

**Chapter IV**  
**Delivery of Healthcare Services**



## Chapter-IV Delivery of Healthcare Services

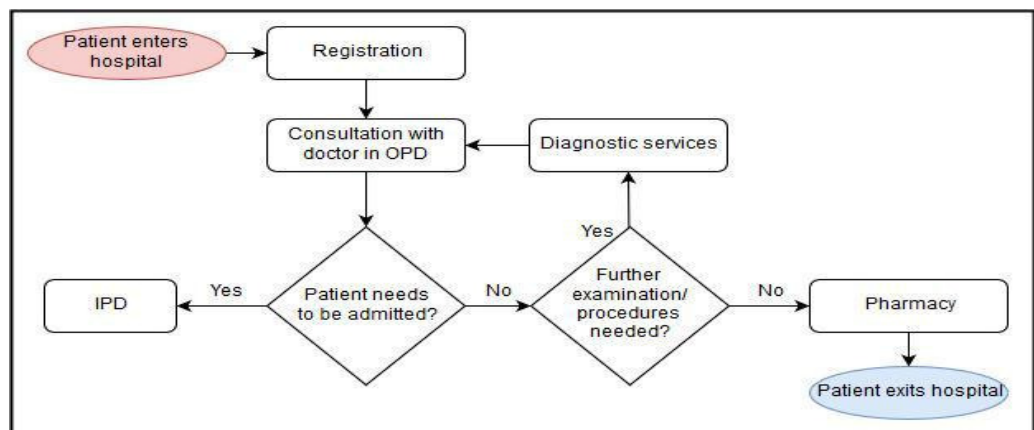
### *Delivery of OPD, IPD, ICU, OT, Trauma & Emergency, and Diagnostic services*

High-quality healthcare services involve the right care, at the right time, responding to the users' needs and preferences, while minimising 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) Service

To avail of services in a hospital, patients first register at the registration counter of the hospital. OPD doctors then examine them, and further diagnostic tests are prescribed, where necessary, for evidence based diagnosis and/or drugs are prescribed or admission in IPD is advised based on the diagnosis. The detailed process flow is shown in the chart below:

**Chart 4.1 Flow of out-patient services**



The following paragraphs discuss Audit findings pertaining to OPD services like registration, consultation, waiting time and other basic OPD facilities/ services in the test-checked DHs.

##### 4.1.1 Registration Service in test-checked DHs

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. The 'waiting time' at the Reception/Registration counter of a hospital play a vital role in developing trust in the quality of service medical treatment or diagnosis and long waiting time in hospital causes dissatisfaction among patients.

#### 4.1.2 Inadequate Registration Counters

NHM Assessor guidebook (Vol.-I) estimates the average time required for registration to be 3-5 minutes per patient, which roughly works out to about 20patients/hour per counter.

Audit examined the number of patients registered during 2018-19 in each test-checked DH along with the availability of registration counter(s) and it was observed that the available registration counter(s) were inadequate in three DHs, viz. Thoubal, Churachandpur and Bishnupur as shown in the table below:

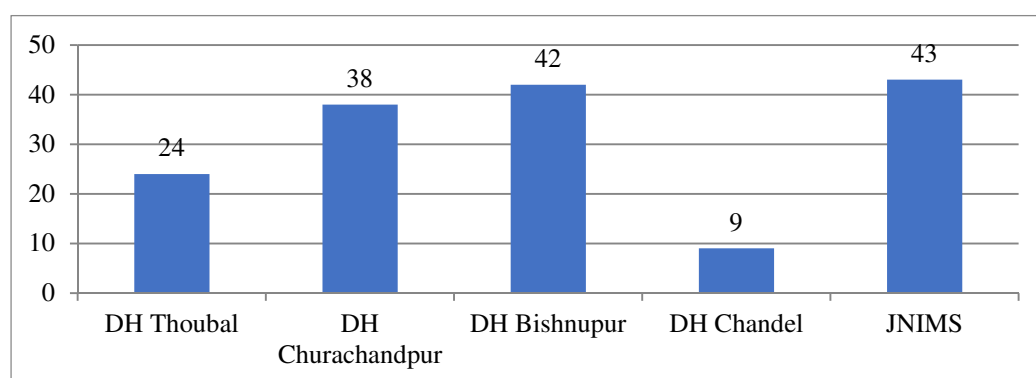
**Table 4.1: Hospital wise No. of registration counters**

Name of DH	Total No. of registered patients	OPD registration hours/day	No. of OPD working days during 2018-19	No. of required registration counters $\{2 \div (4 \times 3)\} \div 20$	No. of counter(s) available	Shortfall
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Thoubal	99,770	4	272	4	2	2
Churachandpur	1,23,062	4	272	6	3	3
Bishnupur	44,841	4	272	2	1	1
Chandel	9,241	4	271	1	1	0

Source: Records of Hospitals.

