

Chapter II

Human Resources

Chapter-II: Human Resources

Health and Family Welfare Department had not framed HR policy for Human Resource Management for the public healthcare services in the State.

Overall vacancy in doctors, nurses, and paramedics cadres to the extent of 13 per cent was noticed in Public Health Institutions as of March 2022.

Out of 33 districts, geographical presentation of vacancies in the cadre of doctors and paramedics shows that shortage of more than 25 per cent in 22 and 19 districts respectively. Vacancies of specialist doctors were found 51 per cent and 49 per cent in SDHs and CHCs respectively.

Under National Health Mission Scheme, 31 per cent of specialist doctors and 32 per cent of paramedics posts were vacant as of March 2022.

Overall, 76 per cent shortage of teaching staff was noticed in Nursing Colleges/Schools against the norms of Indian Nursing Council.

2.1 Introduction

Human Resources Management plays a significant role in the healthcare delivery system. The delivery of adequate and quality healthcare services in hospitals largely depends on the adequate availability of doctors, staff nurses, paramedics and other supporting staff.

2.2 Policy/Norms for Human Resources Management

The National Health Policy (NHP), 2017 (Para 11.9) recognises that Human Resource (HR) management is critical to strengthening of health system and delivery of healthcare services. The MCHs and DHs are key pillars of the State's healthcare system, providing a range of services to meet the medical needs of the local population.

Audit observed that HFWD had not framed HR policy for Human Resource Management for the public healthcare services in the State. The HFWD stated (August 2022) that State is trying to provide HR in line with the IPHS criteria, however, HR are provided as sanctioned by the State.

2.3 Recruitment of Human Resources

Recruitment drive of the Human resources of health care personnel was taken by the State Government during 2016-22 as shown in **Table 2.1:**

Table 2.1: Cadre-wise recruitment drive taken by State Government during 2016-22

Year	Lecturers in MCH	Specialist Doctors	Doctors	Nurses	Paramedics	Total
2016-17	97	45	295	1,723	786	2,946
2017-18	00	01	471	201	82	755
2018-19	53	100	00	1,751	193	2,097
2019-20	218	117	93	00	00	428
2020-21	30	02	00	3,000	00	3,032
2021-22	01	00	00	153	571	725
Total	399	265	859	6,828	1,632	9,983

(Source: Information collected from CoH)

Recruitment of 399 lecturers⁴ was done during 2016-22 for MCHs. Further, recruitment of 265 specialist doctors and 859 doctors were done in various Healthcare Facilities viz., DHs, SDHs, CHCs etc. during 2016-22.

2.4 Availability of Human Resources in public healthcare facilities

The details of person-in-position *vis-a-vis* sanctioned strength in the public healthcare facilities in the State as of 31 March 2022 are shown in **Table 2.2** below:

Table 2.2: Availability of HR in Public Healthcare Facilities in the State as of March 2022

Cadre	Sanctioned Strength (SS)	Person-in-Position (PIP)	Shortfall	Shortfall (in per cent)
Doctors	10,562	8,143	2,419	23
Nurses	24,466	23,044	1,422	06
Paramedics	8,054	6,214	1,840	23
Total	43,082	37,401	5,681	13

(Source: Information collected from CoH and HCFs)

As seen from the above table, vacancies of 23 per cent in the cadre of doctors, six per cent in the cadre of Nurses, 23 per cent in Paramedics cadre were noticed despite the recruitment of 9,983 healthcare personnels was done by the State Government during 2016-22 as discussed in **Para 2.3**.

District-wise availability of doctors, nurses and paramedics in the State are shown in the **Appendices 2.1, 2.2 and 2.3** respectively.

Geographical presentation of vacancies of doctors, nurses and paramedics in Public Health Care Facilities (HCFs) of the State as of March 2022 is shown in **Charts 2.1, 2.2 and 2.3** as given:

⁴ 1. Professors - 31, 2. Associate Professors - 92, 3. Assistant Professors – 137, and 4. Tutors - 139

Chart 2.1: Geographical presentation of vacancies (in per cent) of doctors in the State



(Source: Information provided by HCFs)

Chart 2.1 depicts that the vacancies of doctors in 22 districts out of 33 districts were more than 25 per cent.

