

CHAPTER 2

HUMAN RESOURCES

The human resources, available in hospitals across the State, were not in consonance with the IPHS norms. There were huge gaps between the availability and requirement of specialists in CHCs. Further, there were significant shortages of staff nurses and paramedics in hospitals. Pathological investigations were hindered in the hospitals, wherever Laboratory Technicians were not deployed as per the sanctioned strength and/ or IPHS. The deployment of medical staff was not rational, for ensuring optimum utilisation of the scarce manpower.

Shortage of human resources in MCHs hampered medical education and research work, and compromised the quality of tertiary healthcare services.

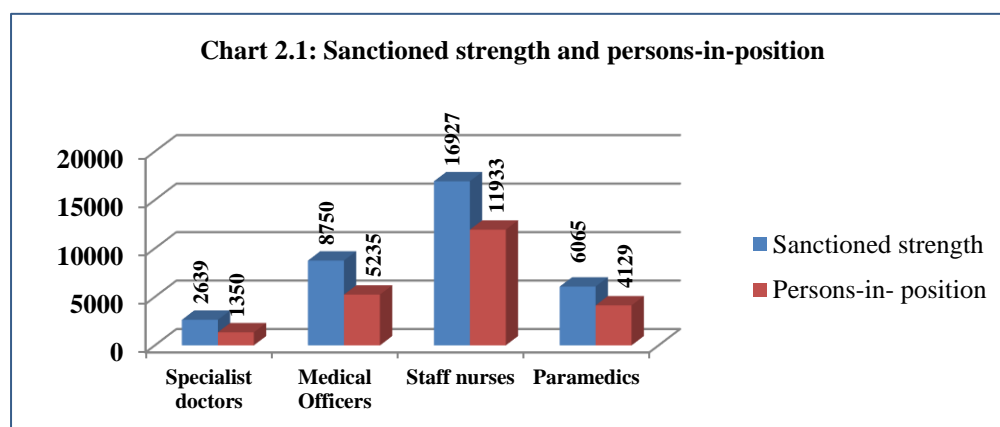
2. Adequacy of human resources

For effective and efficient functioning of a healthcare facility, adequate human resources need to be provisioned. The number and type of staff required, in terms of specialists, medical officers, nurses, allied health professionals and administrative support staff, are outlined in the IPHS.

The doctor to population³ ratio in Odisha is 1:1,622⁴, against the World Health Organisation (WHO) norm of 1:1,000. For staff nurses⁵, the ratio was 1:3,829, against the norm of one nurse for 300 people.

2.1 Availability of human resources in the healthcare institutions of the State

Audit observed that there were acute shortages of doctors, nurses and paramedics, in the entire State. Details of the persons-in-position as of March 2022, *vis-a-vis* the sanctioned strength, in the healthcare facilities of the State, are given in **Chart 2.1**.



(Source: Data furnished by Director of Health Services, Odisha)

³ Population as per Economic Survey 2021-22, Government of Odisha

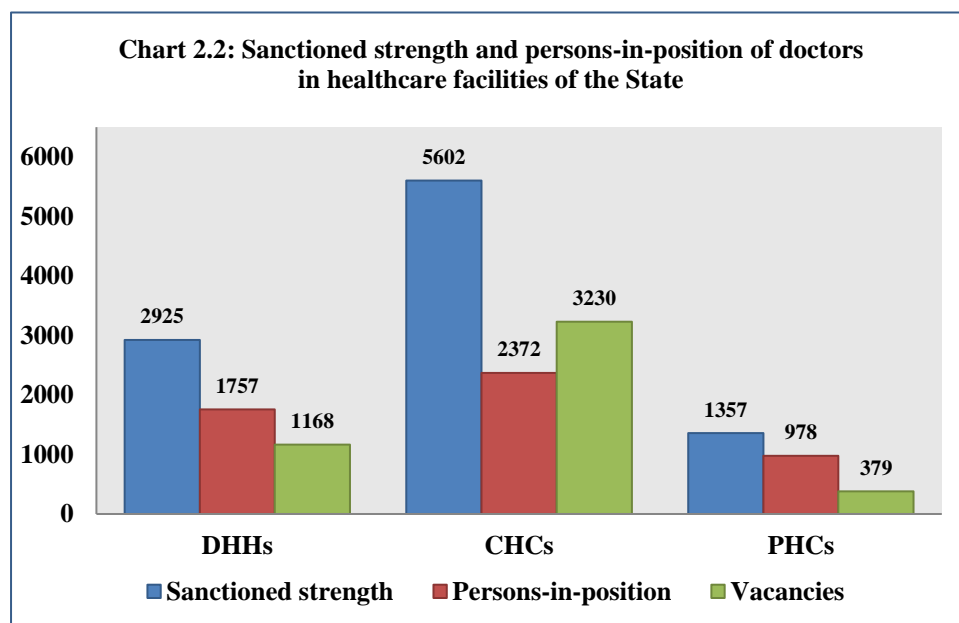
⁴ Considering the total Allopathic doctors registered under the Odisha Council of Medical Registration, as on 31 March 2022

⁵ Data furnished by the Director of Nursing, Odisha

The availability of human resources, in the secondary and primary healthcare facilities of the State, is discussed in succeeding paragraphs.

2.1.1 Manpower position of doctors in DHHs, CHCs and PHCs

Audit observed that a significant number of posts of doctors (including specialists), sanctioned for the healthcare facilities, had not been filled in. The sanctioned strength, persons-in-position and the vacancy position in the secondary (DHHs and CHCs) and Primary (PHCs) healthcare facilities of the State, as of March 2022, is shown in **Chart 2.2**.

