Chapter-3

Healthcare Services

IPHS norms 2012 provide that services that a health institution is expected to provide can be grouped as Essential (Minimum Assured Services) and Desirable (which should be aspired to be achieved). The services include Out - Patient Department (OPD), indoor and Emergency Services. Audit findings related to various health services have been described in the succeeding paragraphs.

3.1 OPD Services

3.1.1 Availability of OPD services in hospitals

As per IPHS 2012 norms, the OPD services of Ear Nose Throat (ENT), General Medicine, Paediatrics, General Surgery, Ophthalmology, Dental, Obstetrics and Gynaecology and Orthopaedics are essential for District Hospital (DH) and Sub Divisional Civil Hospital (SDCH). Psychiatry is essential OPD service for DHs and desirable for 100 bedded SDCHs.

Details of availability of OPD (Specialist) services in all the DHs and SDCHs as on May 2023 are as given in ***Table 3.1***.

Table 3.1: Availability of OPD (Specialist) services in hospitals

Specialty Services (OPD)	DHs	SDCHs
	Available (out of total 22 DHs)	Available (out of total 41 SDCHs)
ENT	20	5
General Medicine	18	2
Paediatrics	20	15
General Surgery	18	7
Ophthalmology	21	7
Dental	22	34
Obstetrics & Gynaecology	20	20
Psychiatry	17	NA
Orthopaedics	22	8

Source: Information furnished by DHs/SDCHs
NA= Not applicable, as per IPHS 2012 norms, Psychiatry service is desirable for 100 bedded SDCH.
Colour code: Green colour depicts availability of service in maximum number of hospitals; yellow colour depicts availability of service in moderate number of hospitals; and red colour depicts availability of service in least number of hospitals.

The OPD services were adversely affected due to non-availability of Specialists in various health institutions. The details of OPD (Specialist) services in DHs have been given in ***Appendix 3.1 (i)***. Due to non-availability of Specialists in DHs of Charkhi Dadri, Jhajjar, Narnaul and Yamuna Nagar, out of nine requisite specialties, three or more OPD (Specialist) services were not available. All the OPD (Specialist) services were available in SDCH, Ambala Cantt and Ballabhgarh. Further, all the OPD services were also available in SDCH, Bahadurgarh except for General Medicine. The rest of the SDCHs had availability of OPD (Specialist) services ranging from one to five services only. The details of OPD (Specialist) services in SDCHs have been given in ***Appendix 3.1 (ii).***

Further, in case of the test-checked MCHs, all the OPD (Specialist) services were available in both the MCHs, Agroha and Nalhar except Radiology services in MCH Nalhar.

3.1.2 Availability of OPD services in CHCs

As per IPHS 2012 norms, General Medicine, Surgery, Obstetrics & Gynaecology, Paediatrics, Dental and AYUSH Services, Emergency Services, Laboratory Services and National Health Programmes should be available in CHCs.

The availability of OPD services (General) in all the CHCs is given in ***Table 3.2***.

Table 3.2: Availability of OPD services (General) in CHCs (126)

Name of Service	No. of CHCs	Available in no. of CHCs	Not available in no. of CHCs	Shortage (in *per cent*)
General Medicine	126	89	37	29
Surgery	126	18	108	86
Obstetrics and Gynaecology	126	67	59	47
Paediatrics	126	27	99	79
Dental	126	115	11	9
AYUSH	126	82	44	35
Emergency	126	92	34	27
Laboratory	126	116	10	8

Source: Information furnished by CHCs as of May 2023.
Colour code: Green colour= Least Shortage; Yellow colour= Moderate Shortage and Red Colour= Most Shortage.

Out of eight requisite OPD (Specialist) services, less than four services were available in most of the CHCs due to non-availability of Specialists. The details of availability of OPD services in CHCs are given in ***Appendix 3.1 (iii)***.

3.1.3 Availability of OPD services in PHCs

There is no mention of specific OPD services in PHCs in IPHS 2012 norms. OPD services were available in all the test-checked PHCs.

As per IPHS 2012 norms, outpatient room should have separate areas for consultation and examination with sufficient privacy. However, separate areas for consultation and examination in outpatient room were not available in PHC Rair Kalan (Panipat), Ladwa (Hisar), Nagina and Singar (Nuh). Further, in PHCs Atta and Mandi, dental equipment were provided but dental surgeons were not available since 2019 and 2020 respectively.

	
Dental equipment not in use at PHC Mandi (17 March 2022)	**Dental equipment not in use at PHC Atta (30 March 2022)**

3.1.4 Availability of infrastructure for AYUSH services in CHCs and PHCs

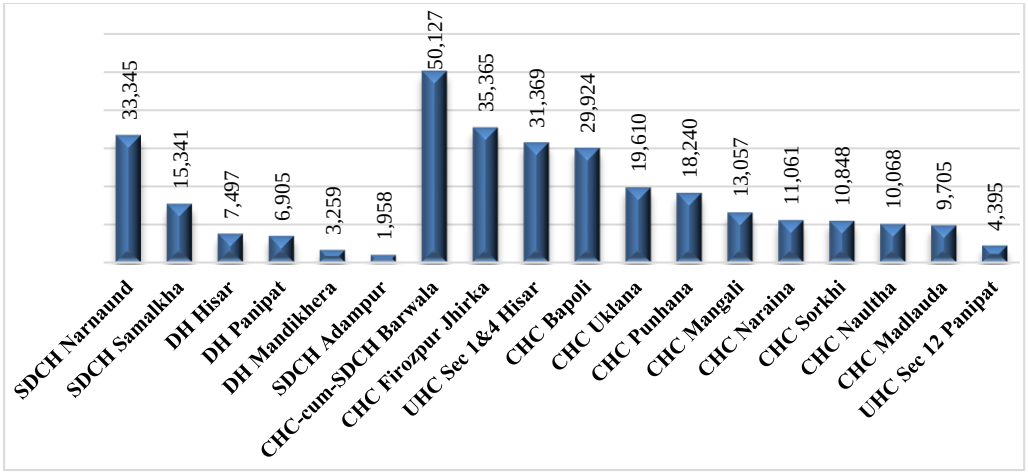
As per IPHS 2012 norms, CHCs and PHCs should have AYUSH doctor, necessary infrastructure such as consultation room for AYUSH doctor and AYUSH drug dispensing area should be made available.

Ayush services were not available in three[1] out of 12 CHCs/ UHCs. Further, out of test-checked 24 PHCs/UPHCs, only five PHCs (Kaimri, Agroha, Singar, Nagina, Siwah) had Ayush services.

3.1.5 Average OPD cases per doctor per annum against available OPD services

During the period 2016-17 to 2022-23, the number of OPD cases in DHs[2] (36.05 lakh), SDCHs (21.01 lakh) and CHCs (39.73 lakh) for the test-checked districts are given in ***Appendix 3.2***. Further, in the test-checked hospitals and CHCs, the average OPD cases per doctor per annum was highest (50,127) in CHC-cum-SDCH Barwala and lowest (1,958) in SDCH Adampur.

Chart 3.1: Average OPD cases per doctor per annum during 2016-17 to 2020-21



Source: Information furnished by the test-checked Health Institutions

[1] CHC- (i) Barwala, (ii) Madlauda and (iii) Naraina

[2] The details of OPD cases of DH, Panipat for the period 2016-17 to 2018-19 were not available with the DH.

It was noticed that in SDCH Narnaund (100 bedded) against the sanctioned strength of 51 only 18 doctors including one Specialist (Dental) were posted. In CHC-cum-SDCH Barwala[3] (50 bedded) against the sanctioned strength of 14 only eight doctors including two specialists (Dental and OBGY) were posted. During 2016-17 to 2022-23 in SDCH, Narnaund total OPD cases were 4.16 lakh and in CHC-cum-SDCH Barwala were 5.09 lakh. Despite having such large number of OPD cases per doctor per annum, specialists were not posted in these two SDCHs.

In the third test-checked SDCH, Adampur (50 bedded) in the same district (Hisar) the OPDs during the same period were only 1.43 lakh. However, against the sanctioned strength of 14 doctors, 12 doctors were deputed in SDCH, Adampur, though Specialist was only one (Paediatrics).

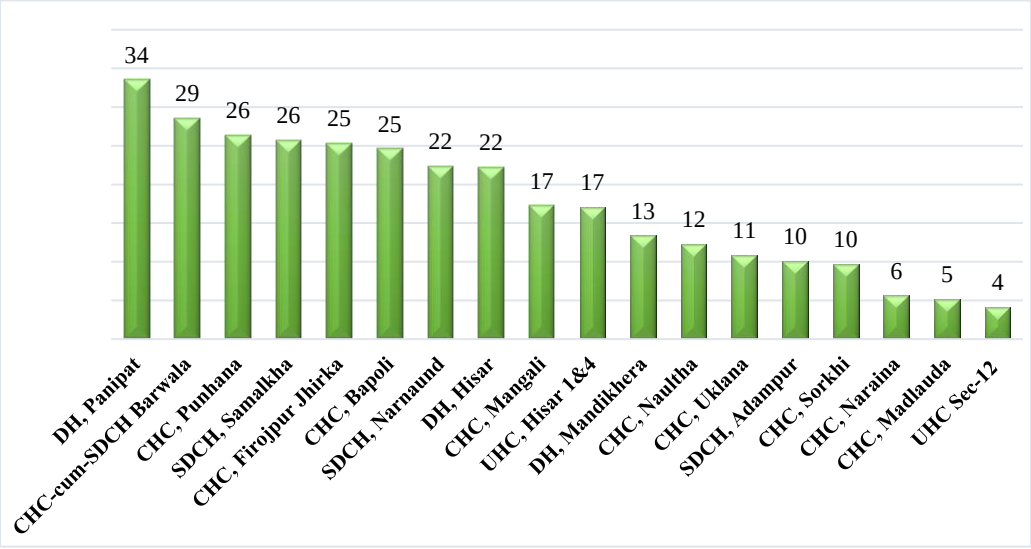
This shows that availability of doctors was not ensured as per the patient load in the health institutions.

3.1.6 Availability of registration counters and average daily patient load per counter

As per NHM Assessor's guidebook for quality assurance in health institutions, the number of registration counters should be such that per hour 12 to 20 patients can be registered. Further, as per IPHS 2012 norms facilities such as adequate waiting area with seating arrangements, electronic display for patient calling, etc should be there.

Average number of patients per hour per counter in the test-checked DHs, SDCHs and CHCs during 2020-21 is depicted in **Chart 3.2**.

Chart 3.2: Average number of patients per hour per counter during 2020-21



Source: Information furnished by the test-checked Health Institutions

[3] Upgraded as SDCH, Barwala in June 2017 but still working as CHC.

As can be seen from the above chart, the counters for registration were not sufficient in DH Panipat, DH Hisar, SDCH Samalkha, SDCH Narnaund, CHC-cum-SDCH Barwala, CHC Punhana, CHC Firojpur Jhirka and CHC Bapoli having a large number of OPDs. The result of high patient load was visible in long queues in the hospitals as depicted in the photographs below:

	
OPD patients waiting at registration counters in DH Panipat (April 2022)	**Long queues of OPD patients at registration counters in DH Hisar (June 2022)**

On being pointed out by Audit, the Department stated (February 2023) that registration of patients visiting healthcare facilities is decentralised in District Hospitals. There are separate registration facilities for OPD, Emergency and Maternity services. Separate counters are there for males, females, geriatric (senior citizens) and disabled persons for OPD registration. Further speciality-wise decentralisation will be planned as per availability of manpower, logistics and space.

3.1.7 Availability of seating arrangement, toilet facility and patient calling system (Digitalisation)

As per IPHS 2012 norms, waiting area with adequate seating arrangement shall be provided. Main entrance, general waiting and subsidiary waiting spaces are required adjacent to each consultation and treatment room in all the clinics. Fluorescent fire exit plan should be displayed at each floor; Safety, hazard and caution signs should be displayed prominently at relevant places. Health institutions should have patient calling system with electronic display. The status of provision of the above features in the test-checked DHs/CHCs/PHCs is given in ***Table 3.3***.

Table 3.3: Availability of seating arrangement, toilet facility etc.

Name of service	Hospitals	CHC	PHC
	Total =6	Total=12	Total=24
Display of fluorescent fire exit sign	4	4	2
Enquiry/ May I help desk with staff fluent in local language	5	8	8
Directional signage for Emergency, Departments and Utilities	6	7	14
Display of safety, hazard and caution signs prominently at relevant places	5	8	7
Important contacts like higher medical centres, blood banks, fire department, police and ambulance services were displayed	5	9	13
Mandatory information (under RTI Act, PNDT Act, etc.) was displayed	4	9	15
Adequate seating facility	6	10	24
Patient Calling System (Digitalisation)	0	0	0
Separate toilets for male and female	6	12	12

Source: Data furnished by the test-checked health institutions during January to June 2022
Note: Colour grading has been done on colour scale with green colour depicting most number of health institutions, yellow colour moderate while red colour depicts least number of health institutions having the above facilities

From the above, it can be seen that there was no display of fluorescent fire exit sign in 22 out of 24 PHCs and patient calling system was not available in any of the test-checked health institutions. Moreover, the mandatory information (under RTI Act, PNDT Act, etc.) was not displayed in two hospitals (DH Hisar and SDCH Narnaund), three CHCs (Uklana, Naultha and UCHC Sector 1 and 4, Hisar) and nine PHC[4]s.

3.1.8 Patient satisfaction survey

As per NHM Assessor's guidebook, OPD patient satisfaction survey has to be done on monthly basis. It was observed that OPD patient satisfaction survey was not conducted in DH Mandikhera, MCH Agroha, MCH Nalhar, SDCH Samalkha and SDCH Narnaund.

Audit conducted a survey of doctors and patients selected on random basis during performance audit to get feedback from doctors and patients' satisfaction. The results are given in ***Appendix 1.3***.

For OPD services, 120 patients[5] were surveyed during January 2022 to June 2022 in selected health institutions (DHs/SDCHs/CHCs). The results are summarised below:

i. 29 *per cent* patients said that Enquiry/May I Help desk was not available with competent staff.

ii. According to 14 *per cent* patients, seating arrangements were not adequate at registration/OPD counter.

[4] PHC: (i) Daulatpur, (ii) Talwandi Rukka, (iii) Biwan, (iv) Siwah, (v) Atta, (vi) Israna, (vii) Mandi (viii) UPHC Rajeev Colony, Panipat and (ix) UPHC Raj Nagar, Panipat.

[5] 10 patients per DH and SDHC; five patients per CHC

iii. 26 *per cent* patients said that number of registration counters were not adequate in health institutions.

iv. 48 *per cent* patients informed that patient calling system was not satisfactory.

v. 31 *per cent* said that all prescribed medicines were not made available by hospital pharmacy.

vi. 27 *per cent* (pathological tests) and 54 *per cent* (radiology tests) patients said that all the tests recommended by doctors were not done by the hospital.

vii. 13 *per cent* patient objected that complaint box was not available in the test-checked health institutions.

The survey indicates that patient calling system, information display and availability of tests need improvement across the hospitals.

3.2 IPD Services

Indoor Patients Department (IPD) refers to the areas of the hospital where patients are accommodated after being admitted, based on doctorôs/specialistôs assessment, from the Out-Patient Department, 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.

3.2.1 Availability of IPD beds in DH/SDCH

As per IPHS 2012 norms for District Hospitals (DHs), the IPD bed shall be categorised as General Medicine ward, Paediatrics ward, General Surgery ward, Ophthalmology ward, Accident and trauma ward, etc. Availability of IPD beds in the test-checked DHs is given in ***Table 3.4***.

Table 3.4: Availability of IPD beds in test checked DHs/SDCHs (January to June 2022)

Sr. No.	Name of Ward	Requirement of Beds in DH as per IPHS	DH Hisar	DH Panipat	DH Mandikhera	SDCH Narnaund	SDCH Adampur	SDCH Samalkha
1	General Medicine	30	24	6	12	50	24	20
2	General Surgery	30	21	30	8	0	0	0
3	Ophthalmology	5	0	6	8	0	0	0
4	Accident & trauma	10	0	7	10	0	0	20
5	Paediatrics	10	12	30	10	0	4	0
6	Others		143	121	52	0	22	10
Total			**200**	**200**	**100**	**50**	**50**	**50**

Source: Data furnished by the test-checked health institutions

Note: Colour grading has been done on colour scale with green colour depicting satisfactory number of beds, yellow depicts average while red colour depicts non-availability or very less availability of beds in DHs and blue depicts the status of IPD beds in SDCHs

As per IPHS 2012 norms for Sub Divisional Civil Hospitals (SDCHs), allocation of beds for different specialities may be done as per local need. In all

the three test-checked SDCHs, i.e., SDCH Samalkha, SDCH Adampur and SDCH Narnaund allocation of beds was not done based on specialities.

3.2.2 Availability of six beds in PHCs with Maternal and Child Healthcare

Primary Health Centre is the cornerstone of rural health services- a first port of call in rural areas for the sick who directly report or are referred from Sub-Centres for curative, preventive and promotive healthcare.

As per IPHS 2012 norms for PHCs, a typical PHC covers a population of 30,000 in plain areas with six indoor/observation beds. Intra-natal care: (24-hour delivery services both normal and assisted) should be available at PHCs. Availability of beds, labour service and Operation theatre (optional) to facilitate conduct of selected surgical procedures (e.g., vasectomy, tubectomy, hydrocelectomy etc.) in the test-checked PHCs is given in ***Table 3.5***.

Table 3.5: Availability of Labour service with beds and OT in the test-checked PHCs/UPHCs

Name of District	Number of PHCs/UPHCs test-checked	Number of PHCs with availability of six beds	Number of PHCs with availability of Labour service	Number of PHCs with availability of OT for vasectomy, tubectomy, etc.
Hisar	11	5	6	0
Panipat	9	0	3	0
Nuh	4	4	4	0

Source: Information furnished by the test-checked PHCs/UPHCs (January to June 2022).

It is evident from the above table that:

- Six[6] out of eleven PHCs/UPHC in Hisar and all the test-checked PHCs/ UPHCs in Panipat did not have six beds as per norms.
- Five[7] out of eleven PHCs/UPHC in Hisar and six[8] PHCs/UPHCs in Panipat did not have facility for labour service as per norms.
- OT facility was not available in any of the test checked PHCs/UPHCs.

3.2.3 Availability of Isolation wards

As per IPHS 2012 and NHM Assessor's guidebook, the clinics for infectious and communicable diseases should be located in isolation, preferably, in remote corner and provided with independent access. An isolation room should be available in DHs, SDCHs and CHCs. Ordinarily, negative air pressure isolation

[6] PHC- (i) Ladwa, (ii) Hasangarh, (iii) Daulatpur, (iv) Agroha, UPHC- (v) Patel Nagar (Hisar) and (vi) Char Qutab Gate (Hansi)

[7] PHC- (i) Daulatpur, (ii) Agroha, (iii) Ladwa, UPHC-(iv) Patel Nagar (Hisar) and (v) Char Qutab (Hansi)

[8] PHC- (i) Atta, (ii) Rair Kalan, (iii) Israna, (iv) Patti-Kalyana, UPHC-(v) Hari Singh Colony (Panipat) and (vi) Rajeev Colony (Panipat)

rooms are used as prevention rooms, while positive air pressure isolation rooms are used for protection. For patients who test positive for airborne illnesses, negative pressure isolation prevents contaminants from escaping the room.

Availability of isolation rooms in the test-checked Medical Colleges Hospitals (MCHs), DHs and SDCHs is given in ***Table 3.6***.

Table 3.6: Availability of positive and negative isolation rooms (as of January to June 2022)

Name of hospital	Positive isolation room	Negative isolation room
DH, Panipat	N A	N A
SDCH, Samalkha	A	A
DH, Mandikhera	A	A
DH, Hisar	A	N A
SDCH, Adampur	A	A
SDCH, Narnaund	N A	N A
MCH, Agroha	A	N A
MCH Nalhar	N A	N A

Colour code: Green colour/A= Available; Pink colour/NA=Not availabe
Source: Information furnished by the test-checked MCHs/DHs/SDCHs

Isolation wards were not available in DH Panipat; MCH Nalhar and SDCH Narnaund. Only at DH Mandikhera, SDCH Samalkha and SDCH Adampur both types of isolation wards were available. Positive isolation room was not available in seven[9] out of 12 test-checked CHCs/ UHCs and negative isolation room was available only in CHC Madlauda and CHC Punhana.

3.2.4 Availability of surgeries

As per NHM Assessor's guidebook, 2013 and IPHS 2012 norms for DH/SDCH, surgeries related to General surgery, Obstetrics & Gynaecology, Paediatrics, Ophthalmology, ENT services and Orthopaedics should be available at District Hospital. Further, CHCs should be able to provide routine and emergency care in surgery. This includes dressings, incision and drainage, surgery for hernia, hydrocele, appendicitis, haemorrhoids, fistula and stitching of injuries. It should also be able to handle emergencies like intestinal obstruction, haemorrhage, etc. and putting splints/plaster cast.

