CHAPTER-4

DELIVERY OF HEALTHCARE SERVICES

CHAPTER 4: DELIVERY OF HEALTHCARE SERVICES

4. Delivery of timely and quality health care through line services like OPD, IPD, ICU, OT, Trauma & Emergency and Diagnostic services

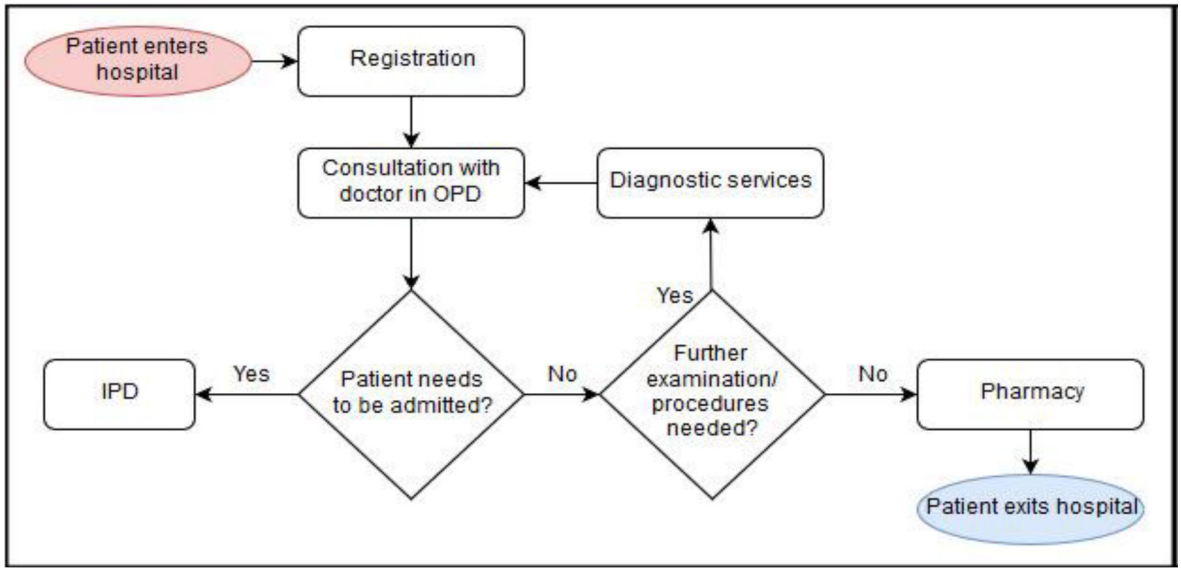
High-quality healthcare services involve the right care, at the right time, responding to the users' needs and preferences, while minimizing harm and wastage of resources. Quality healthcare increases the likelihood of desired health outcomes. Audit observations on delivery of timely and quality healthcare services in the test-checked DHs through line services like Out-Patient Department (OPD), In-Patient Department (IPD), Intensive Care Unit (ICU), Operation Theatre (OT), Trauma & Emergency and Diagnostic services are discussed in the succeeding paragraphs.

4.1 Out-Patient Department (OPD) Services

4.1.1 Registration of patients in OPD

Registration counter is the first point of contact with the hospital for a patient and is an important component of hospital experience for patients and their attendants. IPHS norms envisage computerised registration. It is desirable that the registration process is computerised and able to collect patient information such as age, sex, address, ailment and previous patient information in case of old cases in a quick manner so that unnecessary delay is avoided. Depending on the status of illness of the patient, doctor also decides whether the patient requires to be admitted as an in-patient. The detailed process flow is shown in the chart below:

Chart 4.1: Flow of patient services



Audit scrutiny revealed that manual registration system was followed in three DHs[1]. Though registration records are maintained in these DHs, the Unique Identification Number, chief complaint, referral details, past history of the patient, diagnosis of ailment *etc.* were not

[1] DHs Phek, Wokha and Tuensang

recorded. In DH Kohima, computer based registration is followed. However, in its data, name of the patient, village and contact details only were captured. Details of ailment, whether it was a referral case etc. were not captured. Details of IPD patient were also not captured in the system and manual system was still followed for IPD patients. Back up of the data collected in computer system was periodically erased. The computer system was used to generate a registration number only for the OPD patients. Further, online registration system had not commenced in the State.

Since registration did not record complete information of the patient, registration data maintained in the DHs did not serve any purpose for patient analysis (type of complaint, referral etc.) and it is a mere data of number of patients registered in OPD and for collecting registration fee from patients.