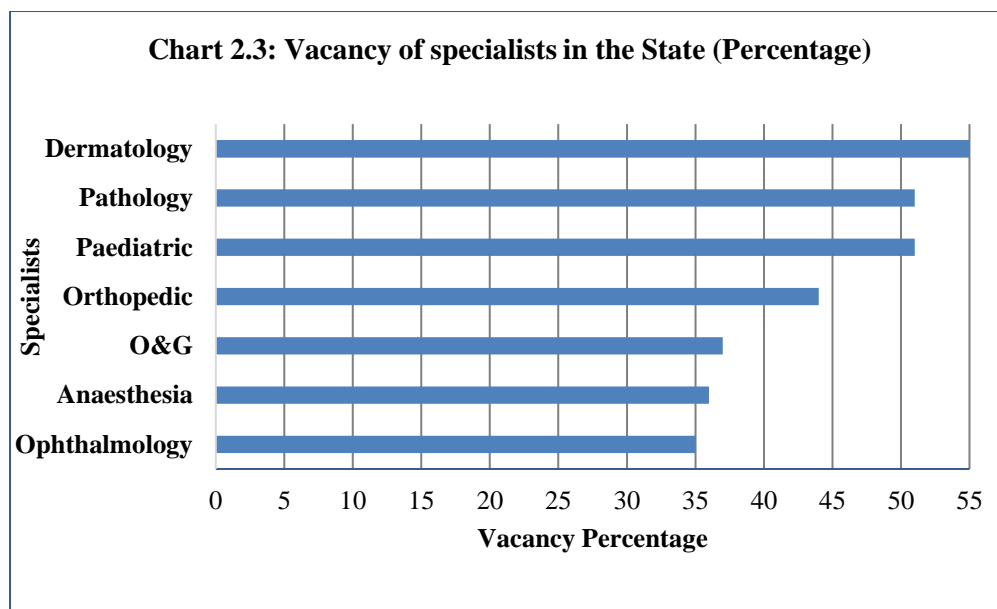


(Source: Data obtained from the Director of Health Services, NHM, Odisha)

It would be seen from the above that the vacancy in the cadre of doctors (including specialists), was 40 per cent in DHHs, whereas it was 58 per cent in CHCs. There was a shortage of 28 per cent MBBS doctors in PHCs, which were the first point of contact of the rural people, to a qualified doctor in the public health system. Shortage of doctors in healthcare facilities hinders delivery of quality healthcare services to the public, as discussed in **Paragraph 2.1.4**. The DHH-wise position of doctors is given in **Appendix 2.2**.

2.1.2 Non-availability of specialist doctors in hospitals

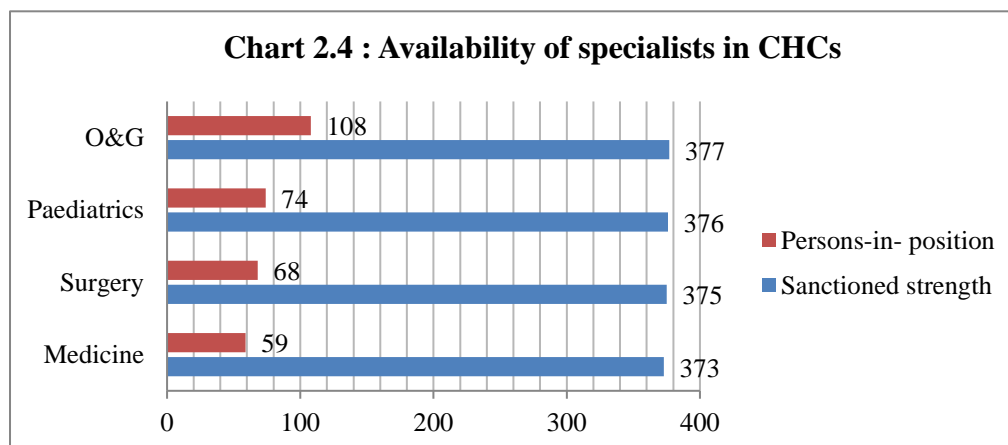
The State Government had sanctioned 824 posts of specialist doctors in the DHHs, to provide comprehensive secondary healthcare services, at an acceptable level of quality. Against this sanctioned strength, only 523 (63 per cent) specialists were available in the DHHs, as of March 2022. Department-wise availability of specialists in DHHs of the State, is given in **Appendix 2.3**. The vacancy position of specialist doctors, across seven specialisations, is given in **Chart 2.3**.



(Source: Information furnished by DHS, Odisha)

In percentage terms, the vacancy position of specialists in the DHHs of the State, was maximum in the Dermatology category (55 per cent), followed by Pathology (51 per cent) and Paediatric (51 per cent).

Similarly, 1,501 specialist posts had been sanctioned, to provide four key essential specialised services⁸ in CHCs, against which only 309 (21 per cent) specialists were in position, as of March 2022. Thus, there was a shortage of 79 per cent specialists in CHCs. The specialist-wise sanctioned strength and persons-in-position, in these four key categories, are shown in **Chart 2.4**.



(Source: Data obtained from DHHs)

Audit observed that Medicine specialists were not available in CHCs of nine⁹ districts, whereas CHCs in 10¹⁰ districts had no surgery specialists. Similarly, O&G specialists were not available in CHCs in six¹¹ districts, and Paediatricians

⁸ Medicine; O&G; Surgery; Paediatrics

⁹ Deogarh, Dhenkanal, Gajapati, Kandhamal, Kendrapara, Malkangiri, Nabarangpur, Raygada, Sambalpur

¹⁰ Bolangir, Deogarh, Dhenkanal, Gajapati, Kandhamal, Malkangiri, Nabarangpur, Raygada, Sambalpur, Sonepur

¹¹ Deogarh, Gajapati, Kandhamal, Malkangiri, Raygada, Sambalpur

were not available in any of the CHCs of nine¹² districts. Consequently, delivery of specialised medical services in the CHCs of these districts was restricted, due to the absence of specialists.

2.1.3 Availability of staff nurses and paramedics in hospitals

Audit observed shortage of staff nurses and paramedics in DHHs, CHCs and PHCs, compared to the sanctioned strength. The sanctioned strength and persons-in-position, as of March 2022, is given in **Table 2.1**.

Table 2.1: Sanctioned strength and persons-in-position in hospitals

Hospitals	Staff nurses			Paramedics		
	Sanctioned strength	Persons-in position	Shortage (Per cent)	Sanctioned strength	Persons-in position	Shortage (Per cent)
DHHs	3,677	2,573	1,104 (30)	906	731	175 (19)
CHCs	3,497	2,367	1,130 (32)	1,909	1,244	665 (35)
PHCs	2,156	753	1,403 (65)	2,715	2,220	495 (18)

(Source: Data obtained from DHHs, NHM, Odisha)

Thus, there was shortage of staff nurses and paramedics at all levels of healthcare facilities. Significant shortage of staff nurses was noticed in PHCs, compared to the sanctioned strength, influencing the medical care of patients in rural areas. The DHH-wise availability of staff nurses and paramedics is given in **Appendix 2.2**. The institution/ district-wise position of clinical manpower in CHCs and PHCs, is given in **Appendix 2.4** and **Appendix 2.5** respectively. Even the sanctioned strength of staff nurses for PHCs in the State was less than the IPHS norm. Against the requirement of 4,020¹³ staff nurses, the State had sanctioned 2,156 staff nurses for the PHCs.

