

Executive Summary

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About this Report

As per the NITI Aayog's report (HEALTHY STATES, PROGRESSIVE INDIA; June 2019), the State of Uttarakhand ranks 17th among 21 larger States in Health Index with only Madhya Pradesh, Odisha, Bihar and Uttar Pradesh behind. As such, there is a vast scope for improvement and the situation demands for better healthcare services at all levels in order to build the psychological confidence of patients as well as enhance their faith in the services rendered by the government hospitals.

It is in this backdrop that the Performance Audit of District Hospital Outcomes in Uttarakhand has been carried out during 2019-20, covering the period 2014-19. An attempt has been made in this Report to assess the outcome based quality of medical services and patient care provided in the District Hospitals.

Why have we prepared this Report now?

The National Health Policy, 2017 advocates delivery of better health outcomes in terms of access, quality and affordability of healthcare system. The policy also recognizes the pivotal importance of Sustainable Development Goals to ensure healthy lives and promote well-being for all at all ages. Keeping in view the primary aim of the National Health Policy along with the expected outcomes of Sustainable Development Goal No. 3 at global level, evaluating the outcome has become vital for timely and systemic corrections. Healthcare outcomes are a true measure of quality and measuring outcomes fosters improvement and adoption of best practices.

In this context, we have tried to evaluate the outcome, status and standards of delivery of healthcare services to the population. This report aims to inform, clarify, strengthen and prioritize the role of the Government in shaping health systems in Uttarakhand.

What has been covered in this audit?

Ministry of Health and Family Welfare, Government of India, has issued a set of uniform standards called the Indian Public Health Standards (IPHS) to improve the quality of healthcare delivery in the country and serve as the benchmark for assessing performance of healthcare delivery system. The IPHS for District Hospitals prescribe standards for the services, manpower, equipment, drug, building and other facilities. These include the standards to bring the District Hospitals to a minimum acceptable functional grade (indicated as Essential) with scope for further improvement (indicated as Desired). The Essential Services include General Medicine, General Surgery, Obstetrics & Gynaecology Services, Psychiatry, Orthopaedics, Radiology including Imaging, Emergency (Accident & other emergency) and Critical care/Intensive Care Unit (ICU) under General Specialities; Diagnostic Services; and Ancillary and Support Services.

In addition to IPHS, various standards and guidelines on healthcare services issued by Government of India such as the Maternal and Newborn Health toolkit; Assessor's Guidebook for Quality Assurance in District Hospitals; National Quality Assurance Standards for Public Health Facilities; Kayakalp guidelines; Bio-Medical Waste Management Rules; and Drugs and Cosmetic Rules were used to evaluate the healthcare facilities in district hospitals. The Essential Drug List prescribed by the Government of Uttarakhand was also used to assess the availability of essential drugs in the district hospitals.

We have focused on various services available in district hospitals like Out-Patient Services; Diagnostic Services; In-Patient Services; Maternity Services; Infection Control; Drug Management; and Infrastructure and other issues.

What have we found and what do we recommend?

We found that there is tremendous scope for improvement in several areas of the healthcare needs of the people as highlighted below:

Policy framework for healthcare services

The Department did not prescribe standards/norms in respect of services to be offered by the district hospitals; and for sanction of resources to the hospitals. The State Government neither adopted the Indian Public Health Standards (IPHS) nor had uniform criteria or norms for provision of Out-Patient Department (OPD) and In-Patient Department (IPD) services. The Department did not undertake any exercise to re-work the number of sanctioned posts in the public hospitals in the State based on current levels of patient load and according to Government order issued in March 2011 wherein the Department was required to provide services and manpower as per IPHS. No gap analysis for manpower, equipment, infrastructure, services, *etc.* was carried out during 2014-19.

In the test checked hospitals, the sanctioned strength of doctors and nurses varied significantly and it had little correlation with the number of beds in the respective hospitals. The Equipment Procurement Policy (EPP) of January 2015 which stipulated procedures for procurement of equipment did not standardise the types of equipment required for the district-level hospitals. Further, there was no forethought in the EPP in respect of maintenance of equipment.