DH Churachandpur had the highest number of patients registered during 2018-19, followed by DH Thoubal. The following chart shows that the average patient load per counter per hour registered during 2018-19 of the test-checked DHs was higher than the ideal limit of 20 patients/hour for all test checked DHs except DH Chandel:

**Chart 4.2: Average patient load per counter per hour in test checked DHs (2018-19)**



Due to the high patient load per counter, the patients and their attendants had to spend extra time waiting for their turn to complete the registration. Such inconveniences become a source of dissatisfaction with the service delivery by DHs.

During Exit Conference (July 2020), the Department acknowledged the audit finding and stated that the matter will be looked into. Action taken up in this regard has not been intimated to Audit till date (July 2020).

### 4.1.3 Waiting time

The 'wait time' for registration at the Registration counters and wait time between registration and consultation as per the response of 98 patients during Patient Satisfaction Survey conducted in the test-checked DHs is tabulated below:

**Table 4.2: Waiting time for registration and between registration and consultation with the doctor in the test-checked DHs**

#### (A) Wait time for registration

Name of DH	Available No. of registration counters	No. of Patients surveyed	Wait time in minutes		
			1-5	6-30	31-60
Thoubal	2	25	11 (44%)	12 (48%)	2 (8%)
Churachandpur	3	48	10 (21%)	28 (58%)	10 (21%)
Bishnupur	1	15	12(80%)	3 (20%)	-
Chandel	1	10	3 (30%)	7 (70%)	-

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

Name of DH	No. of Patients surveyed	Wait time in minutes ( <i>per cent</i> of patient surveyed)			
		1-15	15-30	30-60	60-120
Thoubal	25	18(72%)	3(12%)	2(8%)	2(8%)
Churachandpur	48	25(52%)	10(21%)	9(19%)	4(8%)
Bishnupur	15	10(67%)	0	3(20%)	2(13%)
Chandel	10	8(80%)	2(20%)	0	0
<b>Total</b>	<b>98</b>	<b>61</b>	<b>15</b>	<b>14</b>	<b>8</b>

*Source: Patient's Satisfaction Survey report of test-checked DH.*

As can be seen from the Table above:

- In Thoubal DH, out of 25 patients surveyed, 56 *per cent* waited for more than five minutes to get registered at the counters whereas the time taken to consult the doctors was more than 30 minutes in 16 *per cent* of the patients surveyed;
- In Churachandpur DH, out of 48 patients surveyed, 79 *per cent* of the patients waited for more than five minutes to get registered at the counters. The wait time between registration and consultation with the doctor was more than 30 minutes in 27 *per cent* of the patients surveyed;
- In Bishnupur DH, out of 15 patients surveyed, 80 *per cent* patients could get registered within five minutes whereas only 20 *per cent* waited for more than five minutes. The wait time after registration for meeting with the doctor was within 15 minutes for 67 *per cent* of the patients surveyed;
- In Chandel DH, out of 10 patients surveyed, 30 *per cent* waited for up to five minutes and 70 *per cent* waited up to thirty minutes for registration. The waiting time to consult a doctor was less than 30 minutes.

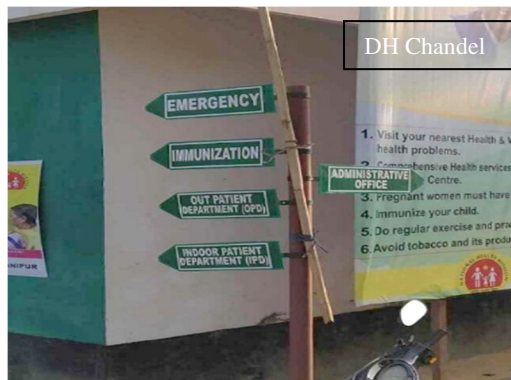
Thus, there was scope for further improvement of the waiting time for consultation by adding more doctors and registration staff.