2.1.4 Availability of clinical manpower¹⁴ in the test-checked hospitals

Audit noticed that the human resources available in the test-checked hospitals were not as per the IPHS norms. Availability of manpower, in the test-checked DHHs, CHCs and PHCs, is discussed below:

2.1.4.1 Manpower in District Headquarters Hospitals

The requirement and availability of clinical manpower, in the test-checked DHHs, as of March 2022, is given in **Table 2.2**.

Table 2.2: Requirement and availability of manpower, in the test-checked DHHs (as of March 2022)

DHH	Bed strength (functional)	Minimum manpower required, as per IPHS ¹⁵			Persons-in-position		
		Doctors, including specialists	Staff nurses	Paramedics	Doctors, including specialists	Staff nurses	Paramedics
Bhadrak	336	50	135	66	44	58	19
Dhenkanal	300	50	135	66	32	80	22
Kandhamal	236	34	90	42	36	161	17

¹² Bargarh, Deogarh, Dhenkanal, Gajapati, Kandhamal, Malkangiri, Nabarangpur, Nayagarh, Raygada

¹³ Minimum three staff nurses each for 1,340 PHCs as per IPHS 2012 norm

¹⁴ Doctors, staff nurses, paramedics

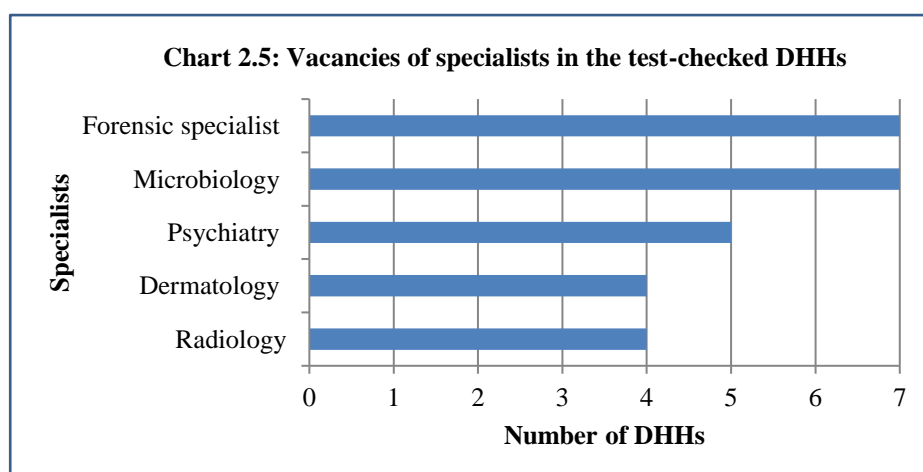
¹⁵ IPHS norm for 300 beds considered for DHHs with bed strength between 252 and 336; IPHS norm for 200 beds considered for DHH, Kandhamal, which had 236 beds; and IPHS norm for 500 considered for DHH, Puri, which had 451 beds

DHH	Bed strength (functional)	Minimum manpower required, as per IPHS ¹⁵			Persons-in-position		
		Doctors, including specialists	Staff nurses	Paramedics	Doctors, including specialists	Staff nurses	Paramedics
Nabarangpur	252	50	135	66	21	95	15
Nuapada	315	50	135	66	20	90	20
Puri	451	68	225	100	41	99	43
Sundargarh	330	50	135	66	36	103	24
Total		352	990	472	230	686	160

(Source: IPHS norms and data obtained from the test-checked DHHs)

Audit observed that:

- The persons-in-position of clinical staffs in DHHs, as detailed in **Appendix 2.2**, provided by the DHS, Odisha, did not match with that of the staff position given in the table above. Thus, there was no correlation between the data maintained at district and State levels relating to the staff position at hospitals.
- Forensic specialists were not available in any of the test-checked DHHs and Microbiologists were available only in DHHs, Sundargarh and Dhenkanal. Shortage of specialists in four¹⁶ other categories, ranged between 67 and 81 per cent of the requirement, in the seven test-checked DHHs.
- Against the requirement of three Anesthetists (IPHS 2012), only one was available at DHH, Bhadrak. Due to the shortage of Anesthetists, the ICU in the Trauma Care Centre at the DHH, Bhadrak, was not functional and patients in need of critical care, were being referred to SCB MCH, Cuttack. Resultantly, the lives of these critical patients remained at risk, as they had to cover a distance of about 100 kms, to avail medical care at the MCH, Cuttack.
- Maximum vacancies, against five specialist posts, in the test-checked DHHs, are shown in **Chart 2.5**.



(Source: Data furnished by the test-checked DHHs)

¹⁶ Anesthesia (67 per cent); Radiology (77 per cent); Pathology (81 per cent); Psychiatry (71 per cent)

Audit noticed that the distribution of specialist doctors, in the test-checked DHHs, was asymmetric, as shown in **Table 2.3**.

Table 2.3: Asymmetric deployment of specialists in the test-checked DHHs

Specialists	Bhadrak (336 beds)		Dhenkanal (300 beds)		Kandhamal (236 beds)		Puri (451 beds)	
	R	A	R	A	R	A	R	A
Surgery	3	5	3	1	2	2	4	5
O &G	4	3	4	3	3	4	6	2
Paediatrics	4	1	4	2	3	5	5	2

(Source: Data furnished by the test-checked DHHs)
(R for requirement as per IPHS and A for availability)

Audit observed that:

- A higher number of O&G specialists and Paediatricians had been deployed at DHH, Kandhamal, as compared to the IPHS norms, whereas, a lower number of such specialists had been posted in the DHHs of Puri and Bhadrak. Similarly, five surgery specialists had been deployed, against the requirement of four, in DHH, Puri, contrary to the position at DHH, Dhenkanal, where only one specialist was available against the requirement of three.
- There were a high number of vacancies of staff nurses/ nursing officers in two DHHs (Bhadrak and Puri), with only 34 to 46 *per cent* of the requirement against these posts being available. Due to the shortage of staff nurses, patient care in these hospitals was hampered and there was a high amount of workload on the existing staff, adversely affecting the quality of patient care.
- Availability of Paramedic staff in the test-checked DHHs, was below 40 *per cent* in six of the test-checked DHHs, while it was above 40 *per cent* in DHH, Puri. Due to shortage of laboratory technicians, diagnostic and radiology services were either inadequate or were not being provided to the patients. This had also resulted in idling of equipment, as discussed in *Chapter 4*.

2.1.4.2 Availability of manpower for Operation Theatres

As per IPHS, an Operation Theatre (OT) is generally expected to have a team of surgeons, anesthetists, nurses (sometimes pathologist and radiologist), to operate upon or care for the patients. Besides, 4 to 14 OT technicians should be available in a district hospital, depending upon its bed capacity.