Out-Patient Services

The increase or decrease in out-patient load was not accompanied by a proportional increase or decrease in the number of doctors available, resulting in much higher OPD cases per doctor in some hospitals as compared to others.

A comparative analysis of the availability of specialist doctors in hilly region hospitals and plain region hospitals disclosed that ENT (Ear, Nose, Throat) doctors were not posted in hospitals in the hill regions despite sanctioned posts while deployment was as

per sanctioned strength in plain region hospitals; the deployment of Orthopaedic specialists in hospitals in the hill region was 50 *per cent* of the sanctioned strength whereas deployment was in full as per the sanctioned strength in hospitals in the plain regions. Further, in hospitals in the plain regions, the General Surgeons deployed were more than the sanctioned strength.

The OPD cases per doctor in the Gynaecology and Medicine department were much higher than the overall average OPD cases per doctor in some hospitals. 47 *per cent* patients in Gynaecology Department and 75 *per cent* patients in Medicine Department of test checked hospitals could avail on an average less than five minutes of consultation time in the test checked months during 2014-19. The core objective to provide drugs free of cost could not be achieved as 59 *per cent* of the OPD patients had to purchase drugs from their own pocket. Though, the online registration and e-hospital project (Phase-1) were established, these were not fully operational in the test checked hospitals. It was seen that no funds were released for procurement of computers; furniture; networking and hiring manpower for running the facility even after the demands were raised with Director General, Medical Health & Family Welfare.

Diagnostics Services

We noticed that the full range of prescribed radiology services was not available in the test checked hospitals. The absence of full range of radiology services, therefore, impacted the efficiency and appropriateness of the level of care to be offered in district hospitals as per IPHS. None of the test checked hospitals, where X-ray services were provided, had obtained requisite license during the period 2014-19 from the Atomic Energy Regulatory Board. The pathology services in the test checked hospitals were provided through in-house laboratories. However, full range of desired pathological investigations was not available in any of the test checked hospitals.

Against requirement of 60 essential pathology equipment for the district hospitals as per IPHS, all the essential pathology equipment were not available in the test checked hospitals and the shortage ranged from 48 to 78 *per cent*.

Pathology service was not available in District Female Hospital (DFH) Almora. In the remaining test checked hospitals, the pathology services were available. However, the post of pathologist was not sanctioned in DFH Haridwar and in three other hospitals, the pathologist post was kept vacant for a period ranging between one and three years. The availability of manpower in the test checked hospitals was not in consonance with IPHS. Even the existing vacancies of Laboratory Technicians against the sanctioned strength were not filled in Joint Hospital (JH) Udham Singh Nagar and JH Chamoli where there was a shortfall of 40 *per cent* and 80 *per cent* respectively. Further, none of the test checked hospitals carried out the validation of pathological tests performed by them during 2014-19 by External Quality Agency. The hospitals, therefore, failed to ensure quality assurance of the pathological services provided by them.

In-Patient Services

There were considerable gaps related to the availability of in-patient services as all the test checked district hospitals failed to provide Accident & Trauma; and Psychiatry services during 2014-19. Dialysis service was not available in any of the test checked District Hospitals (DHs)/Joint Hospitals (JHs) except JH Udham Singh Nagar whereas Burn ward was available only in JH Chamoli and JH Udham Singh Nagar during 2014-19. DH Almora could provide General Surgery partially and ENT services were not functional since 20 November 2014 onwards.

In-patient services in the test checked hospitals varied in terms of the availability of resources.

