

CHAPTER II

HUMAN RESOURCES

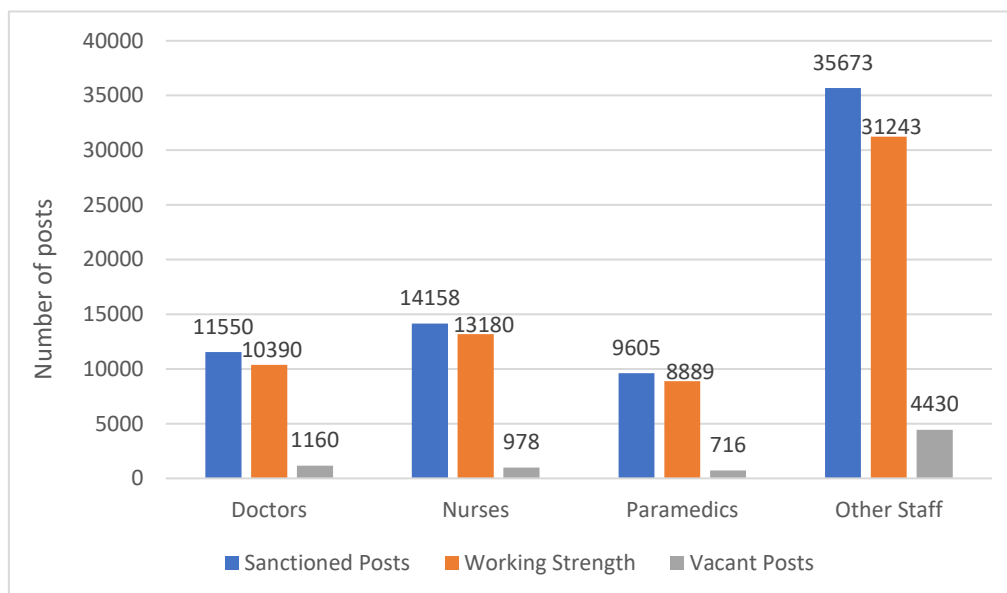
Shortage of doctors against sanctioned posts was noticed in all levels of hospitals under Modern system of Medicine. The shortage was more severe in the case of specialist doctors. Shortage of doctors was also noticed in tertiary level hospitals test-checked under AYUSH. Similarly, shortage of nurses, pharmacists and lab technicians was also noticed in the test-checked hospitals. The deficiency of manpower in public hospitals not just affects the accessibility of public to quality healthcare but also exerts pressure on the available resources, thereby compromising on effective delivery of healthcare services. The doctor to population ratio was most adverse in two out of the 14 districts of the State. The shortage of Accredited Social Health Activists in the districts ranged from three to 33 *per cent* in 13 out of the 14 districts of the State.

The health workforce can be defined as “all people engaged in actions whose primary intent is to enhance health”. Achievement of health goals depends mainly on knowledge, skills, motivation and deployment of the people responsible for organizing and delivering health services. These human resources include clinical staff such as physicians, nurses, pharmacists and dentists, as well as management and support staff – those who do not deliver services directly but are essential for the effective performance of health systems.

2.1. Availability of human resources against sanctioned strength

Audit analysed the availability of the staff for the efficient functioning of the healthcare system under all systems of medicines across the State and the details are as depicted in **Chart 2.1**.

**Chart 2.1: Manpower position in Government health institutions
(as on 31.03.2023)**



(Source: Data furnished by the Directorates (May 2023))

Table 2.1: Manpower position across the different Health Directorates as on 31.03.2023

Name of the Directorate	Name of post	Sanctioned strength (SS)	Share in total workforce of posts (in per cent)	Working strength	Vacant posts	Percentage of vacancy
Director of Health Services (DHS)	Doctors	6326	54.77	5917	409	6.47
	Nurses	9101	64.28	8554	547	6.01
	Paramedics	4084	42.52	3818	266	6.51
	Other Staff	29985	84.06	25731	4254	14.19
Director of Medical Education (DME)	Doctors	2979	25.79	2428	551	18.50
	Nurses	4386	30.98	4057	329	7.50
	Paramedics	1751	18.23	1523	228	13.02
	Other Staff	4544	12.74	4467	77	1.69
Director of Indian Systems of Medicine (DISM)	Doctors	1180	10.22	1115	65	5.51
	Nurses	443	3.13	378	65	14.67
	Paramedics	2340	24.36	2197	143	6.11
	Other Staff	618	1.73	553	65	10.52
Director of Ayurveda Medical Education (DAME)	Doctors	216	1.87	148	68	31.48
	Nurses	105	0.74	88	17	16.19
	Paramedics	103	1.07	89	14	13.59
	Other Staff	300	0.84	278	22	7.33
Director of Homoeopathy (DoH)	Doctors	774	6.70	756	18	2.33
	Nurses	103	0.73	88	15	14.56
	Paramedics	1292	13.45	1233	59	4.57
	Other Staff	177	0.50	169	8	4.52

Name of the Directorate	Name of post	Sanctioned strength (SS)	Share in total workforce of posts (in per cent)	Working strength	Vacant posts	Percentage of vacancy
Principal and Controlling Officer (P and CO), Homoeopathy Medical Education	Doctors	75	0.65	26	49	65.33
	Nurses	20	0.14	15	5	25.00
	Paramedics	35	0.36	29	6	17.14
	Other Staff	49	0.14	45	4	8.16

	Good (< 10 per cent)	Poor (10 to 20 per cent)	Very poor (21 to 50 per cent)	Extremely poor (> 50 per cent)
Scales determined by Audit				

(Source: Data furnished by the Directorates (May 2023)). Data in respect of DHS is as of March 2023 and with respect to others, the position is as of March 2022.

Analysis of availability of clinical staff under each system of medicine revealed the following:

- In the primary and secondary level hospitals (DHS, DISM, DoH) functioning under all systems of medicine, the availability of doctors was around 94 to 98 per cent of the sanctioned strength.