Availability of specific surgical procedures in the test-checked health institutions is given in ***Table 3.7***.

[9] CHC- (i) Naultha, (ii) Naraina, (iii) Firozpur Jhirkha, (iv) Sorkhi, (v) Mangali, UHC- (vi) Sector 1&4 (Hisar) and (vii) Sector 12 (Panipat)

Table 3.7: Availability of Surgical Procedures in the test-checked Health Institutions (as of January to June 2022)

Name of procedure (as per IPHS)	Hisar				Panipat			Nuh	
	DH, Hisar	SDCH, Adampur	SDCH, Narnaund	CHCs/ UHC (05)	DH Panipat	SDCH Samalkha	CHCs/ UHC (05)	DH Mandi-khera	CHCs (02)
Hernia	A	A	NA	NA	A	NA	03 NA*	A	01 NA**
Hydrocele	A	A	NA	NA	A	NA	03 NA*	A	01 NA**
Appendicitis	A	A	NA	NA	A	NA	03 NA*	A	01 NA**
Haemorrhoids	A	A	NA	NA	A	NA	03 NA*	A	01 NA**
Fistula	A	A	NA	NA	A	NA	03 NA*	A	01 NA**
Intestinal Obstruction	A	A	NA	NA	A	NA	NA	A	01 NA**
Haemorrhage	A	A	NA	NA	A	NA	NA	A	01 NA**
Nasal packing	A	A	NA	4 NA#	A	NA	NA	A	01 NA**
Tracheostomy	A	A	NA	NA	NA	NA	NA	A	01 NA**
Foreign body removal	A	A	NA	NA	A	NA	NA	A	01 NA**
Fracture reduction	A	A	NA	NA	A	NA	NA	A	01 NA**
Putting splints/ plaster cast	A	A	NA	NA	A	NA	NA	A	01 NA**

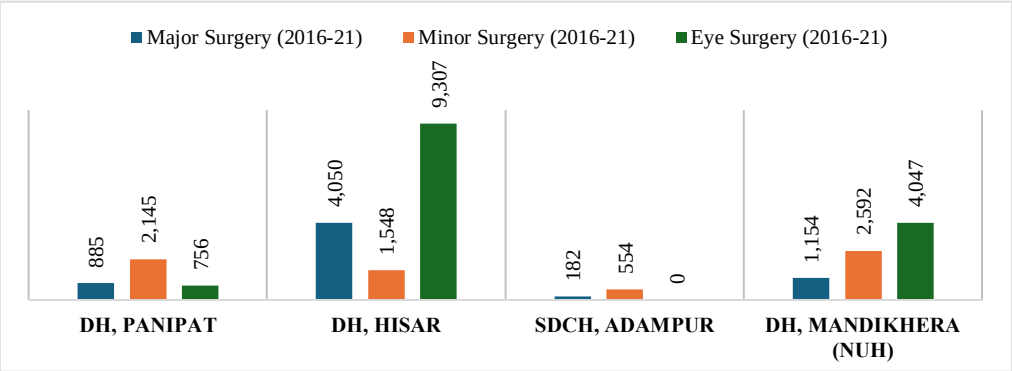
Colour code: Green colour/A= Available; Pink colour/NA=Not availabe
*** Available in CHC Madlauda and UHC Sec-12 Panipat, **Available in CHC Punhana,**
 # Available in CHC Mangali.
Source: Information furnished by the test-checked Health Institutions

As evident from the above, all surgical procedures were available in DH Hisar, DH Mandikhera, SDCH Adampur and DH Panipat (except Tracheostomy). No surgical procedures were available in SDCH Narnaund and SDCH Samalkha.

(i) Availability of major, minor and Ear, Nose and Throat (ENT) surgeries

As per NHM Assessorôs guidebook, 2013, surgeries related to General surgery, Obstetrics & Gynaecology, Paediatrics, Opthalmology, ENT services and Orthopaedics should be available at District Hospital. In CHCs, surgeries related to General surgery services, Obstetrics and Gynaecology services and accident and emergency services should be available.

Chart 3.3: Major, Minor and Eye surgeries performed in DH/SDCH during 2016-17 to 2020-21



Source: Information furnished by selected DHs/ SDCHs

Major, Minor and ENT surgeries were available in four out of six selected DH/SDCH. No surgery was performed in SDCH Samalkha and Narnaund and in any of the test checked CHCs during the period 2016-21 due to non-availability of surgeons at these SDCHs/CHCs as discussed in paragraph 2.2.5 (ii)(b) and (iv) in Chapter 2. The number of surgeries performed were maximum in DH Hisar.

3.2.5 Surgery load per surgeon

Audit analysed surgeries conducted per surgeon available in DHs and SDCHs and observed huge variations across hospitals during 2016-17 to 2020-21 as given in ***Table 3.8***.

Table 3.8: Average number of surgeries per surgeon

Name of Hospital	Year	General		ENT		Ortho		EYE	
		No. of surgeons	Avg. No. of Surgeries	No. of surgeons	Avg. No. of Surgeries	No. of surgeons	Avg. No. of Surgeries	No. of surgeons	Avg. No. of Surgeries
DH Panipat	2016-17	4	165	2	28	1	21	1	70
	2017-18	5	58	2	33	1	31	2	20
	2018-19	3	179	1	52	1	31	2	128
	2019-20	2	92	1	154	2	19	2	83
	2020-21	2	40	1	7	2	414	2	113
DH, Hisar	2016-17	2	201	2	223	2	90	2	1,093
	2017-18	3	140	2	236	2	100	2	1,015
	2018-19	5	163	2	186	3	85	2	1,121
	2019-20	5	138	2	195	3	106	2	991
	2020-21	5	54	2	137	4	24	3	290
SDCH, Adampur	2016-17	0	0	0	0	0	0	0	0
	2017-18	0	0	0	0	0	0	0	0
	2018-19	0	0	0	0	0	0	0	0
	2019-20	1	249	0	0	0	0	0	0
	2020-21	1	487	0	0	0	0	0	0
DH, Mandikhera (Nuh)	2016-17	1	272	0	0	2	215	3	555
	2017-18	2	117	0	0	2	427	2	777
	2018-19	1	49	2	18	3	317	1	557
	2019-20	1	44	2	20	2	355	1	189
	2020-21	3	9	2	7	2	264	1	83

Source: Data furnished by health institutions
Colour code: Green colour depicts good number of surgeries, yellow depicts moderate and red depicts either no surgeries or very few.

As can be seen from above table, number of surgeries as well as surgeries per surgeon were maximum in Hisar. Number of surgeries per surgeon has by and large shown a declining trend.

3.2.6 Operation Theatre

As per IPHS 2012 norms and NHM Assessor's guidebook for quality assurance for hospitals, the Operation Theatre (OT) should have convenient relationship with surgical ward, ICU, radiology, pathology, blood bank and Central Sterile Supply Department (CSSD). It should have access without any physical barrier etc.

The availability of various elements of quality OT service are given in ***Table 3.9***.

Table 3.9: Availability of OT services in the test-checked DHs/SDCHs

Description	DH, Panipat	SDCH, Samalkha	DH, Mandikhera	DH Hisar	SDCH Adampur	SDCH Narnaund
OT have convenient relationship with surgical ward, intensive care unit, radiology, pathology, blood bank and CSSD.	No	No	No	Yes	Yes	Yes
Access to facility is provided without any physical barrier and is friendly to people with disabilities.	Yes	No	Yes	Yes	Yes	Yes
OT have piped suction and medical gases, electric supply, heating, air-conditioning, ventilation.	Yes	Yes	Yes	Yes	Yes	Yes
Patient's records and clinical information is maintained.	Yes	No	Yes	Yes	Yes	Yes
Has defined and established grievance redressal system in place.	No	No	Yes	Yes	Yes	Yes
All equipments are covered under AMC including preventive maintenance.	No	No	Yes	Yes	Yes	Yes
The facility has established procedure for internal and external calibration of measuring equipment	Yes	No	Yes	No	Yes	Yes

Source: Information furnished by the test-checked DHs/SDCHs (as of January to June 2022)
Colour code: Green colour/Yes= Available; Red colour//No=Not available

From the above, it was observed that convenient relationship with surgical ward, intensive care unit, radiology, pathology, blood bank and CSSD do not exist in DH Panipat and DH Mandikhera. OTs had piped suction and medical gases, electric supply, heating, air-conditioning and ventilation in all the test-checked hospitals. It was also noticed that OT existed in SDCH Samalkha but due to non-posting of surgeon and specialists the OT was not utilised as evident from the photograph below. However, data collected in April-May, 2023 showed that two specialists (one Dental and one OBGY) were posted as depicted in paragraph 2.2.5 (ii) (b) (Table 2.12) of Chapter 2.

Non-functional OT at SDCH Samalkha (as on 06 March 2022)

3.2.7 Evaluation of IPD services through Outcome Indicators

The IPD services can be evaluated through Outcome Indicators viz. Bed Occupancy Rate[10] (BOR), Bed Turnover Rate[11] (BTR), Discharge Rate[12] (DR), Referral Out Rate[13] (ROR), Average Length of Stay[14] (ALOS), Left Against Medical Advice[15] (LAMA) Rate and Absconding Rate[16]. The IPD cases of DHs[17] (2,82,855), SDCHs (2,07,339) and CHCs (1,41,157) for the test-checked districts during the period 2016-23 are given in ***Appendix 3.3***. The performance of the IPD services through Outcome Indicators in the test-checked DH/SDCH/MCH is given in ***Table 3.10***.

Table 3.10: Outcome indicators of IPD services (2016-21)

Name of District	Name of Hospital	Average Bed Occupancy Rate (%)	Average Bed Turnover rate (%)	Discharge Rate (%)	Average Referral out rate (%)	Average length of stay (No. of Days)	LAMA rate (%)	Absconding rate (%)
Hisar	DH, Hisar	82.14	60.20	72.20	3.48	1.39	10.64	6.46
	SDCH, Adampur	8.92	1.60	0.63	17.00	2.00	33.00	0.00
	SDCH, Narnaund	42.40	17.23	86.48	4.26	7.00	25.79	1.00
Panipat	DH Panipat	129.29	103.93	75.25	13.67	2.11	5.37	4.48
	SDCH, Samalkha	27.02	57.65	29.40	10.20	1.87	85.00	0.80
Nuh	DH, Mandikhera	59.88	24.01	97.05	8.78	2.50	0.44	0.33
	MCH, Nalhar	74.65	24.26	68.09	9.81	6.45	12.13	4.07

Source: Information furnished by the test-checked Health Institutions
Colour code: Green colour depicts good performance, yellow- moderate and red depicts poor performance

It may be observed that:

- BOR of all the test-checked health institutions was below 80 *per cent* except for DH Hisar and DH Panipat. Average bed occupancy rate of 129 *per cent* at DH Panipat shows inadequate number of beds against requirement.
- Average Bed Turnover Rate of DH, Panipat was 104 *per cent* during the period which shows the pressure on beds. Average Bed Turnover Rate of SDCH Adampur, SDCH Narnaund, DH Mandikhera and MCH,

[10] The Bed Occupancy Rate (BOR) 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.

[11] The Bed Turnover Rate (BTR) is a measure of the utilization of the available bed capacity and serves as an indicator of the efficiency of the hospital.

[12] Discharge Rate (DR) measures the number of patients leaving a hospital after receiving due healthcare. High DR denotes that the hospital is providing healthcare facilities to the patients efficiently.

[13] Referral Out Rate (ROR) to higher centres denotes that the facilities for treatments were not available in the hospitals.

[14] The Average Length of Stay (ALOS) as the name suggests represents the time the patient is retained in the hospital.

[15] Leave Against Medical Advice (LAMA) is an act whereby a patient takes his/her discharge contrary to the recommendation or will of the attending physician.

[16] Absconding Rate denotes leaving the hospital premises unexpectedly, without the knowledge of clinical staff.

[17] The IPD cases of DH, Panipat for the period 2016-17 to 2018-19 were not available with the DH.

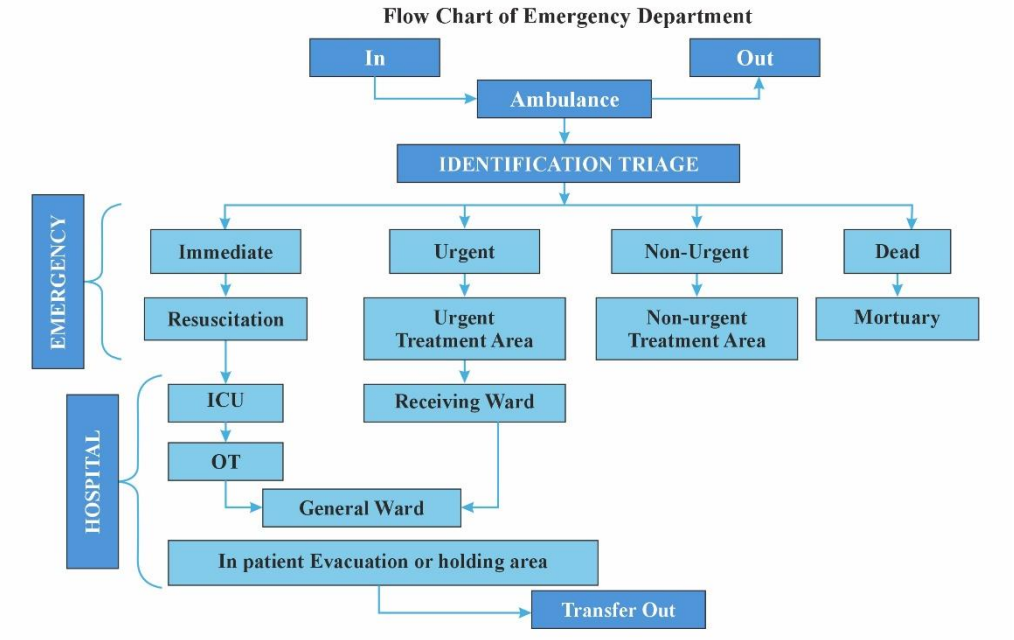
Nalhar was quite low as compared to other institutions.

- Discharge rate of SDCH Adampur and SDCH Samalkha were 0.63 *per cent* and 29.40 *per cent* respectively. Low discharge rate show that these health institutions are not providing healthcare facilities to the patients efficiently.
- High absconding rate in DH, Hisar, DH Panipat and MCH, Nalhar shows that proper security services were not provided as per norms.
- High LAMA rate of SDCH Adampur, SDCH Samalkha and SDCH Narnaund shows that these hospitals could not gain trust of patients because of non-availability of specialist doctors and equipment as discussed in paragraph 2.2.5(ii)(b) of chapter 2 and paragraph 4.4.1 of chapter 4 respectively.
- Bed occupancy rate of MCH, Agroha was 87.06 *per cent* during 2016-21 while average Referral Out Rate, LAMA Rate and Absconding Rate was not maintained by the hospital. However, LAMA rate for emergency ward was 5.71 *per cent* (2018-19), 5.57 *per cent* (2019-20) and 8.39 *per cent* (2020-21). No record with respect to LAMA cases in emergency services was maintained for the years 2016-17 and 2017-18.

3.3 Emergency services

Emergency Department is the first point of contact for any critically ill patient, needing immediate medical attention. Due to the unforeseen nature of patient attendance, the department must provide initial treatment for a broad spectrum of illnesses and injuries. Flow chart of Emergency Department is given in ***Chart 3.4.***

Chart 3.4: Flow chart of Emergency Department



3.3.1 Availability of emergency services

As per IPHS norms 2012 for DHs/SDCHs, 24x7 operational emergency with dedicated emergency room shall be available with adequate manpower. Emergency shall have dedicated triage, resuscitation and observation area. Separate provision for examination of rape/ sexual assault victim should be made available in the emergency as per guidelines of the Supreme Court.

Emergency should have mobile X-ray/laboratory, side labs/plaster room/and minor OT facilities. Besides, separate emergency beds may be provided. Sufficient separate waiting areas and public amenities for patients and relatives should be located in such a way that it does not disturb functioning of emergency services.

Further, IPHS norms provide that one emergency OT should be available in DHs/ SDCHs. Besides this, separate emergency OT should be available for obstetrics and gynaecology in DHs. Moreover, procedures under emergency surgeries required for assault injuries/bowel injuries/head injuries/stab injuries/multiple injuries/perforation/intestinal obstruction should be available. Facility of emergency laboratory services should be available.

As per NHM Assessor's guidebook 2013, the hospital should provide orthopaedic services by ensuring availability of emergency orthopaedic procedures. Further, there should be an established procedure for admission of patients and emergency department should be aware of admission criteria to critical care units like ICU, SNCU and Burn ward. Emergency protocols should be defined and implemented for head injury, snake bite, poisoning, drawing etc. The facility should have disaster management plan in place.

As per information supplied by concerned DHs and SDCHs regarding availability of emergency services, it was found that the emergency services were available in all the DHs and SDCHs except in SDCH, Haily Mandi and Kalayat as detailed in ***Appendix 3.4 (i) and (ii).*** Further, the component-wise status of emergency services in the test-checked hospitals is given in ***Table 3.11***.

Table 3.11: Availability of emergency services in the test-checked hospitals (as of January to June 2022)

Particulars	Panipat		Hisar				Nuh	
	DH Panipat	SDCH Samalkha	MCH Agroha	DH Hisar	SDCH Adampur	SDCH Narnaund	MCH Nalhar	DH Mandikhera
Availability and functioning of Emergency OT	Y	N	Y	Y	N	N	Y	N
Availability of infrastructure hospital emergency ward	Y	Y	Y	N	Y	N	Y	Y
Availability of infrastructure relating to trauma ward such as bed capacity, machinery & equipment etc.	Y	N	Y	N	Y	N	Y	Y
Availability of triage procedure to sort patients	Y	Y	Y	Y	Y	N	Y	Y
Availability of surgical facilities for emergency appendectomy	N	N	Y	Y	N	N	Y	Y
Availability to diagnose and to treat for Hypoglycemia, Ketosis and Coma	Y	N	Y	Y	Y	N	Y	Y

Particulars	Panipat		Hisar				Nuh	
	DH Panipat	SDCH Samalkha	MCH Agroha	DH Hisar	SDCH Adampur	SDCH Narnaund	MCH Nalhar	DH Mandikhera
Availability of assault injuries/bowel injuries/head injuries/stab injuries/multiple injuries/perforation/intestinal obstruction	N	N	Y	Y	N	N	Y	Y
Availability of emergency laboratory services	Y	N	Y	N	N	N	Y	Y
Availability of blood bank in close proximity to emergency department	N	N	Y	Y	N	N	Y	Y
Availability of mobile X-ray/ laboratory, side labs/plaster room in accident and emergency service	N	N	Y	N	N	N	Y	N
Availability of Emergency Operation Theatre for Maternity, Orthopaedic Emergency, Burns and plastic and Neurosurgery cases round the clock	N	N	Y	N	N	Y	Y	(Only for Maternity & Orthopaedic Emergency)
Availability of facilities for accidents and emergency services including poisoning and trauma care	Y	Y	Y	Y	Y	N	Y	(No trauma care)
Availability of separate provision in emergency ward for examination of rape/sexual assault victim	Y	N	Y	Y	Y	Y	Y	N
Availability of sufficient separate waiting areas and public amenities in emergency ward for patients and relatives.	Y	Y	Y	Y	Y	Y	Y	N
Availability of emergency protocols in emergency ward.	Y	N	Y	Y	Y	N	Y	N
Availability of disaster management plan in emergency ward.	Y	Y	Y	Y	Y	N	N	N

Source: Information furnished by the test-checked Health Institutions
Colour code: Green colour/Y= Available; Red colour/N=Not available and pink colour depicts partial availability of services.

3.3.2 Availability of routine and emergency care in CHCs

As per IPHS 2012 norms for CHCs, CHCs should provide care of routine and emergency cases in medicine. Specific mention is made of handling of emergencies like dengue haemorrhagic fever, cerebral malaria and others like dog & snake bite cases, poisoning, congestive heart failure, left ventricular failure, pneumonia, meningoencephalitis, acute respiratory conditions, status epilepticus, burns, shock, acute dehydration etc. Further, essential and emergency obstetric care including surgical interventions like caesarean sections and other medical interventions should be available.

The availability of care of routine and emergency cases in surgery in CHCs is given in ***Table 3.12***.

