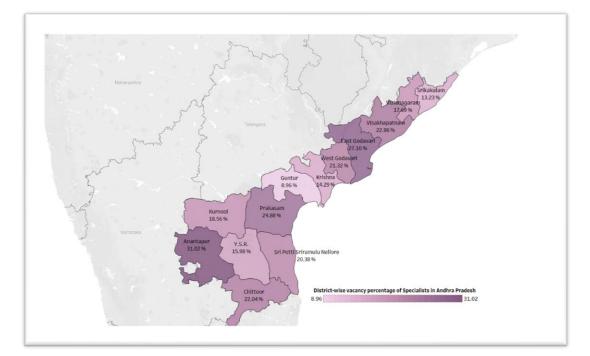
Doctors' vacancy position across the State

Vacancies were distributed across the State in respect of doctors. However, some disparities were noticed in vacancy percentages across the districts in secondary health care institutions as of November 2022, is shown in *Map 2.1*.





Specialty wise availability of Specialist doctors in the districts in secondary health care institutions as of November 2022, is shown in *Map 2.2*.



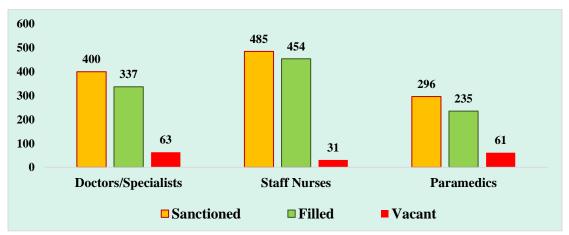
Map 2.2: Map showing the percentage of vacancies in specialists in the State

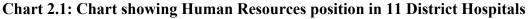
Government accepted (August 2023) the audit observation and stated that out of revised sanctioned posts of 3,339 doctors including specialist in districts, 2,794 were filled-in, 545 posts were lying vacant and thus vacancy was reduced to 16 *per cent* (18 *per cent*)

in the case of specialists) and further promised future compliance. However, we observed from the reply that larger districts Anantapur (19 *per cent*), East Godavari (19 *per cent*), Visakhapatnam (19 *per cent*), West Godavari (18 *per cent*) and YSR (18 *per cent*) were having more vacancies.

2.2.2.3 Availability of Doctors in DHs

Human Resource position in the District Hospitals (excluding DH Chittoor) is given in *Chart 2.1.*





We observed (November 2022) from the above chart that,

- Against 400 sanctioned strength of doctors, 337 posts were filled-in with 63 posts (16 per cent) shortage.
- Against 485 sanctioned strength of Staff nurses, 454 posts were filled-in with 31 posts (6 per cent) shortage.
- Against 296 sanctioned strength of paramedics, 235 posts were filled-in with 61 posts (21 per cent) shortage.

Availability of Human resources at DH Chittoor operating in PPP mode

In addition to the above, at DH Chittoor, 152 specialist doctors, four causality medical officers, five ICU doctors, eight Junior Doctors, 230 staff nurses and 78 paramedical staff are available and working as of May 2023.

2.2.2.4 Staff Nurses in secondary health care institutions

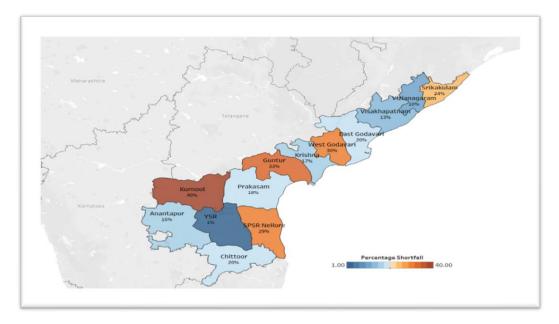
As per the Indian Nursing Council Regulations, there should be one nurse for every six beds in the General wards. For in-patient wards, considering eight hours a shift, number of nurses needed in three shifts to cover a 24-hour period is four, which includes an additional nurse for OP of six beds. The requirement of staff nurses in secondary HCFs as per Nursing Council Regulation is shown below in *Table 2.6*.