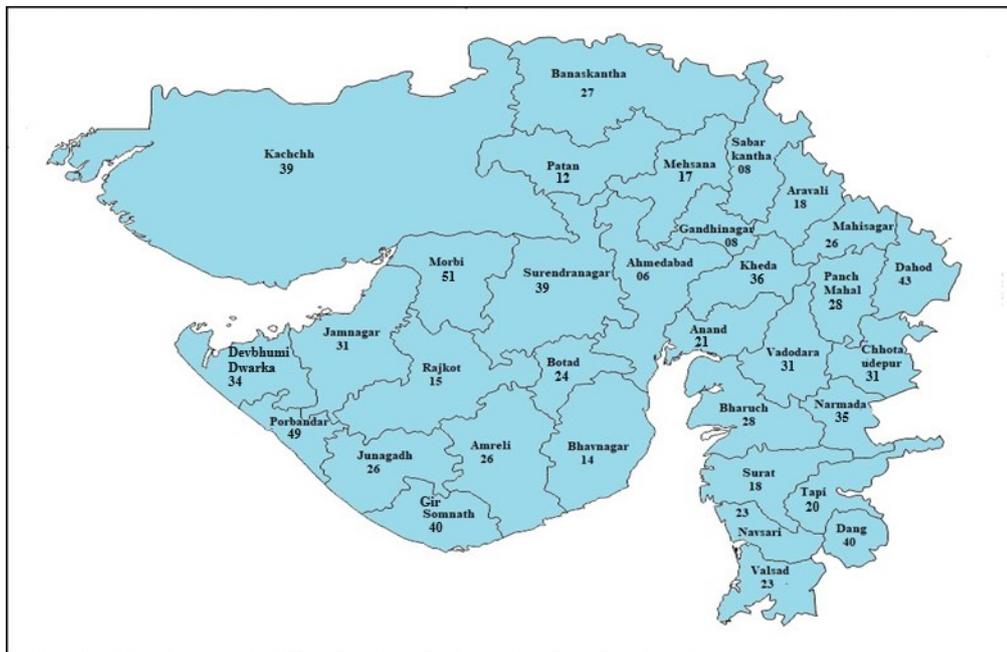
Chart 2.2: Geographical presentation of vacancies (in per cent) of Nurses in the State



(Source: Information provided by CoH)

Chart 2.2 depicts that the vacancies of nurses in four districts out of 33 districts were more than 10 per cent.

Chart 2.3: Geographical presentation of vacancies (in per cent) of paramedics in the State



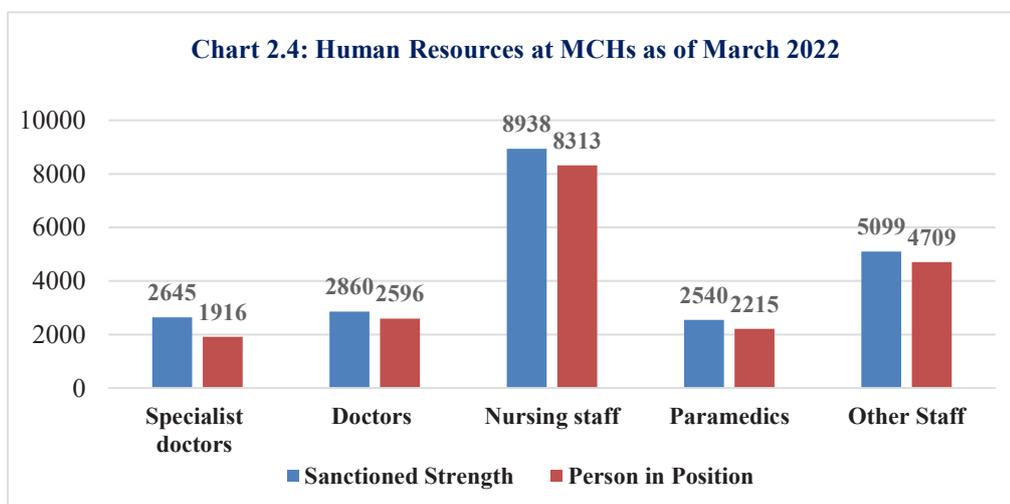
(Source: Information provided by CoH)

Chart 2.3 depicts that the vacancies of Paramedics in 19 districts out of 33 districts were more than 25 per cent.