Table 3.12: Availability of routine and emergency cases in medicine in CHCs (as of January to June 2022)

Name of Routine and Emergency care service	Panipat	Nuh	Hisar
	No. of test-checked CHCs/ UHCs (5)	No. of test-checked CHCs (2)	No. of test-checked CHCs/ UHCs (5)
Dengue Haemorrhagic Fever	2	0	4
Cerebral Malaria	2	0	4
Dog & snake bite cases	2	1	4
Poisoning	1	1	4
Congestive Heart Failure	1	0	4
Left Ventricular Failure	1	0	4
Pneumonias	1	0	4
Meningoencephalitis	1	0	4
Acute respiratory conditions	1	0	4
Status Epilepticus	1	0	4
Burns	1	0	4
Shock	1	0	4
Acute dehydration	1	0	4
Obstetric Care including surgical interventions like Caesarean Sections and other medical interventions	0	1	1

Source: Information furnished by the test-checked CHCs/UHCs
Colour code: Green colour depicts performance by good number of CHCs/UHCs and red colour depicts performance by less number or nil number of CHCs/UHCs

It was observed that:

- Most of the routine and emergency care services were available in CHCs at Barwala, Sorkhi, Uklana, Madlauda and UHC Sector 1&4 Hisar but not available in CHCs at Mangali, Bapoli, Naultha, Firozpur Jhirka and UHC Sector 12 Panipat.
- At CHC Naraina, only dengue haemorrhagic fever, cerebral malaria and dog & snake bite routine and emergency care services were available.
- Only dog & snake bite and poisoning routine and emergency care services were available in CHC Punhana.
- Obstetric care including surgical interventions like caesarean sections and other medical interventions was available only in CHC Sorkhi (Hisar) and CHC Punhana (Nuh).

3.3.3 Management of Emergency cases in PHCs

As per IPHS 2012 norms for PHCs, 24 hours emergency services such as appropriate management of injuries and accident, first aid, stitching of wounds, incision and drainage of abscess, stabilisation of the condition of the patient before referral, dog bite/snake bite/scorpion bite cases and other emergency conditions should be provided in PHCs. These services are to be provided primarily by the nursing staff. However, in case of need, Medical Officer may be available to attend to emergencies on call basis. Intra-natal care: 24-hour delivery services both normal and assisted including appropriate and prompt referral for cases needing specialist care should be ensured.

The availability of emergency services in the test-checked PHCs is given in ***Table 3.13***.

Table 3.13: Availability of Emergency Services in PHCs (as of January to June 2022)

Name of District	Number of test-checked PHCs/ UPHCs	24 hours Management of selected emergency services	Emergency on call basis, 24-hour normal delivery services and referral
Panipat	9	1	2
Hisar	11	6	6
Nuh	4	0	4

Source: Information furnished by the test-checked PHCs/UPHCs.

Facility of 24 hours management of selected emergency services such as accident, first aid, stitching of wounds etc. were available only in seven[18] out 24 test-checked PHCs/UPHCs.

24 x7 emergency, referral and normal delivery services were available in 12[19] out of 24 PHCs/UPHCs.

This could be attributed to shortage/non -availability of doctors and nurses at PHC level as depicted in ***Appendix 2.1 (iii)***.

3.3.4 Non availability of Intensive Care Unit (ICU)

As per IPHS 2012 norms for District Hospitals, in ICU, critically ill patients requiring highly skilled life-saving medical aid and nursing care are concentrated. The unit should not have less than four beds nor more than 12 beds. Number of beds may be restricted to five *per cent* of the total bed strength initially but should be expanded to 10 *per cent* gradually. Out of these, they can be equally divided among ICU and High Dependency Wards (HDU). As per NHM Assessor's guidebook, the hospital should also provide intensive care service as part of curative services. The ICU facilities are desirable in SDCH.

The ICU service was not available in eight[20] out of 22 DHs. Out of 41 SDCHs, ICU service was available only in six[21] SDCHs. The details of availability of ICU service in DHs and SDCHs are given in ***Appendix 3.4 (i) and (ii)***. Further, in the test-checked hospitals only DH Panipat had ICU services. Details of ICU facilities in DH Panipat are detailed in ***Table 3.14***.

[18] PHC- (i) Mandi, (ii) Kaimri, (iii) Talwandi Rukha, (iv) Puthi Samain, (v) Hasangarh, (vi) Agroha and (vii) Dhansu

[19] PHC- (i) Mandi, (ii) Siwah, (iii) Talwandi Rukha, (iv) Puthi Samain, (v) Hasangarh, (vi) Agroha, (vii) Dhansu, (viii) Kaimri, (ix) Jamalgarh, (x) Biwan, (xi) Nagina and (xii) Singar

[20] DH- (i) Gurugram, (ii) Hisar, (iii) Jhajjar, (iv) Jind, (v) Kaithal, (vi) Narnaul, (vii) Mandikhera (Nuh) and (viii) Yamuna Nagar.

[21] SDCH- (i) Ambala Cantt, (ii) Ratia, (iii) Bahadurgarh, (iv) Matanhail, (v) Uchana and (vi) Mahendragarh.

Table 3.14: Availability of ICU services in DH Panipat (as of January 2022)

Particulars	Availability
Availability of various types of ICU services as prescribed by national standards	Available#
Functional in-patient beds in ICU	16 (12 ICU + 4 HDU)
Percentage of patients admitted in ICU who were monitored for fluid/electrolyte charting	Fluid: 100 *per cent* Electrolyte: NIL
Percentage of patients admitted in ICU who were monitored for intake and output charting	100 *per cent*
Percentage of patients admitted in ICU who were monitored for cardiac care monitoring	100 *per cent*
Availability of ICU ventilators	Available
Facilities for curative services in ICU	Available
Facilities for diagnostic services in ICU	Not available
User charges displayed in local and simple language and communicated to patients effectively	No
Availability of adequate space and waiting area for ICU as per requirement	Not available
Nutritional assessment of patient done as required and directed by doctor	Not done

 # ABG, Portable X-ray, ECO investigation was not available.
Source: Information furnished by DH, Panipat.

3.3.5 Emergency cases referred to other hospitals

Details of cases referred to other hospitals from DHs/SDCHs is given in ***Table 3.15***.

Table 3.15: Emergency cases referred to other hospitals from the test-checked DHs/SDHCs

Year	DH, Panipat	SDCH, Samalkha	DH, Mandikhera	DH, Hisar	SDCH, Adampur	SDCH, Narnaund
	(In *per cent*)					
2016-17	10	2	1	5	37	9
2017-18	9	2	1	5	27	14
2018-19	7	2	1	5	24	14
2019-20	4	2	1	4	20	13
2020-21	5	1	1	3	20	12

Source: Information furnished by the test-checked DHs/SDCHs.

As evident from the above table, the number of emergency cases referred to other hospitals was more in SDCHs Adampur and Narnaund. This could have been due to non-availability of specialists as discussed in paragraph 2.2.5 of Chapter 2.

3.4 Emergency Response and Health System Preparedness Package

Coronavirus disease 2019 (COVID-19) is a contagious disease caused by a virus, the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The disease had spread worldwide, leading to the COVID-19 pandemic. Symptoms of COVID-19 are variable, but often include fever, cough, headache, fatigue, breathing difficulties, loss of smell and loss of taste.

Audit reviewed the Emergency Response to COVID-19 by the Department for lessons learnt for future preparedness.

3.4.1 Fund utilisation under COVID-19

The Government of India provided funds under Emergency COVID Response Package (ECRP) to the State in order to support preparedness and prevention related activities due to COVID-19 outbreak. The receipt and expenditure under ECRP is given in ***Table 3.16***.

Table 3.16: Utilisation of funds under COVID-19

(₹ in crore)

Year	Name of Scheme	GoI Share			State Share			Total		
		R	E	CB	R	E	CB	R	E	CB
2019-20	**COVID-19**	37.11	37.11	0	24.74	24.74	0	61.85	61.85	0
2020-21	**COVID-19**	187.71	97.69	90.02	0	0	0	187.71	97.69	90.02
	COVID-19 Vaccination	5.71	0.56	5.15	0	0	0	5.71	0.56	5.15
Total		**230.53**	**135.36**	**95.17**	**24.74**	**24.74**	**0**	**255.27**	**160.10**	**95.17**

Source –Information furnished by NHM, Haryana
Note: R: Receipt, E: Expenditure, CB: Closing Balance

It is evident from the above table that:

i. GoI and State Government had released ₹37.11 crore and ₹24.74 crore as ECRP for the year 2019-20, which was received by NHM, Haryana. Further, ₹193.42 crore was released by GoI for the year 2020-21.

ii. Expenditure of ₹160.10 crore was incurred out of total ₹255.27 crore received by NHM, Haryana during the period 2019-21 for COVID-19.

iii. The amount was spent for diagnostics including sample transport, drugs and supplies, temporary human resource, etc. as shown in ***Table 3.17***.

Table 3.17: Category-wise expenditure incurred under COVID 19 during 2019-21

(₹ in lakh)

Sr. No.	Type of expenditure	Expenditure incurred
1	Diagnostics including sample transport	2,372.21
2	Drugs and supplies including PPE and masks	7,416.89
3	Equipment/facilities for patient care including support for ventilators etc.	1,180.25
4	Temporary HR including incentives for Community Health Volunteers	3,160.71
5	Mobility Support	398.83
6	IT systems including hardware and software etc.	179.41
7	Information, Education and Communication/ Behavioral Change Communication	192.96
8	Training	25.58
9	Miscellaneous (which could not be accounted for in above items of expenditure)	1,027.44
10	COVID Vaccination	56.27
	Total	**16,010.55**

Source: Information furnished by NHM, Haryana

Funds amounting to ₹99.90 crore were transferred to HMSCL, Panchkula during FY 2020-21 for procurement of COVID-19 items. Funds received and utilised under COVID-19 in the test-checked districts is given in ***Table 3.18***.

Table 3.18: Fund utilisation in the test-checked Districts under COVID 19

(₹ in lakh)

District	2019-20		2020-21	
	Receipt	Expenditure	Receipt	Expenditure
Hisar	2.00	1.23	474.69	372.56
Panipat	1.00	0.69	435.68	318.43
Nuh	0.00	0.00	129.70	168.51
Total	**3.00**	**1.92**	**1,040.07**	**859.50**

Source: Information furnished by District Health Societies

Funds amounting to شخ10.43 crore (شخ3 lakh in 2019-20 and شخ10.40 crore in 2020-21) were released to three selected District Health Societies (DHS) by NHM, Haryana during the period 2019-21. Out of شخ10.43 crore, the DHS incurred an expenditure of شخ8.61 crore (لشخ1.92 lakh in 2019-20 and شخ8.59 crore in 2020-21) for COVID-19 management.

The Director, Finance & Accounts, NHM stated (January 2023) that budget of ₹ 292.19 crore was received from Government of India from FY 2020-21 to 2022-23 for Covid-19 ECRP-I and same had been fully utilised. Further, budget of ₹ 5.71 crore was received from Government of India for Covid vaccination. Of this, ₹ 3.70 crore had been utilised till November 2022, leaving an unspent balance of ₹ 2.01 crore.

3.5 Maternity services

Maternal Mortality Rate (MMR) (per one lakh population) and Infant Mortality Rate (IMR) (per 1,000 live births) are important indicators for evaluating the quality of maternity services available. As per the Sample Registration System Report by Registrar General of India, MMR for Haryana was 110 during 2018-20, compared to the 97 at the national level. Further, as per National Family Health Survey-5, IMR was 33.3 for Haryana, compared to the 35.2 at the national level during the year 2019-21.

Antenatal care[22](ANC), Intra-partum care or delivery care[23] (IPC) and Postnatal care[24] (PNC) are important components of facility based maternity services.

Norms for provisioning of various maternal health services for different levels of hospitals and CHCs have been specified in Maternal and Neonatal Health Toolkit 2013 (MNH Toolkit), Guidelines for Antenatal Care and Skilled Attendance at Birth, 2010 and IPHS 2012 norms prescribed by the GoI for delivery of quality maternal health services.

[22] ANC is the systemic supervision of women during pregnancy to monitor the progress of fetal growth and to ascertain the well-being of the mother and the fetus.

[23] IPC care is the interventions for safe delivery in labour room and operation theatre.

[24] PNC includes medical care of the mother and newborn after delivery of the child especially during the 48 hours post-delivery, which are considered critical.

3.5.1 Achievement in maternity services

ANC involves general and abdominal examination and laboratory investigations to monitor pregnancies, management of complications, such as Reproductive Tract Infection (RTI)/Sexually Transmitted Infection (STI) and comprehensive abortion care. Antenatal Care and Skilled Attendance at Birth, Guidelines (2010), stipulate that every pregnant woman should undergo general and abdominal examinations during each ANC visit.

It should be ensured that every pregnant woman makes at least four visits for ANC. 1st visit: within 12 weeks preferably as soon as pregnancy is suspected, 2nd visit: between 14 and 26 weeks, 3rd visit: between 28 and 34 weeks, 4th visit: between 36 weeks and term.

Further, all pregnant women need to be given one tablet of Iron Folic Acid (IFA: 100 mg elemental iron and 0.5 mg folic acid) every day for at least 180 days, starting after the first trimester, at 14-16 weeks of gestation. IFA dose is necessary to prevent anaemia (prophylactic dose) and this dosage regimen is to be repeated for three months post-partum. Further, as per IPHS immunisation programme as prescribed in IPHS 2012 norms, Tetanus Toxoid (TT), TT-1 should be administered early in pregnancy and TT-2 after 4 weeks of TT-1.

Percentage of pregnant women registered and ANC, TT, and IFA tablets provided in the State of Haryana as per NFHS-5 is given in ***Table 3.19***.

Table 3.19: Indicators of Antenatal Care, TT administration and IFA tablets in the State

(In *per cent*)

Indicators	2015-16	2019-21
ANC received in the first trimester	63.2	85.2
Pregnant women receiving at least four ANC	45.1	60.4
TT administration	92.3	90.7
IFA (180 days)	14.3	32

Source: NFHS-5 survey report.

Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow-moderate and red colour depicting poor performance.

It is evident from the above table that while there is progress in most indicators during the period 2015-16 to 2019-21, delivery of IFA tablets remained only at 32 *per cent* of pregnant women. Further, only 85.2 *per cent* of pregnant women received ANC during their first trimester during 2019-21, while 60.4 *per cent* of pregnant women received four required ANCs during their pregnancy period.

With regard to lesser delivery of IFAs, the Director, Finance & Accounts, NHM replied (January 2023) that to ensure uninterrupted supply of IFA (Red) and Calcium tablets for pregnant women, these drugs have already been added in the State Essential Drug List (EDL). Also, there was an issue of erratic supply of drugs in previous years. The issue had now been sorted and enough IFA, Calcium and Vitamin D3 tablets were available in warehouses. Budget is also sanctioned to districts under Janani Shishu Suraksha Karyakaram (JSSK) for

procurement of drugs through local purchase in case of any stock out in warehouses/ emergency condition.

3.5.2 Status of Institutional Deliveries

IPHS 2012 norms of CHCs/PHCs provide that each CHC/PHC should have a fully equipped and operational labour room. Percentage of Institutional births and Home births by Skilled health personnel as per NFHS-5 in the State is given in ***Table 3.20***.

Table 3.20: Institutional births and Home births by Skilled Health Personnel as per NFHS-5 in the State

(In *per cent*)

Indicators	2015-16	2019-21
Institutional births	80.4	94.9
Home birth by skilled health personnel	5.8	1.1

Source: NFHS-5 survey report.

Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; light green- moderate and red colour depicting poor performance.

Thus, institutional births have increased from 80.4 *per cent* during the period 2015-16 to 94.9 *per cent* during the period 2019-21. However, institutional births in public health facility remained at 57.5 *per cent* during the period 2019-21. The facilities for institutional deliveries in the test-checked health institutions have been discussed in succeeding paragraphs.

(i) Labour room facilities in CHCs/PHCs

Availability of labour room facility in the test-checked CHCs/UHCs/PHCs/ UPHCs as of January to June 2022 is given in ***Table 3.21***.

Table 3.21: Availability of Labour Room in the test-checked CHCs/UCHs/PHCs/UPHCs

Type of Health Institutions	Total Number of HIs	Availability of Labour Room in no. of HIs
CHCs/ UHCs	12	12
PHCs/ UPHCs	24	14

Source: Information furnished by the test-checked health institutions

Labour rooms were available in all the selected CHCs/UHCs. Labour room was available in UHC Sector 12, Panipat, but was not functional since 2014. Out of 24 test-checked PHCs/UPHCs, labour room was available only in 14 PHCs/UPHCs. Further, labour room available in PHC, Atta was not functional. This may have been due to not posting necessary staff including OBGY specialist and staff nurse.

(ii) Pathological investigations

ANC Guidelines 2010 prescribe conducting six[25] pathological investigations, depending upon the condition of pregnancy during ANC visits to identify pregnancy related complications. Availability of pathological investigations for pregnant women in the test-checked health institutions is given in ***Table 3.22***.

Table 3.22: Availability of pathological investigations for pregnant women in the test-checked Health Institutions (as of January to June 2022)

Name of test	DHs (03)	SDHCs (03)	CHCs/UHCs (12)
Blood group including Rh factor	3	3	12
Venereal disease research laboratory (VDRL)/Rapid Plasma Reagin (RPR)	3	3	11
HIV testing	3	3	12
Rapid Malaria test	3	2	3
Blood Sugar testing	3	3	12
Hepatitis B surface Antigen (HBsAg)	3	3	11

Source: Information furnished by the test-checked Health Institutions
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow-moderate and red colour depicting poor performance.

Audit observed that all pathological investigations related to pregnancy were conducted in all the test-checked hospitals of these three districts except Rapid Malaria Test in SDCH Adampur.

Further, it was observed that out of the six prescribed pathological investigations, Blood group including Rh factor, HIV testing and Blood Sugar testing were available in all the test-checked CHCs/UHCs. Further, VDRL/RPR test was not available in CHC, Firozpur Jhirka and HBsAg test was not available in UHC, Sec 12 (Panipat). Rapid Malaria test was not available in nine[26] CHCs/UHCs out of 12 test-checked CHCs/UHCs.

The Director, NHM stated (January 2023) that tests related to HIV and Hepatitis B Surface Antigen were being conducted in the test-checked CHCs/UHCs of district Hisar while VDRL/RPR test was being carried out in CHC, Firojpur Jhirka (Nuh). In district Panipat, all the health institutes were giving services towards all the six pathological tests. Further, instead of rapid malaria test, slide method testing facility was available in UHC, Panipat. The reply is not tenable as during field visits of health institutes, all the pathological investigations were not found available.

[25] (i) Blood group including Rh factor, (ii) Venereal disease research laboratory (VDRL)/Rapid Plasma Reagin (RPR), (iii) HIV testing, (iv) Rapid Malaria test, (v) Blood Sugar testing and (vi) Hepatitis B surface Antigen (HBsAg).

[26] CHC-(i) Mangali, (ii) Sorkhi, (iii) Uklana, (iv) Barwala, (v) Bapoli, (vi) Madlauda, (vii) Naraina, UHC-(viii) Sector 1&4 (Hisar) and (ix) Sector 12 (Panipat)

(iii) Caesarean deliveries (C-Section)

MNH Toolkit designated all FRU-CHCs/SDCHs/DHs as Centres for providing surgical (C-Section) services with the provision of specialised human resources (a gynaecologist/obstetrician and anaesthetist) and equipped operation theatre to provide Emergency Obstetric Care (EmOC) to pregnant women. The Janani Shishu Suraksha Karyakram (JSSK) entitles all pregnant women to C-Section services with a provision for free drugs, consumables, diagnostics, etc.

The statement showing C-section deliveries as per NFHS-5 in the State of Haryana is given in ***Table 3.23***.

Table 3.23: Status of Caesarean deliveries (C-Section) in the State

(In *per cent*)

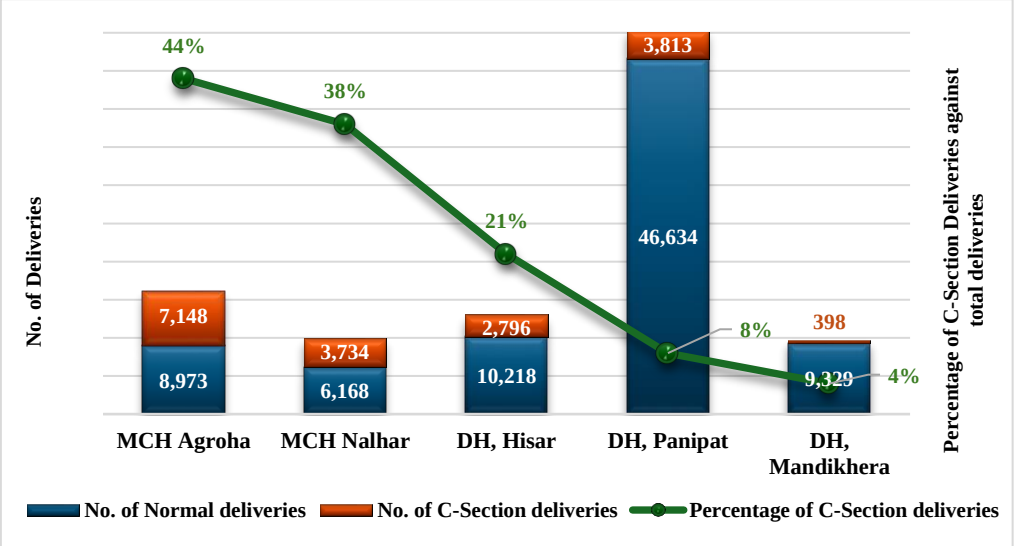
Indicators	2015-16	2019-21
C-section deliveries	11.7	19.5
Private health facility C-section deliveries	25.3	33.9
Public health facility C-section deliveries	8.6	11.7

Source: NFHS-5 survey report.