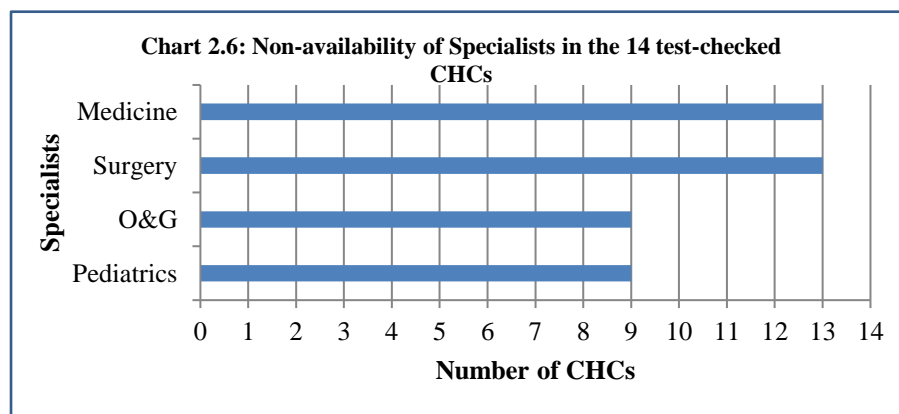
Audit, however, observed that OT technicians had not been positioned in any of the test-checked DHHs. Staff nurses and OT Assistants were, however, available.

The H&FW Department stated (February 2023) that IPHS norms would be followed to provide required manpower.

2.1.5 Manpower in Community Health Centres

In the 14 test-checked CHCs, there was acute shortage of clinical manpower for delivering essential medical services. Availability of doctors in these CHCs, during FY 2021-22, is detailed in *Appendix 2.6*. Audit observed that:

- Medical Superintendents, responsible for overall administration/management of the hospitals, including monitoring of NHM programmes, had not been posted in six¹⁷ of the 14 test-checked CHCs. General Duty Medical Officers/ Specialists, available in these six CHCs, had to look after the duty of the Medical Superintendent, which indirectly held back delivery of related medical services to the patients in these CHCs.
- As per IPHS, 2012, against the requirement of 56 specialists in four key categories (Medicine, Surgery, O&G and Pediatrics) in 14 test-checked CHCs, 42 (75 per cent) were not in position, as shown in **Chart 2.6**.



(Source: Information furnished by the test-checked CHCs)

A Medicine specialist was available only in CHC, Komana, whereas a Surgery specialist was available only in CHC, Basudevpur. Similarly, O&G specialists and Pediatricians were available in only five¹⁸ of the 14 test-checked CHCs. Thus, there was a significant gap between the requirement and availability of specialists in CHCs, due to which delivery of specialised medical care, including maternity and neonatal services to the patients in the locality, had suffered.

- The position of staff nurses and paramedics, in CHCs, was also not encouraging. Against the requirement of 140 staff nurses in the 14 test-checked CHCs, only 69 (49 per cent) were available, during FY 2021-22.
- There was a shortage of nine laboratory technicians in the test-checked CHCs, which had hampered diagnostic services in the hospitals. For example, pathological tests, such as blood urea, blood cholesterol, liver function test, kidney function tests, lipid profile, etc., were not being conducted in CHC, Barapada, despite availability of equipment and infrastructure, due to the absence of laboratory technicians. Similarly, the blood storage unit, at CHC, Basudevpur, was not functional, due to want of technicians.

¹⁷ Basudevpur; Lahunipada; Khajurikata; Sriramchandrapur; Raikia; Komana

¹⁸ O&G specialist: Basudevpur; Lahunipada; Khariar Road; Papadahandi; Nimapada; Pediatricians: Basudevpur; Kuarmunda; Khariar Road; Komana; Nimapada

Thus, there were significant shortages of medical manpower in the test-checked CHCs, as compared to the IPHS norms, influencing the hospital care of patients in the locality.

2.1.5.1 Irrational posting of dentists in CHCs

Audit noticed that dental surgeons had been posted in CHCs, without supply of dental equipment to the concerned CHCs and *vice versa*, as detailed in **Table 2.4**.

Table 2.4: Position of dental surgeons and dental equipment with CHCs

District	CHCs with Dentists, but no equipment	CHCs with equipment, but no Dentists
Bhadrak	5	0
Dhenkanal	7	0
Nabarangpur	0	4
Sundargarh	11	3
Puri	14	0
Total	37	7

(Source: Data obtained from the test-checked DHHs and JPI)

It would be seen from the above that dental surgeons had been posted in 37 CHCs, across five of the test-checked districts, despite dental equipment, with dental chairs, not having been made available. Contrary to this, dental equipment had been supplied to seven CHCs, where no Dentists were in position. Thus, there was no correlation between the posting of dentists and supply of dental equipment. Resultantly, the Dentists in CHCs could not provide appropriate dental care to the patients, without the necessary equipment. On the other hand, these equipment supplied to CHCs, without posting of dentists, remained idle/ non-functional, at the cost of the State exchequer.

The H&FW Department stated (February 2023) that the proposal for revamping public health system had been under active consideration of Government, and the situation in regard to manpower position in hospitals would improve by 2025.

2.1.6 Manpower in Primary Health Centres

To ensure round-the-clock access to public health facilities, PHCs are expected to provide 24-hour services, with basic Obstetric and Nursing facilities. Under NHM, PHCs are to be operationalised for providing 24 X 7 services, in various phases, by placing at least three staff nurses in these facilities. PHCs are also expected to play a key role in increasing the number of institutional deliveries, which would help in reducing maternal mortality.