Table 2.6: Staff Nurses to be available as per Indian Nursing Council Regulations

Available beds	Requirement of staff nurse for OPD	Requirement of staff nurse for IPD	Total
1	2	3	4(2+3)
14,290	2,382	7,146	9,528

Source: INC Regulations

We observed that out of 3,551 sanctioned posts of Staff Nurses, only 2,808 were filled and 743 posts were vacant as of November 2022. However, when compared with INC regulations, the shortfall is 70.5 *per cent*. The staff nurse availability in secondary healthcare across the districts is given in *Appendix 2.2*. Vacancy percentage of staff nurse posts in secondary health care across the districts is shown in *Map 2.3*.



Map 2.3: Map showing the staff nurse vacancies across the districts

The shortfall of staff nurses increases the burden on the remaining nurses and adversely affects patient care.

Government replied (August 2023) that orders were issued¹⁷ to fill the vacancies in the department as and when the vacancy arises. It was further stated that 96 *per cent* of nursing posts were filled and recruitment for remaining vacancies was under process which would be completed by the end of July 2023. The number of vacancies in nursing cadre in APVVP institutions was 152 *i.e.* 4.21 *per cent* only of the sanctioned posts.

2.2.2.5 Paramedical staff in Secondary HCFs

Paramedical personnel provide clinical services to patients under the supervision of a physician. The availability of paramedical personnel in the State as of November 2022 is shown in *Table 2.7*.

Sl. No.	Name of the Post	Sanctioned	Filled	Vacancy	Percentage shortfall
1	Radiographers	249	175	74	30
2	Dietician	9	5	4	44
3	Pharmacist	671	476	195	29
4	Theatre Assistant	464	370	94	20
5	Junior Analyst	8	5	3	38

Table 2.7: Availabilit	v of Paramedical	staff in the	State (November 2022)
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¹⁷ G.O.Ms. No. 188, HM&FW(D1) Dept., dated. 15.07.2022

Sl. No.	Name of the Post	Sanctioned	Filled	Vacancy	Percentage shortfall
6	Lab Technician	583	514	69	12
7	Dark Room Assistant	198	66	132	67
8	Ophthalmic Assistant	49	24	25	51
9	Biomedical Engineer	67	52	15	22
10	Audio metrician	57	18	39	68
11	Dental Technician	7	4	3	43
12	Lab Attendant	88	56	32	36
13	Physiotherapist	54	47	7	13
14	Counsellor	52	45	7	13
15	Postmortem Assistant	252	237	15	6
	Total	2808	2094	714	25

Source: APVVP records

The shortfall in the availability of paramedical staff was 25 *per cent* in the State. However, the shortfall percentage was more than 50 in the categories of Dark Room Assistant, Audio metrician, Dietician and in respect of Dental Technician, shortfall was more than 40 *per cent*. The availability of Paramedical staff across the districts was shown in *Appendix 2.3*.

We observed that the vacancy in Radiographer posts in the State was 30 *per cent*. It was more than 50 *per cent* in East Godavari (55 *per cent*), Guntur (69 *per cent*) and Kurnool district (60 *per cent*).

The vacancy position in Pharmacist posts was 29 *per cent* in the State. However, it was 43 *per cent* in Srikakulam, 45 *per cent* in East Godavari, 39 *per cent* in West Godavari and 39 *per cent* in Prakasam district.

Government accepted (August 2023) the audit observation and stated that the percentage of vacancies in paramedical cadres was reduced from 25 *per cent* to nine *per cent* as on 22 July 2023. It was further stated that only one Dental Technician post was vacant out of seven sanctioned posts, there is no vacancy in Dietician posts out of nine sanctioned posts in the State and eligible candidates are not available for the post of Audiometrician. The recruitment of the post of Dark Room Assistant is redundant as reporting of X-Ray was being done through teleradiology programme under PPP mode in APVVP facilities.