4.1.4 Availability of basic facilities in OPD

The Assessor’s Guidebook for Quality Assurance in District Hospitals, 2013 (Vol-1) envisages provision of basic facilities in the OPD areas for the patients. Facility-wise Audit observations in this regard are as follows:

**Table 4.3: Audit observations on basic facilities in OPD**

OPD facilities	Status
<b>Availability of adequate/ suitable seating facility</b>	The patient survey in which 59 out of 98 respondents (60.2 per cent) stated that adequate seating arrangements were available. However, 60 per cent respondents (six out of 10 respondents) in DH Chandel confirmed non-availability of adequate seating arrangements while all 15 respondents in DH Bishnupur stated that seating arrangements were inadequate. It was seen that adequate seating arrangement was not available in the DH Bishnupur and DH Chandel.
<b>Drinking Water Facility</b>	In the patient survey, 75 out of 98 respondents (76.53 per cent) stated that the drinking water facilities were available while the remaining 23 replied that they were unable to avail the same. Four out of 10 respondents (40 per cent) in DH Chandel and 16 respondents out of 25 (64 per cent) of DH Thoubal stated that they could not get drinking water. No drinking water facility was available in DH Thoubal and DH Chandel. In DH Chandel, due to the lack of piped water supply, tap water was made available by sourcing directly from the nearby river <sup>6</sup> without any treatment. Although bottled water was made available to patients, tap water inside the district hospital was utilised by those using the washroom facilities in the district hospital.
<b>Washroom facility</b>	In the patient survey, 90 (91.83 per cent) out of 98 respondents stated that washroom facilities are available at Reception/Registration/OPD area of the hospitals while eight (8.16 per cent) respondents stated washroom facilities are not available at Reception/Registration/OPD area of the hospitals.
<b>Notice board and Signages</b>	In the patient survey, 70 (71.42 per cent) out of 98 respondents stated that instructions on hospital Notice Boards were displayed in local language, 12 (12.24 per cent) out of 98 respondents stated that instructions on hospital Notice Boards were displayed partly in local language while 16 (16.32 per cent) out of 98 respondents stated instructions were not displayed in local language. Further, it was observed that signages were available in all the DHs as shown in the photograph for DH Chandel.
<b>Computerised Registration</b>	e-Hospital was not found implemented in any of the test checked DHs. DH Churachandpur, DH Thoubal and JNIMS have adopted computerised system of offline registration of patients while the remaining two DHs were registering patients in a register.
<b>Clinical history of the re-visit patients</b>	Diagnosis/ clinical history of the re-visiting patients were not captured in computerised registration system/ register.



During Exit Conference (July 2020), the Department acknowledged the audit finding and stated that appropriate steps will be taken up for operationalisation of e-Hospital in the near future which will invariably include online OPD registration.

<sup>6</sup> River Chakpi.

### Conclusion

Three test-checked DHs namely Thoubal, Churachandpur and Bishnupur had inadequate registration counters as against the requirements and consequential overloading of patients at the registration counters. The average patient load per counter per hour in Churachandpur, Bishnupur and JNIMS was 38, 42 and 43 respectively as against the norm of 20 patients per hour for registration.

The Out-patient Department of the test-checked district hospitals had various shortcomings in availability of basic facilities like portable drinking water, online registration, in-adequacy of suitable seating facility, etc.

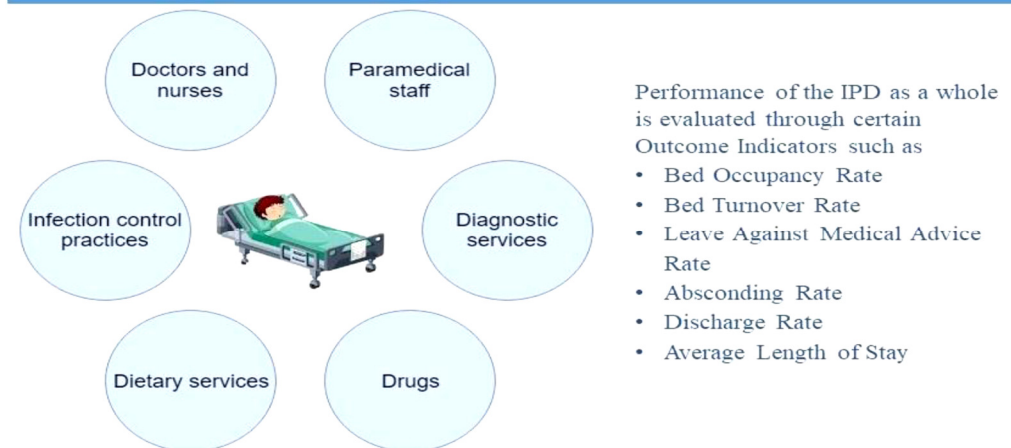
### Recommendations

- i. The State Government may ensure availability of basic facilities/services in the OPD of each hospitals as prescribed in the Assessor's Guidebook for Quality Assurance of Services in District Hospitals, 2013 (Vol-1).
- ii. They may expedite implementation of e-Hospital system for improving service delivery to patients.
- iii. They may coordinate with District administration for safe piped water facility at DH Chandel.