However, in the tertiary level hospitals³, the percentage of doctors in position against sanctioned strength was in the range of 35 to 82 only. Acute shortage was observed in Homoeopathy Medical Colleges, where the regular doctors in position was only 35 per cent. Even after engaging 22 doctors on contract basis, 36 per cent of the sanctioned posts remained vacant during the audit period. GoK stated (October 2023) that against the sanctioned strength of 75 doctors, 61 doctors (24 regular, 10 on deputation and 27 provisional doctors) were engaged in Homoeopathy Medical colleges as of October 2023. The recruitment process of regular doctors through Kerala Public Service Commission (KPSC) would be completed soon.

- The vacancies of nurses, pharmacists and lab technicians reported to KPSC by the Homoeopathy Medical Colleges remained unfilled as no appointments were made during the entire audit period. In the Medical Colleges under ISM also, the vacancies in the post of nurses reported to KPSC remained unfilled from the year 2018-19 as no appointments were made. GoK replied (October 2023) that vacancies of nurses had been filled and non-availability certificates for filling the vacancies of pharmacists and lab technicians were received from KPSC and that the appointment process of provisional employees to the above vacancies through Employment Exchanges would be done shortly.
- In the primary and secondary level hospitals under all the systems of medicine, shortage of staff was observed in posts of nurses, paramedics and other staff. The vacancy position of nurses showed an upward trend

³ Functioning under DME, DAME and P and CO, Homoeopathy Medical Education

in primary/ secondary hospitals of ISM (58 in 2016-17 to 135 in 2021-22) and in tertiary level hospitals it increased from three in 2016-17 to 16 in 2021-22. GoK replied (October 2023) that the reported vacancies under the Department of ISM were filled up from the rank list of paramedical staff available with KPSC. Absence of periodical filling up of vacancies resulted in the risk of denial of uninterrupted delivery of quality healthcare services to the patients.

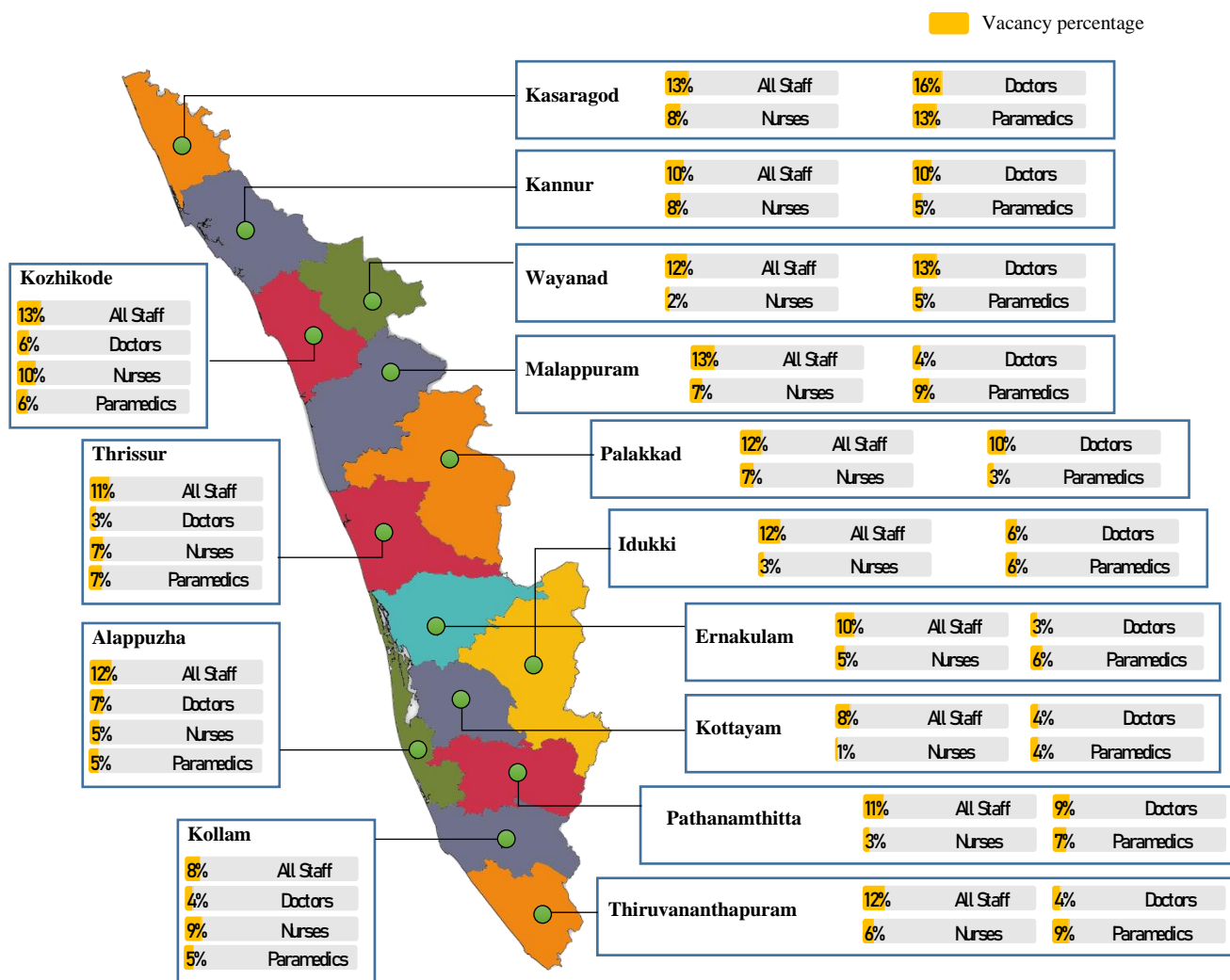
2.2. Availability of staff in various posts under DHS

Indian Public Health Standards (IPHS) issued by GoI prescribes the minimum essential and desirable requirement of human resources to be made available in the primary and secondary level institutions under Modern Medicine. Audit analysed the availability of manpower with reference to IPHS and sanctioned strength and observations thereon are given in the succeeding paragraphs.