As per reply submitted by the Government of AP, still there is 16 *per cent* vacancy in Pharmacist posts. As per IPHS 2012 and 2022, Dental technician and Dietician are essential for District Hospital. However, only seven Dental technician posts and nine Dietician posts were sanctioned for 11^{18} District Hospitals in the State. To assess the institution wise shortages district wise data was not furnished by the Government.

Shortage of paramedical staff may impact the service delivery to the patients. Government may closely monitor deploying appropriate HR at appropriate places to overcome deficiencies.

¹⁸ except DH Chittoor

2.2.2.6 Administrative and other staff in Secondary HCFs

The sanctioned strength, availability, and vacancies in administrative and other staff in the secondary healthcare in the State is shown in *Table 2.8*.

Sl No.	Name of the Post	Sanctioned	Filled	Vacancy	Percentage shortfall
1	Hospital Administrator	52	0	52	100
2	Administrative Officer	57	8	49	86
3	Office Superintendent	64	34	30	47
4	Medical Record Assistant	49	36	13	27
5	Junior Assistant / DEO	591	413	178	30
6	Junior Accountant	67	0	67	100
7	Senior Assistant	181	82	99	55
8	General Duty Attendant /MNO/FNO	1,873	1,524	349	19
9	Electrician	57	46	11	19
10	Plumber	57	23	34	60
11	Office subordinate	270	203	67	25
	Total	3,318	2,369	949	29

 Table 2.8: Availability of Administrative and other staff in the State (November 2022)

Source: APVVP records

Though the shortfall in the State was 29 *per cent*, there were more than 80 *per cent* vacancies in Hospital Administrators, Administrative Officers and Junior accountant category. These cadres are important for assisting the doctors in smooth functioning of the support services in the hospitals. Lack of these cadres will affect the clinical services also. The availability of Administrative and other staff across the districts is given in *Appendix 2.4.*

Government replied (August 2023) that:

- Only 12 eligible candidates were available for Hospital Administrator post for 49 sanctioned posts and all of them joined duty.
- In respect of Administrative Officer which is a promotional post and issuance of promotion orders was under process for eligible employees.
- Office Superintendent is also a promotional post for which feeder cadre is Senior Assistant in which there were no eligible employees for promotion to the post. Out of 74 sanctioned Office Superintendent posts, 31 posts were vacant at present.
- In Senior Assistant cadre 55 posts were vacant out of 223 sanctioned posts and they were required to be filled by way of promotion from the category of Junior Assistant.
- There were 155 vacancies out of 648 sanctioned posts of Junior Assistant / DEO at present.
- > Two posts of Junior Accountant were filled out of 70 sanctioned posts.
- Medical Record Assistant, General Duty Attender/ MNO/ FNO, Electrician, Plumber and Office Subordinate are district level direct recruitment posts for

which instructions were issued to fill up the vacancies as and when the vacancy arises without waiting for any approval from Government¹⁹.

Thus, Government accepted (August 2023) the audit observation and promised future compliance.

2.2.2.7 Availability of Human resource in CHCs

The Community Health Centre (CHC) provides referral as well as specialist healthcare to the rural population. IPHS envisages CHC to provide optimal specialised care to the community and achieve and maintain an acceptable standard of quality of care. The essential requirement for a minimum functional grade of a CHC is five medical specialists *viz.*, General Surgeon, Physician, Gynaecologist/Obstetrician, Anaesthetist and Paediatrician along with a Dental Surgeon and two Medical Officers supported by 21 paramedical and administrative staff. Availability of human resources in all CHCs in the State is given in *Table 2.9*.