4.1.2 Wait time for registration and waiting time between registration and consultation with the doctor

The 'wait time' for registration at the Registration counters and wait time between registration and consultation as per the response of 82 patients during Patient Satisfaction Survey conducted in the test-checked DHs is tabulated below:

Table 4.1: Waiting time for registration and between registration and consultation with the doctor in the test-checked DHs

(A) Waiting time for registration

Name of DH	No. of Patients surveyed	Wait time in minutes		
		1-5	6-30	31-60
DH Kohima	40	27	13	nil
DH Wokha	12	11	1	nil
DH Phek	10	10	nil	nil
DH Tuensang	20	19	1	nil
Total	**82**	**67**	**15**	**nil**

(B) Wait time between registration and consultation with the doctor

Name of DH	No. of Patients surveyed	Wait time ranged (in minutes)						
		1-10	11-20	21-30	31-40	41-50	51-60	More than 1 hour
DH Kohima	40	15	10	11	nil	2	2	nil
DH Wokha	12	8	1	01	nil	nil	01	01
DH Phek	10	1	3	2	nil	nil	3	1
DH Tuensang	20	15	5	nil	nil	nil	nil	nil
Total	**82**	**39 (47.56%)**	**19 (23.17%)**	**14(17.07%)**	**nil**	**2 (2.44%)**	**6 (7.32%)**	**2 (2.44%)**

As can be seen from above tables, registration time was within the prescribed period of 1 to 5 minutes as 67 patients (81.70 *per cent*) responded that registration time took from one to five minutes. In the case of waiting time between registration and consultation with doctor 39 (47.56 *per cent*) patients responded that waiting time was between 1-10 minutes. In DH Kohima, 13 patients (32.5 *per cent*) surveyed had a wait time of 6 to 30 minutes for registration and 21 patients (52.5 *per cent)* waited 11 to 30 minutes for consultation with doctors after registration. Thus, there was a scope for further improvement of waiting time for registration and consultation after registration in the case of DH Kohima, especially in view of the fact that

there was no shortage of doctors and the shortage of nurses and paramedical staff was least in this DH, as compared to other three DHs (Wokha, Phek & Tuensang).

4.1.3 Patient Load in OPD

IPHS norms prescribe that workload in OPD should be studied and measures should be taken to reduce the waiting time for registration, consultation, diagnostics, pharmacy etc. The norms also prescribe that hospitals should develop standard operating procedures (SOP) for OPD management, train the staff and implement the SOP. The number of out-patients attended to in the test-checked hospitals is shown in table below:

Table 4.2: Number of patients treated in OPD of the test checked DHs

Year	DH Kohima	DH Phek	DH Tuensang	DH Wokha
2014-15	67001	9985	7535	13017
2015-16	69415	8745	5541	11090
2016-17	67935	9141	7197	14725
2017-18	87158	11421	6394	17458
2018-19	119297	12402	6223	15015

Source: HMIS Reports

It is seen that the number of OPD patients increased in DH Kohima except for a minor shortfall in 2016-17. The increase in patient load in this DH was 78 *per cent* from 2014-15 to 2018-2019. Among other factors, this trend mirrors the adequacy of manpower and other facilities and also due to the fact that it is the only referral hospital in the State.

Photograph 4.1: Patients waiting at OPD in CHC Viswema (Photograph taken on 14/02/20).

In DH Phek, the number of OPD registrations went down during 2015-16 and 2016-17 while DH Wokha showed a mixed trend. In Tuensang DH, the number of OPD patients never reached the level of 2014-15 in the ensuing four years.

In CHC Viswema, number of patients utilising the OPD facilities showed decreasing trend. In the year 2014-15, number of patients utilising the services of OPD was 2924 whereas in 2018-19 it decreased to 2514 (14 *per cent* less – with reference to 2014-15). The decrease in OPD numbers could be linked to the non-availability of specialist and medical officers (64 *per cent*) including Obstetrician & Gynaecologist, Paediatrician and Anaesthetist in the CHC.

In PHC Botsa, patients utilising OPD services had increased from 2093 (2014-15) to 3209 (2018-19) which was 53.32 *per cent* increase as compared to 2014-15.

The shortage of doctors as mentioned in Paragraph 3.2 in all the three test checked DHs, had further impacted the quality of services to the public.

4.1.4 Availability of essential services in OPD

NHM Assessor's Guidebook prescribes list of services to be provided in OPD. However, some of the services were not provided in the test checked DHs as tabulated in **Table 4.3**.

Table 4.3: Availability of essential services in OPD

Name of Services	No. of Services to be provided	No. of services provided by DH			
		DH Kohima	DH Wokha	DH Phek	DH Tuensang
Curative Services	15	13	6	9	5
RMNCHA[2] Services	4	3	2	3	1
Diagnostic services	3	2	1	1	1
NHM programme [3]	10	7	5	4	3

Source: Record review, staff interview and Physical verification of test checked DHs

Reason for non-availability of services was mainly due to non-availability of human resources and infrastructure in the respective service.

Department ensured (October 2020) that gaps in essential services would be verified.

4.1.5 Basic amenities in OPD

NHM Assessor's Guidebook prescribes amenities to be provided to the care seekers in health facility. Status of availability of some of the important facilities in the test checked DHs are detailed in **Table 4.4**.