2.2.1. Distribution of available manpower in DHS

It is observed that against the sanctioned strength of 49,496 posts across the State under all categories of staff under DHS, 5,476 (11 *per cent*) posts remained vacant (March 2023). The district-wise shortage of all categories of staff ranged from eight *per cent* to 13 *per cent*. The highest vacancy position (13 *per cent*) was observed in the northern districts of Kasaragod, Kozhikode and Malappuram. District-wise vacancy position of all categories of staff is furnished in **Figure 2.1**.

Figure 2.1: District-wise vacancy position of staff under DHS

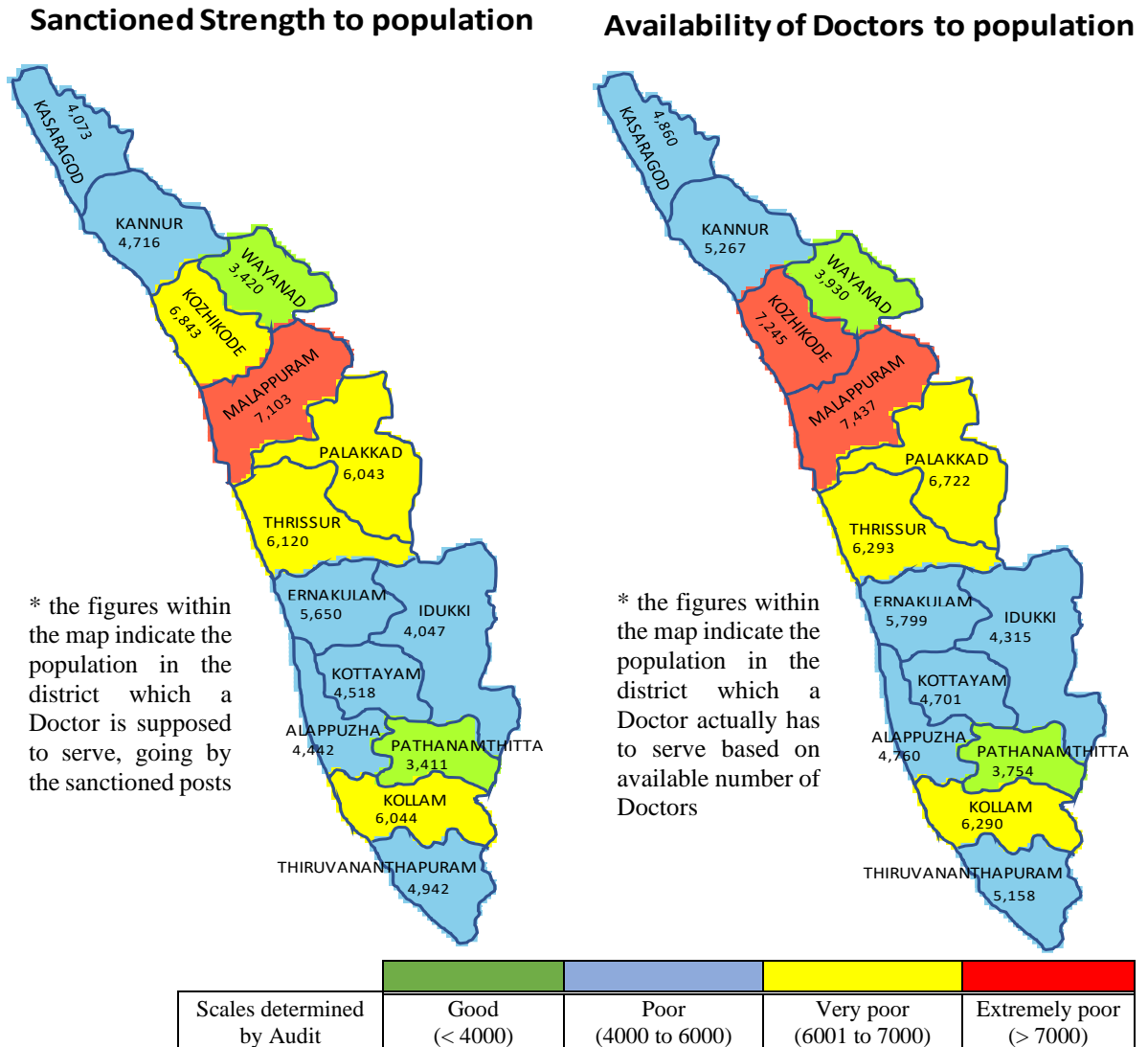


(Source: Data furnished by the DHS in May 2023)

2.2.1.1. Uneven distribution of doctors at district level

Audit noticed wide disparity in sanctioned strength of doctors with respect to population across the State as shown in **Figure 2.2**. While in Pathanamthitta district the ratio was 1:3411, in Malappuram district it was 1:7103.

Figure 2.2: District-wise sanctioned strength and availability of doctors compared with the population



(Source: Data furnished by the DHS in May 2023)

Doctor to population ratio was most adverse in the Kozhikode and Malappuram districts.

2.2.1.2. Availability of specialist doctors in hospitals under DHS in the State

The availability of specialist doctors across the State is shown in the **Table 2.2** below.

Table 2.2: District-wise shortage of specialist doctors (as on 31.03.2023)

Sl. No.	District	DH/ GH			TH/THQH			CHC		
		Sanctioned Strength (SS)	Persons in position (PIP)	Vacancy	SS	PIP	Vacancy	SS	PIP	Vacancy
1.	Thiruvananthapuram	129	125	4	70	68	2	3	3	0
2.	Kollam	46	40	6	89	85	4	0	0	0
3.	Pathanamthitta	77	70	7	35	33	2	0	0	0
4.	Alappuzha	83	74	9	64	60	4	0	0	0
5.	Kottayam	112	107	5	25	23	2	9	9 [#]	-
6.	Idukki	51	49	2	38	36	2	0	0	0
7.	Ernakulam	112	112	0	83	80	3	0	0	0
8.	Thrissur	73	73*	-	64	59	5	4	4	0
9.	Palakkad	40	34	6	58	55	3	10	10	0
10.	Malappuram	121	109	12	58	54	4	4	4	0
11.	Kozhikode	67	62	5	52	48	4	1	1	0
12.	Wayanad	57	46	11	28	23	5	5	5	0
13.	Kannur	89	81	8	67	58	9	7	6	1
14.	Kasaragod	66	54	12	10	10	0	2	2	0
	Total	1123	1036	87	741	692	49	45	44	1

*74 specialist doctors were working against SS of 73

#10 specialist doctors were working against the SS of nine.