Recommendation 1: State Government may address un-even geographical distribution of staff in the cadre of doctors and paramedics of PHCFs.

2.5 Availability of Human Resources in Tertiary Healthcare Facilities

In the State, there are six Government Medical College Hospitals (MCHs) run by State Government and eight GMERS Medical College Hospitals as of March 2022. The availability of Human resources in 14 MCHs is shown in Chart 2.4 below:



(Source: Information collected from MCHs)

Overall, there was 28 *per cent* vacancy in the cadre of Specialist doctors⁵, nine *per cent* vacancy in the cadre of doctors, seven *per cent* vacancy in Nursing cadre and 13 *per cent* vacancy in paramedics cadre noticed in the 14 MCHs. Details of unit-wise vacancy of human resources in various posts/cadres in MCHs in the State as of March 2022 are shown in **Appendix 2.4**.

2.6 Availability of Human Resources (HR) in Secondary and Primary Healthcare Facilities

i. District Hospitals (DHs)

In the State, 19 District Hospitals (DHs) were established by the State Government as of March 2022. Analysis of availability of the Specialist Doctors, Doctors, Nurses, and Paramedics against IPHS norms and sanctioned strength approved by State Government in all DHs as of March 2022 is shown in **Table 2.3** below:

Table 2.3: Availability of HR in District Hospitals in the State as of March 2022

Cadre	Manpower requirement worked out as per IPHS	SS as approved by State	PIP	Shortfall against IPHS norms (in per cent)	Shortfall against SS approved by State (in per cent)
Specialist doctors	373	317	203	170 (46)	114 (36)
Doctors	253	250	206	47 (19)	44 (18)
Nurses	1,383	1,099	1,026	357 (26)	73 (07)
Paramedics	734	322	174	560 (76)	148 (46)
Total	2,743	1,988	1,609	1,134 (41)	379 (19)

(Source: Information collected from DHs)

In all the DHs, Overall vacancy against IPHS norms and SS approved by the State of specialist doctors was 46 *per cent* and 36 *per cent*, of doctors was 19 *per cent* and 18 *per cent*, of Nurses was 26 *per cent* and seven *per cent* and of the paramedics cadre was 76 *per cent* and 46 *per cent* respectively. Further, it was observed that the vacancies against SS approved by the State of specialist doctors in 14 out of 19 DHs was more than 25 *per cent*, vacancies of doctors in four out of 19 DHs were more than 25 *per cent*, (details in **Appendix 2.5**). Vacancies of nurses in Rajpipla DH were 27 *per cent*, (details in **Appendix 2.6**) and vacancies of paramedics in 14 out of 19 DHs were more than 25 *per cent* (details in **Appendix 2.7**).

ii. Sub District Hospitals (SDHs)

In the State, 54 SDHs were established by the State Government in 27 districts as of March 2022. The details of sanctioned strength as per IPHS and as approved by the State Government for various cadres *vis-à-vis* person-in-position in Sub-District Hospitals (SDHs) as of March 2022 are shown in **Table 2.4**:

⁵ Specialist doctors including Senior Resident (SR)

Table 2.4: Availability of HR in SDHs in the State as of March 2022

Cadre	Manpower requirement worked out as per IPHS	SS as approved by State	PIP	Shortfall against IPHS norms (in per cent)	Shortfall against SS approved by the State (in per cent)
Specialist doctors	614	549	268	346 (56)	281 (51)
Doctors	506	365	258	248 (49)	107 (29)
Nurses	1,874	1,556	1,481	393 (21)	75 (05)
Paramedics	2,221	639	362	1,859 (84)	277 (43)
Total	5,215	3,109	2,369	2,846 (55)	740 (24)