Table 4.4: Availability of some of the important facilities in the test checked DHs

Name of Amenities / facilities available	DH Kohima	DH Wokha	DH Phek	DH Tuensang
Availability of Wheel chair or stretcher for easy Access to the OPD	Yes	No	Yes	Yes
Seating arrangement	Insufficient	Yes	Yes	Yes
Potable drinking water	No	Yes	No	No
Separate toilets for male and female patients	No	No	No	No
Availability of ramps with railing	No	No	Yes	No
Availability of disabled friendly toilet	No	No	No	No

Source: Record review, staff interview and Physical verification of test checked DHs

As can be seen from above, none of the DHs provided separate toilet for male and female patients and disabled friendly toilet. Potable drinking water facility was available only in DH Wokha. Ramp was available in the new building of DH Phek but the same facility was not available in other test checked DHs. The non-availability of basic amenities in DH Kohima is serious, being the only referral hospital in the State.

[2] Reproductive, Maternal, New born, Child plus Adolescent Health

[3] Maternal Health Services, New Born Care, National Vector Borne Diseases Control Programme, TB Control Programme, Leprosy Eradication Programme etc. implemented under NHM.

Wheel Chair, Seating arrangement and Potable drinking water were available in CHC Viswema and PHC Botsa. However separate toilets for male and female, ramps, and disabled friendly toilets were not available.

Department assured (October 2020) that gaps in basic amenities would be verified but did not spell out what remedial action would be taken to improve the basic amenities in OPD.

4.1.6 Conclusion

Manual system of registration was followed in three test checked DHs and there was no facility for online registration in any test checked DHs. Patients availing OPD services showed a mixed trend. DH Kohima and DH Phek showed an increasing trend in registration of patients while DH Tuensang showed a decreasing trend. Essential services to be provided in DHs also varied across test checked DHs. There were deficiencies in providing minimum basic amenities to the patients in OPD in test checked DHs. None of the DHs provided separate toilet for male and female patients and disabled friendly toilet. Potable drinking water facility was available only in DH Wokha. Ramp was available in the new building of DH Phek but the same facility was not available in other test checked DHs.

4.1.7 Recommendation

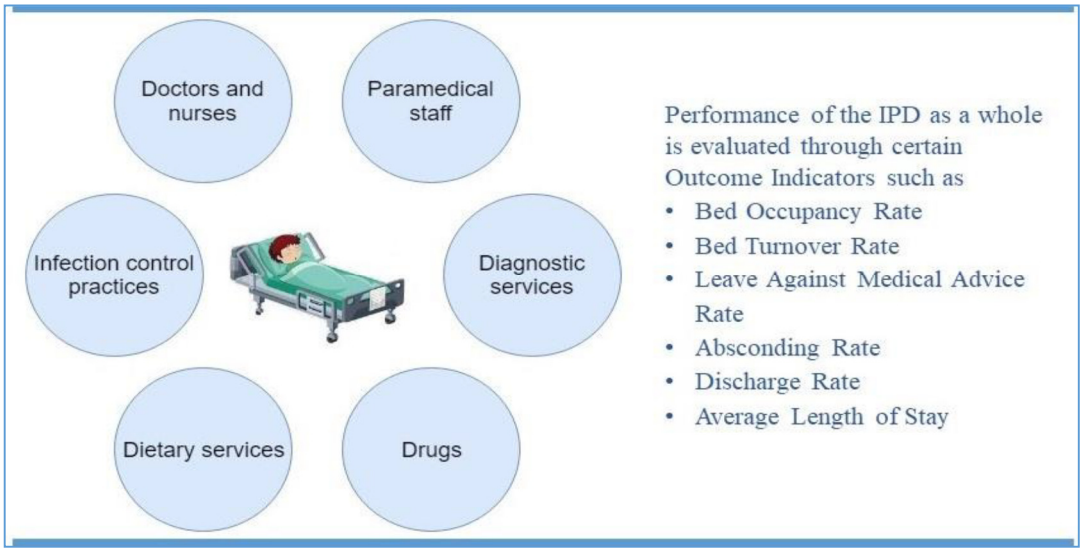
(i) The Department may ramp up the OPD Services keeping in view the increasing demand for services. They may introduce computer based registration system in OPD/IPD in all DHs.

(ii) State Government may ensure availability of essential services in the OPDs in all DHs.

4.2 In-patient Department (IPD) Services

IPD refers to the areas of the hospital where patients are accommodated after being admitted, based on doctor's/ specialist's assessment, from the OPD, Emergency Services and Ambulatory Care. In-patients require a higher level of care through nursing services, availability of drugs/ diagnostic facilities, observation by doctors etc.

Chart 4.2: IPD services in the hospital



4.2.1 Availability of services in the IPD of the test checked DHs

As per NHM Assessor's Guidebook, a DH should be provided with specialist in-patient (IPD) services related to General Medicine, General Surgery, Ophthalmology, Orthopaedics etc. Status of availability of important in-patient services in test checked DHs are as detailed in **Table 4.5**.