(Source: Data furnished by the DHS (May 2023))

Eighty seven posts (7.75 per cent) of specialist doctors in DH/ GHs and 49 posts (6.61 per cent) in TH/ THQHs remained vacant. While examining the speciality/district-wise availability of doctors, the following points were noticed:

- Pathologist, as required in IPHS, was not sanctioned/ posted in any of the DH/ GHs.
- Vacancies of specialists were noticeably high for General Medicine and General Surgery (in DHs and THs) and was in the range of 10 to 17 per cent of sanctioned posts.
- Vacancies of the specialists in DH/ GHs were higher in the districts of Kasaragod (18 per cent) and Wayanad (19 per cent).
- The specialist post of Dental Surgeon was available only in 11 out of 87 TH/ THQHs though it was an essential requirement as per norms.
- Against the requirement of six specialist doctors per CHC as per norms, the total specialists available in the 227 CHCs⁴ was only 45.

2.2.2. Availability of clinical staff in test-checked hospitals

The minimum essential and desirable requirement of human resources for primary and secondary level Modern Medicine institutions are prescribed in

⁴ This includes 42 CHCs converted to FHCs

IPHS. Under Aardram Mission⁵, GoK prepared (July 2018) a Mission document in which the staff pattern to be implemented for each level of hospital under DHS was specified. Since all the PHCs were to be covered under the Mission, Audit examined the availability of human resources in hospitals with respect to norms specified in Aardram Mission as well as in IPHS. However, in the case of hospitals from the level of CHCs, the availability of the staff has been examined with reference to IPHS only, as the standardisation of the hospitals under the Mission was in implementation stage.

Audit analysed the availability of the clinical staff whose services are more crucial for the efficient functioning of the healthcare system i.e., doctors, nurses, lab technicians and pharmacists in the test-checked hospitals under DHS in four districts as discussed in the following paragraphs:

2.2.2.1. Vacancy position of doctors

The IPHS requires the services of at least one Medical Officer in a PHC level hospital. This stipulation was met in all the test-checked hospitals. IPHS prescribes specialty services from the secondary level hospitals and a minimum requirement of 28 to 66 doctors and 19 to 23 doctors at district level hospitals and taluk level hospitals respectively depending on the bed strength of the hospital. In the case of CHCs, the minimum requirement was 10 doctors. Status of availability of doctors in the test-checked hospitals under DHS are as shown below :

Table 2.3: Availability of doctors in hospitals under DHS⁶

	No. of hospitals test-checked	Required number of doctors as per IPHS	SS	PIP	Vacancy		Shortage in SS against IPHS	Contract Staff
					No.	in per cent		
DH/GH	7	359	281	270	11	4	78	31
TH/ THQH	7	153	120	114	6	5	33	17
CHC	7	70	34	34	0	0	36	6
PHC/ FHC	32	32	78	66	12	15	0	38
Total	53	614	513	484	29		147	92

(Source: Records of the test-checked hospitals)

Against the requirement of 614 posts of doctors, 513 posts were sanctioned in these hospitals and the percentage of shortage was 16. Out of the sanctioned posts itself, 29 posts remained vacant (31 March 2021). Audit noticed a shortage of 147 doctors with respect to IPHS in secondary level hospitals.

- Aardram scheme of GoK envisaged a staff pattern of three Medical Officers for every FHC. Audit noticed that out of the 32 FHCs test-checked, the prescribed manpower was sanctioned only in 12 hospitals.

⁵ A GoK scheme for improving the quality of healthcare services in the State as detailed in Paragraph 3.1.2.1 of this Report

⁶ Status as on 31 March 2021 has been included based on audit conducted at selected healthcare institutions between November 2021 and April 2022.

The prescribed manpower was available only in seven⁷ out of these 12 hospitals.

Thus, it could be seen that the doctors-in-position were overburdened due to lack of sufficient manpower which is detailed in Chapter III.

2.2.3. Short availability of specialist doctors in test-checked hospitals under DHS

Audit also examined the availability of specialist doctors in the test-checked hospitals and noticed the following deficiencies:

- Specialists for Microbiology and Pathology were not provided in any of the test-checked DHs/ GHs.
- Posts of Radiologists and Pathologists were not sanctioned in any of the test-checked TH/ THQHs.
- Posts of Psychiatrist were not sanctioned in GH Neyyattinkara and DH Nedumangad. Gynaecologist was not available in GH Alappuzha.

Audit also noticed shortage in availability of following categories of specialist doctors as detailed in **Table 2.4**.

Table 2.4: Availability of specialist doctors in DH/ GH/ TH/ THQH/ CHCs

Specialist doctors (No of units covered in Audit)	Required as per IPHS	SS	PIP	Shortage in SS against IPHS
<i>DH/ GHs</i>				
Obstetrics and Gynaecology	32	23	22	9
Paediatrics	28	22	22	6
Anaesthesia	21	16	17	5
Dental	16	10	9	6
Radiology	12	6	5	6
<i>TH/ THQHs</i>				
Dermatology/ Venereology	5	1	1	4
Anaesthesia	7	4	4	3
ENT	7	4	4	3
Ophthalmology	7	4	5	3
Orthopaedics	7	4	4	3
<i>CHCs</i>				
Obstetrics and Gynaecology	7	0	0	7
Paediatrics	7	1	1	6
Anaesthesia	7	0	0	7
Dental	7	2	2	5

(Source: Records of the test-checked hospitals)

- Specialist posts for Obstetrics and Gynaecology and Anaesthesia were not sanctioned in any of the CHCs test-checked.