(Source: Information collected from SDHs)

Overall vacancy against IPHS norms and SS approved by the State of specialist doctors was 56 per cent and 51 per cent, of doctors was 49 per cent and 29 per cent, of Nurses was 21 per cent and five per cent and of the paramedics cadre was 84 per cent and 43 per cent respectively in the SDHs. Geographical analysis of the data of human resources of SDHs, indicated that vacancies against SS approved by the State of specialist doctors in 22 districts⁶ out of 27 districts⁷ was more than 25 per cent, vacancies of doctors in 14 districts⁸ of 27 districts was more than 25 per cent, vacancies of nurses was nominal, vacancies of paramedics in 19 districts⁹ of 27 districts was more than 25 per cent. District-wise availability of human resources in test-checked SDHs in the State as of March 2022 are shown in **Appendices 2.8 (i) and 2.8 (ii)**.

iii. Community Health Centres (CHCs)

In the State, 345 CHCs were established by the State Government in 33 districts as of March 2022. The details of sanctioned strength as per IPHS and as approved by the State Government for various cadres *vis-à-vis* persons-in-position in CHCs as of March 2022 are shown in **Table 2.5**:

Table 2.5: Availability of HR in CHCs in the State as of March 2022

Cadre	Manpower requirement worked out as per IPHS	SS as approved by State	PIP	Shortfall against IPHS norms (in per cent)	Shortfall against SS approved by the State (in per cent)
Specialist doctors	1,725	621	319	1,406 (82)	302 (49)
Doctors	1,380	1,086	903	477 (35)	183 (17)
Nurses	3,450	2,480	2,426	1,024 (30)	54 (02)
Paramedics	3,795	1,599	874	2,921 (77)	725 (45)
Total	10,350	5,786	4,522	5,828 (56)	1,264 (22)

(Source: Information collected from Additional Director, Public Health)

⁶ 1. Ahmedabad, 2. Amreli, 3. Arvalli, 4. Banaskantha, 5. Bharuch, 6. Dahod, 7. Devbhoomi Dwarka, 8. Gir Somnath, 9. Junagadh, 10. Kachchh, 11. Kheda, 12. Mahisagar, 13. Mehsana, 14. Morbi, 15. Narmada, 16. Navsari, 17. Patan, 18. Rajkot, 19. Sabarkantha, 20. Surat, 21. Surendranagar and 22. Valsad

⁷ 54 Sub District Hospitals available in 27 districts out of 33 districts.

⁸ 1. Anand, 2. Arvalli, 3. Banaskantha, 4. Bhavnagar, 5. Dahod, 6. Devbhoomi Dwarka, 7. Gandhinagar, 8. Kheda, 9. Narmada, 10. Panchmahal, 11. Patan, 12. Rajkot, 13. Sabarkantha and 14. Surendranagar

⁹ 1. Ahmedabad, 2. Amreli, 3. Arvalli, 4. Banaskantha, 5. Bharuch, 6. Bhavnagar, 7. Gir Somnath, 8. Junagadh, 9. Kachchh, 10. Kheda, 11. Mahisagar, 12. Mehsana, 13. Morbi, 14. Narmada, 15. Navsari, 16. Rajkot, 17. Surendranagar, 18. Tapi and 19. Valsad

Overall vacancy against IPHS norms and SS approved by the State of specialist doctors was 82 *per cent* and 49 *per cent*, of doctors was 35 *per cent* and 17 *per cent*, of Nurses was 30 *per cent* and two *per cent* and of the paramedics cadre was 77 *per cent* and 45 *per cent* respectively in the CHCs. Further, district-wise analysis of vacancy indicates that vacancy against the SS approved by the State in Specialist doctors cadre in 27 out of 33 districts was more than 25 *per cent*, vacancy in doctor cadre in six out of 33 districts was more than 25 *per cent*, vacancy in nurse cadre in all 33 districts was nominal and vacancy in paramedics cadre in 27 out of 33 districts was more than 25 *per cent*. District-wise availability of doctors, nurses and paramedics in the CHCs of the state are shown in **Appendix 2.9**.

iv. Primary Health Centres (PHCs)

IPHS 2012 norms prescribe one post of Medical Officer-MBBS, one post of Medical Officer-AYUSH (Desirable), three posts of Nurses and one post of Health Assistant (Male), Health Assistant (Female), Laboratory Technician and Pharmacist for each PHC.