It is evident from the above table that C-section deliveries have increased from 11.7 *per cent* in 2015-16 to 19.5 *per cent* in 2019-21 in the State of Haryana. But the increase in rate of C-section deliveries was seen to be more at private health facilities (33.9 *per cent*) as compared to public health facilities (11.7 *per cent*). Further, WHO suggests that Caesarean sections are effective in saving maternal and infant lives, but only when they are required for medically indicated reasons. At population level, Caesarean section rates higher than 10 *per cent* are not associated with reductions in maternal and newborn mortality rates.

Number of C-section deliveries conducted in the test-checked two MCHs and three DHs during 2016-17 to 2020-21 is given in **Chart 3.5**.

Chart 3.5: Number and Percentage of C-Section deliveries conducted in the test-checked MCHs/DHs



Source: Information furnished by the test-checked MCHs/DHs

It was observed that:

- C-section deliveries were not conducted at SDCH Samalkha, SDCH Adampur (only 2 C-section deliveries during 2019-20) and SDCH Narnaund during the period 2016-21 due to non-availability of manpower and non-functional operation theatre. Further, C-section deliveries in all the test-checked CHCs were not conducted during the period 2016-21 due to non-availability of manpower and equipment. This may have led to patients resorting to private facilities thereby increasing their out-of-pocket expenditure.
- There was an increasing trend of C-section deliveries in DH, Mandikhera and DH, Hisar. For instance, in DH, Mandikhera, C-section deliveries increased from six cases in 2016-17 to 194 cases in 2020-21; while in DH, Hisar, C-section deliveries increased from 326 cases in 2016-17 to 833 cases in 2020-21.
- During the period 2016-21, average percentage of C-section deliveries in the two colleges MCH, Agroha and MCH, Nalhar was 44 *per cent* and 38 *per cent,* respectively. It ranged between 30.5 *per cent* to 45.84 *per cent* in MCH, Nalhar, while 33.48 *per cent* to 49.48 *per cent* in MCH, Agroha during the period 2016-21. The matter was brought to the notice of the colleges. They replied that high risk cases were transferred to the hospital from the nearby healthcare institutions**,** so these parameters were on the higher side.

3.5.3 Special Newborn Care Unit/ Newborn Stabilisation Unit

As per MNH Toolkit, twelve bedded Special Newborn Care Unit (SNCU) is essential to treat critically ill new-borns in a district hospital. Twelve bedded SNCU was available in all the three test-checked District Hospitals.

Total admission, referral rate, Leave Against Medical Advice (LAMA) rate, absconding rate and neonatal death rate in the three test-checked DHs is given in ***Table 3.24***.

Table 3.24: Evaluation of SNCU services in the test-checked DHs through Outcome Indicators

Year	DH, Mandikhera					DH, Hisar					DH, Panipat				
	Total Admission	Referral Rate	LAMA rate	Absconding rate	Neonatal Death Rate	Total Admission	Referral Rate	LAMA rate	Absconding rate	Neonatal Death Rate	Total Admission	Referral Rate	LAMA rate	Absconding rate	Neonatal Death Rate
2016-17	543	9.02	5.16	0	15.84	Information not available					911	24.48	12.18	0	3.18
2017-18	633	9.16	6.95	0	13.11	1,159	23.99	8.20	0	2.59	1,070	21.31	15.05	0	2.80
2018-19	372	26.08	12.90	0	4.03	1,054	23.24	6.36	0	3.32	1,236	28.16	11.17	0	2.35
2019-20	490	22.04	9.18	0	2.04	1,342	20.57	6.26	0	2.24	1,225	20.82	6.69	0	1.96
2020-21	512	23.63	7.81	0	6.84	1,241	18.05	2.42	0	2.34	1,042	18.52	10.65	0	2.40
Total	**2,550**	**16.98**	**8.04**	**0**	**8.98**	**4,796**	**21.33**	**5.75**	**0**	**2.59**	**5,484**	**22.74**	**11.00**	**0**	**2.50**

Source: Information furnished by the test-checked DHs.
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow-moderate and red colour depicting poor performance.

It is evident from the above table that:

i. In DH, Mandikhera, total number of 2,550 cases were admitted in SNCU during the period 2016-21. The rate of referral cases ranged between 9.02 *per cent* and 26.08 *per cent*, LAMA rate ranged between 5.16 *per cent* and 12.90 *per cent* and neonatal death rate was upto 15.84 *per cent*.

ii. In DH Hisar, total number of 4,796 cases were admitted in SNCU during the period 2017-21. The rate of referral cases ranged between 18.05 *per cent* and 23.99 *per cent*, LAMA rate ranged between 2.42 *per cent* and 8.20 *per cent* and neonatal death rate was upto 3.32 *per cent*.

iii. In DH, Panipat, total number of 5,484 cases were admitted in SNCU during the period 2016-21. The rate of referral cases ranged between 18.52 *per cent* and 28.16 *per cent*, LAMA rate ranged between 6.69 *per cent* and 15.05 *per cent* and neonatal death rate was upto 3.18 *per cent*.

The Director, NHM stated (January 2023) that during the period 2016-22, the referral rate had decreased by 7.5 points and the LAMA rate had decreased by 2.32 points in district Panipat. Death rate in SNCU has also declined. In district Hisar, the referral rate had decreased by 5.94 points and the LAMA rate had decreased by 3.6 points. Death rate in SNCU had also declined by 2.38 points. Death rate of Nuh district had declined remarkably.

The reply was not tenable as referral rate in district Panipat and Hisar, was still above 18 *per cent* during the year 2020-21; while the LAMA rate was still above 10 *per cent* in district Panipat. Further, in district Nuh, referral rate and LAMA rate had increased during the period 2016-21.

3.5.4 Administration of birth doses to new-borns

As per IPHS 2012 norms, ña fully immunised infant is one who has received Bacillus Calmette-Guerin (BCG), three doses of Oral Polio Vaccine (OPV), three doses of Hepatitis B and Measles before one year of ageò. The schedule of vaccination at birth of an infant is as follows: **Hepatitis B**: at birth for institutional delivery, preferably within 24 hrs. of delivery, **OPV**: at birth for institutional deliveries within 15 days and **Vitamin 'K'**: given as a single dose soon after birth.

The details of achievement in administration of birth doses to new-borns in the three test-checked districts is given in ***Table 3.25***.

Table 3.25: Achievement (%) of birth doses given to new born during 2020-21

Name of District	Year	Total live births	Achievement (%)		
			Vitamin 'K'	OPV	Hepatitis B
Panipat	2020-21	22,491	75	98	78
Nuh	2020-21	51,821	28	85	40
Hisar	2020-21	32,977	65	90	70

Source: Data from Health Management Information System.
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow-moderate and red colour depicting poor performance.

It can be seen from the above that the percentage of doses of Vitamin K and Hepatitis B which were supposed to be given soon after birth and within 24 hours of delivery respectively was only 28 *per cent* and 40 *per cent* in Nuh district where most live births were recorded among the three test-checked districts. However, percentage of OPV doses in all the three test-checked district was satisfactory.

3.5.5 Discharge within 48 hours of delivery in post-natal care

The 12th Five Year Plan aimed to bring all women during pregnancy and childbirth into the institutional fold so that delivery care services of good quality can be provided to them at the time of delivery at zero expense as envisioned under the Janani Shishu Suraksha Karyakram (JSSK) programme. The programme entitles all pregnant women to absolutely free institutional delivery including C-section with a provision for free drugs, diagnostics, diet, blood and transport from home to facility, between facilities and drop back home. Further, there should be adequate number of beds in postnatal care ward to ensure 48 hours of stay after delivery.

Details related to women discharged within 48 hours from health facilities in the three test-checked districts is given in ***Table 3.26***.

Table 3.26: Total no. of women discharged within 48 hours after delivery during 2020-21

Name of District	Total no. of institutional deliveries	Total no. of women discharged within 48 hours	Percentage
Panipat	22,347	15,445	69.11
Nuh	39,749	37,548	94.46
Hisar	33,014	21,864	66.23

Source: Data from Health Management Information System.
Note: Colour grading has been done on colour scale with yellow colour depicting moderate performance while red colour depicting poor performance.

The Department stated (January 2023) that due to local behaviour, people do not prefer to stay long in the hospital. In DH, Panipat, patients were discharged within 48 hours as average number of deliveries are 800 to 900 per month and number of beds available are only 52, including C-section beds. To increase the bed strength at DH Panipat, sanction has been accorded for a specialised Maternal and Child Health (MCH) wing at DH Panipat. The work for the same has been initiated by PWD (B&R).

The reply is not tenable because as depicted in para 2.2.3 and 2.2.4 of chapter 2, there was shortage of doctors and nurses across health institutions. Had adequate medical support been available, women were likely to have preferred spending the first 48 hours of their postpartum in health institutions.

3.5.6 Maternity care outcomes

With a view to gauge the quality of maternity care provided by the test-checked hospitals, Audit ascertained the outcomes in terms of still birth, referral, LAMA, Absconding rate and neonatal deaths pertaining to 2016-21.

(i) Still Births

The stillbirth rate is a key indicator of quality of care during pregnancy and childbirth, which is defined by WHO as: 'Stillbirth and/or intrauterine fetal death is an unfavourable pregnancy outcome and is defined as complete expulsion or extraction of the baby from its mother with no signs of life'. Details of rate of stillbirth/ intrauterine death (IUD) in the test-checked two MCHs/three DHs/three SDHCs is given in ***Table 3.27***.

Table 3.27: Still birth rate in test-checked MCHs/DHs/SDHCs (in *per cent*)

Year	DH Panipat	SDCH Samalkha	DH Hisar	SDCH Adampur	SDCH Narnaund	DH Mandikhera	MCH Nalhar	MCH Agroha
2016-17	0.07	0	4.02	0.75	0.65	3.14	12.19	6.41
2017-18	0.09	0	3.08	0.45	0.66	2.29	11.20	6.17
2018-19	0.16	0	2.62	0.32	0.00	3.32	12.09	5.61
2019-20	0.03	0	2.37	1.14	0.39	3.89	9.16	3.50
2020-21	0.10	0	3.20	0.51	0.68	6.58	10.49	3.52

Source: Information furnished by the test-checked MCHs/DHs/SDCHs.
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow colour depicts moderate performance and red colour depicting poor performance.

As evident from the above table, still birth rate was higher in MCH Nalhar while DH Panipat had the least still birth rate during the period 2016-21. There was no case of still birth in SDCH, Samalkha during 2016-21.

The MCHs replied that as high-risk cases were transferred to MCHs from the nearby healthcare institutions, so these parameters were on the higher side. The Department stated (February 2023) that instructions had been issued to the health institutions concerned to take remedial action to remove the deficiencies/ observations.

(ii) Other indicators

Performance of the test-checked DHs/SDCHs on certain outcome indicators such as average Referral Out Rate (ROR), average Leave Against Medical Advice (LAMA) and Absconding Rate (AR) for the period 2016-17 to 2020-21 is given in ***Table 3.28***.

Table 3.28: ROR/LAMA/AR in the test-checked DHs/SDCHs

Name of Hospital	Total IPD in Maternity	ROR		LAMA		Absconding	
		Cases	Rate	Cases	Rate	Cases	Rate
DH Panipat	1,02,231	3,009	2.94	167	0.16	1,983	1.94
SDCH Samalkha	5,558	478	8.60	1,058	19.03	0	0
DH Mandikhera	13,493	1,255	9.3	981	7.27	577	4.28
DH Hisar	42,303	4,406	10.42	2,901	6.86	359	0.85
SDCH Adampur	9,862	3,074	**31.17**	606	6.14	0	0
SDCH Narnaund	5,374	545	10.14	4,105	76.39	0	0

Source: Information furnished by the test-checked DHs/SDCHs
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow colour depicts moderate performance and red colour depicting poor performance.

It can be seen that the facilities at SDCHs were very poor. At SDCH Adampur 31.17 *per cent* patients were referred to other hospitals and 6.14 *per cent* patients left against medical advice. At the SDCH, Narnaund, the LAMA rate was very high. This may have been due to shortage/non availability of specialists as discussed in para 2.2.5(ii) of chapter 2 and shortage of drugs and equipment as discussed in para 4.1 and 4.4.1 of chapter 4.

(iii) Death Review

As per IPHS 2012 norms, all mortality that occurs in the hospital shall be reviewed on fortnightly basis. Further, as per Child Death Review guidelines (2014) issued by MoH&FW, GoI, detailed investigation should be conducted in all cases of child deaths. The Facility Based Neonatal & Post-Neonatal Death Review Forms (Forms 4a and 4b) should be filled for the child death (depending on the age category) by the Duty Medical Officer (DMO). The treating Medical Officer (doctor) (under whose care the child was primarily admitted in the hospital) has to assign the medical cause of death and has to add any other information regarding social factors and delays associated with the death.

Details of maternal and neonatal death reviews conducted in the test-checked MCHs/DHs/SDCHs during 2016-21 are given in ***Table 3.29***.

Table 3.29: Maternal Death Review/ Neonatal Death Review conducted in the test-checked MCHs/DHs/SDCHs

Name of District	Maternal Death			Neonatal Death		
	No. of Maternal deaths	No. of Maternal death reviews conducted	Shortfall (%)	No. of Neonatal deaths	No. of Neonatal death reviews conducted	Shortfall (%)
DH Panipat	10	10	0	137	0	100
SDCH, Samalkha	0	0	0	0	0	0
DH Hisar	0	0	0	396	396	0
SDCH, Adampur	1	1	0	18	18	0
SDCH, Narnaund	0	0	0	0	0	0
DH Mandikhera	8	8	0	229	229	0
MCH Nalhar, Nuh	169	122	28	1,911	0	100
MCH Agroha	16	16	0	276	72	74

Source: Information furnished by the test-checked MCHs/DHs/SDHCs
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow depicts moderate and red colour depicting poor performance.

Neonatal deaths were not reviewed at MCH Nalhar and DH Panipat. In MCH Agroha only 26 *per cent* neonatal deaths were reviewed. 28 *per cent* maternal deaths were also not reviewed at MCH Nalhar.

The Director, NHM stated (January 2023) that as per GoI guidelines, the Child Death Review (CDR) program is being implemented across the districts and the Facility Based Review Committee was also being formed for conducting the child death review which occurred in District hospitals (>500 deliveries/year). As per the physical report received from district Panipat, 19 and 48 Facility Based Child Death Reviews (FBCDR) have been conducted in 2020-21 and 2021-22 respectively. Further, in district Nuh, as per GoI guidelines, the programme has been implemented across districts but not in the medical colleges. As per guidelines, CDR-Community and Facility based review is being carried out in DH as well as in CHC and is incentive-based.

(iv) Monthly Satisfaction Survey and Form III register in Maternity Wing

As per NHM Assessor's guidebook, the facility should establish a system for patient satisfaction survey and the survey should be done on monthly basis.

As per Comprehensive Abortion Care (CAC) Training and Service Guidelines 2018, it is mandatory to fill and record information for abortion cases, performed by any technique, in the Form III – Admission Register for case records.

Out of the eight test-checked hospitals/MCHs, SDCH, Narnaund and DH, Nuh did not conduct the monthly satisfaction survey in maternity wing during the period 2016-17 to 2020-21.

Further, it was found that a register in 'Form III Admission Register' (for case records for recording therein the details of the admissions of women for the termination of their pregnancies) was maintained in the maternity wing of all the test-checked hospitals except DH, Mandikhera; SDCH, Samalkha and SDCH, Narnaund.

The Director, NHM stated (January 2023) that instructions had been issued to all delivery health facilities to conduct the patient satisfaction survey.

3.6 Diagnostic services

Efficient and effective diagnostic services, both radiological and pathological, are amongst the most essential healthcare facilities for delivering quality treatment to the public based on accurate diagnosis. Audit observed that many of the significant radiology and pathology tests were not performed in the test-checked health institutions due to lack of required equipment and skilled manpower. Significant audit findings are discussed in the succeeding paragraphs:

3.6.1 Availability of Imaging (Radiology) Diagnostic Services

Radiology, also called diagnostic imaging, is a series of different tests that take pictures or images of various parts of the body. IPHS 2012 prescribe radiology services for the district hospitals (X-ray, Ultrasonography, CT scan, etc.) and X-ray (chest, skull, spine, abdomen, bones, dental). It also prescribes diagnostic services under cardiac investigation, ENT, Radiology, Endoscopy, Respiratory and Ophthalmology in DHs and SDCHs.

As of May 2023, imaging services were available in all the DHs except DH, Fatehabad. However, in case of SDCHs, the imaging services were not available in 17 SDCHs out of 41 SDCHs. The details have been given in ***Appendix 3.4 (i) and (ii)***. Further, the availability of diagnostic services under various categories was checked in the test-checked DHs and SDCHs during audit (April-June 2022) and the status of availability is given in ***Table 3.30***.

Table 3.30: Availability of Imaging (Radiology) services in the test-checked DHs/SDCHs

Name of Service	Name of Test/Diagnostic Service	DH Panipat	DH Mandikhera	DH Hisar	SDCH Adampur	SDCH Narnaund	SDCH Samalkha
Radiology	X-ray for chest, Skull, Spine, Abdomen, bones	Yes	Yes	Yes	No	No	No
	Dental X-ray	Yes	Yes	Yes	No	No	No
	Ultrasonography	Yes	Yes	Yes	No	No	No
	CT scan	Yes	No	Yes	Not required as per IPHS norms		
	Barium Swallow, Barium meal, Barium enema, IVP	No	No	No			
	MMR (Chest)	No	No	No			
	HSG	No	No	No			
Cardiac Investigation	ECG	Yes	Yes	Yes	No	Yes	Yes
	Stress tests	No	No	No	Not required as per IPHS norms		
	ECHO	No	No	Yes			
ENT	Audiometry	Yes	No	Yes	No	No	No
	Endoscopy for ENT	No	No	Yes	Not required as per IPHS norms		
Ophthalmology	Refraction by using Snellen's chart	Yes	Yes	Yes	No	No	No
	Retinoscopy	Yes	Yes	Yes	No	No	No
	Ophthalmoscopy	Yes	Yes	Yes	No	No	No
Endoscopy	Laparoscopic (diagnostic)	Yes	No	Yes	No	No	No
	Oesophagus	No	No	Yes	Not required as per IPHS norms		
	Stomach	No	No	Yes			
	Colonoscopy	No	No	No			
	Bronchoscopy	No	Yes	No			
	Arthroscopy	No	Yes	No			
	Hysteroscopy	No	No	No			
Respiratory	Pulmonary function tests	No	No	No	No	No	No

Source: Information furnished by the test-checked DHs/SDCHs
Colour code: Green colour depicts availability, red colour depicts non availability and yellow colour depicts that the services are not required as per IPHS norms.

In all the three test-checked SDCHs available diagnostic services were negligible. The DHs were deficient in diagnostic services. In-house ultrasonography was available in DH Panipat and DH Hisar and it was outsourced in DH, Mandikhera. CT Scan facility was available in DH Panipat in PPP Mode and was outsourced in DH Hisar. But this facility was not available in DH Mandikhera.

Facility for stress tests, barium swallow, barium meal, barium enema, IVP, MMR (chest), HSG, Colonoscopy, Hysteroscopy and pulmonary function tests were not available in any of the test-checked district hospitals. It was noticed that maximum services were available at MCH Nalhar and MCH Agroha.

3.6.2 Availability of Imaging (Radiology) Diagnostic Services in test-checked MCHs

For availability of diagnostic radiology services in MCHs, there are no norms prescribed under IPHS 2012. However, information regarding the availability of diagnostic services in the test-checked MCHs was gathered and the same has been compared with IPHS norms for 500 bedded district hospital, details of which are given in ***Table 3.31***.

Table 3.31: Availability of Imaging (Radiology) services in test-checked MCHs

Sr. No.	Type of Diagnostic Services	Availability in MCH Agroha	Availability in MCH Nalhar
1	Cardiac[27](3)	3	3
2	Ophthalmology[28](3)	3	3
3	ENT[29](2)	2	2
4	Radiology[30](7)	6	2
5	Endoscopy[31](7)	7	4
6	Respiratory[32](1)	0	0

Source: Information furnished by the test-checked MCHs during January to June 2022
Colour code: Green colour depicts full availability, red colour depicts non availability and yellow colour depicts moderate availability of services.

It was observed that under radiology category: barium swallow, barium meal, barium enema, IVP; MMR (Chest); HSG; dental X-ray and ultrasonography; under Endoscopy category: Bronchoscopy, Arthroscopy, Hysteroscopy; and under Respiratory: Pulmonary Function Test (PFT) tests were not available in MCH, Nalhar. However, in MCH, Agroha, all diagnostic radiology services were available except MMR (Chest) under Radiology category and PFT under Respiratory category.