- The shortage of doctors got compounded owing to deputation of specialist doctors and Medical Officers to other hospitals/temporary attachment for special services and because of study leave/long leave availed by doctors without any alternative arrangements being put in to run the services. Emergency Medical Officers were not available fulltime in any of the test checked DHs/JHs during the period 2014-19. There was a shortage of Pharmacists in all test checked DHs/JHs and the shortage ranged between 10 *per cent* and 43 *per cent*. The post of OT (Operation Theatre) Technician was not sanctioned in the test checked DHs/JHs except in JH Udham Singh Nagar. Similarly, post of ECG (Electrocardiogram) Technician was not sanctioned in DH Almora and JH Chamoli.
- Essential drugs in IPD such as Activated Charcoal and Vitamin-K (except JH Chamoli) were not available in any of the test checked DHs/JHs during the sampled months. Digoxin was available in only DH Almora in one out of five sampled months. Besides, three to four types of drugs remained out of stock for 18 days to 120 days while the essential drugs such as Adrenaline, Aminophylline, Diclofenac Sodium, Salbutamol were out of stock in test checked DHs/JHs during five to 50 *per cent* of sampled period. Further, essential drugs for emergency services were out of stock in test checked DHs/JHs during 25 to 85 *per cent* of sampled period. Six (26 *per cent*) to 17 (74 *per cent*) essential drugs for OT were not available on the sampled days in the test checked DHs/JHs.
- Out of 14 types of essential equipment for emergency services, 29 to 64 *per cent* of equipment were not available in test checked DHs/JHs. Similarly, 41 *per cent* to 69 *per cent* of 29 types of essential equipment for OT were not available in test checked DHs/JHs.

OT for emergency surgeries was not available in any of the test checked DHs/JHs. As a result, all the test checked hospitals could not provide the emergency surgery facility to needy patients during the period 2014-19.

Intensive Care Unit (ICU) facility had been set up only in JH Chamoli and JH Udham Singh Nagar. However, the ICU units were non-functional due to lack of essential equipment and specialised manpower. The Trauma Centre for strengthening and boosting the emergency services at JH Chamoli was inaugurated by Hon'ble Chief Minister of Uttarakhand in February 2009 but remained non-functional (20 March 2020) due to lack of specialist manpower, supporting staff and essential equipment to run the facility.

None of the test checked hospitals had three running ambulances with well-equipped Basic Life Support. No ambulance with Advanced Life Support was available in any of the test checked hospitals. The ambulances lacked drugs and equipment that are required to be necessarily available in each ambulance.

All patients were given similar diets thereby ignoring the distinctive dietary requirements of different categories of patients in the test checked hospitals while none of the test checked hospitals had adopted system of diet counselling to the patients; formulation of caloric requirement and accordingly setting of diet for the patients.

The IPD services in test checked DHs/JH were compared against each other using outcome indicators and the resources available with them.

- The average Bed Occupancy Rate (BOR) in all the test checked hospitals remained very low against the norm of 80 *per cent* for the test checked months.
- The efficiency of the hospital as indicated by Bed Turnover Rate (BTR) was on lower side in DH Almora and JH Chamoli in test checked months during the period 2014-19 whereas, the lowest Discharge Rate (DR) was in DH Haridwar. Further, DH Almora also did not perform well in terms of the DR. Besides, the Referral Out Rate (ROR) in JH Chamoli, DH Haridwar and DH Almora was on a higher side indicating that health care facilities were not adequate in these hospitals.
- The Average Length of Stay (ALoS) in JH Udham Singh Nagar and JH Chamoli remained too low which indicates that clinical capability of these hospitals was not adequate in test checked months during the period 2014-19. Further, the average Leave Against Medical Advice Rate (LAMA) in DH Haridwar and DH Almora was too high in test checked months during the period 2014-19 indicating that the service quality in these hospitals was well below the desired level. The average Absconding Rate (AR) in DH Haridwar was extremely high in test checked months during the period 2014-19 indicating poor service quality and lack of security arrangements.

Maternity Services

Significant deficiencies were noticed in maternity services in the test checked hospitals.

- Against availability of prescribed 21 types of essential drugs in the maternity wing of selected hospitals, one to six essential drugs were not available during the

sampled period. Besides, four to 13 types of essential drugs remained out of stock for up to four months during the sampled period. Out of prescribed 16 types of essential drugs for performing C-section, four to six types of drugs in DFH Haridwar and three to five types of drugs in JH Chamoli were not available during the period 2014-19. Out of available drugs, three to seven and four to seven drugs were out of stock in DFH Haridwar and JH Chamoli and stock out ranged from 13 to 343 days and 19 to 344 days respectively.