## 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 4.3: IPD services in a hospital**



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

As per NHM Assessor's Guidebook, a DH should provide specialist in-patient services pertaining to General Medicine, General Surgery, Dialysis, Ophthalmology, Orthopaedics, etc. We observed that most of the required services were, however, not available in the test-checked DHs as shown in the following table:

**Table 4.4: Status of In-patient services in test-checked District Hospitals**

Hospital	Act*	GM	GS	Burns	Oph	Dia	Orth	ENT	O & G	Psy	Phy
Thoubal	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Churachandpur	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Bishnupur	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No
Chandel	Yes	No	Yes	No	No	No	No	Yes	Yes	Yes	Yes

Source: Records of District Hospitals.

\*Act: Accidents and Trauma, GM: General medicine, GS: General surgery, Oph: Ophthalmology, Dia: Dialysis, Orth: Orthopaedics, ENT: Ear, Nose & Throat O&G: Obstetrics & Gynaecology, Psy: Psychiatry, Phy: Physiotherapy.

As evident from the table, while Accidents & Trauma, General surgery, Obs. & Gynaecology, ENT and Psychiatric services were available in all sample DHs, none of them provided dialysis service. Only DH Churachandpur had a Burns ward. Out of the 11 IPD services tabulated above, DHs at Thoubal and Churachandpur were doing best with nine services (81.81 per cent) available whereas DH Chandel was providing only six services (54.55 per cent).

As pointed out in *Paragraph 3.1.2* of this report regarding manpower, DH Chandel had shortage of specialists in medicine, ophthalmology and orthopaedics and hence the hospital could not provide inpatient services in Medicine, Ophthalmology and Orthopaedics.

During Exit Conference (July 2020), the Department acknowledged the audit finding and stated that dialysis facility is now available in case of DH Churachandpur which was inaugurated in June 2020 while in case of the remaining DHs, the matter will be looked into to ensure early availability of dialysis in all the DHs. The Department also assured that a specialist in General Medicine will be posted at DH Chandel at the earliest.

#### 4.2.2 Other findings related to IPD Services

##### 4.2.2.1 Bed Occupancy Rate

The Bed Occupancy Rate is the average occupancy of hospital beds within a given year. It is an indicator of the productivity of the hospital services and is a measure of verifying whether the available infrastructure and processes are adequate for delivery of health services. As per IPHS, the BOR of hospitals should be at least 80 per cent. The BOR of the test-check DHs during 2014-19 is given below:

**Table 4.5: BOR of the test-checked DHs**

Sl. No.	Hospital	BOR (per cent)
1	DH Bishnupur	16
2	DH Chandel	15
3	DH Churachandpur	59
4	DH Thoubal	37
5	JNIMS	54

Source: Records of test-checked DHs.

Benchmark: 80 per cent

Audit found that the productivity of all selected DHs in 2018-19 was far below IPHS norm of 80 per cent. BORs of DHs at Bishnupur, Chandel and Thoubal were as low as 16 per cent, 15 per cent and 37 per cent respectively while that



of JNIMS was 54 *per cent*. Manpower is linked to service availability in the hospital. DH Churachandpur which has better manpower as shown in **Paragraph 3.1** of this report regarding manpower, has higher BOR compared to DH Chandel with shortage of specialists.

During Exit Conference (July 2020), the Department stated that cross-checking of data in case of DH Churachandpur is required as there is some non-conformity of data and the required information will be furnished from their side. The reply is not tenable as the data were furnished by the DH authorities concerned.

In case of the other DHs, the Department acknowledged the audit finding.

#### 4.2.2.2 Patient survey finding relating to IPD services

Patient survey finding relating to IPD services are as follows:

**Table 4.6: Patient survey finding relating to IPD services**

Issue	Patient survey finding
Availability of doctor/ nurses	61 (78.2 <i>per cent</i> ) out of 78 respondents stated that doctor/nurse for in-patients were always available round the clock, 16 (20.5 <i>per cent</i> ) out of 78 respondents stated that doctor/nurse for in-patients were available most times while one (1.28 <i>per cent</i> ) out of 78 respondents stated that doctor/nurse for in-patients were available sometimes only.
Explanation of follow up treatment on discharge	65 (98.48 <i>per cent</i> ) out of 66 respondents stated that at the time of discharge of patient from the hospital the doctors explained to the patient/attendant about the follow up treatment and medication/diet while one (1.51 <i>per cent</i> ) out of 66 respondents stated at the time of discharge of patient from the hospital the doctors did not explain to the patient/attendant about the follow up treatment and medication/diet.
Display of rates	In the patient survey, 16 (43.24 <i>per cent</i> ) out of 37 respondents stated that it was always charged as per the displayed rate, six respondents (16.21 <i>per cent</i> ) stated that many times it was charged as per the displayed rate, nine respondents (24.32 <i>per cent</i> ) stated that sometimes it was charged as per the displayed rate while six respondents (16.21 <i>per cent</i> ) stated that it was never charged as per the displayed rate.
Explanation of ailment, course, etc.	In the patient survey, 64 (65.3 <i>per cent</i> ) out of 98 respondents stated that the patients were explained about ailment, cost, course and duration of treatment, 32 (32.65 <i>per cent</i> ) out of 98 respondents stated that the patients were partly explained about ailment, cost, course and duration of treatment while two (2.04 <i>per cent</i> ) out of 98 respondents stated that the patients were not explained about ailment, cost, course and duration of treatment.
Explanation of dosage	In the patient survey, 95 (96.93 <i>per cent</i> ) out of 98 respondents stated that the patients were explained about dosage of drugs by the doctor/pharmacist while three (3.06 <i>per cent</i> ) out of 98 respondents stated that the patients were not explained about dosage of drugs by the doctor/pharmacist.

Issue	Patient survey finding
Presence of touts/middlemen	In the patient survey, three (3.06 <i>per cent</i> ) out of 98 respondents stated that touts/middlemen who tried to charge money from the patient parties were always involved, two (2.04 <i>per cent</i> ) out of 98 respondents stated that touts/middlemen who tried to charge money from the patient parties were involved many times, 10 (10.2 <i>per cent</i> ) out of 98 respondents stated that touts/middlemen who tried to charge money from the patient parties were involved sometimes while 83 (84.69 <i>per cent</i> ) out of 98 respondents stated that touts/middlemen who tried to charge money from the patient parties were never involved.

### 4.3 Intensive Care Unit Services

Intensive Care Unit (ICU) is essential for critically ill patients requiring highly skilled life-saving medical aid and nursing care. These include major surgical and medical cases such as head injuries, severe haemorrhage, poisoning, *etc.* ICU services in a District Hospital are essential for providing minimum assured services as per IPHS for DHs having more than 100 beds.

Audit observed that JNIMS provided ICU services while none of the selected DHs had an ICU. Thus, in the absence of ICU facility, patients approaching district hospitals despite being in an emergent and serious condition were likely to be referred and/or passed on to the higher facility public or private hospitals. As a result, patients with complications due to pregnancy, grievous road traffic accidents, burns, *etc.*, had to be referred to the State hospitals. In absence of ICU, DH also could not perform major surgeries particularly those, which require the patient to be kept under observation in the ICU.

Absence of ICUs in the sample DHs adversely affected the capacity of DHs to perform surgeries or to attend serious and emergency medical cases, thereby forcing patients to go to other medical facilities. This showed that the DHs did not adequately satisfy the medical requirements of the district population and fell short of achieving the objectives of the DH to provide intensive care services.

During Exit Conference (July 2020), the Department stated that ICU services are now available in case of DH Churachandpur with a capacity of four beds while in case of other DHs, appropriate action will be taken up to ensure early availability of ICU services in the DHs.

### 4.4 Operation Theatre Services

Operation Theatre (OT) is an essential service that is to be provided to the patients. IPHS guidelines prescribe OTs for DHs for performing elective major surgery, emergency surgery and ophthalmology/ENT (ear, nose and throat) surgery.

Audit found that JNIMS provided all three i.e. major, minor as well as emergency OT services. It was also found that General OT was available in all four sampled hospitals. Also, the minor OT which is used for treating of minor

injuries and dressing of cuts and wounds were available in the Emergency Department of all the sampled hospitals. Emergency OT services were provided in DHs but to a limited extent due to lack of facilities as well as manpower. This could have driven patients to the State Hospital as referral thereby further straining the resources of the hospital. During 2017-19, 281 and 1,042 patients were referred out by DH Chandel and DH Thoubal respectively to other hospitals.

During Exit Conference (July 2020), the Department acknowledged the audit finding and stated that three OTs are available in DH Churachandpur and two OTs in DH Thoubal. In case of emergency situations, operations/surgeries are managed in these OTs. The Department also stated that major surgeries are routinely performed in the DHs including knee and hip replacement particularly in DH Churachandpur.

#### 4.5 Trauma Care Centre and Emergency Services

Emergency services in DH are provided by Emergency ward or Emergency Room (ER) which is a medical treatment facility specialising in acute care of patients who come in emergency situation. Due to the unplanned nature of patient attendance, the Department provides initial treatment to a broad spectrum of ailments and injuries, some of which may be life threatening and require immediate medical attention. Therefore, IPHS envisages 24x7 operational emergency with dedicated emergency room in every DH.