⁷ FHC Pozhiyoor, FHC Meppadi, FHC Parappanangadi, PHC Kannamangalam, FHC Aryad, FHC Chokkad, FHC Cheruthana

- Posts of Dental Surgeons were sanctioned only in CHC Tanur and Government Tribal Hospital (GTH), Nalloorad and Paediatrician in GTH Nalloorad, out of the seven CHCs test-checked.

Thus, it could be seen that there was shortage of specialist doctors at DHs/ GHs, TH/ THQHs and CHCs. However, the shortage was more acute in THs. It is a matter of concern that there were no specialist doctors in Obstetrics and Gynaecology in any of the test-checked CHCs.

2.2.4. Availability of nurses, pharmacists and lab technicians in hospitals under DHS

Audit verified the availability of the posts of nurses and essential paramedical posts of pharmacists and lab technicians in the test-checked hospitals.

The IPHS prescribes the minimum requirement⁸ of nurses and the paramedical staff in each level of hospitals. For taluk and district level hospitals, the minimum staff requirement is based on the bed strength of the hospital. The availability of the staff in the test-checked hospitals are as detailed in **Table 2.5**.

Table 2.5: Availability of nurses, pharmacists and lab technicians in hospitals under DHS

Level of Hospital	No. of hospitals	Required staff strength as per IPHS	SS	PIP	Vacancy		Shortage in SS against IPHS	Contract Staff
					No.	Per cent		
Nurses								
DH/ GH	7	1125	459	424	35	8	666	155
TH/ THQH	7	186	132	127	5	4	54	52
CHC	7	70	33	28	5	15	37	12
PHC/ FHC	32	96	65	58	7	11	31	42
TOTAL	53	1477	689	637	52		788	261
Pharmacists								
DH/ GH	7	64	37	36	1	3	27	33
TH/ THQH	7	26	23	21	2	9	3	16
CHC	7	7	9	9*	0	0	0	6
PHC/ FHC	32	32	42	34	8	19	0	18
TOTAL	53	129	111	100	11		30	73
Lab Technicians								
DH/ GH	7	96	52	47	5	10	44	46
TH/ THQH	7	33	21	20	1	5	12	22
CHC	7	14	7	7	0	0	7	4
PHC/ FHC	32	32	22	18	4	18	10	14
TOTAL	53	175	102	92	10		73	86

*Against the SS of nine, PIP was 13

(Source: Records of the test-checked hospitals)

⁸ Minimum requirement: Nurse -Three for PHCs, 10 for CHCs, 18 to 30 for THs and 45 to 225 for district level hospitals; Pharmacists - One for PHC/ CHC, three to four for THs and four to 12 for GHs depending on bed strength; Lab technicians – One for PHCs, two for CHCs and four to 16 for DH/ THs according to the bed strength.

Audit observed the following:

- The sanctioned posts of nurses and lab technicians were only 46.65 *per cent* and 58.29 *per cent* respectively of the required strength prescribed in IPHS.
- The hospitals deployed 261 contract nurses to cover this shortage. Even after taking into account the deployment of contract nurses, the shortage with respect to IPHS was 39.20 *per cent*.
- The overall availability of sanctioned posts of pharmacists against the IPHS norms was 86.05 *per cent* in the test-checked primary and secondary level hospitals. However, in the DHs, the availability of sanctioned posts was only 57.81 *per cent*.
- Aardram norms envisage four nurses for an FHC. Audit observed that the prescribed manpower was sanctioned only in five out of 32 FHCs test-checked. Even in these five hospitals, the prescribed manpower was available only in FHC Meppadi and FHC Perumbalam.
- The IPHS and Aardram stipulate one lab technician for every FHC. The post of lab technician was not sanctioned in 13 out of 32 test-checked FHCs.
- Against the requirement of two lab technicians per hospital, only one lab technician was available in all the seven test-checked CHCs.
- The IPHS stipulates one nurse per six beds in the general ward. The availability of nursing service as per records of February 2020⁹, in seven test-checked DHs/ GHs are given in **Table 2.6**.

Table 2.6: Beds against one nurse in IPD in DHs/ GHs

Shift	DH Mananthavady	DH Mavelikkara	DH Nedumangad	DH Tirur	GH Alappuzha	GH Neyyattinkara	GH Kalpetta
Shift-I	14	7	26	13	9	16	8
Shift-II	20	12	51	16	13	42	15
Shift-III	20	17	51	15	14	60	18

(Source: Records in test-checked hospitals)

In the test-checked DH/ GHs, Audit observed that the nurses attended seven (DH Mavelikkara) to 60 beds (GH Neyyattinkara). Nurse to bed ratio was most adverse in GH Neyyattinkara (1:60) and DH Nedumangad (1:51). DHS stated (November 2022) that the requisite staff pattern was not provided to DH Nedumangad even though it was upgraded in 2013 and in GH Neyyattinkara, the staff pattern was inadequate.

⁹ Audit of the selected institutions was carried out during the period from November 2021 to April 2022 covering the period 2016-17 to 2020-21. As the number of patients approaching health institutions had drastically come down after March 2020 due to COVID-19, February 2020 was selected for detailed scrutiny.

- Further, in the seven test-checked THs/ THQHs, the average number of beds attended by one nurse was higher than six, except in THQH Vythiri. Thus, except THQH Vythiri, none of the test-checked hospitals complied with the norms regarding nurse to bed ratio. The sub-optimal ratio would have an undesirable effect on the health services provided in public hospitals.
- As per the IPHS, one nurse is required for each bed in ICU. Audit noticed that this ratio was not maintained in the ICUs in any of the test-checked GH/ DHs¹⁰ as detailed in **Table 2.7**.

Table 2.7: Availability of nurses in ICUs

	GH Alappuzha	DH Tirur	DH Nedumangad	DH Mananthavady	GH Kalpetta
ICU bed (No.)	8	15	6	9	6
No. of nurses required as per IPHS	8	15	6	9	6
No. of nurses posted in ICU	4	4	3	3	4
Shortage of nurses (in per cent)	4(50)	11(73)	3(50)	6(67)	2(33)

(Source: Records of test-checked hospitals)

The shortage of nurses as per IPHS norms ranged from 33 to 73 per cent in the above test-checked hospitals. No remarks were furnished by GoK (November 2023).