- Essential consumables such as baby wrapping sheets were not available in any of test checked DFHs/JHs except JH Udham Singh Nagar. Disposable nasogastric tubes were available only in JH Chamoli and in JH Udham Singh Nagar. Cetrimide solution and thread for suture were not available in any of test checked DFHs/JHs. Sanitary pads and gown for labouring woman were not available in DFH Haridwar and JH Chamoli.
- Sanctioned human resource was also not in consonance with the provisions of Maternal and Newborn Health Toolkit in any of test checked DFHs/JHs. DFH Almora which had delivery load of less than 100 per month had more sanctioned posts of Gynaecologist than DFH Haridwar and JH Udham Singh Nagar where the delivery load per month was substantially higher. No Gynaecologist was posted in JH Chamoli and JH Udham Singh Nagar during 2014-19 against the sanctioned post whereas a Gynaecologist was posted as Principal Medical Superintendent in DH Haridwar during the period from 25 June 2016 to 13 December 2018 despite this service being not offered by the hospital. No Anaesthetist was deployed between 28 June 2017 and 22 December 2017 in DFH Haridwar whereas 246 C-Section deliveries were conducted during the aforesaid period in the hospital.
- In DFH Almora, JH Chamoli and JH Udham Singh Nagar, nurses were not available as per sanctioned strength. The nurse to bed ratio in Shift-2 and Shift-3 was much higher than the Medical Council of India norm in DFH Haridwar and JH Udham Singh Nagar in sampled months during the period 2014-19.
- Non-availability of essential equipment such as Craniotomy instrument, Silastic vacuum extractor, Cardiotocography instrument and Hemoglobinometer was noticed in test checked DFHs/JHs.
- In JH Udham Singh Nagar, partograph, used for identifying and managing the complication of labour promptly, was not prepared in any of the sampled months during audit. In DFH Haridwar, no partograph was prepared in any of the sampled months during 2014-15 and 2016-17 to 2018-19 and during 2015-16, partographs were prepared in only three cases against 82 deliveries in the sampled period. In DFH Almora, no partograph was prepared in the sampled months during 2014-15 to 2016-17 and partographs were prepared in only 18 cases against 43 deliveries in the

sampled period during 2017-18 and 2018-19. In JH Chamoli, no partograph was prepared in the sampled months during 2014-15 to 2016-17 and during 2017-18 and 2018-19, only 13 partographs were prepared against 30 deliveries.

- Labour room records pertaining to five sampled months during 2014-19 disclosed that 253 out of 4,105 deliveries were recorded as preterm deliveries based on the gestation period and thus the women were to be administered Corticosteroid injection for safe delivery. The required injection was not administered to 204 women before deliveries despite availability of the required drug in three out of four DFHs/JHs indicating that preterm deliveries were inadequately managed.
- Referral out rate of neonates from New Born Stabilisation Unit (NBSU) in JH Chamoli and JH Udham Singh Nagar was extremely high as compared to DFH Almora and DFH Haridwar during 2014-19. These hospitals with the exception of DFH Haridwar did not have Special Newborn Care Unit (SNCU) facility. The LAMA rate of neonates in JH Chamoli and DFH Haridwar remained comparatively high during the period 2014-19 indicating that service quality of these hospitals was well below the desired level. Besides, neonatal death rate in JH Chamoli was too high as compared to other test checked DFHs and JH during the period 2014-19. Further, neonatal death reviews were not conducted in any hospitals though there were 143 neonatal deaths during 2014-19. In DFH Almora and JH Chamoli, no maternal death review was conducted during the period 2014-19.
- No separate records were maintained for vaccination to newborns of DFHs/JHs. However, in DFH Almora, mother child protection card was attached with Janani Suraksha Yojana payment vouchers. Audit examined 60 such cases and it was found that only 27 newborns (45 *per cent*) were administered the three vaccines timely. Due to non-availability of records/mother child protection card in other test checked DFHs/JHs, audit could not ascertain whether all newborns of DFHs/JHs were fully immunised timely.
- Under Janani Suraksha Yojana (JSY), cash incentive is given to the mother for antenatal care during the pregnancy period, institutional care during delivery and immediate post-partum period in a health centre. In JH Chamoli and in DFH Haridwar, percentage of cash assistance not provided was comparatively very high during the years 2017-18 and 2018-19 respectively.
- In JH Chamoli and DH Haridwar, from where DFH Haridwar was availing the services, adequate stock of the seven prescribed kits for diagnosis of Sexually Transmitted Infection/Reproductive Tract Infection (STI/RTI) was not maintained. Further, out of prescribed 14 types of essential drugs, six to ten types of drugs in DH Haridwar and 9 to 14 types of drugs in JH Chamoli were not available during