Table 4.5: Availability of important IPD services in test checked DHs

Hospital	Essential IPD Services										
	GM	IW	GS	Bur	Opth	Orth	Psy	Phy	Dia	Acc	Nursing 24x7
Kohima	✓	✓	✓	×	✓	✓	×	✓	✓	×	✓
Wokha	✓	✓	✓	×	×	×	×	×	×	×	×
Phek	✓	✓	✓	×	×	✓	×	×	×	×	✓
Tuensang	✓	×	✓	×	×	×	×	×	×	×	×

Source: Information furnished by DHs

GM: General Medicine, IW: Isolation Ward, GS: General Surgery, Bur: Burns ward, Opth: Ophthalmology, Orth: Orthopaedics, Psy: Psychiatry, Phy: Physiotherapy, Dia: Dialysis, Acc: Accident & Trauma

As can be seen from table above, Burn ward, Psychiatry and Accident & Trauma ward were not available in any of the test checked DHs. Ophthalmology, Physiotherapy and Dialysis services were not available in three DHs, Wokha, Phek and Tuensang while there was no facility for 24x7 nursing in Tuensang and Wokha. Shortage of essential IP Services like Burns, Psychiatry, Accident & Trauma in DH Kohima indicates that patients had to be either referred out of State or to private hospitals, entailing additional financial burden on the patients.

Due to non-availability of all in-patient services, the DHs failed to provide comprehensive healthcare services to the people and they were compelled to go outside from their respective District/State to avail the healthcare services.

Department replied (October 2020) that setting up of dedicated wards for accident and trauma services would be explored as per the requirement. However, Department did not comment on non-availability of other services in test checked DHs.

4.2.2 Rosters for Doctors and Nurses

Roles & Responsibilities of administrative and clinical staff are determined as per Government regulations and standard operating procedures. The facility should have an established procedure for duty roster and deputation to different departments. Duty rosters ensure that staff is available on duty as per roster. None of the test checked DHs maintained doctor's roster. However, Nurses rosters were maintained in all test checked DHs.

In the absence of duty rosters, number and type of specialists/ MOs available in IPD could not be analysed in audit. It is not known how the DH monitors the services of doctors' availability in the absence of records.

Department in its reply (October 2020) ensured that duty rosters would be maintained.

4.2.3 Availability of Intensive Care Units and Critical Care Units (ICU/CCU)

Intensive Care Units (ICU) in a DH is essential for providing minimum assured services as per the IPHS norms for DHs having more than 100 beds and is desirable if the bed strength is more than 50 in the case of sub-DHs. Out of four test checked DHs, only DH Kohima has the ICU/CCU facility. Since there is no ICU/CCU facility in DHs Wokha, Tuensang and Phek, there is every likelihood of patients being referred in an emergent condition to DH Kohima for treatment or other private hospitals in Kohima where such facilities are available. The DHs Wokha, Phek and Tuensang did not maintain the number of cases referred to higher facilities during emergent situation. Similarly, DH Kohima also did not maintain cases referred from other health units in emergent situations to ICU/CCU.

Department replied (October 2020) that all the DHs had set up ICU/ High Dependency Care Unit (HDU) during the on-going COVID-19 pandemic. However, the Department did not clarify whether the setting up of ICU/HDU was a temporary or permanent measure.

4.2.4 Availability of Emergency Services

Emergency services in DH are provided by Emergency wards or Emergency Room (ER) which is a medical treatment facility specialising in acute care of patients who reach in emergency situations. IPHS envisage 24x7 operational emergency with dedicated emergency room in every DH.

Emergency room was available in all test-checked DHs. However, certain facilities envisaged were not available in any of the test checked DHs.

(i) Emergency shall have dedicated triage, resuscitation and observation area and screens shall be available for privacy. Out of the test-checked DHs, none of the DHs have dedicated triage facility.

(ii) It is also envisaged that separate provision for examination of rape/ sexual assault victim should be made available in the emergency as per guidelines of the Hon'ble Supreme Court. None of the DHs have any separate provisions.

4.2.5 Absence of Trauma Care Centre

Road traffic deaths and injuries are unpredictable and preventable. It is an accepted strategy of Trauma Care that if basic life support, first aid and replacement of fluids can be arranged within first hour of the injury (the golden hour), lives of many of the accident victims can be saved.

It was observed that trauma care centre was not available in any of the test-checked DH. In the absence of a functional trauma care centre in the test-checked DHs, patients with serious injuries were referred out to higher facilities in Kohima thus, losing the golden hour, to save the life of the victims.

4.2.6 Radiology Services /Imaging Equipment

4.2.6.1 Availability of X-Ray Equipment

Diagnostic imaging allows for detailed information about structural or disease-related changes in body with the ability to diagnose during the early stages. IPHS prescribe two to four types of X-ray machines of varying penetration and radiation levels for different radiological investigations. Details of availability of radiology/imaging equipment may be seen in **Table 4.6**.