Table 2.9: Statement showing availability of Human resource in
CHCs in the State

Speciality	Sanctioned	Filled	Vacant	Vacancy <i>Per cent</i>					
	Doctors								
General Medicine	175	92	83	47					
General surgeons	175	128	47	27					
Gynaecology	224	195	29	13					
Paediatrics	175	141	34	19					
Anaesthesia	175	157	18	10					
ENT	49	41	8	16					
Ophthalmic	49	43	6	12					
Orthopaedic	49	45	4	8					
General MBBS	350	277	73	21					
Dental Asst. Surgeon and Dy. Surgeon	175	124	51	29					
	Par	ramedical staff							
Staff Nurse	1470	1085	385	26					
Radiographer	175	108	67	38					
Pharmacist	350	231	119	34					
Theatre Assistant	175	161	14	8					
Lab Technician	350	313	37	11					
Ophthalmic assistant	49	24	25	51					
	Ministerial staff								
Junior Assistant	350	261	89	25					

Source: Information furnished by Commissioner, APVVP

We observed that as of November 2022,

¹⁹ GO Ms. 188 HM&FW (D1) dept. Dt.15.7.2022.

- 842 Specialist doctors were working against sanctioned strength of 1,071 with a vacancy of 229 posts (21 per cent).
- 92 Specialist doctors in General medicine were working against sanctioned strength of 175 with a vacancy of 83 posts (47 per cent).
- ➤ 128 Specialist doctors in General surgery were working against sanctioned strength of 175 with a vacancy of 47 posts (27 per cent).
- 124 Dental assistant surgeon posts and Deputy dental surgeon posts were filled against sanctioned strength of 175 with a vacancy of 51 posts (31 per cent).
- 1085 Staff nurses were working against sanctioned strength of 1470 with a vacancy of 385 posts (26 per cent).
- 24 Ophthalmic assistants were working against sanctioned strength of 49 with a vacancy of 25 posts (51 *per cent*).
- 231 Pharmacists were working against sanctioned strength of 350 with a vacancy of 119 posts (34 per cent).
- 108 Radiographers were working against sanctioned strength of 175 with a vacancy of 67 posts (38 per cent).

Government replied (August 2023) that Specialist doctors were not inclined towards Government service as they felt that salary was less when compared to private/ corporate sector. Further it was stated that the consolidated remuneration and pay structure with regular pay scales with admissible allowances at par with regular post were implemented with effect from April 2022/ January 2023. Government permitted the Heads of Department including the Commissioner, APVVP to fill up the vacancies in the Department as and when they arise without seeking permission from the Government. Thus, the Government promised compliance.

2.3 Tertiary Healthcare: Human Resources in Government Medical Colleges

The staff requirement has been specified department wise in Schedule II, MSRR 1999 in respect of both clinical and Non- clinical Departments and further State Government issued Government Orders (GOs) from time to time for sanctioning posts based on the requirement.

2.3.1 Status of Teaching Staff in Medical Colleges

Men in Position and Vacancy Position in the State²⁰ are given in *Table 2.10*.

Name of the medical college		Professors		Associate Professors		
	SS	MIP	V	SS	MIP	V
GMC Srikakulam	22	18	4	58	22	36
GMC Ongole	22	15	7	39	20	19

Table 2.10: Statement of Staff Position in GMCs in the State

²⁰ Assistant Professor cadre strength not furnished by DME

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Name of the medical college		Professors		Ass	ociate Profes	sors
Name of the metical conege	SS	MIP	V	SS	MIP	V
GMC Kadapa	36	25	11	90	36	54
AMC Visakhapatnam	95	76	19	85	55	30
RMC Kakinada	65	49	16	60	33	27
GMC Guntur	74	57	17	65	32	33
SMC Vijayawada	73	53	20	81	35	46
SVMC Tirupati	67	52	15	61	29	32
KMC Kurnool	73	57	16	70	32	38
GMC Anantapur	38	16	22	78	36	42
ACSR GMC Nellore	43	24	19	57	32	25
Total	608	442	166	744	362	382

Source: DME data August 2022

SS- Sanctioned Strength, MIP- Men in Position, V- Vacant

Audit observed that there was a shortage of 166 (27 *per cent*) and 382 (51 *per cent*) against sanctioned strength of 608 and 744 with respect to Professors and Associate Professors respectively. Information on Staff position of Assistant Professors across the State was not furnished by DME.