2.3. Human Resources under DME

The National Medical Commission Act, 2019 prescribes the minimum standard requirement of doctors to be maintained in Medical Colleges.

The availability of manpower in Government Medical Colleges (GMC) in test-checked districts was examined with reference to National Medical Commission (NMC) norms and the strength sanctioned by GoK.

2.3.1. Vacancy position of doctors

The National Medical Commission norms (Minimum Requirements for Annual MBBS Admissions Regulations, 2020) stipulate the number of doctors to be maintained in the Medical College based on the number of annual MBBS admissions.

Audit examined the availability of doctors in the three test-checked GMCs (Thiruvananthapuram, Alappuzha and Manjeri) as detailed in **Table 2.8**.

¹⁰ ICU was not available in GH Neyyattinkara and DH Mavelikkara when Audit was conducted during November 2021 to April 2022

Table 2.8: Availability of doctors in Medical Colleges

Name of GMC	Annual MBBS admissions	Professors/ Associate Professors/ Assistant Professors/ Senior Residents					
		Minimum requirement as per NMC	SS	PIP	Shortage in SS against NMC	Vacancy against SS	Vacancy (per cent)
GMC Thiruvananthapuram	250	254	579	505	Nil	74	12.80
GMC Alappuzha	175	192	305	247	Nil	58	19.00
GMC Manjeri	110	150	113	90	37	23	20.40
Total		596	997	842	37	155	15.55

(Source: Records of DME)

Though the sanctioned strength was higher than the minimum requirement as per norms in GMCs at Thiruvananthapuram and Alappuzha, category-wise analysis revealed that the required number of posts of Senior Residents was not sanctioned in both the Medical Colleges. The analysis revealed that in GMC Manjeri, minimum requirement of doctors as per the NMC norms was not maintained. Against a minimum requirement of 150 Professors/ Associate Professors/ Assistant Professors/ Senior Residents required in the hospital, the sanctioned strength and PIP were only 113 and 90 respectively. Audit noticed that the minimum requirement of teaching staff as per norms was not sanctioned in 15 departments and 15.55 per cent (155 out of 997) of the posts remained vacant against the sanctioned strength in the test-checked hospitals.

2.3.2. Availability of nurses, pharmacists and lab technicians in DME hospitals

Audit noticed that posts of 22 nurses (1.87 per cent), 10 pharmacists (18.87 per cent) and four lab technicians (11.76 per cent) were vacant against the sanctioned strength as shown in Table 2.9.

Table 2.9: Availability of nurses, pharmacists and lab technicians in GMCs as on 31 March 2021

Name of GMC	SS	PIP	Vacancy	Vacancy (per cent)	Contract staff
Nurses					
GMC Thiruvananthapuram	655	637	18	2.7	-
GMC Alappuzha	374	370	4	1.1	81
GMC Manjeri	143	143	-	-	167
Total	1172	1150	22	1.87	248
Pharmacists					
GMC Thiruvananthapuram	19	13	6	31.6	3
GMC Alappuzha	26	22	4	15.4	20
GMC Manjeri	8	8	-	-	37
Total	53	43	10	18.87	60
Lab technicians					
GMC Thiruvananthapuram	18	14	4	22.2	1
GMC Alappuzha	12	12	-	-	26
GMC Manjeri	4	4	-	-	0
Total	34	30	4	11.76	27

(Source: Records of the test-checked hospitals)

Though there were no/less vacancies in GMC Alappuzha and GMC Manjeri, Audit noticed that nurses, pharmacists and lab technicians were appointed on contract basis. Further, despite having full PIP against SS, GMC Manjeri had employed 204 contract staff.

2.4. Human Resources under AYUSH

In the case of primary and secondary level institutions under AYUSH, Audit observed that the staff pattern for Ayurveda and Homoeopathy hospitals with reference to the bed strength was fixed as early as in May 1978 and in March 1980 respectively by GoK.

As the staff pattern has not been revised, Audit verified the availability of human resources with reference to the sanctioned strength as shown in **Table 2.10**.

Table 2.10: Manpower position under AYUSH

Name of post	SS	PIP	Vacancy	Vacancy (per cent)
Doctors	2245	2062	183	8.15
Nurses	671	559	112	16.69
Paramedics	3770	3563	207	5.49
Other Staff	1692	1449	243	14.36
Total	8378	7633	745	8.89

(Source: Data obtained from DISM, DAME, Director of Homoeopathy, P and CO, Homoeopathy Medical College)

Table 2.11: District-wise manpower position under AYUSH

Sl. No.	District	SS	PIP	Vacancy	Vacancy (per cent)
1	Thiruvananthapuram	1310	1179	131	10.00
2	Kollam	520	500	20	3.85
3	Pathanamthitta	366	342	24	6.56
4	Alappuzha	549	507	42	7.65
5	Kottayam	579	532	47	8.12
6	Idukki	412	376	36	8.74
7	Ernakulam	832	759	73	8.77
8	Thrissur	670	581	89	13.28
9	Palakkad	563	523	40	7.10
10	Malappuram	626	603	23	3.67
11	Kozhikode	634	567	67	10.57
12	Wayanad	251	233	18	7.17
13	Kannur	722	626	96	13.30
14	Kasaragod	344	305	39	11.34
	Total	8378	7633	745	8.89

(Source: Data obtained from Directorates)

The manpower position in the test-checked health institutions under AYUSH as on 31 March 2021 is given in the subsequent paragraphs:

2.4.1. Availability of doctors in test-checked AYUSH Hospitals

- In the AYUSH system, doctors were available as per the sanctioned strength in the test-checked eight dispensaries.

- At secondary level, 26 doctors were available against the sanctioned strength of 27 in test-checked AYUSH hospitals. In addition, 20 doctors were appointed on contract basis.
- The Indian Medicine Central Council (Requirements of Minimum Standards for undergraduate Ayurveda Colleges and attached Hospitals) Regulations, 2016 and the Homoeopathy Central Council (Minimum Standards Requirement of Homoeopathic Colleges and attached Hospitals) Regulations, 2013 stipulate the number of Professors/ Associate Professors/ Assistant Professors/ Senior Residents to be maintained in Ayurveda and Homoeopathy Medical Colleges based on the number of BAMS/ BHMS admissions. Audit compared the availability of doctors in test-checked Medical Colleges with reference to the Regulations and sanctioned strength as detailed in **Table 2.12**.