Table 4.6: Availability of radiology/imaging equipment

Equipment	Requirement as per IPHS Norms (201 - 300 bedded	Availability in DH Kohima	Requirement as per IPHS Norms (up to 100 bedded)	Availability		
				DH Phek	DH Tuensang	DH Wokha
500MA X-Ray	1	1	NA	0	1	0
300MA X-Ray	1	0	1	1	0	0
100 MA X-Ray	1	1	1	1	1	1
60 MA X-Ray	1	0	1	0	0	0
Dental X-ray	1	1	1	0	0	0
Ultrasonography (USG)	3	2	2	1	1	1
ECG machine computerized	1	0	1	0	1	0
Cardiac Monitor	8		3	0	4	2
Cardiac Monitor with defibrillator	2	2	2	0	2	0

Source: Records from District Hospitals

It was observed that except DH Kohima, no other DHs were having all types of X-ray machines as required under IPHS norms. Similarly, required number of other imaging equipment like ultra-sonography machine, dental X-ray and mammography unit were not available in test checked DHs.

Since equipment as per the norms were not available, expected services could not be extended to the patients. This was despite availability of funds with the department.

4.2.6.2 Regulatory requirement for establishing Diagnostic Radiology facilities and its compliance

For establishing X-ray and CT scan unit in any health facility, license from the Atomic Energy Regulatory Board (AERB) is necessary under Rule 2 & 3 of Atomic Energy (Radiation Protection) Rules 2004. As per IPHS norms, lay out of the X-Ray room shall be as per AERB norms and Lead Aprons and Thermos Luminescent Dosimeters (TLD) badges shall be available with all the staff working in X-ray room. TLD badges should be sent to BARC on regular basis for assessment of radioactivity.

Audit scrutiny revealed that three[4] out of four DHs did not have the license to operate X-Ray machine and TLD badges were not provided to the staff working in X-Ray room. X-Ray

[4] DH Wokha, Tuensang and Phek

rooms were also not as per AERB norms. Photograph of the two DHs test checked are shown below.

	
Photograph 4.2: Main X-Ray room, DH Phek (Photograph taken on 04/12/2019)	**Photograph 4.3**: X- Ray machine attached to DH Wokha (Photograph taken on 14/01/2020).

Further, it was observed that:

- Structural shielding was not provided for walls, doors, ceiling and floor of the room housing the X-ray equipment in all the DHs. Instead of double walled concrete separation for X-ray room, partition with wooden screens was provided posing threat of radiation to X-Ray technicians in DH Phek.
- X- Ray machine attached to DH Wokha is located in the ground floor of the erstwhile Trauma Centre which was not easily accessible to patients and was non-functional since August 2019.
- Radiation symbol and warning placards in local languages are to be placed outside the X-ray room door, but these were not found in any of the test checked DHs.
- The QA tests should be carried out at regular intervals (periodicity-once in two years) and after repairs of the equipment or when equipment malfunction is suspected. This was also not carried out in test checked DHs.
- Though Dental X-ray is provided to DH Phek, it was non-functional since April 2014 and further action taken could not be ascertained.

In DH Kohima, approval of the AERB was available and staff were provided with TLD badges. TLD badges were also periodically checked and whole body radiation dose was found to be within the permissible limits during 2014-2018.

Department replied (October 2020) that all the DHs were registered with AERB (eLORA) and two of the DHs had obtained licence to operate and process to obtain licence was going on for other DHs. The Department did not name the two DHs which had obtained licence to operate radiological/imaging equipment and documentary evidence in support of the licence also was not provided. Department did not comment on non- adoption of AERB norms for X- Ray rooms and security of X-ray technicians.

4.2.6.3 Diagnostic Services in Emergency cases

Assessors Guide Book for Quality Assurance in District Hospital (2013) requires that 24x7 emergency lab services are available for selected tests of Haematology, Biochemistry, Serology and Radiology Services. All the test checked DHs stated that they were providing 24x7 emergency services in laboratory and radiology departments.

Audit observed that in all the test checked DHs, laboratory and radiological services generally remain closed after OPD hours. It was stated that in DH Kohima, lab technicians were assigned emergency duty (24x7) which were monitored internally. However, neither the duty roster of LTs of emergency duty nor the monitoring report of service review was made available to audit. In other three test checked DHs, it was stated that LTs and X-ray technicians were available at call after OPD hours. However, there was no record of laboratory or radiological tests carried out in emergency cases or duty rosters of LTs and X-Ray technicians. Laboratory register furnished to audit also did not indicate whether tests were conducted on an emergency.

In the absence of sufficient records, non-availability of adequate emergency laboratory and radiological services after OPD hours could not be ruled out.

Department replied (October 2020) that laboratory and radiology services were provided 24x7 and technicians were assigned emergency duty. For non-maintenance of records, Department stated that direction would be issued to maintain records of radiology and laboratory tests carried out in emergency.

4.2.6.4 Quality Assurance of Laboratory reports

IPHS guidelines stipulated that external validation of laboratory reports is to be done on a regular basis to ensure that the patients were given accurate reports.

All laboratories in DHs would be encouraged to achieve NABL accreditation. A system of regular sample cross-checking of diagnostic results with identified reference laboratories is necessary for this.

Microbiology Department of the DH Kohima has ISO Certification which is valid up to December 2020. Other DHs did not have NABL certification. DH Phek quarterly sends HIV test samples from ICTC to State Reference Laboratory (SRL) Kohima for proficiency testing (20 samples during 2014-19). However, other samples of laboratory tests conducted were not sent to State Reference Laboratory (SRL) Kohima for cross-checking of results. Quality assurance in other DHs were not carried out by sending samples to SRL or other peer DHs.