In the State, 1,477 PHCs were established by the State Government in 33 districts as of March 2022. The details of sanctioned strength as per IPHS and as approved by the State Government for various cadres *vis-à-vis* person-in-position in PHCs as of March 2022 are shown in **Table 2.6**:

Table 2.6: Availability of HR in PHCs in the State as of March 2022

Cadre	Manpower requirement worked out as per IPHS	SS as approved by State	PIP	Shortfall against IPHS norms (in <i>per cent</i>)	Shortfall against SS approved by the State (in <i>per cent</i>)
Doctors	1,477	1,869	1,474	03 (00)	395 (21)
Nurses	4,431	1,152	832	3,599 (81)	320 (28)
Paramedics	2,954	2,954	2,589	365 (12)	365 (12)
Total	8,862	5,975	4,895	3,967 (45)	1,080 (18)

(Source: Information collected from Additional Director, Public Health)

Overall vacancy against IPHS norms and SS approved by the State of doctors was nil *per cent* and 21 *per cent*, of Nurses was 81 *per cent* and 28 *per cent* and of the paramedics cadre was 12 *per cent* and 12 *per cent* respectively in the PHCs. Geographical analysis of vacancy against SS approved by the State revealed that in doctor cadre in 10 out of 33 districts the vacancy was more than 25 *per cent*, in nurse cadre in 19 out of 33 districts, the vacancy was more than 25 *per cent*, and in paramedics cadre in two out of 33 districts the vacancy was more than 25 *per cent*. District-wise availability of doctors, nurses and paramedics in the PHCs of the State are shown in **Appendix 2.10**.

v. Sub-Centres

Sub-Centre, the lowest tier of the health facility is manned by Auxiliary Nursing Midwife (ANM) or Health Workers (Female), and Health Workers (Male).

In the State, 9,231 SCs were established by the State Government in 33 districts as of March 2022. The details of sanctioned strength of ANMs/ Health Workers (Female), and Health Workers (Male) *vis-à-vis* person-in-position in SCs as of March 2022 are shown in **Table 2.7**:

Table 2.7: Availability of HR in SCs in the State as of March 2022

Cadre	Manpower requirement worked out as per IPHS	SS as approved by State	PIP	Shortfall against IPHS norms (in per cent)	Shortfall against SS approved by the State (in per cent)
ANMs (Female)/ Health Workers (Female)	9,231	9,241	8,966	265 (03)	275 (03)
Health Workers (Male)	9,231	9,145	8,418	813 (09)	727 (08)
Total	18,462	18,386	17,384	1,078 (06)	1,002 (05)

(Source: Information collected from CoH)

Vacancy in ANMs/ Health Workers (Female) cadre at SCs in Ahmedabad district was 20 per cent and vacancy of Health Workers (Male) at SCs in three¹⁰ districts was more than 25 per cent. District-wise availability of ANMs/ Health Workers (Female) and Health Workers (Male) in SCs of the state are shown in **Appendix 2.10**.

The ACS, HFWD during the exit conference (June 2023) stated that the process to appoint more human resources to address the issue of shortage in Government healthcare facilities is in progress.