[27] (i) ECG, (ii) Stress Test and (iii) ECHO

[28] (i) Refraction by using Snellenôs chart, (ii) Retinoscopy and (iii) Ophthalmoscopy

[29] (i) Audiometry and (ii) Endoscopy for ENT

[30] (i) X ray for chest, skull, spine, abdomen, bones; (ii) Barium swallow, Barium meal, Barium enema, IVP; (iii) MMR(Chest); (iv) HSG; (v) Dental X-ray; (vi) ultrasonography and (vii) CT scan

[31] (i) Oesophagus, (ii) stomach, (iii) colonoscopy, (iv) Bronchoscopy, (v) Arthroscopy, (vi) Laparoscopy (Diagnostic) and (vii) Hysteroscopy

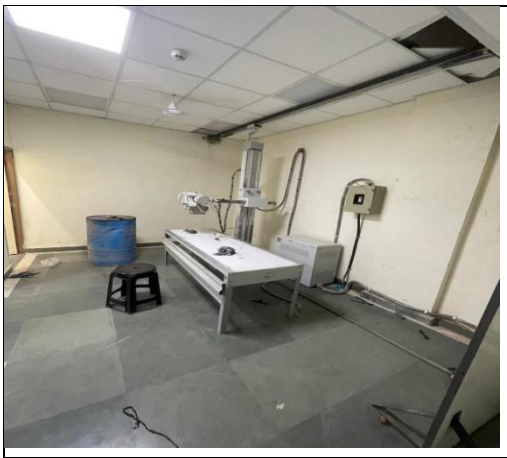
[32] Pulmonary function test.

3.6.3 Availability of Imaging (Radiology) Diagnostic Services in test-checked CHCs

IPHS 2012 norms provide that X-ray for chest, skull, spine, abdomen, bones; dental X-ray and Ultrasonography (USG) (desirable) facilities should be available in a CHC under imaging services. Further, ECG which is a cardiac investigation service should be provided in a CHC.

It was observed that only ECG services were available in six[33] out of 12 test-checked CHCs/UHCs. Other imaging facilities were not available in all the CHCs/UHCs.

X-ray room and machine were available in CHC Uklana and Barwala since 2020 and in UHC Hisar (Sector 1&4) since 2014 but it was not being used due to non-deployment of radiographer. In CHC Punhana, X-ray machine was kept in the storeroom as shown in the picture.



X-ray machine not in use in SDCH Samalkha (06 March 2022)

X-ray machine kept in storeroom in CHC Punhana (21 June 2022)

3.6.4 Non-registration of imaging equipment (like X-ray, CT scan, MRI) from authorities

As per Section (3) of Atomic Energy (Radiation and Protection) Rules, 2004 (1), No person shall, without a license - (a) establish a radiation installation for siting, design, construction, commissioning, operation; and (b) decommission a radiation installation. (2) No person shall handle any radioactive material or operate any radiation generating equipment except in accordance with the terms and conditions of a license.

During the course of audit, details related to installation, functioning and license for x-ray machine was checked in DHs/SDCHs/CHC as given in ***Table 3.32***.

[33] CHC- (i) Madlauda, (ii) Naraina, (iii) Mangali, (iv) Uklana, (v) Barwala and (vii) Punhana.

Table 3.32: Status of imaging equipment in test-checked Health Institutions

Name of Health Institution	X-ray machine		
	Installed	Functional	License exists
DH, Hisar	Yes	Yes	Yes
DH, Panipat	Yes	Yes	Yes
DH, Mandikhera	Yes	Yes	Yes
SDCH, Adampur	Yes	Yes	Yes
SDCH, Narnaund	Yes	No	No
SDCH, Samalkha	Yes	No	No
CHC, Barwala	Yes	No	No

Source: Information furnished by the test-checked Health Institutions during January to June 2022

Colour code: Green colour depicts availability and red colour depicts non availability

Audit observed that out of the health institutions where X-ray machine was available, SDCH Samalkha, Narnaund and CHC Barwala had not obtained license to install and operate the X-ray machine. Further, X-ray machine was found installed in SDCH, Samalkha but it was not functional as shown in the picture in the previous paragraph. X-ray machine was in condemned condition in SDCH, Narnaund and X-ray technician was not available since 2016. Thus, non-functioning of these x-ray machines may have led to patients resorting to private facilities thereby increasing their out-of-pocket expenditure.

3.6.5 Thermoluminescent dosimeters (TLD) & pocket dosimeters for radiation protection

TLD badges are used to detect radiation at levels that can be harmful to humans. All the staff working in the X-ray room have to wear monitoring equipment such as TLD badges, pocket dosimeters etc. as per AERB guidelines on personnel monitoring of radiation workers in radiation facilities (June 2020). As per Atomic Energy (Radiation Protection) Rules, 2004 and Atomic Energy Regulatory Board (AERB) Safety Codes, monitoring equipment shall be provided to radiation workers and dose records shall be maintained. In case of any institution violating the prescribed regulatory requirements, AERB is empowered to suspend/modify/withdraw the licence/registration issued to the X-ray installation or seal the X-ray installation(s) in accordance with Rules 10 and 31 of the Atomic Energy (Radiation Protection) Rules, 2004, respectively.

Availability of TLD badges and Pocket dosimeters in the test-checked DHs is given in ***Table 3.33***.

Table 3.33: Availability of TLD badges and Pocket dosimeters in test-checked DHs

Name of Health Institution	TLD badges	Pocket dosimeters
DH, Hisar	Yes	No
DH, Panipat	Yes	No
DH, Mandikhera	No	No

Source: Information furnished by the test-checked DHs during January to June 2022

Colour code: Green colour depicts availability and red colour depicts non availability.

Only DH Panipat and DH Hisar had TLD badges, but pocket dosimeters were not available in any of these hospitals. Due to non-availability of these safety equipment, the safety of technicians was compromised.

3.6.6 Pathology services

Pathology services are the backbone of any hospital for extending evidence-based healthcare to the public. As in the case of radiology services, availability of essential equipment, reagents and human resources are the main drivers for the delivery of quality pathology services through laboratories.

Pathology service was available in all DHs except DH, Kaithal, and pathology service was not available in 17 SDCHs, out of 41 SDCHs. The details are given in ***Appendix 3.4 (i) and (ii).*** Audit observations related to these services have been discussed in the succeeding paragraphs:

(i) Availability of Pathology Diagnostic services in test-checked Hospitals

IPHS 2012 norms prescribe 72 types and 39 types of pathological investigations in the categories of clinical pathology, pathology, microbiology, serology and biochemistry to be carried out in the DHs and SDCHs, respectively. Audit observed that the pathology services in the test-checked hospitals were provided through in-house laboratories. Availability of pathology services offered by the test-checked MCHs/DHs is given in ***Table 3.34***.

Table 3.34: Availability of pathology services in test-checked MCHs/DHs

Name of Health Institution	Clinical pathology[34] (29)	Pathology[35] (8)	Microbiology[36] (7)	Serology[37] (7)	Biochemistry[38] (21)
MCH Agroha	28	7	7	7	15
MCH Nalhar	27	8	6	5	17
DH Hisar	24	4	3	4	11
DH Panipat	23	2	6	5	11
DH Mandikhera	20	5	0	5	12

Source: Information furnished by the test-checked MCHs/DHs during January to June 2022
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow-moderate and red colour depicting poor performance.

Against required 39 types of pathological investigations in SDCHs, availability of pathological investigations offered under various categories by the test-

[34] Clinical Pathology (DH): Haematology, Immunoglobin profile (IGM, IGG, IGE, IGA), Fibrinogen Degradation product, Urine Analysis, Stool Analysis, Semen Analysis, CSF Analysis Aspirated fluids etc.

[35] Pathology (DH): PAP smear, Sputum, Haematology, Histopathology

[36] Microbiology (DH): KOH study for fungus, Smear for AFB & KLB, supply of different media for peripheral laboratories, Culture and sensitivity for blood, sputum, pus, urine etc.

[37] Serology (DH): RPR card test for syphilis, Pregnancy test ELISA for Beta HCG, Leptospirosis, WIDAL test, DCT/ ICT with titre etc.

[38] Biochemistry (DH): Blood sugar, Glucose, Glycosylated haemoglobin, Blood urea, blood cholesterol, serum bilirubin, Icteric index, Serum calcium, Serum Phosphorous, Serum Magnesium, Iodometry titration etc.

checked SDCHs is given in ***Table 3.35***.

Table 3.35: Availability of pathology services in test-checked SDCHs

Name of Health Institution	Clinical pathology[39] (24)	Pathology[40] (1)	Microbiology[41] (4)	Serology[42] (4)	Biochemistry[43] (6)
SDCH Samalkha	14	1	0	4	4
SDCH Adampur	8	0	2	3	1
SDCH Narnaund	15	0	1	4	4

Source: Information furnished by the test-checked SDCHs during January to June 2022
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow-moderate and red colour depicting poor performance

It is evident from the above tables that most of the pathology services prescribed for DHs in IPHS 2012 norms were available in the test-checked MCHs. In the case of DHs, the maximum number of shortfall was seen in DH, Mandikhera, which was way below the tests available in DH, Panipat and DH, Hisar. In the case of SDCHs, SDCH, Adampur has maximum number of shortfall in availability of pathology services.

(ii) Availability of Pathology Diagnostic services in test-checked CHCs

IPHS 2012 prescribes 29 types of pathological investigations in the categories of clinical pathology (18)[44], pathology (1)[45], microbiology (2)[46], serology (3)[47] and biochemistry (5)[48] to be carried out in the CHCs.

Availability of pathology services offered by the test-checked CHCs is given in ***Table 3.36***.

39 Clinical Pathology (SDCH): Haematology, Urine Analysis, Stool Analysis, Semen Analysis, CSF Analysis, Aspirated Fluids etc.

40 Pathology (SDCH): Sputum

41 Microbiology (SDCH): KOH study for fungus, Smear for AFB & KLB, Gram Stain for Meningococci, Gram Stain for Throat Swab and sputum etc.

42 Serology (SDCH): RPR card test for syphilis, Pregnancy test (Urine gravindex), WIDAL test, Rapid test for HIV, HBs Ag, HCV etc.

43 Biochemistry (SDCH): Blood sugar, Blood urea, blood cholesterol, Lipid Profile, LFT, KFT, CSF for protein, sugar, Stocking of OT test for residual chlorine in water

44 Clinical Pathology (CHC): Haematology, Urine Analysis, Stool Analysis etc.

45 Pathology (CHC): Sputum

46 Microbiology (CHC): Smear for AFB & KLB; Grams stain for throat swab, sputum etc.,

47 Serology (CHC): VDRL, Pregnancy test, WIDAL test etc

48 Biochemistry (CHC): Blood sugar, Blood urea, LFT, Kidney function test, Lipid profile

Table 3.36: Availability of Pathology diagnostic services in test-checked CHCs

District	Name of CHC	Clinical pathology (18)	Pathology (1)	Microbiology (2)	Serology (3)	Biochemistry (5)
Panipat	Madlauda	10	1	1 (Available-Grams stain for throat swab, sputum)	2	1 (Available-Blood Sugar)
	Naultha	1	0	0	2 (Not available-Pregnancy test)	0
	Naraina	8	0	0	3	1(Available-Blood Sugar)
	Bapoli	2	0	0	1 (Available-VDRL)	1 (Available-Blood Sugar)
	UHC Sector-12	0	0	0	0	0
Hisar	Mangali	14	0	1 (Available- Smear for AFB & KLB)	3	4 (Not available-Kidney function test)
	Sorkhi	9	0	0	2 (Not available-Pregnancy test)	1 (Available-Blood Sugar)
	Uklana	8	0	0	2 (Not available-Pregnancy test)	1 (Available-Blood Sugar)
	Barwala	6	1	0	3	1 (Available-Blood Sugar)
	UHC sector 1 & 4 Hisar	7	1	0	3	1 (Available-Blood Sugar)
Nuh	Firozpur Jhirka	10	0	0	3	1 (Available-Blood Sugar)
	Punhana	12	1	2	3	5

Source: Information furnished by the test-checked CHCs during January 2022 to June 2022.
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow depicting moderate and red colour depicting poor performance.

In the test-checked CHCs/ UHCs, it was observed that:

i. There was shortfall in availability of Clinical pathology diagnostic services ranging from 22 *per cent* (Mangali) to 100 *per cent* (UHC Sector 12, Panipat).

ii. Sputum diagnostic service was available only in CHCs Madlauda, Barwala, Punhana and UHC Sector 1&4 Hisar.

iii. Both Microbiology (Smear for AFB & KLB; and Grams stain for throat swab, sputum, etc.) investigations were available in CHC Punhana. Grams stain for throat swab, sputum investigation and Smear for AFB & KLB investigation was available in CHC Madlauda and CHC Mangali respectively. In the rest of the CHCs/UHCs, no microbiology investigations were available.

iv. All the serology investigations were available in Naraina, Mangali, Barwala, Firozpur Jhirka, UHC Sector 1&4 Hisar and Punhana, whereas only pregnancy tests were not available in CHC Naultha, Sorkhi and Uklana. Only VDRL test was available in CHC Bapoli. None of the serology investigations were available in UHC Sector-12 Panipat.

v. All five Biochemistry tests were available in CHC Punhana. Out of the five Biochemistry investigations, only kidney function test was not available in CHC Mangali. Further, only one test namely, blood sugar

test was available in eight[49] out of 12 CHCs/UHCs. None of the Biochemistry investigations were available in CHC Naultha and UHC Sector-12 Panipat.

3.6.7 Waiting Time and Turn-around Time

Time taken in receiving samples from the patients for investigations i.e., Waiting Time (WT) and time taken in getting the investigation done and reporting the results to the patients i.e., Turn-Around Time (TAT), reflect the overall efficiency of the diagnostic services, in terms of patient satisfaction.

Audit observed that the doctors prescribed the tests/investigations over the patients' prescription slip. The patients were registered in the pathology/ radiology departments for the procedures based on the recommendations given by the doctors. Further, it was found that none of the test-checked hospitals maintained the records pertaining to TAT and WT. So, in the absence of the requisite record, TAT and WT could not be ascertained.

3.7 Availability of services in Health and Wellness Centres

As per Comprehensive Primary Healthcare guidelines, the availability of diagnostic services, essential medicines, medicines which can be indented by MLHP, clinical materials, tools and equipment, linens, consumables, miscellaneous supplies, furniture & fixtures, lab diagnostic materials and reagents for screening should be ensured to deliver comprehensive primary healthcare services by converting existing SCs and PHCs into HWCs.

The availability (%) of equipment, consumables, etc. in the selected HWCs i.e. (19) has been shown in ***Table 3.37***.

[49] CHC-(i) Madlauda, (ii) Naraina, (iii) Bapoli, (iv) Sorkhi, (v) Uklana, (vi) Barwala, (vii) Firozpur Jhirka and UHC Sec 1&4 Hisar.

Table 3.37: Availability of essential services in the selected HWCs (April-June 2022)

Name of District	Name of HWC	Diagnostic Services (PHC: 22/ SC: 08)	Essential Medicines (91)	Medicines indented by MLHP (43)	Clinical Material, Tools, and Equipment (65)	Linens, Consumables, and misc. items (37)	Furniture and Fixtures (7)	Lab -Diagnostic Materials and Reagents for Screening (19)
Panipat	Naultha (CHC)	68	51	35	95	92	86	95
	Sewah (PHC)	68	64	60	88	86	100	58
	Rair Kalan (PHC)	45	51	28	30	46	71	53
	Atta (PHC)	50	37	26	65	57	86	84
	Pattikalyana (PHC)	68	40	23	74	65	100	68
	Israna (PHC)	41	63	35	36	65	86	47
	Mandi (PHC)	36	60	37	79	84	100	53
	Rajnagar (UPHC)	59	63	23	71	65	100	89
	Hari Singh Colony (UPHC)	64	55	23	18	62	57	58
	Rajeev Colony (UPHC)	64	52	23	18	54	100	68
	HWC Bandh (SC)	62	37	30	50	57	86	47
	HWC Balana (SC)	62	48	26	44	41	86	32
Nuh	Singar (PHC)	50	35	16	64	81	57	68
	Nagina (PHC)	32	43	33	89	84	86	32
	Biwan (PHC)	50	62	35	70	81	100	89
	Jamalgarh (PHC)	55	33	26	85	81	86	79
Hisar	Patel Nagar (UPHC)	36	59	49	45	59	86	95
	Siwani Bolan (SC)	50	35	40	18	14	86	32
	Char Qutub gate Hansi (UPHC)	64	59	23	45	59	86	89

Source: Information furnished by the selected HWCs.
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow depicting moderate and red colour depicting poor performance

It is evident from the above table that five[50] HWCs had less than 50 *per cent* diagnostic services. In case of essential medicines, the availability was ranging between 33 *per cent* and 64 *per cent*. Further, in case of clinical material, tools and equipment, the availability was ranging between 18 *per cent* and 95 *per cent*. The status was satisfactory in case of furniture and fixtures.

HWCs have been conceptualised to provide Comprehensive Primary Healthcare (CPHC), which ensures the highest possible level of health and well-being at all ages, through a set of preventives, promotive, curative and rehabilitative services. Thus, in absence of the above essential services, the aim for which HWCs were created could not be achieved.

NHM replied (January 2023) that a corpus fund of ₹6.81 crore (approx.) was provided to HMSCL to ensure the availability of essential diagnostics at HWCs. Further, recurring funds of ₹30,000 per SC: HWC and ₹50,000 per PHC: HWC were provided for ensuring availability of essential diagnostics.

3.7.1 Database of family and individuals was not created by HWCs

As per operational guidelines for Comprehensive Primary Healthcare (2018) of Ministry of Health & Family Welfare, GoI, one of the objectives of HWCs was

[50] PHC-(i) Rair Kalan, (ii) Israna, (iii) Mandi, (iv) Nagina and (v) UPHC Patel Nagar (Hisar).

to create and maintain the database of all families and individuals. Health Cards and Family Health Folders were to be maintained for all service users fall under jurisdiction of respective HWC. The family health folders were to be kept at the HWC or nearby PHC in physical form and/or digital form. The objective was to ensure that every family should be aware of their entitlement to healthcare through both HWC and the Pradhan Mantri Jan Arogya Yojana or equivalent health schemes of State/Central Government.

However, as of April-June 2022, none of the selected HWCs had created and maintained the database of all families and individuals. Moreover, Health Cards and Family Health Folders were also not maintained. Further, the identification and registration of beneficiaries/ families was not done for PMJAY scheme by any of the selected HWCs.

In none of the selected districts, supervisory visit was made by district, block and PHC level officers/ officials during the year 2020-21 to monitor the progress/ working of HWCs except for district Hisar.

NHM replied (January 2023) that Haryana has 1,284 CHOs and their training regarding maintenance of family database has been completed and every HWC has now started maintaining the database.

3.7.2 Availability of services in AHWCs of test-checked districts

As per AYUSH Health and Wellness Centre's operational guidelines, essential requirements to serve as a AHWC are Infrastructure strengthening, laboratory services, IT networking, creating awareness among the masses through IEC activities and establishment of herbal gardens.

The availability of services in AHWCs of the selected districts have been depicted in ***Table 3.38***.

Table 3.38: Availability of services in AHWCs in selected Districts

Name of District	Selected for upgradation	Infrastructure	Herbal Plants	Equipment	Diagnostic Equipment	IEC
Hisar	35	18	26	31	33	30
Panipat	15	15	15	3	3	15
Nuh	11	5	10	11	11	9

Source: Information furnished by DAOs of the test-checked districts. (Hisar: June-July 2022, Panipat: November 2021 and Nuh: June 2022)
Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow depicting moderate and red colour depicting poor performance

Thus, out of total 61 AHWCs selected for upgradation in the test-checked districts, infrastructure has been upgraded in 38 AHWCs, herbal plants have been planted in 51 AHWCs, equipment and diagnostic equipment have been supplied in 45 and 47 AHWCs respectively and IEC activities were carried out in 54 AHWCs. Diagnostic lab items provided in these AHWCs diagnostic labs could not be utilised due to non-deployment of trained staff i.e., ASHA/ANMs.

This has resulted into unfruitful expenditure. Further, the following discrepancies were also found during physical verification in the selected AHWCs:

i. As per the Operational Guidelines, HWC team is to be equipped with laptop, tablets, and smart phones to serve a range of functions such as population enumeration, record delivery of services, enable quality follow up, etc. However, no laptops etc. were provided to 15 AHWCs (Panipat).

ii. There was no electricity connection in one[51] AHWC and water connection was not available in six[52] AHWCs. R.O. units for drinking water were supplied by HLL lifecare Ltd. but have not been installed in five[53] AHWCs.

iii. The toilet in AHWC, Adyana was being used as a storeroom.

iv. AHWCs Madanheri (Hisar) was not in use as the constructed building of AHWC was situated in a low-lying area and there was water-logging in the constructed building, apart from non-availability of equipment and furniture. Despite showing completion in December 2020, AHWC Madanheri was running in a private building.

v. The building of AHWC, Kalirawan was constructed recently. However, toilets were not in use due to the tiles being broken/displaced and whitewash was not done in the building. Fans were also not found in working condition.

vi. In AHWC Badyan Rangran, doors of toilets were not found functional, and all other doors were also in damaged condition. The boundary wall was also found damaged.

vii. In HWC, Choudriwali, light fittings were not proper. Toilets were available but functional doors and water facilities were not available in the toilets. Basic furniture such as chairs was not available in the AHWC.