None of the selected DHs has a functional Trauma Care Centre at the time of audit (March 2020). Emergency room was available in all test-checked DHs, however, the following deficiencies were noted as against IPHS norms:

As per IPHS, emergency room should preferably have a distinct entrance independent of the OPD's main entrance so that minimum possible time is lost in starting immediate treatment to casualties arriving in the hospital. However, DH Bishnupur had a common entrance as well as common registration counter for both OPD and Emergency cases.

IPHS also require the following equipment, facilities, *etc.* to be available in Emergency room. The availability of the facilities in test-checked DHs is shown in the following table:

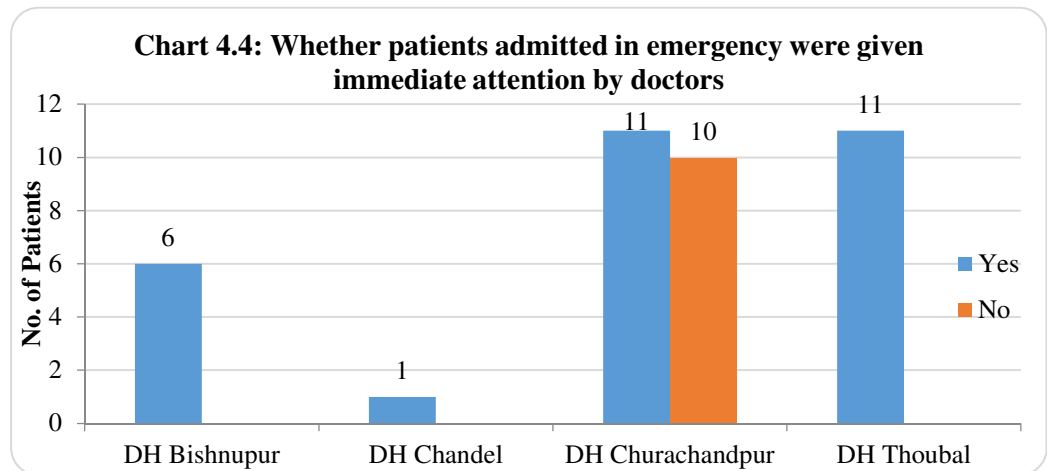
**Table 4.7: Availability of facilities in emergency room at DHs**

Sl. No.	Equipment/ Facility	Thoubal	Churachandpur	Bishnupur	Chandel
1	Mobile X-ray	No	No	No	No
2	ECG	Yes	Yes	No	Yes
3	Pulse Oxymeter	Yes	Yes	Yes	Yes
4	Cardiac Monitor with defibrillator	Yes	Yes	No	No
5	Multiparameter Monitor	Yes	No	No	No
6	Ventilator	No	No	No	No
7	Emergency Beds	Yes	Yes	Yes	Yes
8	Minor OT facilities	Yes	Yes	Yes	Yes

*Source: Records of the test-checked DH.*

From the Table above, it can be seen that Mobile X-ray and Ventilator were not available in any of the DH's emergency room. Availability of equipment/facilities also varies from DH to DH. The non-availability of required facilities/equipment can adversely impact the emergency services provided to the patients in the DHs.

In terms of patient care in emergency department, 29 out of the 39 respondents (74.36 per cent) covered under patient survey, who were admitted to the hospital in emergency condition stated that they were given immediate attention by the doctors. However, the remaining 10 respondents, all from DH Churachandpur, stated that they were not given immediate attention by the doctors as shown in the following chart.



Further, stretchers and trolleys were available in all sample DHs and this was also corroborated by the patient survey in which 36 out of 39 respondents (92.3 per cent) who were admitted in emergency cases confirmed the availability of stretchers and wheelchairs in the hospital.

During Exit Conference (July 2020), the Department acknowledged the audit finding and stated that the matter will be looked into for early operationalisation of Trauma and Emergency Centre in all the DHs.

#### 4.6 Diagnostic Services

Efficient and effective diagnostic services, both radiological and pathological, are amongst the most essential health care facilities for delivering quality treatment to the public based on accurate diagnosis.

##### 4.6.1 Radiology services

The role of radiology is central to disease management for the detection, staging and treatment of diseases. Adequate availability of functional radiology equipment, skilled human resources and consumables are the key requirements for the delivery of quality radiology services.