Department responded (October 2020) that direction would be issued for regular sample checking for quality assurance by sending samples to SRL Kohima.

4.2.6.5 Non-calibration of Medical Equipment

Calibration of an equipment is carried out to ensure that overall functionality is accurate and reliable. As per the terms and conditions of agreement (October 2016) between M/s Faber Sindoori Management Services Private Limited, Chennai and H&FW Department, annual third party Audit by NABL accredited laboratory was to be carried out for all calibration process by the service provider.

Audit observed that test checked DHs did not maintain the status of calibration of equipment carried out by the service provider. Further, annual third party audit of calibration process carried out was not done by NABL accredited laboratory.

In the absence of vital records of calibration, there was no reasonable assurance on accuracy of medical equipment and their ability to provide correct overall output/test results.

The Department assured (October 2020) that necessary instructions would be issued to all health units to adhere to the quality protocols of calibration of equipment and annual third party Audit by NABL accredited laboratory.

4.2.7 Shortage of Laboratory services

As per the IPHS norms, District Hospital Laboratory shall also serve the purpose of public health laboratory and should be able to do all tests required to diagnose important diseases from public health point of view and recommended 97 tests in 12 specialities in a DH and 51 tests in 11 specialities[5] in Sub-DHs. Audit observed that number of laboratory services to be provided in DHs were much below the prescribed norms in the test-checked hospitals as tabulated in **Table 4.7**.

Table 4.7: Availability of laboratory services to be provided in DHs

Name of Services	As per IPHS norms for 200 to 300 beds		No. of Services to be provided as per IPHS norms up to 100 beds	Services provided by		
	No. of Services to be provided	Services provided by DH Kohima		DH Wokha	DH Phek	DH Tuensang
Diagnosis Services	97	61	51	42	35	37
Percentage of test carried out	-	62.88	-	82.24	68.62	72.55

Source: Records of DHs

Details of laboratory tests carried out in each DH may be seen at **Appendix II.** As can be seen from the table above, out of 97 tests to be provided, DH Kohima is providing only 61 tests (62.88 *per cent*). In Sub-DHs, DH Phek provides least number of services.

Department did not furnish (November 2020) specific replies on non-conduct of required number of laboratory tests in DHs as per IPHS norms. On implementation of Free Diagnostic Service Initiative of NHM, Department replied that it was planning to implement in 11 DHs as first roll out. However, the Department did not furnish any time frame for its implementation.

4.2.7.1 Imposition of non-uniform user charges

A package of essential diagnostics, if available free of cost in public health facilities, would reduce high pocket expenditure by patients for diagnostics. Audit scrutiny revealed that all the health facilities are charging user charges for diagnostic tests[6] carried out in government facilities. The amount charged for some of the laboratory tests are as shown in **Table 4.8**.

Table 4.8: The amount charged for some of the laboratory tests

(Amount in ₹)

Type Service/Test	DH Kohima	DH Phek	DH Tuensang	DH Wokha
Complete Haemoglobin	300	200	70	150
Urine	100	100	50	50
LFT/KFT	500	500	350	400
USG	400	200	500	400

(Source: District Hospital records)

[5] Clinical Pathology, Urine Analysis, Pathology, Microbiology, Serology, Bio-Chemistry, Cardiac Investigations, Ophthalmology, ENT, Radiology, Endoscopy and Respiratory Services. For DHs, Blood Bank is also required.

[6] Cases of exempted categories like JSSY/ HIV etc. are discussed separately in this report.

As can be seen from above, there was no uniform pattern of charges across the test checked districts and H&FW Department also did not notify the rate to be charged in Government facilities. It was also noticed that none of the test checked DHs displayed the user charges at the entrance of the hospital.

Department replied (October 2020) that adoption of uniform user charges across the DHs shall be analysed and will be notified.

4.2.8 Shortage of Lab Technicians for diagnosis

For ready and timely availability of affordable diagnostic results, Lab Technicians (LTs) and equipment available in a facility play a key role for in-house laboratories for taking samples and carrying out all prescribed investigations.

Examination of records revealed that there was shortage of human resources in all the four test checked DHs. As per IPHS norms, number of Laboratory Technicians (Lab + Blood storage) required for a facility up to 100 bed strength is five. However, there was shortage of three LTs in DH Wokha and DH Tuensang and two LTs in DH Phek.

Availability of human resources in respect of diagnostic services in DH Kohima, DH Phek, DH Tuensang and DH Wokha is shown in **Table 4.9**.

Table 4.9: Availability of human resources in respect of Diagnostic services in DH Phek, DH Tuensang, DH Wokha and DH Kohima

Type of HR	Requirement as per IPHS norms (up to 300 bedded)	Availability in DH Kohima as on 31/3/2019	Requirement as per IPHS norms (upto 100 bedded)	Availability as on 31/03/2019		
				DH Phek	DH Tuensang	DH Wokha
Pathologist	3	1	1	1	1	1
Laboratory Technician (Lab + Blood storage)	12	18	5 (2 +3)	3	2	2
Cyto Technician	1	0	-	-	-	-

Source: Records of the respective DH

It was stated by MS, DH Wokha that one pathologist was posted to the facility only in May 2018.