Table 2.12: Availability of doctors in AYUSH Medical Colleges

Hospital	Annual BAMS/ BHMS admissions	Professors/ Associate Professors/ Assistant Professors/ Senior Residents				
		Minimum requirement as per norms	SS	PIP	Shortage in SS against norms	Vacancy against SS
Government Ayurveda Medical College, Thiruvananthapuram (GAMC)	88	45	84	67	Nil	17
Government Homoeopathic Medical College, Thiruvananthapuram (GHMC)	63	40 (28 regular staff + 12 guest faculty)	50	34 (21 regular staff + 13 guest faculty)	Nil	16

(Source: Records of the test-checked hospitals)

The vacancy against the sanctioned strength was 20 per cent in GAMC and 32 per cent in GHMC. GoK stated (October 2023) that in GHMC, 41 teaching doctors (21 regular and 20 provisional) were working as of October 2023 and the recruitment process of regular teaching doctors through KPSC would be completed soon.

2.4.2. Availability of nurses, pharmacists and lab technicians in AYUSH hospitals

Shortage of nurses in position in the secondary and tertiary level hospitals against the sanctioned strength was observed in AYUSH hospitals. Against the sanctioned strength of 93 nurses in hospitals/ colleges test-checked, 13 posts were vacant as on 31 March 2021¹¹. There were six nurses appointed on contract basis.

There were no vacant posts of pharmacists in dispensaries and in GAMC. Against the sanctioned strength of nine, there were seven pharmacists in the

¹¹ Status as of March 2021 has been included based on audit conducted at selected healthcare institutions between November 2021 and April 2022.

test-checked eight AYUSH hospitals. In GHMC, against the three sanctioned posts, one post remained vacant.

There was vacancy of one lab technician each in GAMC and GHMC. The details are shown in **Table 2.13**.

Table 2.13: Availability of nurses/ pharmacists/ lab technicians in AYUSH hospitals

	No. of hospitals	SS	PIP	Vacancy	Contract/ Daily wages staff
Nurses					
Hospitals	8	31	25	6	3
GAMC	1	54	51	3	3
GHMC	1	8	4	4	0
Total	10	93	80	13	6
Pharmacists					
Dispensaries	8	8	8	0	0
Hospitals	8	9	7	2	3
GAMC	1	16	16	-	-
GHMC	1	3	2	1	-
Total	18	36	33	3	3
Lab Technicians					
Hospitals	8	3	3	-	4
GAMC	1	13	12	1	1
GHMC	1	5	4	1	-
Total	10	21	19	2	5

(Source: Records of the test-checked hospitals)

GoK stated (October 2023) that vacancies of pharmacists under the department of ISM and nurses under GHMC were filled up subsequently. Vacancies of nurses under Homoeopathy department were reported to KPSC and non-availability certificates for filling the vacancies of pharmacists and lab technicians were obtained from KPSC.

2.5. Shortage of manpower affecting service delivery

The impact of shortage of manpower on the delivery of services brought out in this Report is given in **Table 2.14**.

Table 2.14: Details of services affected due to shortage of staff

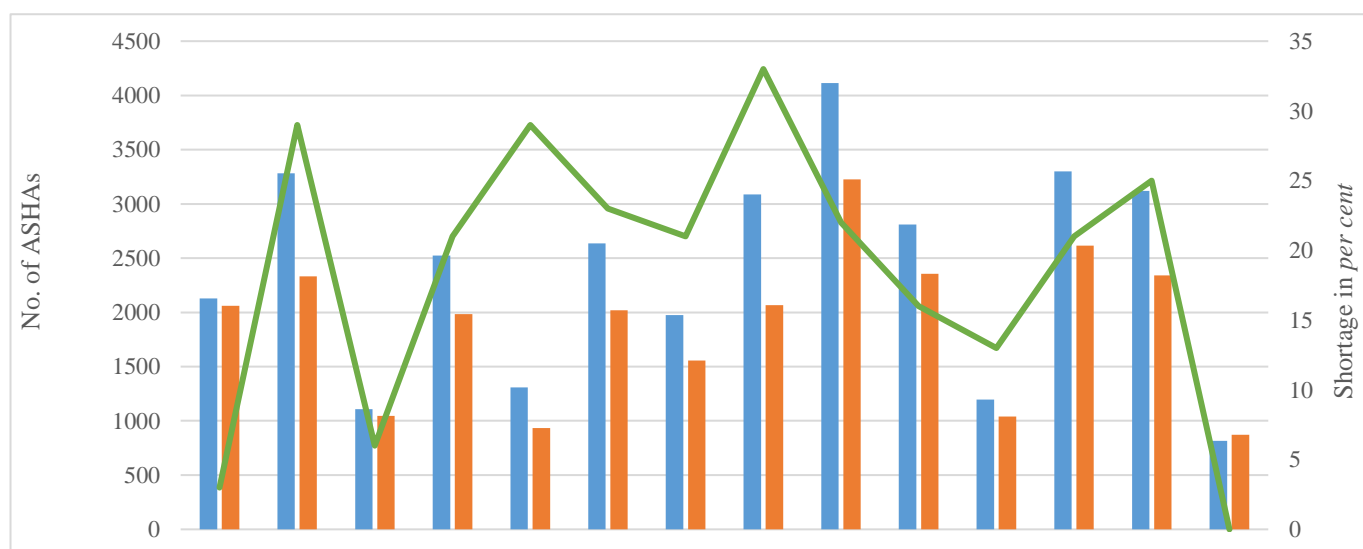
Sl. No.	Impacted service	Paragraph reference
1.	Shortage in OP registration counter	3.1.5
2.	High daily patient load per doctor	3.1.4
3.	Ultrasonography machine in GH Kalpetta was not being utilised due to non-availability of sonologist	3.9.1
4.	Idling of various equipment in hospitals	4.7.5
5.	Shortfall in attaining the operationalisation targets of HWCs	5.3.2

(Source: Data obtained from test-checked hospitals)

2.6. Availability of Accredited Social Health Activists

One of the key components of NHM is to provide every village in the country with a trained female community health activist namely 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. Guidelines on ASHA of NHM prescribe one ASHA per 1,000 population. Audit verified the availability of ASHAs as of March 2022 and had noticed shortage in all the districts except in Wayanad as shown in Chart 2.2.