the period 2014-19 while, out of the available drugs, one to three and two to three types of drugs were out of stock in DH Haridwar and JH Chamoli and stock out ranged between 99 and 218 days and 30 and 181 days respectively.

- Full range of 16 essential comprehensive abortion care drugs was not available in DFH Haridwar and JH Chamoli. Besides, stock out of essential drugs was also noticed in these hospitals which ranged between nine and 355 days; and 11 and 348 days respectively.
- Patient Satisfaction Survey conducted by audit revealed that the patients were extremely dissatisfied with non-availability of specific diets, clean linen and clean house coat/pyjama.

The maternity services in test checked DFHs/JHs were compared against each other using outcome indicators and the resources available with them.

- All the DFHs/JHs underperformed with regard to productivity outcome as average BOR remained well below the benchmark. JH Chamoli and DFH Almora underperformed even when compared to the other two hospitals.
- The efficiency outcome of DFH Almora, JH Chamoli and JH Udham Singh Nagar was not satisfactory as discharge rate was low while ROR was high in JH Chamoli and DFH Almora against the weighted average in test checked months during 2014-19.
- The clinical care outcome of JH Udham Singh Nagar was not satisfactory as average ALOS was low as compared to other three DFHs/JHs as well as weighted average of all the test checked hospitals in test checked months during 2014-19.
- Service quality of DFH Almora and JH Udham Singh Nagar was also not satisfactory as both hospitals had a very high LAMA rate as compared to DFH Haridwar and JH Chamoli during test checked period and JH Chamoli and JH Udham Singh Nagar underperformed with regard to C-section rate as compared to other two selected DFHs due to inadequacy of human resource in test checked months during the period 2014-19.
- The availability of drugs in DFH Haridwar and JH Chamoli was also inadequate as compared to JH Udham Singh Nagar and DFH Almora in test checked months during the period 2014-19.

Infection Control

Infection control practices were not sufficiently integrated in the functioning of test checked hospitals.

- DH Haridwar and DFH Almora could not qualify for external assessments during 2018-19 as they were not able to meet 70 *per cent* bench mark in peer review which

indicates that these DHs were unable to promote cleanliness, hygiene and infection control practices as desired in Kayakalp guidelines.

- There was shortage of different types of linen and the shortage ranged between seven (29 *per cent*) and 13 (54 *per cent*) against the requirement of 24 different types of linen during 2018-19. Further, seven (29 *per cent*) to 12 (50 *per cent*) types of linen were not at all available in the test checked hospitals during 2018-19.
- None of the test checked hospitals except JH Chamoli and Udham Singh Nagar used High Level Disinfection method and autoclaving was, therefore, the chief method of sterilisation.
- Only DFH Haridwar had conducted (July 2016) air sampling in OTs. However, three out of four test checked hospitals had done microbiology surface swab tests in few wings of the hospital. The results were adverse for Pathology laboratory and Orthopaedic OT in JH Udham Singh Nagar; Labour room, Minor OT, General OT and NBSU in JH Chamoli; and Labour room, General OT, Neonatal Intensive Care Unit and Pathology laboratory in DFH Haridwar.
- None of the hospitals had valid authorisation for Bio-Medical Waste Management from the State Environment Protection and Pollution Control Board as on 31 March 2019. The test checked hospitals also did not establish an Effluent Treatment Plant for pre-treatment of Bio-Medical waste, resulting in its drainage directly in the sewerage system, which was not only hazardous to the public health but also violated the BMW Rules. Besides, protective gears/equipment were not provided and used by the bio-medical waste handlers during work while immunisation of health care workers and others involved in handling of bio-medical waste was not ensured by test checked hospitals.