The DG, AYUSH replied (January 2023) that request for water connection had been made to the Sarpanch of Gram Panchayat concerned. Request for electricity connection has been made to the electricity department.

3.8 Auxiliary and Support services

Auxiliary and support services which are required to be provided by personnel other than health professionals include services related to ambulance, dietary, laundry,

[51] AHWC Madanher

[52] AHWC- (i) Adyana, (ii) Madanheri , (iii) Badyan Rangran, (iv) Tokas Patan, (v) Chirod and (vi) Nara

[53] AHWC- (i) Kurana, (ii) Badyan Rangran, (iii) Tokas Patan, (iv) Chirod and (v) Nara

waste management including biomedical waste, security, water supply, power supply, patient safety measures etc. These services are important for effective functioning of hospitals. Significant audit findings in the test-checked health institutes for these services have been discussed in the succeeding paragraphs.

3.8.1 Ambulance services

As per IPHS 2012 norms, DHs are required to have three running ambulances with well-equipped Basic Life Support (BLS). It is desirable to have one Advanced Life Support (ALS) ambulance. There should be a dedicated parking space separately for ambulances near emergency. There were a total of 622 ambulances (157 Advance Life Support, 166 Basic Life Support ambulances, 262 Patient Transport ambulances, 31 Kilkari/back to home ambulances and 6 Neonatal Ambulances) as of November 2022 which were managed by decentralised control rooms. The ambulance services were available in all the DHs and SDCHs except SDCH, Devrala and Haily Mandi. The details have been given in ***Appendix 3.4 (i) and (ii).*** Further the availability of ambulance services in the selected DHs/SDCHs/CHCs is given in ***Table 3.39***.

Table 3.39: Availability of ambulance services in selected Health Institutions

Health institutions (No.)	Required No. of ambulances available as per norms	Availability of ambulance services 24X7	Availability of demarcated parking space
DHs (3)	3	3	2
SDCHs (3)	3	3	3
CHCs/ UHCs (12)	NA	10	11

Source: Information furnished by the selected health institutions during January to June 2022

UHC Sector-12 Panipat and CHC, Firozpur Jhirkha did not have 24x7 ambulance service.

3.8.2 Referral Transport (RT) Application for Ambulance Service

Referral Transport Scheme under NHM, also called "Haryana Ambulance Services" is functional in all the districts of Haryana. The scheme is made operational through Referral Transport (RT) Application portal and branded as "Haryana Ambulance Services" with toll free number 108. As per the data made available from RT Application portal made available by NHM Haryana, 483 Ambulances were functional in 2020-21.

Free transportation services are provided in case of emergency if the patient is taken to Government Hospital. All transportation from home/site to a private health facility in case of emergency within the district is charged at ₹ 7 per Km for BLS Ambulances and ₹ 15 per Km for ALS Ambulances/ Neonatal Care Ambulances.

Analysis of data for the period 2016-17 to 2020-21 revealed the following:

(i) Absence of validation controls

Analysis of data related to 23,74,212 field trips made during 2016-17 to 2020-21

revealed that in the cases mentioned in ***Table 3.40,*** invalid date of óAmbulance reached patientô and invalid date of óAmbulance reached facilityô i.e. health institutions were captured.

Table 3.40: Cases of wrong date captured on RT Application

Sr. No.	No. of cases of wrong date captured of 'Ambulance reached patient'	No. of cases of wrong date captured of "Ambulance reached health institute"	Type of wrong date captured
1	37,557	75,772	Null, 30-12-1899, 01-01-1900, year 2047, 2048, 2672

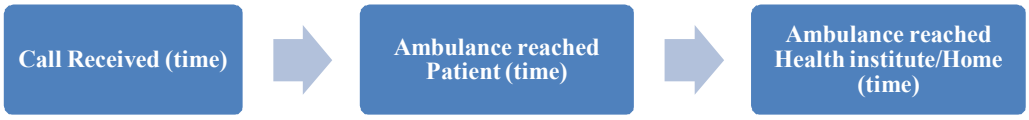
Source: Audit analysis of data from RT Application.

Thus, it is clear from the above discrepancies that validation controls for these fields were absent.

The Director, NHM stated (January 2023) that all the call entries which are not closed, default NULL value is stored for the ñAmbulance reached patientò and ñAmbulance reached facilityò. For this, communication has been issued to the districts to close all the calls which are not closed yet.

(ii) Missing Input Controls

In respect of time stamps captured in the RT application, the sequence of events is as per diagram shown below:



On analysis of data, it was observed that the data was inconsistent in the cases given in ***Table 3.41***.

Table 3.41: Missing Input Controls

Inconsistency	Number of trips
Ambulance reached patient (time) < Call received (time)	898
Ambulance reached health institute (time) < Call received time	936
Ambulance reached health institute (time) < Ambulance reached patient (time)	457
Call Received time = Ambulance Reached Patient (time)	2,89,295*
Call Received time = Ambulance Reached health institute (time)	88,798
Ambulance reached patient (time) = Ambulance Reached health institute	96,605

Source: Audit analysis of data from RT Application.
***Out of 2,89,295 trips 67,977 trips are neither "Referral" nor "Back to home" type (where Ambulance takes the patient from Health facility) where likelihood of ambulance and patient being at the same place is high. Distance covered by ambulance in these trips ranges from 1 to 1,000 Kms.**

It shows that input controls for these three date fields viz. call received, ambulance reached patient and ambulance reached health institute are missing in the system and it does not restrict the user from entering inconsistent data.

NHM replied (January 2023) that all the validations have been re-checked and additional checks have been imposed on the above validations and the same discrepancies would not be repeated for future call entries.

(iii) Response time

Response time is the duration between call received time and the time when the ambulance reached the patient. As per Referral Transport (RT) Scheme (initiated in 2009 under National Health Mission) guidelines, response time should be less than 15 minutes. Response time as calculated by the available data provided by RT application is as depicted in ***Table 3.42***.

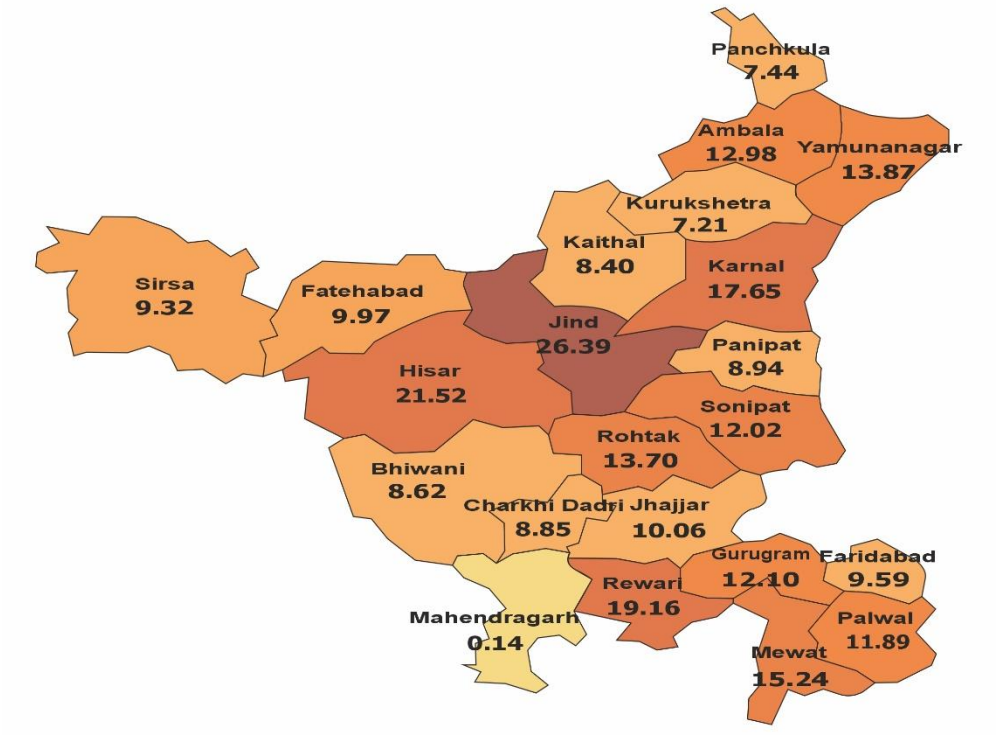
Table 3.42: Response time

Sr. No.	Response time Range (in Minutes)	No. of cases	Percentage of cases
1	0-15	16,27,114	70.79
2	15-30	4,80,128	20.89
3	30-60	1,48,365	6.46
4	60-120	31,990	1.39
5	120-240	3,336	0.15
6	240-360	220	0.01
7	More than 360	6,321	0.28
8	Less than 0 (in negative)	898	0.04
Total		**22,98,372**	

Source: Audit analysis of data from RT Application.

As shown above, in 6,70,360 (29.17 *per cent*) cases the response time was more than 15 minutes whereas in 41,867 cases ambulance reached the patients after one hour of receiving their calls. The average response time across districts is given in ***Chart 3.6***.

Chart 3.6: Average Response time across districts



In Mahendragarh district, ambulances made 75,368 trips with average response time of 0.14 minute (8.4 seconds). In 74,294 cases of Mahendragarh district, response time was 0 as call received time and ambulance reached patient time have been entered as same. Thus, the data was not reliable and as a result the Mission could not monitor response time effectively.

The Director, NHM replied (January 2023) that the response time may vary from district to district. The State average response time is 12.76 minutes. The reply is not tenable as the response time was more than 12.76 minutes in more than 30 *per cent* cases. Further, there were also 898 cases where response time was less than zero. Thus, the data captured was unreliable.

(iv) Huge Variation in Cost of fuel per Km. of Ambulances

The RT application captures kilometres driven by each ambulance and cost of fuel consumed. It was found that the cost of fuel per Km (₹/Km) varied significantly as shown in ***Table 3.43***.

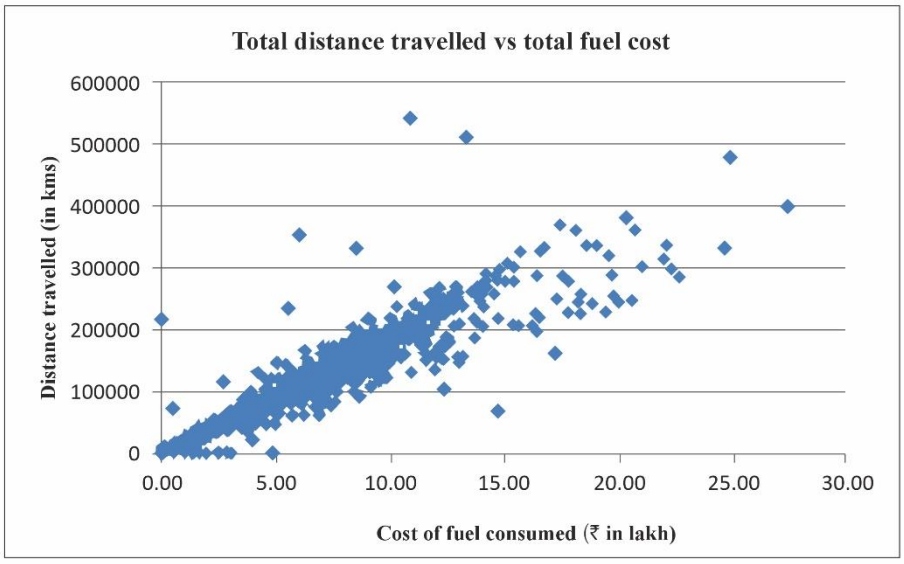
Table 3.43: Variation in cost of fuel per KM

Fuel Cost per Km (₹/km)	Number of ambulances					
	2016-17	2017-18	2018-19	2019-20	2020-21	Total
< 7	409	355	396	444	351	1,955
7-15	25	37	92	72	124	350
15-25	1	1	2	4	2	10
Above 25	6	10	18	7	5	46

Source: Audit analysis of data from RT Application.

The total distance travelled and the corresponding expenditure on fuel in respect of 817 ambulances for the period 2016-17 to 2020-21 has been plotted in **Chart 3.7**.

Chart 3.7: Total distance travelled vs total fuel cost



It is evident from the above chart that the cost of fuel consumed (in ₹) and distance covered by an ambulance shows wide variation.

- In case of 10 ambulances (points touching or near X-axis) distance covered was from 42 km to 209 km for which these ambulances consumed fuel costing ₹ 1,04,907 to ₹ 4,85,371 with cost of fuel more than ₹ 750 per km.
- 15 ambulances (points on Y-axis) consumed no fuel. However, they were shown to have covered a distance from 4 km to 2,18,983 km.
- Further, it was also observed that for 66 ambulances, the cost of fuel per Km increased abruptly from the cost of fuel per km in previous years.

The Director, NHM replied (January 2023) that the application captures the initial meter reading and final meter reading of each call. If in any case, the final meter reading is not updated, then the average cost of fuel may increase. The reply is not tenable as to monitor the mileage, proper entries are to be made in the RT application.

(v) Non-maintenance of record

Helpline (108) i.e. toll-free number does not have the feature of recording the 'call in wait' when the line is busy, and it does not capture the telephone number from which the call was made while the line was busy so that the person could be contacted.

Further, patients to whom ambulances could not be provided, due to any other reason, were not recorded either on the portal or manually. Details of only those cases, where ambulance was provided, were recorded on the RT application. In absence of this feature/data, patients to whom service of ambulances were not provided, could not be ascertained.

NHM replied (January 2023) that the RT application captures the name-wise patient details to whom ambulance service was provided. All validations have been re-checked and the application captures call details of each, and every service provided to the patients during transportation through ambulances. The fact remains the same that the details of patients to whom service of ambulance were not provided have not been maintained by the Mission.

3.8.3 Oxygen services

As per IPHS 2012 norms, Double–Outlet Oxygen Concentrator, one each for the labour room & OT should be available in a DH. Equipment for Eclampsia Room i.e., Oxygen Supply (Central) should be available. Special Newborn Care Unit (SNCU) should have oxygen reservoir & silicone round cushion masks – sizes 0 & 00 (1 set for each bed (essential) + 2). Double Outlet Oxygen Concentrator 1 for every 3 beds (essential) should be available in SNCU.

Oxygen service was available in all the DHs and SDCHs except SDCH, Uchana and Kalayat. The details have been given in ***Appendix 3.4 (i) and (ii).*** The

availability of oxygen services in the selected health institutions is given in ***Table 3.44***.

Table 3.44: Availability of oxygen services in selected DHs/SDCHs

Name of service	District Hospital			SDCH		
	Hisar	Mandikhera	Panipat	Adampur	Narnaund	Samalkha
Whether the requirement of oxygen in the hospital was assessed and infrastructure created accordingly?	Y	N	Y	Y	Y	Y
Whether the standard operating procedure for oxygen was available and was being followed?	Y	N	Y	Y	Y	Y
Whether agreements were executed for the supply of uninterrupted oxygen?	Y	N	N	Y	N	N
Whether Centralised oxygen supply system was installed in the hospital?	Y	Y	Y	Y	Y	Y
If the Centralised oxygen supply system was not installed whether adequacy of required oxygen cylinders was assessed?	Y	N	N	Y	N	N
In all such cases, whether required buffer stock was assessed and maintained all the time?	Y	N	N	Y	Y	Y
Whether records of serviceability and availability of oxygen cylinders were maintained as per guidelines?	N	N	Y	Y	Y	Y
Whether required number of oxygen Supply (Central) are available in Eclampsia Room?	Y	Y	Y	Y	Y	Y
Whether oxygen reservoir is available for each bed at Special New-born Care Unit?	Y	Y	Y	Y	Y	N
Whether the health institution have Double Outlet Oxygen Concentrator at Special New-born Care Unit?	Y	N	N	Y	Y	Y

Source: Information furnished by the test-checked DHs/SDCHs during January to June 2022

Colour Code:		**Yes**		**No**

It was observed that:

i. Requirement of oxygen was assessed, and infrastructure was created accordingly and standard operating procedure for oxygen was available and followed in all the selected hospitals except DH Mandikhera.

ii. Centralised oxygen supply system was installed and required number of Oxygen Supply (Central) was available in Eclampsia Room of all the selected hospitals.

iii. Agreement for the supply of uninterrupted oxygen was not executed by any of the selected hospitals except DH Hisar and SDCH Adampur.

iv. Required buffer stock was not assessed and maintained by DH Mandikhera and DH Panipat.

v. Records of serviceability and availability of oxygen cylinders were not maintained as per guidelines by DH Hisar and DH Mandikhera.

vi. Oxygen reservoir was not available for each bed at Special New-born Care Unit in SDCH Samalkha.

vii. Double Outlet Oxygen Concentrator at Special New-born Care Unit were not available in DH Mandikhera and DH Panipat.

3.8.4 Dietary services

As per IPHS 2012 norms for district and sub district hospitals, the dietary service of a hospital is an important therapeutic tool. Standard D 6 of NHM Assessor's guidebook, provides that "Dietary services are to be available as per service provision and nutritional requirement of the patients". Apart from normal diet, diabetic, semi-solid and liquid diets should be available, and the food should be distributed in a covered container. Quality and quantity of diet should be checked by competent person on regular basis.

Dietary service was available in all DHs except DH, Yamuna Nagar. In case of SDCHs, the dietary service was available in 27 SDCHs, out of 41 SDCHs. The details of availability of dietary services are given in ***Appendix 3.4 (i) and (ii).*** Further, availability/non-availability of dietary services in the test-checked DHs/SDCHs is given in ***Table 3.45***.

Table 3.45: Dietary services in the selected MCHs/DHs/SDCHs

Particulars	DH Panipat	SDCH Samalkha	DH Hisar	SDCH Adampur	SDCH Narnaund	DH Mandikhera	MCH Nalhar	MCH Agroha
Availability of dietary service	A	A	A	A	A	A	A	A
If available, in-house/ outsourced	Outsourced	Outsourced	Outsourced	Outsourced	Outsourced	Outsourced	Outsourced	In-house
Availability of Kitchen	NA	NA	A	A	A	NA	NA	A
Availability of standard procedures for preparation, handling, storage and distribution of clean, hygienic and nutritious diet to the indoor patients as per their caloric requirement	NA	NA	A	NA	A	NA	A	A
Availability of policy and procedure for regular quality checking of raw material, kitchen sanitation, cooked food etc.	NA	NA	NA	NA	NA	NA	NA	NA
Availability of Quality testing of diet supplied in health facilities	NA	NA	NA	NA	NA	NA	NA	NA
Evaluation of dietary services in health facilities	NA	NA	NA	NA	A	NA	A	NA
Dietetic research on menu planning, preserving nutritional values, storage of food items, modern methods of cooking, etc. was conducted to improve the dietary services in the hospitals	NA	NA	NA	NA	NA	NA	NA	NA

Source: Information furnished by the test-checked/DHs/SDCHs during January to June 2022
Colour code: Green colour depicts available (A=Available), pink colour depicts non-availibility (NA= Not Available)

It is evident from the above table that:

i. Dietary services were available in all the selected health institutions.

ii. Kitchen for dietary services was available in MCH Agroha, DH Hisar, and two SDCHs, Narnaund and Adampur.

iii. Policy and procedure for regular quality checking of raw material, kitchen sanitation, cooked food etc. was not available in any of the selected health institutions.

3.8.5 Blood Bank

As per IPHS 2012 norms, blood bank shall be in close proximity to the pathology department and at an accessible distance to the operation theatre department, intensive care units and emergency and accident department. Blood bank should follow all existing guidelines and fulfil all requirements as per the

various Acts pertaining to setting up of the Blood Bank. Separate reporting room for doctors should be there.

The blood bank service was available in all DHs except DH, Panipat. Out of 41 SDCHs, the blood bank was available only in 12 SDCHs. The details of availability of blood bank have been given in ***Appendix 3.4 (i) and (ii)***. Further, the availability of blood bank facilities in the test-checked DHs is given in ***Table 3.46***.

Table 3.46: Availability of Blood Bank facilities in selected DHs

Sr. No.	Name of service	DH, Hisar	DH, Mandikhera
1	Blood bank available in hospital.	Yes	Yes
2	License for Blood bank or authorisation for Blood storage facility taken.	Yes	Not renewed since December 2017
3	Blood bank is in close proximity to pathology department and at an accessible distance to operation theatre department, intensive care units and emergency and accident department or not.	Yes	Yes
4	Availability of Separate Reporting Room for doctors.	Yes	Yes
5	Blood bank validate the test results from external labs on regular basis.	Yes	Yes
6	Schedule of charges displayed at the entrance of department.	Yes	Yes
7	Availability of blood group displayed prominently in the blood bank.	Yes	Yes
8	Blood bank adhering to NACO guidelines and drug and cosmetic act strictly.	Yes	Yes
9	Blood bank practicing first in first out policy for reduction of waste.	Yes	Yes
10	Measures taken to prevent expiry of blood or blood components.	Yes	Yes
11	Refrigerator for storing blood available and record of temperature maintained in different storage units checked regularly	Yes	Yes
12	Availability of mechanism to provide blood if certain blood group is not available at the blood bank.	No	Yes
13	Availability of records of the donor and receiver maintained in the blood bank.	Yes	Yes

Source: Information furnished by the test-checked DHs during January to June 2022
Note: Colour code- green indicates: availability, red indicates: non-availability

Blood bank facility was available at DH Hisar and DH Mandikhera. Both these hospitals had acquired license for blood bank. But the license was not renewed by the DH, Mandikhera since December 2017. Further, the blood banks, in these two test-checked hospitals, were in close proximity to the pathology department, had separate reporting room for doctors, were validating the test results from external labs on a regular basis, had refrigerator for storing blood and record of temperature maintained in different storage units was checked regularly and records of the donor and receiver were maintained.