Chart 2.2: District-wise shortfall in availability of ASHAs as per norms



	Alappuzha	Ernakulam	Idukki	Kannur	Kasaragod	Kollam	Kottayam	Kozhikode	Malappuram	Palakkad	Pathanamthitta	Thiruvananthapuram	Thrissur	Wayanad
ASHA requirement	2128	3282	1109	2523	1307	2635	1975	3086	4113	2810	1197	3301	3121	817
ASHA available	2060	2333	1047	1984	933	2019	1555	2065	3225	2357	1041	2616	2341	872
Shortage (in per cent)	3	29	6	21	29	23	21	33	22	16	13	21	25	0

No remarks were furnished by GoK (November 2023).

2.7. Recruitment of manpower

The recruitment done by the DHS, DMS, DAME, DISM, DoH and P and CO during 2016-17 to 2022-23 and category-wise details of number of employees recruited is shown in the tables and charts below:

Table 2.15: Manpower recruited during the period 2016-23

Financial year	Number of Employees recruited	
	Under modern system of medicine	Under AYUSH
2016-17	2861	286
2017-18	3148	356
2018-19	2371	261
2019-20	3329	209
2020-21	2950	331
2021-22	2767	246
2022-23	2242	351
Grand Total	19668	2040

(Source: Data obtained from Directorates)

Chart 2.3: Category-wise number of employees recruited under modern system of medicine

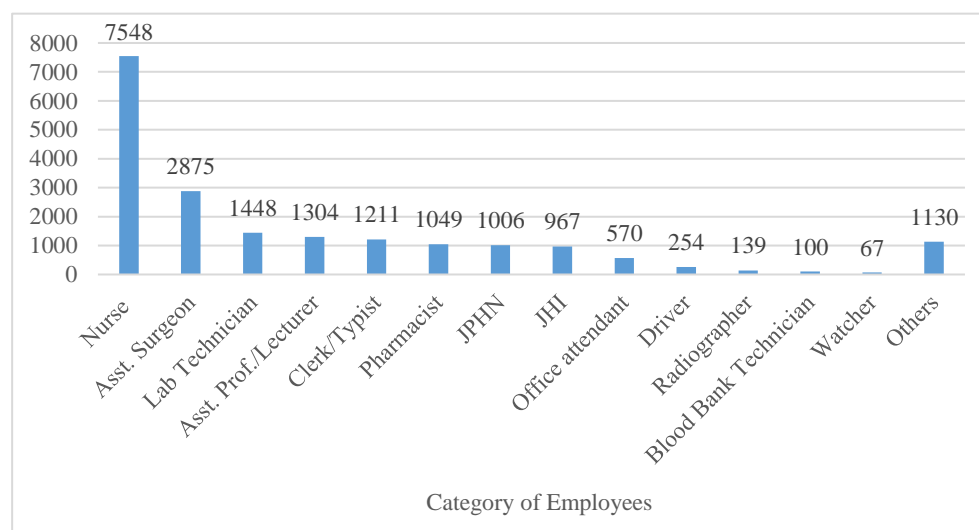
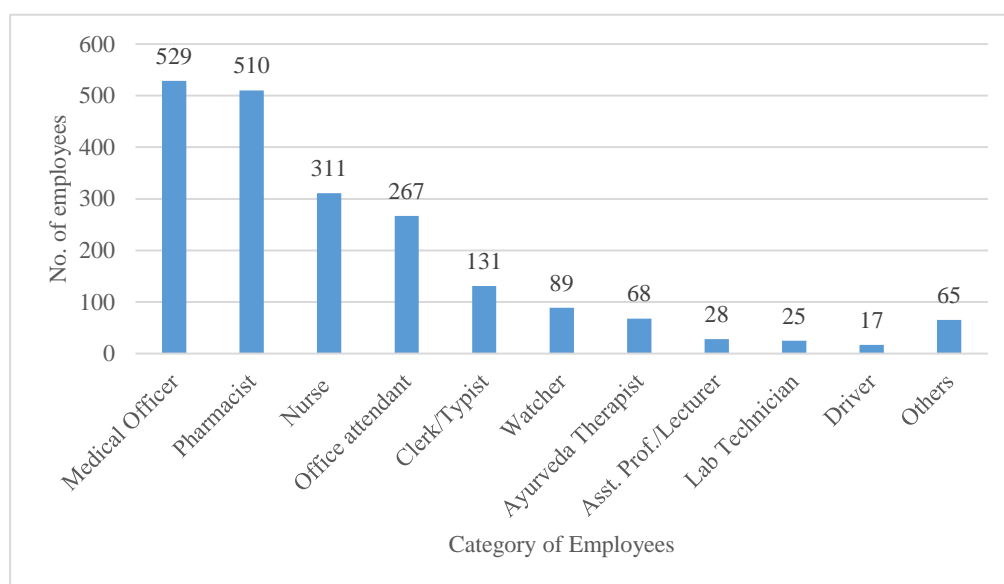


Chart 2.4: Category wise number of employees recruited under AYUSH

Though 21,708 employees were recruited under modern system of medicine and AYUSH during 2016-23, there was shortage of staff as discussed in above paragraphs (**Paragraphs 2.1 to 2.4**).

2.8. Recommendations

- Government should assess the requirement of doctors and paramedical staff at different levels and regions and ensure availability of human resources required as per the norms stipulated in IPHS/ Aardram Mission.
- Government should take action for reducing the wide disparity in doctor to population ratio in the State by increasing the strength of doctors in the districts with most adverse ratios.