**Table 4.8: Availability of radiology services in test-checked DHs**

District Hospital	X-Ray	Dental X-Ray	Ultrasonography	CT Scan
Thoubal	Yes	No	No	No
Churachandpur	Yes	No	Yes	No
Bishnupur	Yes	No	Yes	No
Chandel	Yes	No	No	No

*Source: Records of District Hospitals.*

X ray services were available in all sample DHs whereas none of them had a working CT scanner or a CT scan technician. The CT scanner at DH Churachandpur has been lying non-functional since 2011, inadequate maintenance of equipment impacted the efficiency and appropriate level of health care provided in the test-checked DHs. Also, none of them had dental x-ray service for want of either dental x-ray machine or technician despite having a functional Dental Department. DH Thoubal and DH Chandel did not provide ultrasound services for want of technician in spite of equipment being available.

Ultrasonography is one of the basic services for prenatal care as it provides information about the health of the mother, growth of embryo or foetus and the progress of pregnancy. However, the DHs at Thoubal and DH Chandel, in absence of ultrasound services, deprived the expectant mothers of basic Antenatal Care (ANC).

Unavailability of Ultrasonography services not only caused inconvenience to the expectant mothers and other patients, it also impacted the quality and level of care offered in the sample DHs. Also, the patients had to incur more out of pocket expenditure while availing these services from private service providers.

During Exit Conference (July 2020), the Department acknowledged the audit finding and stated that posting of right specialists will be done to make sure that radiology services are available in all the DHs. The Department also stated (September 2020) that the State will be institutionalising free X-ray services in 42 selected public health facilities based on the patient load and other criteria.

#### **4.6.1.1 Lack of safety measures while providing X-Ray services**

It is mandatory for all users of medical diagnostic x-ray equipment to obtain Licence for Operation from the Atomic Energy Regulatory Board (AERB) as per the Atomic Energy (Radiation Protection) Rules, 2004. Audit examination revealed that none of the sampled DHs had obtained the required license from AERB for their X-Ray Machines. Audit also observed that JNIMS had also not obtained the required license from AERB for their X-Ray machines and CT Scan machines (October 2020).

As per Rule 7(2)(e)(i) of AERB (Radiation Protection), all requirements relating to the safety for operation of a radiation installation, specified by the competent authority in the relevant safety codes and safety standards need to be satisfied in the construction of the radiation installation. In its absence, the safety becomes a major concern for the Radiology Technician and the patients who visit DHs for treatment.

Further, as per e-Licensing of Radiation Applications (eLORA) System Guidelines (July 2016), it is mandatory to provide every radiation worker with Thermo Luminescent Dosimeter (TLD). A TLD badge is used for personnel monitoring of beta and gamma doses of radiation workers. Such TLD badges have been provided to JNIMS technicians.



TLD badge

However, it was observed that such TLD badges were not provided to the technicians of the DHs (as of February 2020). Hence, the sample DHs had not only violated eLORA Guidelines, but also put the safety of technicians to risk.

The Department also stated (September 2020) that license for operation from AERB as per the Atomic Energy Rules, 2004 will be obtained after the State institutionalises free X-ray services in 42 selected public health facilities based on the patient load and other criteria. The reply is not acceptable as in the absence of a license, the safety becomes a major concern for the Technician as well as patients.

#### **4.6.1.2 Other audit findings related to radiology services**

Some other audit findings related to the radiology services in the sampled DHs were as under:

- **DH Chandel:** At the time of audit in February 2020, except for two days i.e. 28 January 2020 and 20 February 2020 when X-Ray service was provided, DH Chandel had no records maintained on X-ray service for the entire period of five years covered in audit.
- **DH Thoubal:** During June 2017 to April 2018, the X-Ray machines were out of order. Also, as per Standard Layout of X-ray installation recommended by eLORA System Guidelines, all walls of the X-ray examination room are to be 23 cm (9 inch) thick and made of bricks while the door is to be single leafed door with 2 mm lead lining. However, these design recommendations were not complied to and only a wooden door with glass ventilator separated x-ray room from the dark room creating safety concerns. Technicians fixed personal radiation protection kit on the wooden door to protect themselves while working inside the dark room.

**Photograph 4.1: Unsafe X-Ray room design in DH Thoubal (Dark Room)**



*Wooden door separated the x-ray from the dark room (February 2020)*



*Technicians fixed personal radiation protection kit on wooden door (blue colour kit left) for protection while working in dark room. (February 2020)*

- DH Bishnupur:** As evident from the photographs below, the X-Ray services were provided in a room, which had a glass window and wooden door. Also, the glass window was adjacent to the parking area. Hence, harmful radiation penetrating outside the window could not be ruled out.

**Photograph 4.2: Unsafe X-Ray room design in DH Bishnupur**



*X-Ray room had a glass window which was adjacent to the parking area (February 2020)*



*X-Ray services were provided in a room having a wooden door. (February 2020)*

During Exit Conference (July 2020), the Department acknowledged the audit finding and stated that the matter will be looked into. Action taken up in this regard has not been intimated to Audit till date (July 2020).