Government replied (August 2023) that 149 out of 608 posts in the cadre of professors and 156 out of 744 Associate professors were vacant. Thus, Government accepted the audit observation and promised future compliance.

Shortage in qualified teaching faculty would directly impact quality of medical education and produce under-skilled young doctors.

2.3.2 Paramedical Staff in Test Checked GGHs

Audit observed that there was a shortfall of paramedical staff as detailed in *Table 2.11*.

Name of the post	Sanctioned	Occupied	Vacant					
GGH, Anantapur								
Staff Nurse	317	258	59					
Lab Tech	5	5	0					
Radiographer	6	5	1					
ECG Tech/Eco	6	5	1					
Audio metrician	1	1	0					
Dietician	2	2	0					
Physiotherapist	3	2	1					
O.T Technician	9	6	3					
Darkroom Asst	4	2	2					
GGH	I, Nellore							
Staff Nurse	360	311	49					
Lab technician Gr. I	7	4	3					
Lab technician Gr. II	23	22	1					
Cardiology Technician	3	1	2					
Nuclear Physicist	1	0	1					
Operation Theatre Tech.	4	3	1					
Anesthesia Technician	4	1	3					
Clinical Psychologist	2	1	1					
Paediatric Psychologist	2	0	2					

 Table 2.11: Staff Position of Paramedical Staff

Chapter II Human Resources

Name of the post	Sanctioned	Occupied	Vacant					
Occupational Therapist	2	0	2					
Dental Technician	4	1	3					
GGH, Srikakulam								
Head Nurse	41	35	6					
Staff Nurse	474	346	128					
Anaesthesia technician	6	0	6					
Anaesthesiologist	2	0	2					
Cath Lab Technician	2	0	2					
CT Technician	2	0	2					
Dark Room Asst	8	6	2					
Dialysis technician	7	3	4					
ECG Technician	14	8	6					
EEG Technician	1	0	1					
Emergency Medical Department Technician	3	0	3					
ENMG Technician	1	0	1					
Lab technician Gr II	29	22	7					
Lab technician Gr I	1	0	1					
MRI Technician	2	1	1					

Source: Information furnished by Commissioner, APVVP

Nuclear physicist, paediatric psychologist and occupational therapist were not available in GGH, Nellore.

Anesthesia technician, Anesthesiologist, Cath lab. Technician, CT technician, EEG technician, Emergency medical department technician, ENMG technician and lab technician Grade-I were not available in GGH, Srikakulam.

Government accepted (August 2023) the audit observation and promised future compliance.

2.4 Trauma Care

2.4.1 Capacity building for developing Trauma Care Facilities in Government Hospitals on National Highways

Accidental injury is one of the leading causes of mortality and morbidity. Traffic crashes are one of the major causes of disability, morbidity and mortality in India. Government strives to ensure that the victims in road accidents benefit from speedy and effective trauma care and health management. The essential functions of such a service would include the provision of rescue operation and administration of first aid at the site of an accident and the transport of the victim from accident site to an appropriate nearby trauma care hospital. As the creation of new integrated and isolated trauma care system is highly cost intensive in terms of infrastructure and manpower, Government of India decided to:

- 1. Upgrade and strengthen existing Hospitals,
- 2. Provide rapid mode of transportation of trauma victim under supervision to reach the hospital early.

3. Provide state of the art communication, rather than simply focusing on creation of new infrastructure for trauma care in a piece meal manner.

The overall objective of the scheme is to bring down preventable deaths because of road accidents to ten *per cent* by developing a pan-India trauma care network in which no trauma victim has to be transported for more than 50 kilometers and a designated trauma Care centre is available at every 100 kilometers.