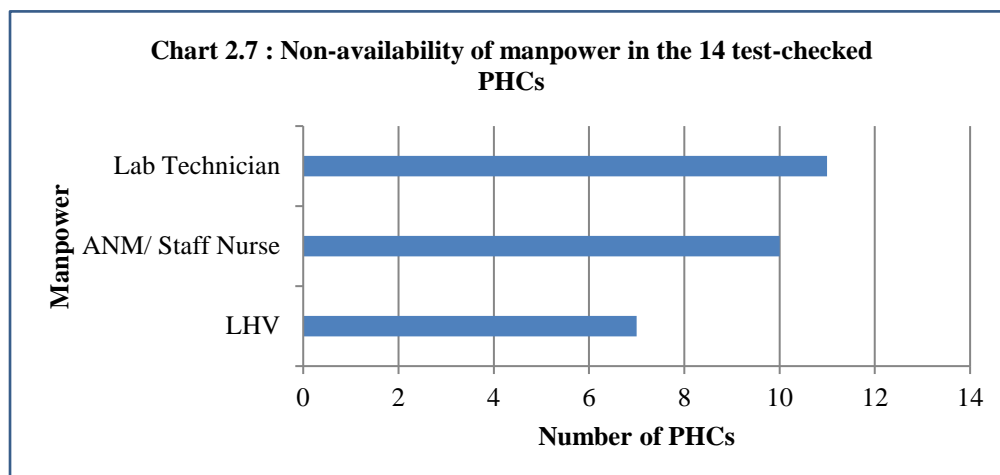
Audit observed that the required manpower, as per the IPHS norms, was not available in the test-checked PHCs, during FY 2021-22. There were acute shortages in the categories of Auxiliary Nurse-Midwife (ANM)/ Staff Nurse, Laboratory Technician (LT), Health Worker (HW), Health Assistant (HA)/ Lady Health Visitor (LHV) *etc.*, in the PHCs. The manpower position, as available in the test-checked PHCs, during FY 2021-22, is given in **Table 2.5**.

Table 2.5: Availability of human resources in the test-checked PHCs

PHC	Medical Officer (MBBS)	Availability of Clinical Manpower in the test-checked PHCs						
		Pharmacist	ANM (Staff Nurse)	Health Worker (Female)	Health Worker (Male)	Health Assistant (Female)/ LHV	LTs	Sanitary Worker/watchman
Sabarang	Yes	Yes	No	No	No	Yes	No	No
Ertal	Yes	Yes	No	Yes	No	Yes	No	No
Rasol	Yes	Yes	No	No	No	No	Yes	Yes
Joranda	Yes	Yes	No	Yes	No	Yes	No	Yes
Khuntagaon	No	Yes	No	No	No	Yes	Yes	Yes
Andalijambahal	Yes	Yes	No	Yes	No	No	No	Yes
Indragarh	Yes	Yes	No	No	No	No	No	No
Ranjabrodi	Yes	Yes	No	No	No	No	No	No
Darlimunda	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Tarbod	Yes	No	Yes	Yes	No	No	No	No
Kodinga	Yes	Yes	Yes	Yes	No	Yes	No	No
Maidarpur	Yes	Yes	Yes	Yes	No	Yes	No	No
Badanigaon	Yes	Yes	No	No	No	No	No	Yes
Fakirasahi	Yes	Yes	No	Yes	No	No	Yes	Yes

(Source: Data obtained from the test-checked PHCs)

It would be seen from the above that, out of the 14 test-checked PHCs, staff nurses and LTs were available only in four and three PHCs, respectively. HWs (Male) were not available in any of the test-checked PHCs, whereas female HWs were positioned in eight PHCs only. The vacancy position of three key posts, in the test-checked PHCs, is given in **Chart 2.7**.



(Source: Information furnished by the 14 test-checked PHCs)

Due to shortage/ non-availability of human resources in PHCs, essential clinical services were not being provided to the patients. A few such examples are given below:

- In the absence of LTs, the full range of diagnostic/ laboratory services were not available in the test-checked PHCs. Only routine malaria tests and rapid testing of blood sugar, were being conducted. Other investigations, such as haemoglobin, urine albumin and sugar, RPR (Rapid Plasma Regain), tests for syphilis, blood grouping and RH typing, ECG, etc., were not being conducted.

- Absence of staff nurses/ ANMs contributed to inadequate maternity services. Deliveries at PHC, Sabrang, had been stopped, since March 2021, due to non-availability of ANMs.
- No allopathic doctor was available at PHC, Khuntagon, during the entire period of 2016-22 and the patients were being treated by Ayush doctors. Due to absence of MBBS doctors, at three¹⁹ PHCs, Pharmacists were treating the patients.

In the test-checked hospitals, the availability of doctors, nurses and paramedics, as compared to the requirement, as per the IPHS norms, varied significantly and was not necessarily linked to the number of beds in the respective hospitals, or to their patient loads.

2.1.7 Manpower in Sub-Centres

As per IPHS norms, there should be minimum one ANM/ HW (Female) and one HW (Male) in each SC. Audit noticed that the required manpower was not available in the SCs. Against the sanctioned strength of 7,237 ANM/ HW (Female) for 6,688 SCs in the State, 6,716 persons were in position, as of March 2022. Similarly, only 3,499 HW (Male) were available against the sanctioned strength of 4,953, with 29 *per cent* vacancies. The district-wise manpower position in SCs is given in *Appendix 2.7*.

2.1.8 Availability of manpower in health institutions under AYUSH

The delivery of quality AYUSH healthcare services in hospitals/ dispensaries largely depends on adequate availability of manpower. The availability of manpower in AYUSH hospitals and dispensaries, as of March 2022, is given in **Table 2.6**.

Table 2.6: Sanctioned strength and persons-in-position in AYUSH health institutions

Posts	Sanctioned strength	Persons-in-position	Vacancy	Percentage of vacancy
Ayurvedic Medical Officer	690	574	116	17
Ayurvedic Assistant	620	393	227	37
Homoeopathic Medical Officer	595	490	105	18
Homoeopathic Assistant	570	353	217	38
Unani Medical Officer	9	3	6	67
Unani Assistant	9	2	7	78

(Source: Data obtained from the Directorate of AYUSH)

Table 2.6 shows that vacancies in different posts, compared to sanctioned strength, ranged between 17 *per cent* and 78 *per cent*. There were substantial vacancies in the cadres of Ayurvedic/ Homeopathic/ Unani Assistants in AYUSH dispensaries. Absence of required manpower affects optimal development and propagation of the AYUSH systems of healthcare in hospitals and dispensaries. The district-wise manpower position under AYUSH system for Ayurveda, Homeopathy and Unani is given in *Appendix 2.8*, *Appendix 2.9*, and *Appendix 2.10* respectively.

¹⁹ PHC, Ertal (Bhadrak): Pharmacist treated 15,852 patients, during FYs 2018-19 and 2019-20.

PHC, Ranjabrodi (Kandhamal): Pharmacist treated 20,384 patients, during FYs 2016-17 to 2021-22.

PHC, Darlimunda (Nuapada): Pharmacist treated 6,883 patients, during FYs 2019-20 and 2020-21.

2.2 Human resources in MCHs

Schedule II of MSRR, 1999, prescribes the minimum requirements of teaching staff (Professors, Associate Professors, Assistant Professors and Senior Residents/ Lecturers), as well as non-teaching staff, in each medical college and its attached teaching hospitals. Any shortfall in this regard, is expected to result in admission restrictions being imposed by the National Medical Council (NMC). The H&FW Department is responsible for sanction and filling up of all teaching and non-teaching posts, in Government MCHs.