Drug Management

The drugs provided by the Director General of Medical and Health Services to the hospitals could not meet the requirements.

- There was stock out of drugs ranging between 18 and 61 *per cent* in the test checked hospitals. It was also noticed that the hospitals did not prepare formulary on the basis of disease patterns and inflow of patients in the hospitals to support the procurement of drugs.
- Only 76 *per cent* of indented type of drugs were supplied to the test checked hospitals while DFH Almora was supplied only 45 *per cent* of indented type of drugs. Further, only 21 *per cent* of indented drugs were provided in full indented quantities to the test checked hospitals while only three (two *per cent*) out of 164 types of indented drugs were provided in full to JH Udham Singh Nagar. DFH

Almora was provided only nine *per cent* of indented drugs in full indented quantities.

Testing of medicines was observed to be minimal. Out of the test checked hospitals, only DH Haridwar, DFH Haridwar and JH Chamoli carried out quality checks. The quality checks were conducted by DH Haridwar and DFH Haridwar only in 2017-18 and in respect of only 15 and five types of drugs respectively. The quality checks were carried by JH Chamoli only two times during 2014-19.

Infrastructure and other issues

Significant deficiencies were noticed in health infrastructure and other issues.

- During joint physical inspection, audit observed that the hospital buildings of DH Haridwar were poorly maintained and residential quarters of doctors and kitchen were in a dilapidated condition. Further, the wards had seepages/moisture causing peeling of paint and damaging the roof while due to inadequate space in the building, the DFH Haridwar had to create labour ward with temporary structure at the exit lobby/circulation area on the second floor of the building to meet the demand of existing load.
- All test checked hospitals had generator installed but were being operated manually. This implied that uninterrupted power backup necessary for smooth functioning of OT; air conditioning in the wards; refrigerators; lifts; and blood banks could not be ensured due to manual operation of the generator.
- No concrete measures were taken by DFH Haridwar, JH Chamoli and DH Haridwar to augment the availability of water to meet the requirement as per norms.
- Centralised Oxygen supply system to ensure uninterrupted oxygen supply was not installed in test checked hospitals except JH Udham Singh Nagar while adequate arrangements for oxygen cylinder were not available in test checked hospitals and the buffer stock was also not identified in DFH and DH Haridwar.

Recommendations

In order to improve the functioning of the district hospitals, the State Government may consider the following recommendations on priority:

- The State Government should draw up an action plan to prioritise the provisioning of the most essential healthcare services first. It should adopt and implement IPHS fully for provisioning of essential OPD, IPD and Emergency services along with ensuring availability of essential drugs, equipment and human resources so that patients do not face shortages of medical resources and access to quality medical care is improved in the district hospitals.

- The State Government should ensure the availability of round the clock accident and trauma services along with fully functional ICU facilities in district hospitals, as per IPHS, for critically ill patients requiring highly skilled lifesaving medical aid and nursing care.
- The State Government should ensure the availability of fully equipped Special New Born Care Unit as required under MNH Toolkit and IPHS to treat critically ill newborns in a district hospital.
- Essential radiology services and pathology investigations as per IPHS must be available in the district hospitals particularly in view of the increasing reliance on diagnostics for treatment of patients in district hospitals.
- The availability of ambulances with well-equipped Basic Life Support along with serviceability and availability of equipment and drugs in ambulances must be ensured.
- Availability of uninterrupted power backup, adequacy of water supply and medical gas (centralised oxygen supply) should be prioritised to deliver quality health services.
- There should be strict adherence with laid down standards on clean and disinfectant patient care areas to prevent healthcare associated infections.