In the test checked HCFs trauma care facility was sanctioned at DH Tekkali and CHC Naidupet under this scheme.

Government of AP (March 2009)²¹ sanctioned 41 and 42 additional posts on a contractual basis for the Trauma care centre in District Hospital Tekkali and Community Health Centre Naidupet respectively. In DH Tekkali, Equipment worth \gtrless 1.63 crore was received during March 2013 to March 2015.

We observed that, out of the sanctioned manpower of 41, only eight persons were working in the Trauma care centre as of June 2022 at DH Tekkali. The trauma care facility sanctioned at DH Tekkali was not functional due to shortage

The building for the Trauma Care Centre (level-3) in CHC Naidupet was constructed at a cost of ₹67 lakh and inaugurated in April 2013. However, the same was not functional due to non-supply of equipment and non-deployment of manpower.

In the absence of trauma care, injured patients requiring intensive and immediate care need to be referred or transported to tertiary care/trauma care centres located at distant places, which may lead to life threatening situation.

2.4.2 Human resource position in Test-checked Trauma care centres

Government sanctioned²² strength separately to Trauma Care Centres in ten Government Hospitals including GGHs, Nellore and Srikakulam as detailed in *Table 2.12*.

²¹ GO. Ms no 85 dated 26/03/2009

²² Vide G.O.MS No 85 dated 26/03/2009

at ivenore and Srikakulam districts									
SI.	Name of the	GG	H, Srikaku	lam	(GGH, Nellor	'e		
No.	post	Sanctioned	Occupied	Vacant	Sanctioned	Occupied	Vacant		
1	General Surgeon trained in Neurosurgeon	2	0	2	2	0	2		
2	Orthopedic Surgeon	2	0	2	2	0	2		
3	Anesthesiologist	2	0	2	2	0	2		
4	СМО	5	0	5	5	0	5		
5	Staff Nurses	21	2	19	25	2	23		
6	Nursing orderlies	18	15	3	12	5	7		
7	Lab Technician	3	1	2	4	0	4		
8	Radiographers	6	4	2	4	2	2		
9	Drivers	3	2	1	3	3	0		
10	Data Entry Operators	2	2	0	2	2	0		
11	Mani fold Technicians	3	3	0	3	2	1		
12	ECG Technicians	3	3	0	2	1	1		
13	Bio-Medical Technicians	3	1	2	3	3	0		
14	Pharmacists	2	1	1	3	0	3		
15	Electrician	3	3	0	3	1	2		
	Total	78	37	41	75	21	54		

 Table 2.12: Details of vacancy position in trauma care Centres at Nellore and Srikakulam districts

Source: Hospital records

We observed that:

- No staff was sanctioned for GGH Anantapur, the largest district in Andhra Pradesh, hence Trauma care Centre was not functional.
- In GGHs Nellore and Srikakulam, no staff were recruited in the cadres of General and Orthopedic surgeons, Anesthetists and Casualty Medical Officers.
- In GGH Nellore, staff were not recruited in the cadres of Lab technicians and pharmacists.

Government accepted (August 2023) the audit observation and the need to create posts for Trauma care centres in GGHs Kurnool, Anantapur and Kakinada, and CHC, Penukonda and recruitment process to be conducted in all Trauma care Centres.

Manpower shortage in trauma care facilities deprive the critical care and life support to the acutely ill and injured patients.

2.5 Capacity building activities at NHM

IPHS prescribes that Medical Officer should ensure that all the staff are sent for appropriate training, and he should maintain and update the database of staff and the training undergone by each of them. NHM Guidelines stipulate six *per cent* of the NHM budget to be allocated to capacity building and training of the human resources in the health sector. For the years 2017-18 to 2021-22, an amount of ₹144.95 crore was

allocated towards training under NHM. However, an amount of $\gtrless 91.53$ crore (63.15 *per cent*) only was spent on trainings as indicated in *Table 2.13*.