4.2.9 Operation Theatre Services

One of the essential services that is being offered in DHs is Operation Theatre Services. Audit observed that major and minor operations were carried out in all the test checked DHs while only minor operations were carried out in CHC Viswema and PHC Botsa. Number of operations carried out in test checked DHs are as shown in table 4.10 below:

Table 4.10: Number of operations carried out in test checked DHs

Year	DH Kohima		DH Phek		DH Tuensang		DH Wokha	
	Major	Minor	Major	Minor	Major	Minor	Major	Minor
2014-15	1763	2073	42	207	115	303	168	352
2015-16	1703	1839	30	248	153	208	146	210
2016-17	1914	2030	34	236	113	317	268	302
2017-18	2034	3735	35	142	50	314	213	352
2018-19	1713	3405	14	576	68	415	162	314

Source: HMIS and Hospital records

As can be seen from above table, number of major operations carried out in DH Kohima was much higher than the number carried out in other test checked DHs. This was mainly due to functioning of five numbers of Operation Theatres (other three test checked DHs had only one Operation Theatre each) and higher number of specialists/surgeons in DH Kohima as compared to other three test checked DHs. It was also observed that in three test checked DHs where bed strength is less than 100, major operations were mainly carried out for Gynaecology-Hysterectomy. For instance, during 2018-19, out of 14 major operations carried out in DH Phek, nine (64.28 *per cent*) were in Gynaecology & Hysterectomy. Similarly in DH Wokha, 64.20 *per cent*[7]and in DH Tuensang, 95.58 *per cent*[8] were in Gynaecology- Hysterectomy. Facility for Ophthalmic & ENT surgery were available only in DH Kohima. This was mainly due to non-availability of Specialist medical officers, shortage of equipment and infrastructures in other three test checked DHs. This was despite availability of funds with the Department.

Department accepted (October 2020) the audit findings.

4.2.9.1 Documentation of OT procedures

NHM Assessor's Guidebook for Quality Assurance in DHs (2013) prescribes for maintenance of surgical safety checklist, pre-surgery evaluation records and post-operative notes for all OTs carried out in DH.

All the test checked DHs replied that they maintain surgical safety check list, pre and post-operative notes for operations. However, except DH Kohima, other DHs did not furnish documentary evidence in support of maintenance of surgical safety check list, pre-surgery evaluation and post-operative notes.

In the absence of reliable records, the reliability of appropriate documentation in OT procedures cannot be assured.

Department replied (October 2020) that records/documents were maintained for surgical safety check list, pre-surgery evaluation and post-operative notes. However documentary evidence in support of the reply was not furnished to Audit.

4.2.10 Indicators of availability and accessibility to services

Citizen charter consisting of vision & mission statements, details of business transacted by the organisation, details of clients; details of services provided to each client group; details of grievance redressal mechanism and how to access it; and expectations from the clients is necessary for information to patients and to ensure their adequacy in health facilities.

For information of services available, each health facility has to display Citizen Charter at OPD and entrance in local language including patient rights and responsibilities. For easy access to these facilities, signage is also to be installed at prominent places for the purpose of informing and guiding a person inside a hospital's premises.

In the test checked DHs, status of display of citizen charter, signage, patient rights, availability of grievance redressal mechanism etc. is shown in **Table 4.11**.

---

[7] Total major operations – 162, Operations related to Gynaecology- Hysterectomy- 104

[8] Total major operations -68, Operation in Gynaecology- Hysterectomy -65

Photograph 4.4: Signage showing way to different wards in DH Wokha

Photograph 4.5: Citizen Charter displayed near OPD of DH Kohima.

Table 4.11: Status of display of citizen charter, signage, patient rights, availability of grievance redressal mechanism etc.

Indicators	DH Wokha	DH Phek	DH Tuensang	DH Kohima	Remarks
Citizen Charter	Yes	Yes	Yes	Yes	Citizen Charter displayed in DH Kohima is very old, rusted and does not contain all necessary information
Signage	Yes	Yes	Yes	Partial	Display of signage in DH Kohima though available, was not placed in prominent areas within the hospital premises for easy access.
Patient rights	Yes	Yes	Yes	No	
Display of services	No	Partial	Partial	No	
Display of entitlements	Partial	Partial	Partial	Partial	
Information in local language	No	Partial	No	No	
Grievance & redressal Cell	No	No	No	No	Suggestions/Complaint boxes were provided at various locations in the hospital.
Patient satisfaction survey	Yes	No	No	No	DH Wokha conducted patient satisfaction survey only once during 2014-19.
Web site of the Hospital	No	No	No	No	-

Source: Departmental records

Department replied (October 2020) that it will initiate steps for displaying services available and facilities admissible for patients.