#### 4.6.2 Laboratory Services at test-checked DHs

The District Hospital Laboratory is expected to serve the purpose of public health laboratory and should be able to perform all tests required to diagnose epidemics or important diseases from public health point of view. IPHS envisages that the district hospitals having a capacity of 100 to 500 beds should ensure availability of 97 laboratory test services.

##### 4.6.2.1 Availability of essential Diagnostic Services and Tests

As per IPHS Guidelines, 2012, the District Hospital Laboratory shall also serve purpose of the public health laboratory and should be able to perform 97 Diagnostic Services/Tests required to diagnose epidemics or important diseases from public health point of view. Status of the availability of these 97 tests in the sample DHs is tabulated below.

**Table 4.9: Availability of essential Diagnostic Services and Tests**

Speciality	Total Diagnostic Services/ Tests to be ensured	Total Diagnostic Services/ Tests available at sampled DHs <sup>7</sup>				
		Bishnupur	Chandel	Cc'pur	Thoubal	JNIMS
Clinical Pathology	29	16	24	22	17	22
Pathology	8	0	2	3	1	8
Microbiology	8	1	2	2	0	5
Serology	7	4	5	5	4	4
Biochemistry	21	8	10	11	9	18
Cardiac Investigations	3	0	1	1	0	1
Ophthalmology	3	3	1	1	3	3
ENT	2	1	0	1	1	1
Radiology	7	2	2	4	2	7
Endoscopy	8	0	0	0	0	7
Respiratory	1	0	0	0	0	0
<b>Total</b>	<b>97</b>	<b>35</b>	<b>47</b>	<b>50</b>	<b>37</b>	<b>76</b>

*Source: Records of Hospitals.*

It is evident from the table above that JNIMS was better placed among the sampled Hospitals with 76 out of 97 Diagnostic Services/ tests being available. Out of the remaining 21 Diagnostic Services/ tests, one test was unavailable due to lack of reagents while equipment for conducting seven other tests were not available.

In the remaining for sampled DHS, the State Government had contracted Krsnaa Diagnostics to provide 53 identified tests (mainly pertaining to Pathological, microbiological, serology, bio-chemistry and cardiac related investigations) in the DHs. Further, test related to Respiratory ailments was not available in any of the sampled hospitals while endoscopy services were available only in JNIMS. Thus, despite engaging private service provider, no effort was made to cover all the 97 tests prescribed under IPHS.

During Exit Conference (July 2020), the Department stated that the 53 identified diagnostic services and tests has been made available through Public Private Partnership (PPP) mode funding under NHM.

However, the fact remains that the DHs could not provide all the 97 tests prescribed under IPHS despite engaging private service provider.

#### 4.7 Patient safety, rights and grievance redressal

IPHS prescribes the requirement to display the Citizen's Charter at OPD and Entrance in local language including patient rights and responsibilities. Further, for effective redressal of grievances of patients, NHM Assessor's Guidebook envisaged a mechanism for receipt of complaints, registration of complaints and disposal of complaints on a first-come-first-serve basis, noting of action taken in respect of complaints in a register, periodic monitoring of system of disposals and follow-up by superior authorities as necessary.

<sup>7</sup> Including tests provided by Krsnaa in the DHs.



Audit observed that Citizens Charter was displayed in all the selected DHs. All the test checked DHs have stated to have set up a complaint redressal cell and also conducted patient satisfaction survey.

National Building Code of India 2016, Part 4, Fire and Life Safety requires that fire extinguishers be installed in every hospital, so that the safety of the patients/ attendants/ visitors and the hospital staff is ensured in case of any fire in the hospital premises.

Audit observed that all the selected DHs had installed fire extinguishers in the hospitals. However, none of the selected DHs had florescent fire exit plan displayed at each floor.

### ***Conclusion***

Out of the eight emergency room services in DHs, DHs at Bishnupur had only three services available (37.5 per cent), Chandel had four (50 per cent), Churachandpur had five (62.5 per cent) and Thoubal was doing best with six services (75.00 per cent) available. Out of 97 Diagnostic Services/ Tests to be ensured at DHs, the no. of available Diagnostic Services/ Tests at the sampled DHs ranged from 35 to 76 despite the services being provided by a private service provider. Tests for Respiratory ailments were not available in the sample hospitals while endoscopy services were available only in JNIMS depriving the public of these services in the DHs.

### ***Recommendations***

- i. OT services be made available in all the DHs with required manpower, equipment and drugs.*
- ii. The availability of round the clock accident and trauma services needs to be ensured as per the norms for DHs.*
- iii. The State Government may ensure availability of all the 97 tests prescribed under IPHS.*