			(₹ in Crore)
Year	Budget allotted	Expenditure	Percentage of expr.
2017-18	1.614	1.092	67.64
2018-19	16.275	8.621	52.97
2019-20	43.251	35.973	83.17
2020-21	64.570	34.973	54.16
2021-22	19.238	10.874	56.52
Total	144.948	91.533	63.15

Table 2.13: Budget allocation and Expenditure towards capacity building

Source: As per FMRs furnished by State Project Monitoring Unit

Further, as indicated in *Table 2.14* the following training programs were conducted by the State Project Monitoring Unit (SPMU) during the years 2017-18 to 2019-20.

Tuble 2.111 Elist of Training programs conducted								
Details of	For whom	2017	2017-18 2018-19		2019	2019-20		
Trainings		Т	Α	Т	Α	Т	Α	
BEMONC	Medical Officer (MO)	336	55	104	90	104	90	
RTI/STI	Medical Officer	390	106	0	0	0	0	
Dakshata	MO & Staff Nurse	2,496	985	1,248	1,083	1,248	1,083	
NSSK	MO, SN &ANM	2,496	710	1,248	939	1,248	939	
PPIUCD	MO& Staff Nurse	520	156	0	0	0	0	
Induction	MO	0	0	1,133	1,012	1,133	1,012	
Laqshya	MO& Gynaecologist	0	0	0	68	0	68	
SBA	SN & ANM	0	0	243	228	243	228	
BiMNCi	ANM & HVs	0	0	312	219	312	219	
Skill Lab	Lab Technician	0	0	288	105	288	105	
Courses Data from	L. IL. MINA				T /	Tana A A A	1 . 1	

Table 2.14: List of Training programs conducted

Source: Data furnished by NHM

Further, scrutiny of data indicated that no trainings were conducted during the years 2020-21 and 2021-22.

We observed from the above table that,

- As per IPHS norms, all the health staff of PHC must be trained in Immunisation and Management of Environment Protection (IMEP). From the above table it can be noticed that no such trainings were provided in any of the years.
- Services for Prevention, Management and control of Reproductive Tract Infection (RTI) and Sexually Transmitted Infections (STI) are to be available at PHCs. However, these trainings were not provided to the MOs since 2018-19.
- During the year 2020-22, online trainings were conducted at an expenditure of ₹45.84 crore, however, the expenditure details of trainings were not furnished to Audit.
- ▶ PPIUCD²³: Spacing is one of the family planning methods. Training on Post-partum family planning is necessary for ANMs, Staff Nurses and MOs for

T-Target, A-Achieved.

²³ Post-partum Intra Uterine Contraceptive Device

promotion of safe deliveries and encourage the spacing techniques during the first 12 months from the delivery among delivered mothers. However, we observed that no training was provided to ANMs, Staff nurses and MOs since 2018-19.

All the PHCs were provided with physiotherapy equipment as part of upgrading them as HWCs under the Ayushman Bharat program. However, no basic training was given to the PHC staff to offer these services to the patients.

Government replied (August 2023) that an amount of ₹18.61 crore was utilised towards bridge course to Mid-Level Health Providers (MLHPs) as a part of training programme. Further, an amount of ₹22.94 crore was released towards conducting various training programmes under various activities of NHM.

Referring to expenditure made on online training as observed, Government stated that the trainings were only offline trainings conducted at various occasions. However, records in support of the reply was not provided to audit.

Further, Government accepted that no training sessions were recorded for the years 2020-21 and 2021-22.

2.6 **Recommendations**

- Government should ensure to provide required human resources to deliver healthcare services effectively at primary, secondary levels and trauma care centres.
- Government should provide required human resources in Medical colleges for their smooth functioning.
- Government should develop a Human Resource Management System (HRMS) to track the deployment of staff in all Health Care Facilities on real time basis.