2.7 Human Resources under National Health Mission

The National Health Mission (NHM) supplements Human Resources for Health, who are directly engaged in healthcare service delivery as well as the ones who are engaged in administering various programmes. The recruitment of staff in NHM at the State/District level, in general, is on a fixed tenure (contract) basis. The details of Sanctioned Strength (SS), Person-in-Position (PIP) and shortfall under various cadres engaged in healthcare service delivery as of March 2022 are shown in **Table 2.8**:

Table 2.8: Availability of HR under NHM as of March 2022

Name of Post	SS	PIP	Shortfall (in per cent)
Specialist Doctors	317	220	97 (31)
Doctors	137	117	20 (15)
Staff Nurse	2,583	2,029	554 (21)
Paramedics	1,842	1,260	582 (32)
ANM/MPW (Female)	3,329	3,072	257 (08)
Total	8,208	6,698	1,510 (18)

(Source: Information collected from Mission Director, NHM)

¹⁰ 1. Devbhoomi Dwarka, 2. Morbi and 3. Narmada.

From the above table, it was seen that 31 *per cent* of specialist doctors and 32 *per cent* of paramedics posts were vacant under NHM as of March 2022. Overall, 18 *per cent* of posts remained vacant.

2.8 Availability of Teaching Human Resources

i. Government and GMERS Medical Colleges

Details of teaching staff required as per norms of Medical Council of India (MCI), sanctioned posts, staff filled up and percentage of vacancy in Government Medical Colleges and Gujarat Medical and Education Research Society (GMERS) Medical Colleges as of March 2022 is shown in **Table 2.9** below:

Table 2.9: Details of available teaching staff in Government Medical Colleges as of March 2022

Category	Required staff worked out as per MCI norms	Sanctioned posts	Posts filled up	Shortage of staff against MCI norms	Percentage of shortage of staff as per MCI norms
Government Medical Colleges (six)					
Professor	282	170	117	165	59
Associate Professor	558	384	291	267	48
Assistant Professor	816	670	444	372	46
Total	1,656	1,224	852	804	49
GMERS Medical Colleges (eight)					
Professor	205	96	46	159	78
Associate Professor	385	208	114	271	70
Assistant Professor	577	304	208	369	64
Total	1,167	608	368	799	68

(Source: Data collected from Government Medical Colleges and GMERS Medical Colleges)

As seen from the above table, the shortage of teaching staff as per MCI norms was 49 *per cent* in Government Medical Colleges and 68 *per cent* in GMERS Medical Colleges during 2022 in the State.

ii. Government Nursing Colleges and Schools

Details of teaching staff required as per norms of the Indian Nursing Council (INC), sanctioned posts, staff filled up and percentage of vacancy as of March 2022 is shown in **Table 2.10** below:

Table 2.10: Availability of teaching staff in Government Nursing Colleges and Nursing Schools as of March 2022

Category	Required staff worked out as per INC norms	SS	PIP	Shortage of staff against INC norms	Percentage of shortage of staff as per INC norms
Government Nursing Colleges (eight colleges)					
Principal	08	08	01	07	88
Tutor	295	180	38	257	87
Total	303	188	39	264	87

Category	Required staff worked out as per INC norms	SS	PIP	Shortage of staff against INC norms	Percentage of shortage of staff as per INC norms
Auxiliary Nurse Midwifery Schools (30 schools)					
Principal	30	00	00	30	100
Tutor	158	153	68	90	57
Total	188	153	68	120	64
General Nursing Midwifery Schools (24 schools)					
Principal	24	24	00	24	100
Tutor	306	191	88	218	71
Total	330	215	88	242	73

(Source: Information collected from CoH)

As seen from the above table, posts of Principal were vacant in all Government Nursing Colleges and Auxiliary Nurse Midwifery Schools except one post filled in Vadodara Nursing College. The shortage in posts of Tutors in Nursing Colleges and Auxiliary Nurse Midwifery Schools ranged from 87 per cent to 57 per cent respectively as of March 2022.

The ACS, HFWD during the exit conference (June 2023) stated that necessary action would be taken to provide more teaching staff in Medical Colleges and Nursing Colleges/Schools.

Recommendation 2: State Government may take necessary steps to fill the vacant posts of teaching staff in Medical Colleges, Nursing colleges/schools and specialist doctors, doctors and paramedics in Health care facilities.