The State Government may also consider the following recommendations:

(i) Out-Patient Services

- Consultation time per patient in district hospitals should be peer reviewed at the State level by the Director General of Medical and Health Services, so that corrective steps may be taken to address the very short per patient consultation period.
- The State Government may take steps to fulfil the core objective of providing free drugs to the patients in district hospitals.
- Measures like Online Registration System to capture the registration electronically and better appointment system may be taken to reduce the patient's 'Registration to Drug Time'.
- Patient satisfaction survey of outdoor patients on a monthly basis as per NHM Assessor's Guidebook may be ensured.

(ii) Diagnostic Services

- Pathological tests performed by the district hospitals should be validated by External Quality Agency on a regular basis.

- Immediate steps may be taken for getting the required certification from the Atomic Energy Regulatory Board as regards the established X-ray units in the district hospitals so as to not compromise with the safety of patients and staff in the Radiology departments of these hospitals.
- Monitoring equipment such as Thermoluminescent dosimeters may be provided to all the technicians of the X-ray room and dose records shall be maintained.

(iii) *In-Patient Services*

- The monitoring mechanism, a significant lever for facilitating the responsibility and accountability of the hospital, should be revamped by including measurement of outcome indicators pertaining to productivity, efficiency, service quality and clinical care capability of the district hospitals.
- Nutritional care of in-patients, in order to reduce complications and facilitate speedy recovery; and distinctive dietary requirements of different categories of patients should be ensured in the district hospitals.
- Each district hospital should have a dedicated disaster management plan in line with state disaster management plan to address issues relating to prevention, mitigation and response to ensure as minimal damages as possible in event of a disaster.
- To ascertain safety procedures vital records related to OTs such as surgical safety checklist, pre-surgery evaluation records and post-operative evaluation records should be prepared for each case as required under NHM Assessor's Guidebook.

(iv) *Maternity Services*

Concerted efforts to reduce the Neonatal, Infant and Maternal mortality rates should focus on:

- Proper record maintenance and operationalisation of mother child track system along with availability of essential human resources, drugs and pathological investigation facilities to enhance the ability of the district hospitals to monitor the health of mothers and newborns;
- Providing well-equipped facilities for abortion care; management of Sexually Transmitted Infection/Reproductive Tract Infection; handling C-section deliveries; and intra-partum care through augmentation of essential resources as well as providing a clinically safe environment in district hospitals;
- Monitoring of the delivery of prescribed postpartum care towards minimising adverse pregnancy outcomes so that women and newborns reach their full potential for health; and

- Providing financial assistance timely to the beneficiaries in order to ensure them a good diet and care and encourage institutional deliveries.

(v) Infection Control

A culture of infection control management should be embedded in the district hospitals through

- Effective implementation as well as documentation of pest/rodent control and sterilisation procedures;
- Adequate availability of clean linen to thwart the spread of hospital acquired infections;
- Active microbiological surveillance to monitor air/surface infections; and
- Observance of Bio-Medical Waste Rules 2016 for reducing the spread of infectious diseases.

(vi) Drug Management

- It should be ensured that a formulary of drugs is prepared by each hospital on the basis of disease patterns and inflow of patients; the Essential Drug List is updated accordingly; and the eventuality of stock-out of required drugs forestalled.
- Norms prescribed for testing of procured drugs should be scrupulously observed. Besides, quality of drugs should also be checked through sampling by the Drug Inspectors.

(vii) Infrastructure and other issues

- Efforts should be made for proper upkeep of hospital buildings through periodic maintenance to utilise the created infrastructure optimally and to ensure availability of a safe, clean and conducive environment for the public and hospital staff.
- The district hospitals shall comply with all statutory requirements as prescribed under IPHS.

What has been the response of the Government?

Government agreed with the recommendations made by audit and assured to take necessary corrective measures to improve the functioning of secondary level healthcare facilities.