Government of Haryana had announced to establish a blood bank in November 2018 for DH Panipat, Accordingly, the Medical Superintendent, Office of Civil Surgeon, Panipat proposed that the blood bank running under the control of Red Cross (which was approximately 800 metre away from DH) may be shifted to the DH, Panipat. Principal Medical Officer (PMO), Civil Hospital Panipat intimated (January 2023) that the infrastructure was complete, and all the equipment had been installed and were functional. An MD Pathology and pathologist had also been deputed. The facility had also applied for license of blood bank. But the fact remains that even after a period of more than four years, the blood bank could not be made operational in DH, Panipat.

3.8.6 Laundry services

As per IPHS 2012 norms hospital laundry should be provided with necessary facilities for segregated collection, drying, pressing and storage of soiled and cleaned linens. The service may be outsourced.

As per Kayakalp guidelines[54], the provision of clean linen is a fundamental requirement for patient care. Incorrect procedures for handling or processing of hospital linen[55] may lead to infection risk both to staff and patients who subsequently use it. Kayakalp guidelines also recommend to have six sets of linen[56]. Further, there should be a system to check the cleanliness and quantity of the linen received from laundry.

Laundry service was available in all DHs and in 37 out of 41 SDCHs. The details of availability of laundry service are given in ***Appendix 3.4 (i) and (ii)***. Further, availability of laundry service in the test-checked health institutions is given in ***Table 3.47***.

Table 3.47: Laundry services in the selected DHs/SDCHs/CHCs

Particulars	DH Hisar	DH Mandikhera	DH Panipat	SDCH Adampur	SDCH Narnaund	SDCH Samalkha	Hisar CHCs (5)	Panipat CHCs (5)	Nuh CHCs (2)
Availability of required linen sets	A	A	A	A	A	A	A 3	A 4	2
Availability of system of changing the patient/OT linen at the prescribed intervals to maintain hygiene	A	A	A	A	A	A	A 4	5	A 1
Availability of system to check the quality of cleanliness of the linen received from laundry	A	NA	A	A	A	NA	A 4	A 4	A 1
Availability of date wise and patient wise records against each entry of linen issued from linen stock	A	NA	A	A	A	A	A 4	A 2	A 1
Availability of system for periodic physical verification of linen inventory	A	NA	A	A	A	A	A 5	A 4	A 1
Follow up of procedure for sluicing of soiled and infected linen	A	A	A	A	A	A	A 4	A 3	NA 2
Maintenance of norms for washing and drying of the linens	A	NA	A	A	A	A	5	A 4	A 1

Source: Information furnished by the test-checked DHs/SDCHs/CHCs during January to June 2022

A=Available, NA= Not Available

It was observed that -

- Required linen sets were not available in CHC Barwala, UHC Sector-1&4 Hisar and Sector 12, Panipat.
- System of changing the patient/OT linen at the prescribed intervals to maintain hygiene was not maintained by CHC Firozpur Jhirka and UHC Sector-1&4 Hisar.

[54] Issued by Ministry of Health and Family Welfare, Government of India on 15th May, 2015

[55] The term 'hospital linen' includes all textiles used in the hospital including mattresses, pillow covers, blankets, bed sheets, towels, screens, curtains, doctors' coats, theatre clothes and table clothes.

[56] (i) One already in use (on bed), (ii) One ready to use (in sub store), (iii) One in transit-route to laundry or to the ward, (iv) One in washing cycle in laundry and (v) Two in stock (in central store)

- System to check the quality of cleanliness of the linen received from laundry was not available in DH Mandikhera, SDCH Samalkha, CHC Sorkhi, Naultha and Firozpur Jhirka.
- Date-wise and patient-wise record against each entry of linen issued from linen stock was not maintained in DH Mandikhera, CHC Sorkhi, Bapoli, Madlauda, Naultha and Firozpur Jhirka.
- System for periodic physical verification of linen inventory was not available in DH Mandikhera, Naultha and Firozpur Jhirka.
- Follow-up procedure for sluicing of soiled and infected linen was not done in CHC Sorkhi, Nautlha, Naraina, Punahna and Firozpur Jhirka.
- Norms for washing and drying of linen were not followed in DH Mandikhera, CHC Naraina and Firozpur Jhirka.
- During joint inspection of SDCH Samalkha, it was observed that the washing of linen was being carried out in the toilet as shown in the picture.

Laundry activities carried out in toilet at SDCH Samalkha (06 March 2022)

Further in case of Medical Colleges, MCH, Agroha, there was shortage of different types of linen such as bedspreads, patna towel, pillows, pillow covers, hospital worker OT coats, macintosh sheet, etc.

In MCH, Nalhar, there was shortage of different types of linen such as patna towel, doctor's overcoat, patient's house coat (for female), patients pyjama (for male) shirt, over shoes pairs, pillows, pillow covers, mattress (foam adult) and macintosh sheet. Bedspreads, tablecloths, paediatrics mattress, perineal sheets for OT, leggings, mortuary sheet and mats (nylon) were not available.

Thus, in both the MCHs, linen was not available as per the guidelines. Director, MCH, Agroha replied that mackintosh is used in place of bedspreads. OT gown, perennial sheets for OT and abdominal sheets for OT were stitched by their tailor as per load/requirement. However, no such record regarding availability of stitched OT gown, perennial sheets for OT and abdominal sheets for OT in

central store (during 2016-21) was made available to Audit for verification. As per record submitted by the MCH, only unstitched green cloth was issued. MCH, Nalhar stated that demand for requirement of linen had been placed with HMSCL.

3.8.7 Bio-medical waste management

As per rule 4 (r) of Bio-Medical Waste Management Rules, 2016, it shall be the duty of every occupier[57] to establish a system to review and monitor the activities related to bio-medical waste management. The status of compliance with the Rules have been given in ***Appendix 3.4 (i) and (ii)***. Further compliance with the Rules was reviewed in the test-checked health institutions as detailed in ***Table 3.48***.

Table 3.48: Bio Medical Waste Management services in selected Health Institutions

Name of Service	Panipat			Nuh			Hisar		
	No of hospitals (2)	No of CHCs/ UHCs (5)	No of PHCs/ UPHC (9)	No of hospitals (1)	No of CHCs (2)	No of PHCs (4)	No of hospitals (3)	No. of CHCs/ UHC (5)	PHCs/ UPHC (11)
Authorisation for generating bio-medical waste was obtained by the hospital from State Environment Protection and Pollution Control Board	2	5	8	1	1	2	3	4	8
Availability of Waste Management Committee under the Chairmanship of head of hospital	2	5	4	1	1	2	2	4	4
Waste Management Committee met regularly to review the performance of the hospital as regards waste disposal	2	5	4	1	1	2	2	4	4
Availability of proper system for disposal of bio-medical liquid waste	2	4	4	1	2	2	2	4	5
Plastics bags which contained bio-medical waste had been labelled as per guidelines i.e., symbols for biohazard and cytotoxic	2	5	9	1	2	4	3	5	11
The hospital and healthcare authorities had ensured that personal protective equipment was provided to waste handlers	2	4	8	1	2	3	3	5	10
Availability of barcode system, for bags or containers containing biomedical waste that were to be sent out of the premises, was ensured by the hospital	1	5	9	1	2	2	3	4	10
Periodic medical check-up and immunisation of staff were carried out.	2	4	8	1	2	4	3	5	8

Source: Information furnished by the test-checked Health Institutions during January to June 2022

Note: Colour grading has been done on colour scale with green colour depicting satisfactory performance; yellow-moderate and red colour depicting poor performance

[57] ñoccupier" means a person having administrative control over the institution and the premises generating bio- medical waste, which includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory, blood bank, healthcare facility and clinical establishment, irrespective of their system of medicine and by whatever name they are called.

It is evident from the above table that-

i. Authorisation for generating bio-medical waste was obtained by all the selected hospitals, CHCs/UHCs and PHCs/ UPHCs except CHC Sorkhi, Firozpur Jhirka and six[58] PHCs.

ii. Waste management committee was available and met regularly to review the performance of the hospital as regards waste disposal in all the selected hospitals, CHCs/UHCs and PHCs/ UPHCs except SDCH Narnaund, CHC Sorkhi, Punhana and 14[59] PHCs/UPHCs.

iii. Proper system for disposal of bio-medical liquid waste was available in all the selected hospitals, CHCs/UHCs and PHCs/ UPHCs except SDCH Narnaund, CHC Madlauda, UHC Sector 1&4 Hisar and 13[60] PHCs/UPHCs.

iv. Plastics bags which contained bio-medical waste had been labelled as per guidelines i.e., symbols for bio-hazard and cytotoxic by all the selected health institutions.

v. The hospital and healthcare authorities had ensured that personal protective equipment was provided to waste handlers in all the selected health institutions except CHC Madlauda, PHC Daulatpur, Nagina and Pattikalyana.

vi. Barcode system for bags or containers containing biomedical waste was ensured by all the selected health institutions except DH Panipat, UHC Sector 1&4 Hisar, PHC Daultpur, Biwan and Nagina.

vii. Periodic medical check-up and immunisation of staff was carried out by all the selected health institutions except CHC Naraina and PHC Pattikalyana (Panipat), Agroha (Hisar), UPHC Char Qutub Gate and Patel Nagar.

3.8.8 Effluent Treatment Plant (ETP) for treatment and disposal of liquid waste in hospital

Bio-Medical Waste Management Rules, 2016 prescribe that every institution shall ensure segregation of liquid chemical waste at source and ensure pre-treatment or neutralisation prior to mixing with other effluents generated from healthcare institutions, ensure treatment, disposal of liquid waste in accordance with the Water (Prevention and Control of Pollution) Act, 1974 and effluent treatment plant for liquid waste. Sludge from effluent treatment plant shall be given to common bio-medical waste treatment facility for incineration or to hazardous waste treatment, storage and disposal facility for disposal.

[58] PHC Ladwa, Puthi Mangal Khan, Puthi Samain, Biwan, Singar and Atta.

[59] PHC, Dhansu, Hasangarh, Ladwa, Puthi Mangal Khan, Puthi Samain, Biwan, Singar, Atta, Pattikalyana, Israna, Mandi, UPHC Hari Singh Colony, Char Qutab Gate and Patel Nagar.

[60] PHC Agroha, Dhansu, Daultpur, Talwandi Rukka, Biwan, Nagina, Siwah, Rair Kalan, Atta, Israna, UPHC Hari Singh Colony, Char Qutab Gate and Patel Nagar.

Effluent treatment plant (ETP) for disposal of liquid waste was not available in any of the selected MCHs/DHs/SDCHs except MCH, Agroha.

3.8.9 Mortuary Services

As per IPHS 2012 norms, Mortuary provides facilities for keeping of dead bodies and conducting autopsy. The NHM Assessor's guidebook also provide standards for mortuary services. Mortuary services were available in all DHs and in 17 out of 41 SDCHs. The details have been given in ***Appendix 3.4 (i) and (ii)***. Compliance of NHM Assessor's guidebook was assessed in respect of mortuary services in the three test-checked DHs.

The availability of mortuary services in DH Panipat, Hisar and Mandikhera is given in ***Table 3.49***.

Table 3.49: Mortuary Services in the selected DHs

Particular	DH Panipat	DH Hisar	DH Mandikhera
Availability of mortuary facility in the hospital 24x7	A	A	A
Stainless steel autopsy table with sink, a sink with running water for specimen washing and cleaning and cupboard for keeping instruments in post-mortem room	NA (Request sent to HMSCL for supply)	A	NA
Availability of separate room for body storage provided with at least 2 deep freezers for preserving the body	A	NA (1 Freezer working)	NA
Availability of facility for pathological postmortem	A	NA	NA
System to categorise the dead bodies before preservation	A	NA	NA
System to provide identification tag/wrist band for each stored dead body	A	A	NA
System for storage of unclaimed body for fixed duration	A	A	NA
Facility of high-level disinfection by boiling or chemical treatment was done as per protocol at mortuary	A	A	NA

Source: Information furnished by the test-checked DHs during January to June 2022
Colour code: Green colour depicts available (A=Available), pink colour depicts non-availability (NA= Not Available)

It was observed that:

i. All the above selected district hospitals had 24x7 mortuary facility but system to provide identification tag/wrist band for each stored dead body and facility for high level disinfection by boiling or chemical treatment was not available in DH Mandikhera.

ii. Stainless steel autopsy table with sink was available only in DH Hisar.

iii. Facility of separate room for body storage provided with at least two deep freezers for preserving the body and facility for pathological postmortem was available only in DH Panipat and one freezer was available in DH, Hisar.

iv. Mortuary van was not available and death certificate did not accompany dead bodies sent to the mortuary in either of the selected DHs.

v. System to categorise the dead bodies before preservation was not available in DH Hisar and DH Mandikhera.

3.8.10 Water supply

As per Kayakalp guidelines, availability of adequate water, sanitation and hygiene services are essential components for providing basic healthcare services in the healthcare institutions. The water requirement in the hospital with bed strength not exceeding 100 is 340 litres/bed/day and for hospitals having more than 100 beds the requirement escalates to around 400 litres/bed/ day. Moreover, physical testing for hardness, total dissolved solids (TDS) and other parameters (at least once in a year on samples obtained directly from the source e.g., well water and bore water) and microbiological testing (every three months and additionally when the source is changed/major repairs are done) are to be conducted.

All overhead tanks need to be manually cleaned at least at an interval of six months. The date of water tank cleaning needs to be written on the water tank for ready visibility and easy remembrance for next schedule of cleaning.

Adequacy of water supply at the test-checked DHs/SDCHs/CHCs is given in ***Table 3.50***.

Table 3.50: Water Supply in the selected Health Institutions

Name of District	Name of health institute	Assessment of water requirement per bed per day after excluding requirements for firefighting, Horticulture and steam	Biological/ Physical testing of water samples and maintenance of record	Maintenance of record related to water consumption, purification, complaints on water supply disruption/ downtime	Regularly Cleaning of Overhead water tank at prescribed interval	AMC of water purifiers
Hisar	DH, Hisar	Yes	Yes	Yes	Yes	No
	SDCH, Adampur	No	Yes	Yes	Yes	Yes
	SDCH, Narnaund	Yes	No	Yes	Yes	Yes
	CHC, Mangali	Yes	No	No	Yes	Yes
	CHC, Sorkhi	No	No	No	Yes	No
	CHC, Uklana	Yes	No	No	Yes	No
	CHC, Barwala	Yes	Yes	No	Yes	Yes
	UHC, Hisar 1 &4	No	No	Yes	Yes	No
Panipat	DH Panipat	Yes	Yes	Yes	Yes	Yes
	SDCH Samalkha	No	No	No	No	No
	CHC, Naultha	Yes	Yes	Yes	Yes	Yes
	CHC, Bapoli	No	Yes	No	Yes	No
	CHC, Madlauda	Yes	Yes	Yes	Yes	Yes
	CHC, Naraina	No	No	No	Yes	No
	UHC, Sec 12	Yes	Yes	No	Yes	Yes
Nuh	DH, Mandikhera	No	No	No	No	No
	CHC, Firojpur Jhirka	No	No	No	Yes	No
	CHC, Punhana	No	No	No	Yes	No
PHCs/UPHCs (24)		**Yes (7)**	**Yes (10)**	**Yes (5)**	**Yes (24)**	**Yes (7)**

Source: Information furnished by the test-checked Health institutions during January to June 2022

Colour code: Green colour depicts availability (Yes) and red colour depicts not availability (NA)

It was observed that:

i. Out of 42 selected health institutions**,** only 16[61] health institutions made the assessment of water requirement per bed per day.

ii. 18[62] out of 42 selected health institutions carried out biological testing/ physical testing of water samples.

iii. Records related to water consumption, purification and complaints on water supply disruption was maintained in 12[63] health institutions out of 42 selected health institutions of three districts. So, in the absence of physical testing/biological testing of water samples and non-maintenance of above records, the quality of water supply could not be assessed.

iv. Water tanks were regularly cleaned by all the selected health institutions except DH Mandikhera and SDCH Samalkha.

v. Out of the selected health institutions**,** annual maintenance contract of water purifier was carried out in 15[64] health institutions**.**

3.8.11 Power supply

As per IPHS 2012 norms, 24-hour uninterrupted power supply should be available in all health institutions. Back-up generator facility should also be available**.** Generator of 75 KV in Civil Hospital, 40/50 KV in sub division/sub district hospital and generator of 5 KV in CHCs should be maintained. Further, AMC should be taken for all equipment which needs special care. Preventive maintenance should be done to avoid break down and reduce down time of all essential & other equipment.

Availability of power supply in the test-checked health institutions is given in ***Table 3.51***.

[61] (i) DH Hisar, (ii) SDCH Narnaund, CHC-(iii) Sorkhi, (iv) Barwala, (v) Naultha, (vi) Madlauda, (vii) UHC Sec-12 Panipat, PHC-(viii) Dhansu, (ix) Hasangarh, (x) Daulatpur, (xi) Ladwa, (xii) Kaimri, (xiii) Puthi Mangal Khan, (xiv) Puthi Samain, (xv) Siwah and (xvi) Mandi.

[62] DH-(i) Hisar, (ii) Panipat, (iii) SDCH Adampur, CHC-(iv) Barwala, (v) Naultha, (vi) Madlauda, (vii) Bapoli, (viii) UHC Sec-12 Panipat, PHC-(ix) Ladwa, (x) Kaimri, (xi) Puthi Mangal Khan, (xii) Puthi Samain, (xiii) Mandi, (xiv) Israna, (xv) Siwah, (xvi) Rair Kalan, UPHC-(xvii) Rajeev Colony and (xviii) Hari Singh Colony.

[63] (i) DH Panipat, (ii) DH Hisar, (iii) SDCH Adampur,(iv) SDCH Narnaund, (v) UHC (Sec 1&4) Hisar, (vi) CHC Naultha, (vii) CHC Madlauda, (viii) Puthi Samain, (ix) PHC Siwah, (x) Rair Kalan, (xi) Raj Nagar and (xii) Hari Singh Colony

[64] (i) DH Panipat, (ii) SDCH Adampur,(iii) SDCH Narnaund, (iv) CHCs Mangali, (v) Barwala, (vi) Naultha, (vii) Madlauda, (viii) UHC (Sec-12) Panipat, (ix) PHCs Agroha, (x) Kaimiri, (xi) Puthi Samain, (xii) Puthi Mangal Khan, (xiii) Talwandi Rukka, (xiv) Siwah and (xiv) UPHC Raj Nagar

Table 3.51: Power supply in the selected Health Institutions

Name of District	Name of health facility	Availability of 24-hour uninterrupted stabilised power supply	Installation of Generator back-up and inverters	AMC of backup facility like generators and inverters
Hisar	DH Hisar	Available	Available	Available
	SDCH Adampur	Available	Available	Not Available
	SDCH Narnaund	Available	Not Available	Not Available
Panipat	DH Panipat	Available	Available	Not Available
	SDCH Samalkha	Available	Available	Not Available
Nuh	DH Mandikhera	Available	Available	Available
Hisar	CHC/UHCs (5)	5	Available 2	Available 2
	PHC/ UPHCs (11)	11	Available 4	Available 4
Panipat	CHCs/ UHCs (5)	5	Available 1	0
	PHCs/ UPHCs (9)	9	Available 1	Available 1
Nuh	CHCs (2)	2	Available 1	0
	PHCs (4)	4	0	0

Source: Information furnished by the selected Health Institutions during January to June 2022

Colour code: Green code depicts available, red colour depicts not available and yellow colour depicts available in some of the health institutions.

It was observed that 24-hour uninterrupted stabilised power supply with backup of generator was available in all the selected DHs but AMC of backup facility like generators and inverters was not available in any of the selected hospitals except DH Hisar and DH Mandikhera.

Uninterrupted stabilised power supply was available in all the test-checked CHCs/PHCs/UHCs/UPHCs but backup of generator or inverter was found installed only in four CHCs/UHCs (CHC Uklana, Sorkhi, Naultha, Punhana) and five PHCs/UPHCs (PHC Agroha, Dhansu, Israna UPHC Char Qutub Gate, and Patel Nagar) out of the selected 12 CHCs/UHCs and 24 PHCs/UPHCs, whereas AMC of back-up facility like generators and inverters was available only in two CHCs (Uklana, Sorkhi) and Five PHCs. (Agroha, Dhansu, Israna, UPHC Char Qutab Gate Hansi, and Patel Nagar).