The data made available to Audit by the DMET, Odisha, showed vacancies in all cadres of teaching and non-teaching staff, across the MCHs of the State, affecting both-medical education, as well as patient care in the hospitals. Overall vacancies in the cadre of Professors was 27 per cent, compared to the sanctioned strength, as of March 2022. There were maximum vacancies in FM MCH, Balasore (48 per cent), followed by SJ MCH, Puri (43 per cent). The details of manpower position of teaching staff are given in *Appendix 2.11*.

Similarly, there were 36 per cent vacancies in the cadre of Nursing Officer/ staff nurses, whereas vacancy of Paramedics was 37 per cent in the MCHs, as detailed in *Appendix 2.12*.

2.2.1 Shortage of teaching and non-teaching staff in test-checked MCHs

Scrutiny of records of two of the test-checked MCHs, showed extensive vacancies of teaching faculty, as shown in **Table 2.7**.

Table 2.7: Vacancies in the cadre of teaching and non-teaching staff in two MCHs

Post	Pandit Raghunath Murmu Medical College & Hospital			Maharaja Krishna Chandra Gajapati Medical College & Hospital		
	Sanctioned Strength	Available	Vacancy (per cent)	Sanctioned Strength	Available	Vacancy (per cent)
Medical College						
Professor	20	15	5 (25)	37	34	3 (8)
Associate Professor	28	22	6 (21)	77	61	16 (21)
Assistant Professor	45	38	7 (16)	160	148	12 (7)
Total faculty	93	75	18 (19)	274	243	31 (11)
Resident Doctors	65	35	30 (46)	150	118	32 (21)
Tutors/ Demonstrators	25	7	18 (72)	41	26	15 (37)
Non-Teaching Staff ²⁰	45	18	27 (60)	94	43	51 (54)
Grand Total	228	135	93 (41)	559	430	129 (23)
Attached Hospital						
Doctors ²¹	158	125	33 (21)	503	414	89 (18)
Nursing Staff	321	222	99 (31)	951	689	262 (28)
Para-medical staff ²²	69	35	34 (49)	145	94	51 (35)

²⁰ Technician/Technical Assistant; Dissection Hall Attendant; Laboratory Attendant; Store Keeper; Stenographer; Sweeper *etc.*

²¹ 'Doctors' include the faculty and Resident Doctors in clinical departments

²² Pharmacists; Radiographers; Laboratory Technicians; Investigators, *etc.*

Post	Pandit Raghunath Murmu Medical College & Hospital			Maharaja Krishna Chandra Gajapati Medical College & Hospital		
	Sanctioned Strength	Available	Vacancy (per cent)	Sanctioned Strength	Available	Vacancy (per cent)
Non-Teaching Staff	29	4	25 (86)	11	7	4 (36)
Total	577	386	191 (33)	1610	1204	406 (25)

(Source: NMC norms and information furnished by the two MCHs)

(Red colour: More than 50 per cent vacancy; light red: Less than 50 per cent vacancy)

Thus, there were vacancies in all cadres of teaching and non-teaching staff, in both the test-checked MCHs, affecting both-medical education, as well as patient care in these hospitals.

Audit further observed that:

- In PRM MCH, posts of Professor had been lying vacant in two clinical departments (Psychiatry and Dentistry) and two non-clinical departments (Physiology and Pathology), for the last five years (2017-22). A post of Professor had been lying vacant in the Cardio Thoracic Surgery Super Specialist department of MKCG MCH, for the last five years.
- Two faculty members of PRM MCH and nine faculty members of MKCG MCH, had remained unauthorisedly absent, for periods ranging between one and nine years. Unauthorised absence of doctors in the MCHs, affected both Medical Education, as well as patient care services.
- Though dissection is a primary requirement in studying the subject of Anatomy, dissection Hall Attendants for handling cadavers, were not available in MKCG MCH, against the requirement of four attendants.
- Against two sanctioned posts, no Psychiatric Social Workers had been posted in the Psychiatry Departments of both the test-checked MCHs, affecting patient care, research activities and follow-up rehabilitation of psychiatric patients.
- The ENT Departments of the MCHs were running without any Technical Assistants and Speech Therapists.

Though the Dean and Principal of PRM MCH, had given an undertaking, after consultation with DMET, Odisha, to fill up the vacancies of faculties within 30 days, following the observations of the National Medical Council, regarding shortage of faculty seen during their inspections (October 2019/ November 2021), no effective steps had been taken to fill up these vacancies, as of May 2022.

2.2.2 Non-provision of human resources in Super Specialty Department

As per the MoU signed between the State Government and GoI, for sanction of PMSSY funds, the State Government was to create the required posts and deploy personnel in a time-bound manner, for smooth and efficient functioning of the Super Specialty departments in the MCHs. Audit, however, noticed that 11 Super Specialty Departments, in MKCG MCH, were running with acute shortages of faculty members.

Against the sanctioned strength of 48 staff, in the Super Specialty Departments of the MCH, only 30 were in position, with 18 vacancies in the cadres of Professor (3), Associate Professor (4), Assistant Professor (1) and Senior Resident (10). Audit observed that:

- Six Super Specialty Departments (Neurology, Paediatric Surgery, Cardio Thoracic Surgery, Neuro Surgery, Medical Gastroenterology and Surgical Gastroenterology) had no Professors.
- In three Super Specialty Departments (Neurology, Pediatric Surgery and Neurosurgery), posts of Professors had not been created.
- One Associate Professor (Cardiology), three Assistant Professors (Cardio Thoracic Surgery-1 and Neurosurgery-2) and one Senior Resident (Pediatric Surgery) had remained on unauthorised absence, for periods ranging from one month to 106 months.

Due to the non-availability of faculty, the Cardio Vascular and Thoracic Surgery Department was non-functional, with only minor operations being managed by the existing junior doctors of the Neuro Surgery Department.

The H&FW Department stated (February 2023) that the vacancy position would be filled in recently.

2.2.3 Shortage of human resources in Forensic Medicine and Toxicology Departments

Against the requirement of six tutors/ demonstrators²³ as per MSRR, only four posts had been sanctioned and were available, resulting in a shortfall of two tutors/ demonstrators, during FYs 2016-17 to 2021-22, in MKCG MCH. In PRM MCH, against the requirement of two tutors/ demonstrators, only one (contractual) was available.

Similarly, against the requirement of two technicians, there was no technician in PRM MCH, while one was posted in MKCG MCH.

The H&FW Department stated (February 2023) that steps were being taken for filling up the posts.