4.2.11 Grievance Redressal Cell

Grievance redressal/complaint cell is to be formed in all facilities as per IPHS norms. H& FW Department notified (October 2013) and re-organised committees in the State, District and DHs for handling grievances & redressal and to strengthen grievance redressal mechanism. As per this notification, Medical Officer in charge of the DH will be the chairman of the Committee and was supposed to meet once in every month.

Examination of records revealed that mechanism for addressing the grievances/complaints was not constituted in any of the test checked DHs, though complaint/suggestion boxes were placed at various locations in the hospitals. However, number of complaints/suggestion received, action taken on such suggestions/ complaints were not on record. In DH Wokha, during 2017-18, 31 number of suggestions were received which were mainly on neatness of the facility. This issue of neatness is now addressed through comprehensive renovation of DH Wokha.

Department replied (October 2020) that direction will be issued to reactivate grievance redressal cell/committee in all the districts.

4.2.12 Fire Safety norms

National Disaster Management Guidelines – Hospital Safety (2016) laid down provisions for establishing the minimum requirements for a reasonable degree of safety from fire emergencies in hospitals, such that the probability of injury and loss of life from the effects of fire are reduced. Ministry of Health & Family Welfare also reminded (October 2016) to all States & Union Territories to adhere to fire safety norms as per the National Building Code and to obtain NOC from Fire Department. It also stressed for installation of fire signage and evacuation route in vernacular language and conduct routine fire drills. National Building Code of India 2016, Part 4, Fire and Life Safety required that fire extinguishers must be installed in every hospital, so that the safety of the patients/attendants/visitors and the hospital staff may be ensured in case of any fire in the hospital premises. Further, Assessor's Guidebook for Quality Assurance in District Hospitals, 2013 stipulates that hospital should have a plan for prevention of fire. Also, the facility should have a system of periodic training of staff and regular conduct of mock drills for fire and other disaster situation.

Scrutiny revealed that none of the test checked DH had a certificate for fire safety from the Fire Department. Physical verification of test checked hospitals revealed that the main building of DH Phek and OT/ICU of DH Kohima were functioning in some multi-storey buildings. There was no plan for prevention of fire in any of the test checked hospitals. System for auto detection of fire was also absent in all the test checked DHs. Evacuation area in the case of fire is to be marked with illuminated exit sign. This was not being followed in any of the DHs. Satisfactory supply of water exclusively for the purpose of firefighting shall always be available in the form of underground static storage tank with arrangements of replenishment. Dedicated water tank for firefighting purpose was not constructed in any of DHs test checked. Hose Boxes with Delivery hoses, though available in DH Kohima, it was not supported with underground water tank. Fire & Emergency Department had inspected the DH Wokha (September 2018) and was advised to comply with National Building Code 2016. It was also mentioned that entry & exit routes should be clearly marked and other fixed installations such as smoke and heat detectors,

sprinklers etc. should also be installed. However, DH Wokha did not comply with the suggestions of Fire & Emergency Department.

Periodic training of staff and regular conduct of mock drills for fire and other disaster situation was not conducted in DHs Tuensang, Phek and Wokha. However, DH Phek stated that mass mock drills were conducted on 'Fire Safety Week' by the Fire Department. DH Kohima stated that periodical mock drills were conducted on fire and other disaster situations but number of mock drills conducted was not on record.

Department replied (October 2020) that directions has been issued to all districts to obtain NOC/Fire Safety Certificate from the Fire Department. However, Department did not comment on periodic training of staff and regular conduct of mock drills on fire safety.

4.2.13 Conclusion

Burn ward, psychiatry indoor services and accident & trauma ward were not available in any of the test checked DHs. Ophthalmology indoor services, indoor physiotherapy and dialysis services were not available in DHs Wokha, Phek and Tuensang. All laboratory and diagnostic services as per IPHS norms were not provided by the test checked DHs. There was no uniform pattern of user charges for diagnostic services across the test checked districts and H&FW Department also did not notify the rate to be charged in Government facilities. There was wide gap in average number of laboratory tests conducted per technician across DHs. Three out of four DHs did not have the license to operate X- Ray facilities and DHs did not have all 'X' Ray equipment as per norms. DHs did not maintain the status of calibration of equipment and annual third party Audit by NABL accredited laboratory.

Further, fire safety of patients, attendants, medical personnel and the hospital buildings had not been ensured by the concerned hospital administration. DH Wokha had not complied with findings of Fire Safety Inspection done. None of the DHs had dedicated water tank for firefighting purposes.

4.2.14 Recommendations

(i) The OPD and IPD Services provided in DHs may be reviewed to improve the number of services and facilities as per norms.

(ii) User charges for diagnostic services in DHs may be notified and streamlined for all DHs in the State.

(iii) Availability of equipment as per the IPHS norms may be ensured for quality services.

(iv) Calibration of diagnostic equipment may be implemented for reliable diagnostics.

(v) The hospitals may rigorously adhere to the National Building Code 2016 to ensure safety of patients/attendants/visitors and the hospital staff from fire incidents. Fire safety audit be carried out of all health facilities in the State, including the Special New Born Care Units (SNCU) in DHs.