3.8.12 Patient registration, grievance/ compliant redressal

As per IPHS 2012 norms, online registration should be available in district hospitals. Patient Satisfaction Survey was to be conducted quarterly. Each District hospital should display prominently a Citizenôs Charter indicating the services available, user fee charges, if any, and a grievance redressal system. Citizenôs Charter should be in local language. There should be provision of complaints/ suggestion box along with mechanism to redress the complaints.

Further, NHM Assessorôs Guidelines provide that adequate registration counters should be available as per patient load. Unique identification number should be given to each patient during the process of registration.

Availability of patient registration, grievance/ complaint redressal facilities in the test-checked health institutions is given in ***Table 3.52***.

Table 3.52: Availability of services related to patient registration, grievance/complaint redressal

Particulars	DHs (3)	SDCHs (3)	CHCs/UHCs (12)	PHCs/UPHCs (24)
Availability of adequate registration counters	2	3	9	11
Availability of Online Registration System	0	0	0	0
Patient Satisfaction Survey (OPD)	2	2	4	12
Legibility of prescription slips	3	2	12	23
Availability of Citizen charter at OPD	2	3	9	18
Providing unique ID at the time of registration	3	2	6	12
Availability of Grievance Redressal Cell or Complaint cell to register patients' grievances regarding quality of supplied food to them	2	3	8	9
Availability of mechanism for receipt of complaints and whether suggestion boxes had been placed at appropriate places	2	3	9	14
Formation of Grievance Redressal Committee and redressal of complaints in a timely manner	2	3	7	NA

Source: Information furnished by the test-checked Health Institutions during January to June 2022

Colour code: Green code depicts available in most/all, red colour depicts available in least and yellow colour depicts available in moderate number of the health institutions.

NA= Not applicable

It was observed that:

- Adequate registration counters were not available in DH Hisar, CHC Barwala, UPHC Sector 1-4, Bapoli and 13[65] PHCs/UPHCs.
- Online registration system was not available in any of the test-checked health institutions, whereas legible prescription slips were given to patients in all these health institutions except in SDCH Samalkha, PHC Atta.
- Patient Satisfaction Survey of OPD was not conducted in DH Mandikhera, SDCH Narnaund and any of the selected CHCs/UHCs except CHCs Barwala, Ukalana, Naultha and UHC Sector 12 Panipat. Further, the survey was conducted by 12[66] PHCs/UPHCs out of 24 selected PHCs/UPHCs.
- Unique IDs at the time of registration were provided in all the test-checked hospitals except SDCH Adampur. Out of the selected CHCs/ PHCs, six[67] CHCs and 12[68] PHCs/UPHCs provided unique IDs at the time of registration.

[65] PHC-(i) Daulatpur, (ii) Ladwa, (iii) Atta, (iv) Israna, (v) Rair Kalan, (vi) Patti Kalyana, (vii) Jamalgarh, (viii) Biwan, (ix) Nagina, UPHC-(x) Patel Nagar, (xi) Char Qutub Gate Hansi, (xii) Hari Singh Colony and (xiii) Rajeev Colony

[66] PHC-(i) Kamari, (ii) Talwandi Rukka, (iii) Puthi Mangal Khan, (iv) Puthi Samain, (v) Hassagarh, (vi) Ladwa, (vii) Agroha, (viii) Dhansu, (ix) Mandi, (x) Siwah, UPHC (xi) Raj Nagar and (xii) Rajeev Colony.

[67] CHC-(i) Barwala, (ii) Mangali, (iii) Sorkhi, (iv) Uklana, (v) Madlauda and (vi) Naultha.

[68] PHC-(i) Kaimri, (ii) Ladwa, (iii) Agroha, (iv) Dhansu, (v) Talwandi Rukka, (vi) Puthi Mangal Khan, (vii) Puthi Samain, (viii) Hasangarh, (ix) Rair Kalan, (x) Siwah, (xi) Jamalgarh and (xii) UPHC Raj Nagar.

- Grievance redressal cell or complaint cell to register complaints related to quality of supplied food to the patients was available in eight[69] CHCs, nine[70] PHCs and all the test-checked hospitals except in DH Mandikhera and SDCH Narnaund.
- Mechanism of receipt of complaint and suggestion boxes were placed at appropriate place in 14[71] PHCs/UPHCs and all the test-checked hospitals and CHCs except in DH Mandikhera, CHCs Barwala, Naultha and Firozpur Jhirka.
- Grievance Redressal Committee was formed in all the test-checked hospitals and CHCs except in DH Mandikhera, CHCs Sorkhi, Uklana, Barwala, Firozpur Jhirka and UPHC Sector 1&4.

Further, the following shortcomings were observed in patient registration system/ complaint redressal facilities of the two test-checked colleges:

- No unique ID system was available for OPD patients in MCH, Agroha
- Monthly patient satisfaction survey for in-patient and out-patient had not been conducted to improve healthcare services in both the institutions**.**
- Citizen's Charter including patient rights and responsibilities was not displayed at OPD and entrance in both the institutions.
- Online Registration System was not available in both the MCHs.
- Grievance Redressal Committee was formed from the year 2019-2020 but no register for grievance was maintained by the hospital during the year 2016-2019 in MCH, Agroha whereas no committee was formed and no register for complaints/grievances had been maintained during 2016–21 in MCH, Nalhar, Nuh.
- No enquiry official was available at the reception counter in OPD and physical survey and outpatient survey revealed that no proper drinking water facility was available in outpatient registration area in MCH, Nalhar.

3.8.13 Infection Control Management

As per Kayakalp guidelines, hospitals need to designate personnel from the Infection Control Committee to conduct the activities of monitoring of cleanliness to ensure proper cleanliness and supervision of housekeeping activities. Health institutions need to have effective pest control plans for ensuring a pest and animal free environment.

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69 CHC-(i) Barwala, (ii) Sorkhi, (iii) Mangali, (iv) Madlauda, (v) Naultha, (vi) Firozpur Jhirka, (vii) Punhana and (viii) UHC Sector-12

70 PHC-(i) Agroha, (ii) Dhansu, (iii) Kaimri, (iv) Talwandi Rukka, (v) Puthi Mangal Khan, (vi) Puthi Samain, (vii) Siwah, (viii) Jamalgarh and (ix) UPHC Raj Nagar.

71 PHC-(i) Agroha, (ii) Hasangarh, (iii) Daulatpur, (iv) Ladwa, (v) Kaimri, (vi) Talwandi Rukka, (vii) Puthi Mangal Khan, (viii) Dhansu, (ix) Siwah, (x) Pattikalyana, (xi) Mandi, (xii) Jamalgarh, UPHC-(xiii) Raj Nagar and (xiv) Hari Singh Colony.

Availability of infection control services in the test-checked hospitals is given in ***Table 3.53***.

Table 3.53: Availability of services related to Infection control in test-checked Health Institutions

Particulars	Medical Colleges		District Panipat		District Hisar			Nuh District
	Agroha	Nalhar	DH Panipat	SDCH Samalkha	DH, Hisar	SDCH Adampur	SDCH Narnaund	DH Mandikhera
Checklist for Hygiene and infection control	Y	Y	Y	Y	Y	Y	Y	Y
Hospital Infection Control Committee (HICC)	Y	Y	Y	Y	Y	Y	N	Y
Conducting meeting of HICC	Y	N	Y	Y	Y	Y	N	Y
Pest control	Y	N	Y	Y	Y	Y	N	N
Rodent control	N	N	N	N	Y	N	N	N
Availability of anti-termite treatment	Y	N	N	N	Y	Y	N	N
Installation of cattle trap	N	N	Y	Y	Y	Y	N	N
Procedures for disinfection and sterilisation								
i. Boiling	Y	N	N	N	Y	N	Y	Y
ii. High level disinfection	Y	Y	N	N	Y	N	N	N
iii. Chemical sterilisation	Y	Y	Y	Y	Y	N	Y	Y
iv. Autoclaving	Y	Y	Y	Y	Y	Y	Y	Y

Source: Information furnished by the test-checked Health Institutions during January to June 2022

Colour code: Green colour depicts available (Y=Available), pink colour depicts non-availability (N= Not Available)

It was observed that*:*

- All the selected MCHs/DHs/SDCHs had checklists for hygiene and infection control. All the selected MCHs/DHs/SDCHs had hospital infection control committee (HICC) except in SDCH Narnaund and meetings were conducted by HICC in all the selected health institutions except in SDCH Narnaund and MCH Nalhar (Nuh).
- Pest control was not done by MCH Nalhar, SDCH Narnaund and DH Mandikhera. Moreover, rodent control was being done only by DH Hisar.
- Anti-termite treatment was available in MCH Agroha, DH Hisar and SDCH Adampur and cattle trap was not installed in four[72] MCHs/DHs/SDCHs.
- Out of the four[73] procedures for disinfection and sterilisation, chemical sterilisation and autoclaving procedures were available in all the test-checked MCHs/DHs/SDCHs except chemical sterilisation procedure in SDCH Adampur.
- Boiling procedure was not available in any of the test-checked MCHs/DHs/SDCHs except MCH Agroha, DH Hisar, DH Mandikhera and SDCH Narnaund. High level Disinfection (HLD) procedure was available in both the MCHs and DH Hisar.

[72] (i) MCH Agroha, (ii) MCH Nalhar, (iii) DH Mandikhera and (iv) SDCH Narnaund

[73] (i) Boiling, (ii) High level disinfection, (iii) Chemical sterilisation and (iv) Autoclaving

3.8.14 Patient safety

(i) Availability of patient safety services in test-checked health institutions

IPHS 2012 norms for DHs provide that Hospital Management Policy should emphasise on hospital buildings with earthquake proof, flood proof and fire protection features.

As per paragraph 4.5 of National Disaster Management (NDM) Guidelines (Hospital Safety), 2016 each hospital should have safety and security management protocols to describe the processes designated to eliminate or reduce hazards in the physical environment and to manage staff activities, to reduce the risk of injuries to individuals and loss of property.

Surprise mock drills should be conducted at regular intervals. After each drill, the efficacy of the Disaster Plan and the competence of the staff should be evaluated, followed by necessary changes in the Plan and training of the staff.

Availability of patient safety services in the test-checked health institutions is given in ***Table 3.54***.

Table 3.54: Availability of services related to patient safety

Name of service	Hospitals						CHC/UHC											
	Hisar	Adampur	Narnaund	Mandikhera	Panipat	Samalkha	Barwala	Mangali	Sorkhi	Uklana	Sector 1-4 Hisar	Bapoli	Madlauda	Naraina	Naultha	Sector-12 Panipat	Firozpur Jhirka	Punhana
SOP is being followed in patient safety	Y	Y	Y	Y	Y	Y	All CHCs should have a Disaster Management Plan in line with the District Disaster management Plan.											
Disaster management plan formulated for patient safety	Y	Y	Y	N	Y	Y												
Formation disaster management committee	Y	Y	Y	N	Y	Y												
Facility assigned a space or ward to manage additional patient load in the event of a disaster	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	Y	Y	N	Y	N	N
Follow a periodic plan to evaluate and manage disasters and mass casualty incidents	Y	Y	Y	N	Y	Y	Y	N	N	N	N	Y	Y	N	N	N	N	N
Standard Operating Procedure for all concerned departments to act in an event of a disaster	Y	Y	N	N	Y	Y	Y	N	N	N	N	N	N	N	N	Y	N	N
Facility connected to network of referral facilities that will be necessary in a disaster	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
Provisions of detection, fire prevention, planning for isolation of fire and transfer of occupants to a place of comparative safety or evacuation of the occupants to achieve ultimate safety were in place	Y	Y	N	N	Y	Y	Y	Y	N	N	N	N	Y	N	N	Y	Y	N
No Objection Certificates required to be obtained from the Fire Department	N	N	N	N	Y	N	N	N	N	N	N	Y	Y	Y	N	N	N	Y
Illuminated signage for fire exit was available	Y	Y	N	N	Y	Y	N	N	N	N	Y	N	N	Y	N	Y	N	Y
Availability of underground static water tank which should remain full at all times to meet any contingency had been constructed and utilised for the said purpose	Y	Y	N	N	Y	Y	N	Y	N	N	N	Y	N	Y	N	Y	N	N
Fire alarms and hose reel had been installed to detect the fire and meet any contingency	N	N	N	N	N	N	Not Applicable											
Excise permit to store spirit	N	N	N	N	N	N												

Source: Information furnished by the test-checked Health Institutions during January to June 2022

Colour code: Green colour depicts available (Y=Available), red colour depicts non-availability (N= Not Available)

Disaster management plan for patient safety was formulated, disaster management committee was formed and periodic plan to evaluate and manage disasters and mass casualty incidents was formed in all the selected DHs/SDCHs except in DH Mandikhera.

In the test-checked DHs/SDCHs, requisite SOPs; provisions of detection, fire prevention, planning for isolation of fire and transfer of occupants to a place of comparative safety or evacuation of the occupants to achieve ultimate safety; were not in place. Illuminated signage for fire exit was not available and underground static water tank had not been constructed in DH Mandikhera and SDCH Narnaund.

No fire alarms and hose reel had been installed to detect fire and meet any contingency and no excise permit to store spirit was taken by any of the test-checked DHs/SDCHs.

Out of the test-checked CHCs/UHCs, only CHCs Barwala, Bapoli and Madlauda follow a periodic plan to evaluate and manage disasters and mass casualty incidents.

(ii) Availability of patient safety services in MCH Agroha, Hisar and MCH Nalhar, Nuh

MCH Agroha neither had any disaster plan nor had it conducted any mock drill during 2016-2021. In the absence of any disaster plan it would be difficult to handle the situation in case of any disaster. It was also noticed that though fire extinguishers had been placed sufficiently in the hospital building and were maintained properly, no fire exit plan or fire exit had been marked in the hospital. No fire hydrant, smoke detector and fire alarm were installed in the old hospital building.

In MCH Nalhar, it was observed that the hospital had no disaster plan for patient safety.

The MCH Agroha replied (May 2022) that fire safety provisions would be made in the old building.

(iii) Availability of fire-fighting equipment

As per IPHS 2012 norms, fire-fighting equipment should be available, maintained and be readily available when there is a problem.

Availability of fire-fighting equipment in the test-checked health institutions is given in ***Table 3.55***.

Table 3.55: Availability of Fire-fighting equipment in test-checked Health Institutions

Name of District	Name of health institution	Fire hydrant	Smoke detector	Fire extinguisher	Sand buckets
Hisar	SDCH, Adampur	Not available	Not available	Available	Available
	SDCH, Narnaund	Not available	Not available	Available	Not available
	DH, Hisar	Available	Not available	Available	Available
	MCH, Agroha	Available in new building	Available in new building	Available	Available
Panipat	DH, Panipat	Available	Available	Available	Available
	SDCH, Samalkha	Available	Available	Available	Not available
Nuh	DH, Mandikhera	Not available	Not available	Available	Not available
	MCH, Nalhar	Available	Available	Available	Available
Hisar	CHC, Mangali	Not applicable		Available	Not Available
	CHC, Sorkhi			Not Available	Not Available
	CHC, Uklana			Not Available	Not Available
	CHC Barwala			Available	Available
	UHC Hisar (Sec 1 & 4)			Available	Available
Panipat	CHC Bapoli			Available	Not Available
	CHC Madlauda			Available	Not Available
	CHC Naraina			Available	Not Available
	CHC Naultha			Not available	Not Available
	UHC, Sec. 12			Available	Not Available
Nuh	CHC, Firozpur Jhirka			Available	Available
	CHC, Punhana			Available	Not Available
PHCs/ UPHCs (24)				**Available (12)**	**Available (4)**

Source: Information furnished by the test-checked Health Institutions during January to June 2022

Colour code: Green colour depicts available, pink colour depicts not available.

It was observed that:

- Out of selected six DHs/ SDCHs, three[74] hospitals had no fire hydrants. Fire hydrants were not found functional in SDCH, Samalkha even after a lapse of three years since the hospital had shifted to the newly constructed building. Smoke detectors were available in MCH Agroha, MCH Nalhar, DH Panipat and SDCH Samalkha. However, smoke detectors in DH Panipat, and SDCH Samalkha were found non-functional. No fire hydrants and smoke detectors were installed in the old hospital building of MCH Agroha.

- Fire extinguishers were available in all the selected MHs/SDCHs/CHCs except for CHC Sorkhi, CHC Uklana and CHC Naultha. Out of the 24 test-checked PHCs/UPHCs, 12[75] PHCs/UPHCs had no fire extinguishers.

- Among all MCHs/DHs/SDCHs, sand buckets were available only in MCH Agroha, Nalhar, DH Hisar, DH Panipat and SDCH Adampur. Sand buckets were available only in CHC Barwala, Firozpur Jhirka and UHC Hisar (Sector-1 & 4) among all CHCs. Moreover, sand buckets were available only in four[76] PHCs/UPHCs

[74] (i) DH Mandikhera, (ii) SDCH Adampur and (iii) SDCH Narnaund.

[75] PHC-(i) Atta, (ii) Mandi, (iii) Israna, (iv) Rair Kalan, (v) Pattikalyana, (vi) Hasangarh, (vii) Daultpur, (viii) Ladwa, (ix) Agroha, (x) Singar, UPHC- (xi) Char Qutub Gate Hansi and (xii) Patel Nagar.

[76] PHC- (i) Siwah, (ii) Jamalgarh, UPHC-(iii) Rajiv Colony and (iv) Raj Nagar

3.9 Internal Audit

With a view to improve the overall quality of work and reduce errors/ irregularities, there should be an internal audit system in all Government Departments.

Scrutiny of records/ information provided by the departments revealed that there was no internal audit system in place in five[77] out of eight Directorates/ Society/ Corporation of the Health and Family Welfare Department and DMER. The internal audit system existed in NHM but internal audit of office of Mission Director, NHM Panchkula was not conducted.

The Food and Drug Department stated (February 2022) that the internal audit could not be conducted due to shortage of staff. The Department of AYUSH (June 2022) stated that the case of hiring of Sr. Audit Officer from the Institute of Public Auditors of Northwest Chapter, Chandigarh is under process. The DGHS, Panchkula stated (January 2023) that due to the non-sanctioning of particular staff for this purpose, internal audit was not conducted.

3.10 Conclusion

There was wide variation in availability of Specialist OPD services across DHs and SDCHs, which was the result of inadequate availability and skewed distribution of Specialist Doctors in Health Department. In the test-checked health institutions, audit observed that availability of doctors was not ensured as per the patient load. In IPD services, specialty wise beds were not allocated. OT facility was not available in any of the selected PHCs/UPHCs. Positive isolation room was not available in DH Panipat, SDCH Narnaund, MCH Nalhar (Nuh) and seven out of 12 selected CHCs/ UHCs.

Further, the Bed Occupancy Ratio (BOR) of all the test-checked health institutions were below 80 *per cent* except DHs Hisar and Panipat. LAMA rate of SDCHs Adampur, Samalkha and Narnaund were higher as compared to other institution which shows that these hospitals could not gain trust of patients. In Emergency services, it was noticed that facility of 24 hours Management of emergency services such as accident, first aid, stitching of wounds etc., were available only in seven out 24 selected PHCs/UPHCs. None of the test-checked hospitals had ICU services except DH, Panipat. In Maternity services, institutional births in public health facility remained at 57.5 *per cent* during the period 2019-21. Further, there was shortfall in conducting review of maternal deaths and neonatal deaths during 2016-17 to 2020-21. Most of the radiology services were not available in selected SDCHs.

[77] (i) Director General, Health Services, Haryana Panchkula (ii) Director, Malaria, Panchkula, (iii) Director, Medical Education and Research (iv) Director General, Ayush Department, Haryana, Panchkula (v) Commissioner, Food and Drug Administration, Panchkula

In the test-checked health institutions, several diagnostic services, both radiological and pathological, as required under IPHS norms were being conducted in the health institutions. However, no health institution was conducting all the diagnostic services prescribed under IPHS. Among auxiliary and support services, health institutions up to CHC level were performing well in providing few services, while improvement was needed in most of the other services. Further, PHCs are required to improve in all these services.

There was shortfall in required number of equipment, consumables, miscellaneous supplies, essential medicines, etc. in the test-checked Health and Wellness Centres (HWCs). None of the selected HWCs had created and maintained the database of all families and individuals in an area served by an HWC. Health Cards and Family Health Folders were also not made. Further, the identification and registration of beneficiaries/ family was not done for PMJAY scheme by any of the selected HWCs.

3.11 Recommendations

1. **Government should ensure that all OPD services, IPD services, emergency services, diagnostic services as prescribed under IPHS norms for different health institutions are made available to the beneficiaries.**
2. **Government should take steps to improve and strengthen auxiliary and support services so that overall healthcare experience is improved.**
3. **Government should ensure that doctors and other manpower are provided according to the patient load on health institutions.**
4. **The health institutions should be instructed to comply with safety norms.**