2.3 Manpower for laboratory services

Pathologist and Laboratory Technicians (LTs) are key personnel for in-house laboratories. They are responsible for taking samples, carrying out all prescribed pathological investigations and validating test reports. As per the IPHS, district hospitals should have one to four Pathologists and six to 18 LTs, depending upon their bed capacity.

Audit observed that, against the sanctioned strength of 2,048 LTs in the State, 1,320 LTs were in position (March 2022), with 36 *per cent* vacancies. Similarly, only 19 Pathologists were available in the DHHs of the State, against the sanctioned strength of 39. Thus, there was a vacancy of 51 *per cent* Pathologists across the DHHs.

The manpower position for diagnostic services, in seven of the test-checked DHHs, is shown in **Table 2.8**.

²³ Including two additional tutors/ demonstrators, since the post-mortem works carried out, exceeded 500 in number, annually

Table 2.8: Manpower position for diagnostic services, in the test-checked DHHs

DHH	Functional Beds	Pathologist		Microbiologist		Laboratory Technician	
		R	A	R	A	R	A
Bhadrak	336	3	1	1	1	12	4
Dhenkanal	300	3	1	1	1	12	7
Kandhamal	236	1	0	0	1	9	7
Nabarangpur	252	1	0	0	0	9	7
Nuapada	315	3	1	1	0	12	7
Puri	451	3	0	1	0	15	11
Sundargarh	330	3	1	1	1	12	8
Total		17	4	5	4	81	51

(Source: Data obtained from the test-checked DHHs)

(R: Requirement; A: Available) (Red: severe shortage; light red: shortage, Green: no shortage)

It would be seen, from the above, that:

- **DHHs:** Pathologists and Microbiologists were available in four of the seven test-checked DHHs only. The maximum shortage of LTs was in DHH, Bhadrak, where only four technicians had been posted, against the requirement of 12.
- **CHCs:** Against the requirement of 28 LTs, only 23 were available in the 14 test-checked CHCs. Due to shortage of LTs, pathological tests like blood urea, blood cholesterol, liver function test, kidney function test, lipid profile, *etc.*, were not being done in CHC, Barapada.
- **PHCs:** LTs were not available in 11²⁴ out of the 14 test-checked PHCs. Pathological tests (except blood sugar and malaria) were not being conducted in PHC, Ertal and routine urine, stool, blood tests *etc.*, were not being conducted at PHC, Sabrang, due to the absence of laboratory technicians, despite the availability of equipment.
- **MCHs:** Shortage of manpower in the Pathology departments of the test-checked MCHs, as of 31 March 2022, is given in **Table 2.9**.

Table 2.9: Manpower position in the test-checked MCHs

Post	PRM MCH			MKCG MCH		
	Sanctioned	Available	Vacancy	Sanctioned	Available	Vacancy
Professor	1	0	1	1	1	0
Assistant Professor	3	3	0	18	17	1
Tutor	4	1	3	7	5	2
Laboratory Attendants	2	0	2	2	0	2
Laboratory technicians ²⁵	33	12	21	60	32	28

(Source: Data obtained from the test-checked MCHs)

(Red: Not available or more than 50 per cent vacancy; light red: Less than 50 per cent vacancy; Green: No vacancy)

²⁴ Andaliyambahal, Darlimunda, Ertal, Indragarh, Joranda, Kodinga, Maidapur, Ranjabrodi, Sabrang, Tarbod and Badanigaon

²⁵ These figures relate to the MCHs in entirety, as no specific sanctioned strength was available for the Pathology departments

The H&FW Department had, therefore, failed to augment the strength, as required in accordance with the IPHS/ NMC guidelines. It had not even filled the existing vacancies against the sanctioned strength, due to which, pathological investigations, which were required to provide evidence-based medical care to patients, were hindered across the healthcare facilities in the State.

2.4 Availability of human resources for Antenatal Care

As per the Mother and Neonatal Health (MNH) Toolkit of NHM, human resource requirements for a maternity wing, should be based on the number of deliveries per month. Audit noticed that the average number of deliveries per month, in the test-checked DHHs, ranges between 200 and 500 deliveries. The requirement as per MNH toolkit and the availability of human resources, in the test-checked DHHs, are given in **Table 2.10**.

Table 2.10: Availability of human resources in the Maternity Wings of DHHs

DHH	Average deliveries / month	Doctors and other staff available in DHHs					
		Medical Officer	O&G specialist	Pediatrician	Anesthetist	ANM	Staff Nurse
Requirement	200-500	4	5	1	1	4	8
		Available					
Bhadrak	459	0	3	1	1	1	8
Dhenkanal ²⁶	515	0	5	1	1	1	5
Kandhamal	263	0	3	1	1	2	0
Nabarangpur	221	0	2	2	1	3	4
Nuapada	395	0	3	2	1	0	10
Puri	495	0	6	3	1	7	4
Sundargarh	393	0	8	0	1	3	22

(Source: Records of the test-checked DHHs)

(Red colour shows shortage and green colour denotes no shortage)

Audit observed the following in this regard:

District Headquarters Hospitals

- The number of O&G specialists, available in the DHHs of Bhadrak, Kandhamal, Nabarangpur and Nuapada, was not adequate, in comparison to the requirements. Further, dedicated Pediatricians were not available in the DHHs of Bhadrak, Dhenkanal and Sundargarh, for maternity services, as they had to look after both the pediatric, as well as the maternity wards.
- In all seven DHHs, only one Anesthetist was available in each hospital, and was managing the entire anesthesia related works of each hospital, including the Maternity wing.
- Against the requirement of eight ANMs/ staff nurses in each DHH, only four to five staff nurses were available in three DHHs (Dhenkanal, Nabarangpur and Puri), whereas no dedicated staff nurses were available for maternity services at DHH, Kandhamal. Shortage/ absence of required staff nurses builds up burden on the existing staff,

²⁶ As the average deliveries per month was slightly more than 500, the norms for 500 deliveries per month was taken for the DHH

compromising the quality of maternity services, as they are the key personnel for providing healthcare to the mothers and babies.

The maternity wings at DHH, Nuapada and Sundargarh, had more nurses than the norms prescribed in the MNH toolkit.

Community Health Centres

- Only 164 O&G specialists had been positioned in 382 CHCs of the State, with a shortage of 57 per cent of the sanctioned strength.
- In the 14 test-checked CHCs, O&G specialists were available in five²⁷ CHCs, while pediatricians were available only in four²⁸ CHCs. Due to absence of O&G specialists and pediatricians in the CHCs, maternity/child healthcare services, including newborn care in the hospitals, were restricted, compelling women patients to move to private or other facilities.

Shortage of key resources in the facilities indicated the lack of capability of the hospitals to manage pregnancy related complications and other maternal health emergencies, as well as to ensure satisfactory newborn care.

The H&FW Department stated (February 2023) that steps were being continuously taken to fill up the vacant posts of specialist doctors.

2.4.1 Human resources in SNCUs

IPHS Guidelines prescribe four Medical Officers, 21 staff nurses, four Nursing Supervisors and eight neonatal Aides/ Yashodas/ Mamtas, in a 12-bedded SNCU. Besides, laboratory technicians, data entry operator and Group D staff, are required to be available for the SNCU.

Audit, however, observed acute shortage of manpower in the SNCUs of the test-checked DHHs. Details of the manpower available in the SNCUs of the test-checked DHHs, as of March 2022, are given in **Table 2.11**.

Table 2.11: Staff available in the SNCUs of the test-checked DHHs, as of March 2022

Manpower	Requirement	Availability in the test-checked DHHs						
		Bhadrak	Dhenkanal	Kandhamal	Nabarangpur	Nuapada	Puri	Sundargarh
MOs	4	0	2	1	0	1	4	5
Pediatricians	1	1	2	0	2	0	3	2
Staff Nurse	21	8	7	12	7	11	10	11
Nursing Supervisor	4	0	2	0	1	1	0	1
Neonatal aides	8	0	0	0	4	0	0	0
Lab technicians	1	0	0	0	0	0	0	0
DEO	1	1	1	1	1	0	1	1
Group D staff	2 per shift	1	4	5	4	7	5	4

(Source: Data obtained from the test-checked DHHs)

(Red colour: shortage of manpower; Green colour: No shortage)

²⁷ O&G specialists: Basudevpur, Lahunipara, Khariar Road, Nimapara and Papadahandi

²⁸ Paeditricians: Basudevpur, Kuarmunda, Papadahandi and Nimapara

As would be seen from **Table 2.11**, adequate manpower was not available in any of the test-checked DHHs.

- Dedicated MOs were not available in two DHHs (Bhadrak and Nabarangpur), whereas one MO was available in each of the DHHs at Kandhamal and Nuapada. The Pediatricians available in the DHHs, were looking after the SNCUs, as well as the Paediatric wards.
- The number of Nursing Supervisors and Staff Nurses was not adequate, in the SNCUs of the test-checked DHHs.
- Laboratory technicians were not available in any of the SNCUs. The laboratory/ pathological tests were being done in the integrated laboratory of the hospitals. Neonatal aides were available only in DHH, Nabarangpur.

Thus, the SNCUs of the test-checked DHHs had inadequate staff for providing assured neonatal services, as per the patient load.

The H&FW Department stated (February 2023) that due to shortage of Pediatric specialists for SNCUs, available MOs were being trained to provide SNCU services.

2.5 Manpower for the Odisha Blood Centres

As per the recommendation (April 2017/ January 2018) of the Expert Working Group²⁹, Ministry of Health and Family Welfare, GoI, the staffing pattern of blood centres based on the collection of blood units, is given in **Table 2.12**.

Table 2.12: Staffing pattern for blood banks

Staff required	Annual Blood Collection (in units)				
	Up to 5,000	Up to 10,000	Up to 20,000	More than 20,000	More than 50,000
MO-in-charge/ Medical Personnel	2	3	5	7	8
Counselor/Medical Social Worker	1	2	2	2	4
Registered Nurse	1	2	3	4	8
Blood Centre Technician	5	8	11	13	22
Laboratory Attendant/ Housekeeping Staff	1	3	4	4	8

(Source: Ministry of Health and Family Welfare, GoI)

Besides, additional staff³⁰ should be provisioned for outdoor blood donation camps.

Audit observed that the annual collection of blood units, in the blood centres (BCs) of six of the test-checked DHHs, was within 5,000-10,000 units, except in the case of DHH, Bhadrak, where more than 10,000 blood units were collected per annum. The BCs of the test-checked DHHs were, however, deficient in manpower, as discussed below:

²⁹ Constituted by the Ministry of H&FW, GoI under the chairmanship of the Special Director General of Health Services, to review and revise the norms for technical manpower in blood banks.

³⁰ Medical personnel:1; Counsellors: 2; Registered nurses: 2; Blood centre technicians: 3; Attendants:2

- Against the requirement of three to five MOs in each BC, only one MO each, was in position, in the BCs of six of the test-checked DHHs, except in case of DHH, Puri, which had two MOs.
- Only two BCs (at DHH, Bhadrak and Sundargarh) had one Counsellor/ Medical social worker, against the requirement of two, whereas the BCs of other DHHs had no counsellors.
- The BCs at Bhadrak and Nabarangpur had no registered nurses.
- There was shortage³¹ of three to seven blood centre technicians in the BCs of the test-checked DHHs.

Shortage/ absence of the required manpower in the BCs, hinders the working of blood banks in the concerned hospitals, as well as organisation of blood donation camps.

The H&FW Department stated (February 2023) that instructions would be issued to the concerned authorities to give proposal to Government for posting of manpower in Blood Centres.

2.6 Manpower for Nutritional Assessment

As per Kayakalp guidelines³², the quality and quantity of food are the key factors for patient recovery. IPHS/ NMC guidelines prescribe the availability of dieticians in DHHs and MCHs. Thus, high standards of food hygiene should be maintained throughout the delivery of healthcare services.

Audit noticed that dietary services were being provided, in the test-checked DHHs/ MCHs, through outsourced agencies. The State Government had, however, not sanctioned any posts of dieticians in the test-checked DHHs. No dieticians were available in the test-checked MCHs also. Due to absence of dieticians, nutritional assessment, diet counselling, formulation of caloric requirements for the patients and diet certification with regard to quality and adherence to the specified menu, were not being done properly. The designated staff of the DHHs/ MCHs had to manage quality assessment by testing the food.

Recommendation 2.1:

State Government may take suitable steps to address the gaps in human resources in the health sector, as also to rationalise the manpower in hospitals across the State, based on appropriate criteria, such as patient load or population.

A periodic review of the vacancies may be conducted in all hospitals, in order to ensure timely recruitment of doctors, nurses and paramedical staff.

³¹ Bhadrak:7; Dhenkanal:3; Kandhamal:3; Nabarangpur:4; Nuapada:3; Puri:3; Sundargarh:4

³² Guidelines issued (May 2015) by the Ministry of H&FW, GoI for promoting cleanliness, hygiene and infection control practices in public healthcare facilities